ROLE OF KIOSK BANKING SERVICES IN FINANCIAL INCLUSION WITH SPECIAL REFERENCE TO SBI CUSTOMER SERVICE POINTS IN KERALA

Thesis
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Declaration

I, Jahfarali.T.H, hereby declare that the thesis entitled **Role of Kiosk Banking Services in Financial Inclusion with Special Reference to SBI Customer Service Points in Kerala** is a bonafide record of research work carried out by me under the guidance of Dr. Rajeev Thomas. The thesis has not previously formed the basis for the award of any degree, diploma, associateship, or fellowship of other similar title or recognition.

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Certificate

This is to certify that the thesis entitled **Role of Kiosk Banking Services in Financial Inclusion with Special Reference to SBI Customer Service Points in Kerala** is a bonafide record of the research work carried out by Mr. Jahfarali.T.H under my supervision and guidance. It has not previously formed the basis for the award of any degree, diploma, associateship, or fellowship of other similar title or recognition.

He is permitted to submit the thesis.

Chungathara   **Dr. Rajeev Thomas**
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I humbly dedicate this research thesis to Sri. Hamsa (late), my beloved father who coloured my dreams.

Jahfarali. T.H

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List of Abbreviations

AEPS	-	Aadhar Enabled Payment System
ANM	-	Agent Network Manager
ANOVA	-	*Analysis of Variance*
APY	-	Atal Pension Yojana
ARC	-	Agricultural Refinance Corporation
ARDC	-	Agricultural Refinance and Development Corporation
ATM	-	Automated Teller Machine
B & DC	-	Business and Development Correspondent
BC	-	Business Correspondent
BCA	-	Business Correspondent Agent
BCNM	-	Business Correspondent Network Manager
BF	-	Business Facilitator
BLP	-	Bank Linkage Programme
BP	-	Branch Penetration
BPL	-	Below Poverty Line
BSBDA	-	Basic Savings Bank Deposit Account
BT	-	Direct Benefit Transfer
CAGR	-	Compound Annual Growth Rate
CBS	-	Core *Banking* Solution
CBSR	-	Committee on Banking Sector Reforms
CDMA	-	Code Division Multiple Access
CFS	-	Committee on Financial System
CGAP	-	Consultative Group to Assist the Poor
CGFSIL	-	Credit Guarantee Fund for Stand-up India
CP	-	Credit Penetration

CRISIL	-	Credit Rating Information Services of India Limited
CSC	-	Common Service Centre
CSO	-	Civil Society Organization
CSP	-	Customer Service Point
CU	-	Credit Union
DBT	-	Direct Benefit Transfer
DCB	-	District Co-operative Bank
DIY	-	Do It Yourself
DP	-	Deposit Penetration
ECS	-	Electronic Clearing System
EFT	-	*Electronic Funds Transfer*
EMI	-	*Equated Monthly Installment*
ESBG	-	European Savings and Retail Banking Group
EXIM Bank	-	Export Import Bank of India
FD	-	Fixed Deposit
FIF	-	Financial Inclusion Fund
FINO	-	Financial Inclusion Network and Operations
FIP	-	Financial Inclusion Plan
FITF	-	Financial Inclusion Technology Fund
FLC	-	Financial Literacy Centre
FLCC	-	Financial Literacy and Credit Counseling
G2P	-	Government-to-Person
GCC	-	General Credit Card
GDP	-	Gross Domestic Product
GoI	-	Government of India
GPFI	-	Global Partnership for Financial Inclusion
GPRS	-	General Packet Radio Service

GSM	-	Global System for Mobile Communications
HDI	-	Human Development Index
IBA	-	Indian Banks Association
ICT	-	Information and Communications Technology
IFI	-	Index of Financial Inclusion
IIBF	–	Indian Institute of Banking and Finance
IMF	-	International Monetary Fund
IMG	-	Inter-ministerial Group
IMPS	-	Immediate Payment Service
INFAST	-	Interoperable Infrastructure for Accounting Small Transactions
IP	-	Insurance Penetration
IT	-	Information Technology
JLG	-	Joint Liability Group
KCC	-	Kisan Credit Card
KGB	-	Kerala Gramin Bank
KIOSK	-	Kommunikasjon Integrert Offentlig Service Kontor
KPI	-	Key Performance Indicator
KSCARDB	-	Kerala State Co-operative Agricultural and Rural Development Bank
KVIB	-	Khadi and Village Industries Board
KVIC	-	Khadi and Village Industries Commission
KYC	-	Know Your Customer
LIC	-	Life Insurance Corporation of India
MFI	-	Micro Finance Institution
MGNREGS	-	Mahatma Gandhi National Rural Employment Guarantee Scheme

MICR	-	Magnetic Ink Character Recognition
MoSPI	-	Ministry of Statistics & Programme Implementation
MSME	-	Micro, Small and Medium Enterprise
NABARD	-	National Bank for Agriculture and Rural Development
NABFINS	-	NABARD Financial Services Limited
NBFC	-	Non-Banking Financial Company
NEFT	-	National Electronic Funds Transfer
NFA	-	*No Frills Account*
NGO	-	Non-Governmental Organization
NHB	-	National Housing Bank
NPS	-	National Pension System
NREGA	-	National Rural Employment Guarantee Act
NRFIP	-	National Rural Financial Inclusion Plan
NSFI	-	National Strategy for Financial Inclusion
NSSO	-	National Sample Survey Office
OD	-	Overdraft
OECD	-	Organisation for Economic Co-operation and Development
OIC	-	Organisation of Islamic Cooperation
PACS	-	Primary Agricultural Credit Societies
PB	-	Payment Bank
PCA	-	Principal Component Analysis
PCARDB	-	Primary Co-operative Agriculture and Rural Development Bank
PMJDY	-	Pradhan Mantri Jan-Dhan Yojana
PMJJBY	-	Pradhan Mantri Jeevan Jyoti Bima Yojana
PMMY	-	Pradhan Mantri Mudra Yojana

PMSBY	-	Pradhan Mantri Suraksha Bima Yojana
PMVVY	-	Pradhan Mantri Vaya Vandana Yojana
POS	-	Point of Sale
PSB	-	Public Sector *Bank*
PSLC	-	Priority Sector Lending Certificate
RBI	-	Reserve Bank of India
REMIT	-	Real Time Micro Transaction Switch
RRB	-	Regional Rural *Bank*
RSETI	-	Rural Self-Employment Training Institute
RTGS	-	Real-Time Gross Settlement
SAA	-	Service Area Approach
SB	-	Savings Bank
SBI	-	State Bank of India
SBLP	-	SHG-Bank Linkage Programme
SCB	-	Scheduled Commercial Bank
SCC	-	Swarojgar Credit Card
SFB	-	Small Finance *Bank*
SFMC	-	SIDBI Foundation for Micro Credit
SHG	-	*Self Help Group*
SIDBI	-	Small Industries Development Bank of India
SLBC	-	State Level Bankers' Committee
SMS	-	Short Message Service
ST	-	Scheduled Tribes
SWIFT	-	Society for Worldwide Interbank Financial Telecommunication
TSP	-	Technology Service Provider
UEBA	-	Universal Electronic Bank Account

UID	-	Unique Identity Number
UN	-	United Nations
UNCDF	-	United Nations Capital Development Fund
UNDP	-	United Nations Development Programme
USB	-	Ultra Small Branch
VLE	-	Village Level Entrepreneur
WSBI	-	World Savings and Retail Banking Institute

Chapter 1
Introduction

1.1 Background of the Study

A strong financial system is the indicator of economic growth and development of a nation. The financial system has three segments (Mwakyusa, 2017), they are formal financial institutions (such as commercial banks, non-banking financial institutions etc.), semi-formal financial institutions (such as non-government organisations, registered co-operatives etc.) and informal financial services (such as moneylenders, pawnshops etc.).

An organised banking sector ensures the accessibility of banking services to all sections of the society irrespective of their financial ability. Indian banking sector is well-structured and organised one which have gone through revolutionary developments. In India, the history of banking recorded the evidences of money lending business in ancient period itself. Bank of Hindustan is considered as the first Indian bank, started at Calcutta in 1770. Banking sector in India constitutes commercial banks (Public Sector Banks - PSBs, Private Sector Banks, Regional Rural Banks – RRBs, and Foreign Banks), Small Finance Banks (SFBs), Payments Banks (PBs), and Co-operative Banks.

Liberalisation of banking sector caused the entry of private sector banks and far-reaching technological development in Indian banking industry. The modern banking is characterised by the existence of technologically upgraded and proactive new-generation banks. The technological enhancement has given birth for many innovative banking services also. Some of such banking services are ATM, NEFT, RTGS, IMPS, ECS, debit card and credit card, CBS, net banking, m-banking, tele-banking, SMS banking, banking kiosk, MICR, e-cheque etc. At present we have 12 PSBs, 22 Private Sector Banks, 43 RRBs, 45 Foreign Banks, 12 SFBs, four PBs, and 34 State Co-operative Banks in India.

India is the second largest populated country after China in the world. 68.84 per cent of Indian population makes its living in villages (Census of India, 2011). As Mahatma Gandhi told 'India lives in its villages and true Indian civilisation is in Indian villages'. According to him India will perish if villages perish. Social and economic growth of rural people living in villages will boost the overall growth of the nation itself. Since 1950s' India has recognised the critical role of rural India in ensuring economic and social development in long run. It resulted in five-year plans which had the objectives of economic growth, economic equity and economic self-reliance of the people. The sustainable economic growth can be achieved only through financial inclusion which ensures the accessibility of all segments of the society, especially weaker sections, to the formal financial system. Financial inclusion was a greater concern during the period 2005-06, and set it as one of the economic goals.

In December 2005 Mangalam village in Puducherry was selected for a pilot project to achieve cent per cent financial inclusion, by opening bank accounts in the names of all adult population. In January 2006, RBI resolved to permit the banks to use the services of intermediaries in order to ensure banking and financial services among the public through Business Facilitators (BFs) and Business Correspondents (BCs). In addition to BF/BC model, RBI, being the monetary regulator, along with Government of India has taken a plenty of measures to ensure the access of all citizens of the nation to banking products and services. They include introduction of no-frills account, relaxing KYC norms, GCC schemes, Financial Literacy and Credit Counselling (FLCC), National Rural FI Plan (NRFIP), FI Fund (FIF), FI Technology Fund (FITF) etc.

BC/BF model being a bank-led model has helped much to achieve financial inclusion and inclusive growth up to a greater extent. Initially, only MFIs, NGOs and other Civil Society Organizations (CSOs) were permitted to function as BCs / BFs. Later on, more entities including corporate entities having their Customer Service Points (CSPs), Common Service Centres (CSCs) and Business

Correspondent Agents (BCAs) in the villages were included in the purview of BCs/BFs. At present any individual can act as BC if the bank is satisfied.

In January 2010, RBI directed all the banks in public as well as private sector to implement Board approved FIPs (Financial Inclusion Plans) for a period of three years to open bank branches, taking up BCs, ensure the coverage of BC-ICT, KCC and GCC schemes in unbanked rural villages in India. Banks were also directed to incorporate FIPs as a part of their business plans.

Kiosk banking is a major initiative of RBI to ensure banking services to those people who are living in rural or remote locations and are dispossessed from banking services because of the non-existence of bank branches in their vicinity. In kiosk banking, BC outlets are acting as the intermediaries between banks and rural people for delivering basic banking services without visiting a bank branch. BCs, namely Bank Mithras, carry on kiosk banking services in our country under the aegis of almost all the banks in public, private and co-operative sectors.

In Kerala, the banks playing major role in kiosk banking are State Bank of India (SBI), HDFC Bank Ltd., Canara Bank, Union Bank of India (UBI), Indian Bank, Central Bank of India (CBI), Punjab National Bank (PNB), Indian Overseas Bank (IOB), Bank of Baroda, and South Indian Bank (SIB). Akshaya VLEs (Village Level Entrepreneurs) and CSCs possess a major share in delivering kiosk banking services in Kerala. SBI is the leader in kiosk banking with 47.85 per cent share of total BC outlets (844 out of 1764) in Kerala (IBA BC Registry as on 30th September 2020). SBI is an Indian multinational bank in public sector headquartered in Mumbai, established in 1955 in this name (Formerly, Imperial Bank of India). All the associate banks in State Bank group were merged to SBI on 1st April 2017 and now, SBI is the largest bank in India. SBI is carrying out kiosk banking through their 62,731 CSPs across the country. This study focuses on the role of kiosk banking services in financial inclusion with special reference to SBI Customer Service Points in Kerala.

1.2 Significance of the Study

There were only 35.5 per cent of population availed banking services in India as per population census in 2001. The share of rural households was merely 30.1 per cent in formal banking services. Various financial inclusion measures initiated by RBI and GoI had resulted in a considerable growth in level of financial inclusion (58.7 per cent) in India during the succeeding ten years. By the year 2011, 54.4 per cent rural households could become a part of formal banking system (Department of Financial Services, Govt. of India). Major one among those financial inclusion initiatives was BC model which ensured the availability of basic banking services at the door step of the rural people. Bank Mitras or CSPs under BC model are acting as the connecting link between rural people and the banks. Kiosk banking through BCs enables to open bank accounts even by illiterate village people with the help of biometric devices. It could enhance the sense of security and confidence among the rural people for availing basic banking services. BC model enables the banks to fulfil their financial inclusion objectives by delivering financial services through BC outlets. Role of BC outlets can be well explained with the number of BSBDAs opened through BC outlets which accounts for 56.5 per cent of total number of BSBDAs opened in 2019-20 (RBI Annual Reports).

Although different banks provide kiosk banking services for the benefit of rural population in Kerala through their BCs, SBI itself has 47.85 per cent share in total number of BC outlets in the state (IBA BC Registry). Hence, it is necessary to have a study from the perspectives of clients and CSPs to know how effective the kiosk banking services are to achieve the objective of financial inclusion in Kerala. A number of research works have been undertaken to study different aspects of financial inclusion in general and some of the financial inclusion initiatives in specific. This study assumes significance in the light of the fact that it focuses in detail on one of the financial inclusion initiatives of RBI, i.e., kiosk banking through BCs and its role in financial inclusion with special reference to SBI CSPs in Kerala. The findings of this study would be helpful to the policy makers for assessing the

views of both the CSPs and their clients on the effectiveness of kiosk banking services in Kerala.

1.3 Statement of the Problem

Financial inclusion enables low-income groups as well as weaker sections of the society living in rural and unbanked or under-banked areas to enter into the formal financial services at an affordable cost. BC model through kiosk banking could attain the objectives of financial inclusion in our country at a greater extent. The role of Bank Mitras or Customer Service Points (CSPs) in financial inclusion is very critical and remarkable in our nation. In kiosk banking the people can visit the kiosk banking outlets in villages and avail the basic banking services. On 31st March 2020 there were 5,99,217 banking outlets in our country, 90.3 per cent of them were functioning through BCs. While number of bank branches increased by 63.5 per cent, number of BC outlets has been increased by 1,483.6 per cent during the period from 2010 and 2020. A growth rate of 23.4 per cent is reported during the period from 2009-10 to 2019-20 in number of financial inclusion accounts (BSBDAs). While 15.9 per cent growth in number of BSBDAs opened through branches 38.6 per cent is the growth in respect of BSBDAs opened through BC outlets. Majority (56.5 per cent) of total number of BSBDAs was opened through BCs in 2019-20. It is also noted that there is an increase of 2961.8 per cent in outstanding amount in BSBDAs in 2019-20 in comparison to the year 2009-10 (RBI Annual Reports).

A total number of 6,565 bank branches exist in Kerala, out of which 70.8 per cent (4,651) branches locate in semi-urban areas. In aggregate 77.3 per cent bank branches in Kerala are functioning in non-urban areas. This indicates the branch penetration in rural and semi-urban areas in Kerala (SLBC Kerala, May 2020). In Kerala, there are 1,488 BC outlets, and 83 per cent of them are of public sector commercial banks. 696 (46.8 per cent) bank mitra outlets are located in semi-urban areas whereas 188 (12.6 per cent) outlets in rural locations and 209 (14 per cent) in urban locations. 395 (26.5 per cent) BC outlets are run by Akshaya Centres and CSCs. All these statistics show the role of kiosk banking services in financial

inclusion in Kerala through BCs as it nurtures a savings and investment culture among the people who don't have banking facilities. In this context, it is required to evaluate the extent of influence of kiosk banking services in achieving the objective of financial inclusion in the state of Kerala. This study is an attempt to assess the role of kiosk banking services in financial inclusion with special reference to SBI Customer Service Points in Kerala by seeking the answers to the following research questions:

1.   What are the banking services offered in kiosk banking through CSPs in Kerala?

2.   How the CSPs feel while delivering kiosk banking services in Kerala?

3.   What is the extent of awareness and usage of kiosk banking services among the rural people in Kerala?

4.   Why the rural people are attracted to kiosk banking services?

5.   What are the challenges faced by CSPs and the clients in kiosk banking?

6.   Is there any considerable change in savings and deposits habit of rural people as a result of kiosk banking?

1.4 Scope of the Study

Kiosk banking is a technology model under BC channel adopted in rural unbanked or under-banked regions set up in an outlet operated by a BC agent for providing basic banking services. BCs are third parties acting on behalf of a bank. CSPs or Bank Mitras operate kiosk banking under BC model. CSPs play a major role in ensuring financial inclusion in rural areas by opening financial inclusion accounts for their clients and providing other financial services. This study focuses primarily on the role of kiosk banking services in financial inclusion with special reference to SBI Customer Service Points in Kerala. It attempts to assess the views of CSPs and their clients on the effectiveness of kiosk banking on level of financial literacy and savings and deposit habits of rural population. This study covers the level of awareness and usage of kiosk banking services among the rural people in

Kerala along with the factors influencing them towards kiosk banking services and the difficulties confronted by them in using kiosk banking services. It also attempts to review the service delivery satisfaction of CSPs and the major problems faced by them in delivering kiosk banking services in Kerala. The study is confined to evaluate the role of CSPs of State Bank of India, being India's largest public sector bank and major player in kiosk banking in Kerala.

1.5 Objectives of the Study

This study is focused on the role of kiosk banking services in financial inclusion with special reference to SBI Customer Service Points (CSPs) in Kerala. The major objectives set for the study are as follows:

1. To assess the service delivery satisfaction of CSPs and the problems confronted by them in delivering kiosk banking services in Kerala.

2. To assess the awareness level and usage level of kiosk banking services among rural people in Kerala.

3. To identify the factors influencing rural people to kiosk banking services.

4. To analyse the difficulties confronted by clients in using kiosk banking services.

5. To examine the role of kiosk banking in financial inclusion in Kerala.

6. To analyse the impact of kiosk banking in savings and deposits habits of rural people in Kerala.

1.6 Hypotheses of the Study

By considering the objectives of the study the following null hypotheses have been formulated:

1. There is no significant difference in level of service delivery satisfaction among CSPs towards kiosk banking according to their districts, types of businesses and experience.

2. There is no significant difference in intensity of problems in delivering kiosk banking services according to their districts, types of businesses and experience of CSPs.

3. There is no significant difference in level of awareness on kiosk banking services among the clients belonging to different districts, gender, age, educational, occupational, and income groups.

4. There is no relationship between level of usage of kiosk banking services, and districts and gender groups of clients.

5. There is no significant difference in opinion on the effect of motivation factors in selection of kiosk banking services among the clients belonging to different districts, gender, age, educational, occupational, and income groups.

6. There is no significant difference in intensity of difficulties in using kiosk banking services among the clients belonging to different districts, gender, age, educational, occupational, and income groups.

7. There is no significant difference in opinion on role of kiosk banking in financial inclusion among the clients belonging to different districts, gender, age, educational, occupational, and income groups.

8. There is no significant difference in average amount of savings by clients before and after availing kiosk banking services.

9. There is no significant difference in average amount of deposits by clients before and after availing kiosk banking services.

10. There is no influence of motivating factors and level of awareness towards kiosk banking services on level of financial literacy and banking habits of clients.

11. There is no relationship between clients' level of usage of kiosk banking services and their level of satisfaction towards kiosk banking.

1.7 Research Methodology

This study is a combination of both descriptive and analytical research designs. Descriptive research simply describes the state of affairs from the available literatures whereas the analytical research uses the available literature for analysing the same to have a critical evaluation of the situation (Kothari, 2004).

1.7.1 Data Source

Being a descriptive cum analytical research the study made use of both secondary and primary sources of data for gathering the required materials.

1.7.1.1 Secondary Data

For collecting secondary data, the researcher has reviewed available literatures relating to the research problem. The secondary sources of data for the study include various national and international journals, research articles, books, working papers, research theses, reports of World Bank, IMF Financial Access Survey, RBI, NABARD, NSSO (National Sample Survey office), IBA (Indian Banks Association), Department of Financial Services, MoSPI (Ministry of Statistics & Programme Implementation), SLBC (State Level Bankers Committee) Kerala, Kerala State Planning Board, and newspapers and websites.

1.7.1.2 Primary Data

In order to evaluate the role of kiosk banking services in financial inclusion primary data required for the study were collected from selected SBI Customer Service Points (CSPs) and their clients from three sample districts in Kerala. For this purpose, two separate structured questionnaires were used. Data from the supply side have been collected from CSPs and the data from demand side have been collected from the clients who are the beneficiaries and users of kiosk banking services. The survey was conducted during the period from September 2020 to February 2021. Appropriate statistical tools were used for analysing the primary data.

1.7.2 Sample Design

For collection of primary data, a sample survey has been conducted among the selected CSPs and their clients from three selected districts in Kerala.

1.7.2.1 Population of the Study Area

Kerala, one of the states in India, has a population of 33 million across 14 districts. Out of which 52.3 per cent lives in rural areas (Census of India, 2011). Since this study is aimed to analyse the role of kiosk banking services in financial inclusion in Kerala the population for the study comprises two different groups representing participants from supply and demand sides. All the SBI Customer Service Points in Kerala constitute the population from supply side and their clients availing kiosk banking services from demand side. As per the official website of SBI there were 669 CSPs in Kerala throughout all the 14 districts as on 31st March 2019. On the basis of rough estimated information available from CSPs they are having more than three lakh active clients in the state.

1.7.2.3 Method of Sampling

In order to select the samples for the study multistage random sampling was used. As first stage, three districts from Kerala were selected as sample districts by simple random sampling (lottery method), they are Malappuram, Palakkad and Thiruvananthapuram. In second stage number of CSPs in each taluk of sample districts were identified, and finally 150 SBI CSPs were chosen as samples by simple random sampling (lottery method) in proportion of total number of CSPs in each taluk. As on 31st March 2019 there were 241 CSPs in three sample districts (91 CSPs in Malappuram, 57 CSPs in Palakkad, and 93 CSPs in Thiruvananthapuram,). As per the survey data there are 69,042 active clients for sample CSPs in selected districts. Although the population is finite, the list of clients was not available from CSPs. Hence, from the demand side 385 active clients (having transactions within last three months of survey) of sample CSPs were chosen as samples in proportion of number of CSPs in each taluk by using purposive sampling technique, subject to the fulfilment of the inclusion criteria like gender, age, education, occupation, income etc.

1.7.2.4 Determination of Sample Size

The sample sizes of both the CSPs and clients were determined with the help of the following sample size formula (Krejcie & Morgan, 1970).

$$S = \frac{X^2 NP(1-P)}{d^2(N-1)+X^2P(1-P)}$$

Where S = Sample size required; X^2 = Table value of chi-square for 1 degree of freedom at desired confidence level (3.841); N=Population size; P=Proportion of population (assumed as 0.50), and d=Degree of accuracy expressed as a proportion (assumed as 0.05).

1.7.2.4.1 Sample Size for Supply Side Survey (CSPs)

$$S = \frac{3.841x\ 241x0.5x(1-0.5)}{0.05^2x(241-1)+3.841x0.5.(1-0.5)}$$

$$= 148 \approx \mathbf{150}$$

Sample size of SBI CSPs has been rounded off to 150 samples in order to collect the primary data from the supply side of kiosk banking (CSPs).

1.7.2.4.2 Sample Size for Demand Side Survey (Clients)

$$S = \frac{3.841x\ 69042x0.5x(1-0.5)}{0.05^2x(69042-1)+3.841x0.5.(1-0.5)}$$

$$= 382 \approx \mathbf{385}$$

Sample size of active clients, respondents from the demand side of kiosk banking, has been rounded to 385 samples.

The following table summarises the sample design for this study:

Table 1.1

Population and Sample Size

Sample Districts	Population – CSPs in Sample Districts (as on 31st March 2019)	Sample Size - CSPs	Sample Size - Clients
Malappuram	91	57	146
Palakkad	57	35	90
Thiruvananthapuram	93	58	149
Total	**241**	**150**	**385**

Taluk-wise breakup of sample CSPs and their clients can be seen in table 1.2

Table 1.2

Taluk-wise Breakup of Sample CSPs and Clients

Taluks	Number of CSPs in Taluks	Sample Size	
		Number of CSPs	Number of Clients
Malappuram			
Eranad	22	13	33
Kondotty	4	3	8
Nilambur	13	8	20
Perinthalmanna	16	10	26
Ponnani	4	3	8
Tirur	11	7	18
Tirurangadi	21	13	33
Total	**91**	**57**	**146**
Palakkad			
Alathur	8	5	13
Chittur	11	7	18
Mannarkkad	11	7	18
Ottappalam	11	7	18
Palakkad	9	5	13
Pattambi	7	4	10
Total	**57**	**35**	**90**

Thiruvananthapuram			
Chirayinkeezhu	14	9	23
Kattakkada	9	6	15
Nedumangad	20	12	31
Neyyattinkara	28	17	44
Thiruvananthapuram	17	11	28
Varkala	5	3	8
Total	**93**	**58**	**149**
Grand Total	**241**	**150**	**385**

1.7.3 Data Collection Instrument

The study on role of kiosk banking in financial inclusion among the rural people will be comprehensive only if it covers the views and opinions on various aspects of kiosk banking from the perspectives of parties belong to both supply and demand sides. For gathering required data from CSPs and clients two separate structured questionnaires have been used. The questionnaires include multiple choice questions, dichotomous questions, simple open-ended questions and scaling questions. Likert-type scale (five-point) was employed to assess the operational skills, service delivery satisfaction and the problems confronted by CSPs, and the awareness, influence of motivating factors and difficulties faced by clients in using kiosk banking services. Utmost care has been taken while preparing and pre-testing the questionnaires for preventing the presence of duplicated, unwanted and unanswerable questions on them.

1.7.4 Pilot Study

In order to make sure the reliability and validity of questionnaires prepared for collecting data from the respondents representing the supply and demand sides of kiosk banking a pilot study was conducted among 30 CSPs and 75 clients from Malappuram, Palakkad and Thiruvananthapuram districts. Pilot study was undertaken during the period from 10th November 2019 to 25th January 2020.

1.7.5 Reliability Analysis

A reliability test was conducted, on the data collected from CSPs and clients via pilot study, for testing internal consistency of the same. Cronbach's Alpha, a co-efficient of reliability, is the most popular technique for assessing the reliability of scaling variables. The following table shows the Alpha values of variables considered for this study.

Table 1.3

Reliability Test for Variables Analysed for the Study

Sl. No	Variables	No. of Respondents	No. of Items	Cronbach's Alpha
A. Customer Service Points				
1	Operational Skills	30	8	.931
2	Service Delivery Satisfaction	30	10	.880
3	Problems in Delivering Kiosk Banking Services	30	25	.937
B. Clients				
4	Motivating Factors	75	15	.832
5	Awareness Level	75	6	.881
6	Difficulties in Using Kiosk Banking Services	75	14	.802
7	Dimensions of Financial Inclusion	75	21	.927
8	Changes in financial literacy and Banking habits	75	3	.814

Source: Compiled from SPSS

In social science researches, reliability co-efficient of 0.7 and more is generally considered as acceptable. From table 1.3, it is seen that the alpha values of all the variables are more than 0.8. Thus, the variables under this study are assumed to be internally consistent.

1.7.6 Validity Analysis

Validity analysis makes sure the accuracy in measurement of a concept. "Validity is the most critical criterion and indicates the degree to which an

instrument measures what it is supposed to measure" (Kothari, 2004). "Content validity is a function of how well the dimensions and elements of a concept have been delineated" (Sekaran & Bougie, 2016). In this study, the questionnaires were shown to the experts in the field, like academicians, statisticians, and CSP operators. On the basis of their suggestions the required modifications have been made before finalising the questionnaires. "Construct validation takes place when an investigator believes that his instrument reflects a particular construct, to which are attached certain meanings" (Cronbach & Meehi, 1955). A conceptual framework was developed for ensuring the analysis of the research problem. Role of kiosk banking services in financial inclusion has been studied both from demand and supply sides. Factor analysis was employed for establishing construct validity.

1.7.7 Tools Used for Analysis

Primary data for the study have been collected from 150 SBI CSPs and their 385 clients by the way of separate questionnaires. The data thus collected were properly edited, coded, analysed and interpreted in order to make it meaningful. The software namely IBM SPSS Statistics 21 and Microsoft Excel were applied for the analysis of data. Descriptive statistical tools like mean and standard deviation were used for summarizing and describing the data. For testing the significance of hypotheses and having generalization about the population various inferential statistical tools were also employed in this study. They include bi-variate as well as multi-variate analysis tools such as one way ANOVA, post hoc test (Tukey's HSD test), Levene's test for equality of variances, one sample t test, independent samples t test, paired samples t test, multiple regression, Principal Component Analysis (PCA), Chi-Square test, Kruskal Wallis test and Mann-Whitney U test. CAGR (Compound Annual Growth Rate) and percentages were employed for analyzing the secondary data compiled from various sources. While normality is assumed for the data from clients, the data collected from CSPs is not assumed as normal (Altman & Bland, 1995; Byrne, 2010; Hair et al., 2010; Ghasemi & Zahediasl, 2012; Kim, 2013). Hence, both parametric and non-parametric tools were applied appropriately. A brief description of major analysis tools applied in the study is given below:

1.7.7.1 One –way ANOVA

One – way Analysis of Variance is a parametric test used to check whether there is statistically significant difference among means of more than two groups in respect of a variable.

1.7.7.2 Post Hoc Test

By post hoc test multiple comparisons are made among different group means for assessing how each mean values are different from others. A post hoc test is applied only when output of a test resulted in rejection of null hypothesis as there is statistically significant difference among the groups.

1.7.7.3 T Test

One sample t test, independent samples t test and paired samples t test were used in this study. T test is a parametric test. One sample t test is used to determine whether there is significant difference between population mean and assumed or hypothesised mean in respect of a variable. Independent samples t test is applied to check the statistically significant results between two groups of variables. Paired samples t test is used to test whether there is significant difference in mean values of two sets of observations.

1.7.7.4 Multiple Regression

Multiple regression is a statistical model for predicting the effect of more than one independent variable or predictors on one dependent variable or outcome variable.

1.7.7.5 Principal Component Analysis (PCA)

PCA is technique for reduction of data dimensionalities, in the cases where exist larger datasets, so as to make them more interpretable with minimum loss of information.

1.7.7.6 Chi-square Test

Chi-square test is most popular non-parametric test used for testing the goodness of fit, significance of association between two attributes (test of independence), and significance of population variance. In this study, chi-square test of independence has been used for testing the association between some major categorical variables.

1.7.7.7 Kruskal - Wallis Test

Kruskal Wallis test is a non-parametric test corresponding to the parametric test of one-way ANOVA. This test is used to check whether the data samples come from the same distribution.

1.7.7.8 Mann - Whitney U Test

Mann-Whitney U test is the non-parametric alternative of independent samples t test which is used to check whether two independent groups of a variable have been taken from the same universe.

1.7.8 Variables Used for the Study

The following independent and dependent variables have been used for analysis and interpretation of the primary data collected from both CSPs and client respondents.

Table 1.4

Variables Used for the Study

Independent Variables	Dependent Variables
A. CSP related variables	
- Districts - Types of CSP Business - Years of Experience in Kiosk Banking	- Operational Knowledge and Skills - Service Delivery Satisfaction - Problems Confronted by CSPs in Delivering Kiosk Banking Services
B. Clients related variables	

 • Districts • Gender • Age • Educational Qualification • Occupation • Income	• Motivating Factors • Awareness Level • Usage Level • Difficulties in Using Kiosk Banking Services • Role of Kiosk Banking in Financial Inclusion • Savings and Deposits • Financial Literacy and Banking Habits

1.8 Conceptual Framework of the Study

In this study, the role of kiosk banking services in financial inclusion has been analysed with the help of the conceptual framework as seen in figure 1.1.

Figure 1.1

Conceptual Framework of the Study
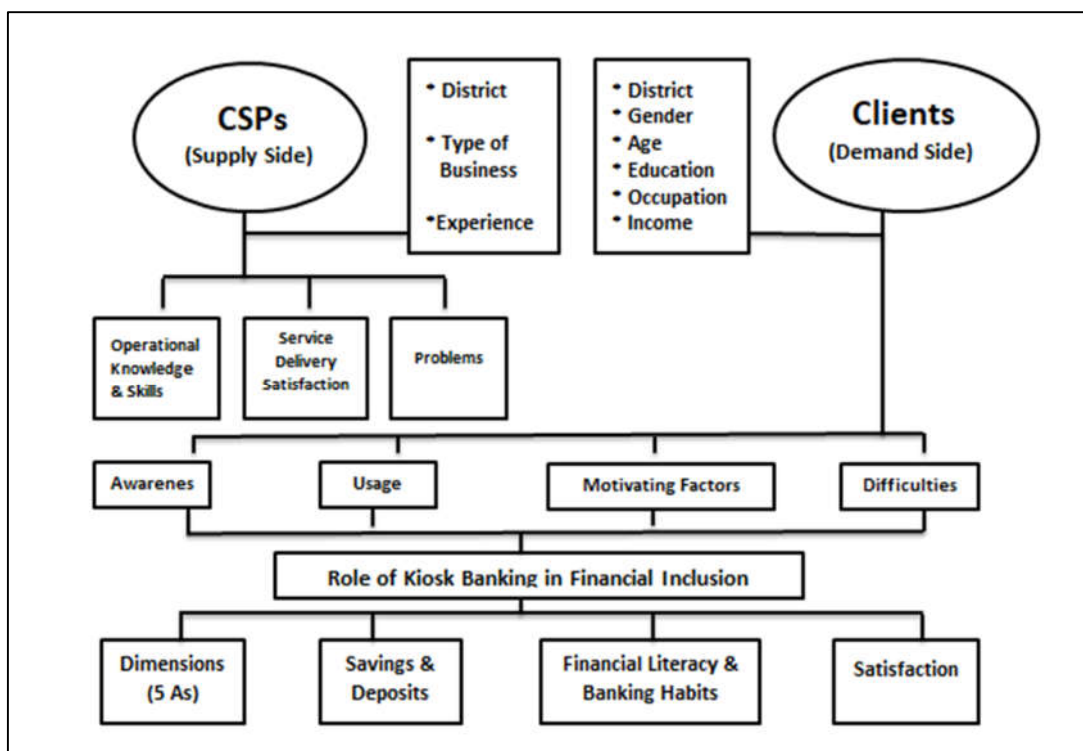
Here, the study has been carried out from both supply and demand sides of kiosk banking. CSPs represent the supply side and their clients represent the demand

side. From the supply side, CSPs' operational knowledge and skills, their level of service delivery satisfaction, and the problems confronted by them in delivering kiosk banking services were studied according to districts, types of CSP business and experience in kiosk banking. Level of awareness and usage of kiosk banking services, the factors motivated to kiosk banking, and the difficulties faced by the clients while using kiosk banking services were studied from the demand side according to their district, gender, age, education, occupation and income. The role of kiosk banking in financial inclusion has been discussed in respect of the attainment of 5 As (Adequacy, awareness, availability, accessibility and affordability) of financial inclusion, changes in amount of savings and deposits, change in level of financial literacy and banking habits, and level of satisfaction of clients.

1.9 Operational Definitions

Operational definitions of important terms used in this study are given below:

1.9.1   Financial Inclusion

Financial inclusion is a state where all segments of the society feel themselves as a part of financial system of the country to which they belong. They all are all having access to the formal financial products and services.

1.9.2   Business Correspondents

Business Correspondents (BCs) are the individuals or organisations appointed by banks for offering banking services to the people in unbanked or underbanked locations.

1.9.3 Customer Service Points

Customer Service Points (CSPs) or Business Correspondent Agents (BCAs) are the retail outlets acting as the agents for BCs under BC model. They are the ground level players in BC model as they have direct relationship with end users or clients.

1.9.4 Kiosk Banking

Kiosk banking is a financial inclusion initiative by RBI as a part of BC model in order to ensure the basic banking services in remote and rural locations where bank branches do not exist. Kiosk banking services have been carried out by small shops, common service centres etc. with the support of banks in public sector as well as private sector.

1.10 Reference Period

Previous studies regarding financial inclusion and kiosk banking since the year 1995 were reviewed for the study. RBI reports, SLBC Kerala database, IMF Financial Access Survey reports, IBA BC Registry etc. from the year 2010, were reviewed for presenting the progress of financial inclusion and kiosk banking at the national and state level.

1.11 Limitations of the Study

1.   As the individual number of CSPs/BCs of other banks is very less they were not considered in this study.

2.   Responses from clients regarding their amount of income, savings and deposits may not be 100 per cent reliable.

3.   The effect of socio-economic factors which determine the changes in savings and deposits of respondents other than usage of kiosk banking services was not considered in the study.

1.12 Chapter Scheme of the Report

The study is logically reported in eight chapters as discussed below:

Chapter 1 – Introduction: Covers a brief discussion on background of the study, significance of the study, statement of the research problem, scope of the study, objectives of the study, hypotheses of the study, research methodology, limitations of the study and chapter scheme of the study.

Chapter 2 – Review of Literatures: This chapter focuses on the earlier studies done on related topics. It covers the general studies on financial inclusion, financial

inclusion - microfinance and SHGs, financial literacy and financial inclusion, measurement of financial inclusion, technology – driven financial inclusion and branch less banking, and kiosk banking and business correspondents.

Chapter 3 – Financial Inclusion and Kiosk Banking - An Overview: This chapter gives a theoretical framework of the study and progress of financial inclusion at national level and state level. The chapter explains the concept of financial exclusion, financial inclusion, BC/BF model, kiosk banking and Customer Service Points. It also covers a detailed evaluation of growth in level of financial inclusion in India in general and in Kerala in particular.

Chapter 4 – Customer Service Points and Kiosk Banking: This chapter covers the analysis of data collected from the CSPs in order to present the supply side views of CSPs in delivering kiosk banking in their service area. Their service delivery satisfaction, operational knowledge and skill in kiosk banking and the various problems faced by CSPs in delivering kiosk banking services to clients have been deliberated in detail.

Chapter 5 – Awareness and Usage of Kiosk Banking Services: This chapter is intended to analyse the data collected from the clients, being the beneficiaries of kiosk banking. It covers the demographic features of the clients of CSPs, factors motivated the people to kiosk banking, level of awareness on kiosk banking services, level of usage of kiosk banking services and the difficulties faced by the people while using kiosk banking services.

Chapter 6 – Role of Kiosk Banking in Financial Inclusion: This chapter evaluates the changes in savings and deposits habits of the clients due to kiosk banking. The role of kiosk banking in financial inclusion, in respect of five major dimensions of financial inclusion, is assessed in this chapter.

Chapter 7 – Summary of Findings and Conclusion: This chapter covers the summary of major findings derived from the analysis of data and conclusion.

Chapter 8 – Recommendations: This chapter deals with the major recommendations put forward by the study, and scope for further research on the related areas.

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Chapter 2

Review of Literature

2.1 Introduction

By considering the objectives of the study, various literatures relating to the area of financial inclusion and kiosk banking have been reviewed in detail in this chapter. This chapter covers the research works done at national as well as international level to find out the research gap for this study. The studies have been presented under different heads as under:

1.   General studies on financial inclusion

2.   Financial Inclusion - Microfinance and Self Help Groups

3.   Financial Literacy and Financial Inclusion

4.   Banks and Financial Inclusion

5.   Measurement of Financial Inclusion

6.   Technology-driven Financial Inclusion and Branchless Banking

7.   Kiosk Banking and Business Correspondents

2.2 General Studies on Financial Inclusion

Lederle (2009) has explained financial exclusion as a phenomenon which affects the disadvantaged social groups with low income living in the social rented sector. Financial inclusion can be achieved by facilitating access to financial services through financial services providers and financial education. The study identified some factors they all are needed to improve financial inclusion, and improved financial inclusion will lead to social inclusion and poverty eradication.

D'souza (2013) found that there is only a lower level of financial literacy and financial awareness among the rural people. The rural co-operatives are not successful for the socio-economic upliftment of the rural people as they are working only for promoting lending schemes and attracting deposits, and they fail to understand and assess the economic and financial needs of potential beneficiaries. The study concluded that the rural development scheme of rural co-operatives does not match with the rural people's expectations.

Ghatak (2013) has established a relationship between various demand side factors and financial inclusion. Accessibility, culture, income, literacy and assets were found as the major five factors affecting level of financial inclusion. While accessibility is the important factor affecting financial inclusion, the possession of asset is the least important factor. The study recommended the RBI to take further initiatives to ensure the accessibility of people to financial services, by opening new branches, establishing more ATMs and expanding the BC outlets.

Goyal (2013) pointed out the rural-urban disparities in availing banking services in Assam. The success rate of BC / BF model is low in the state. Income level, education level and economic status are positively correlated with level of financial inclusion. Economic factors like occupation, economic status of households have more effect in determining fianancial inclusion than the social factors. It is concluded that more number of households to be brought into the formal financial services to attain the targeted level of financial inclusion in the state.

Rao (2013) opined that despite of some efforts by the financial service providers to reach the financially excluded rural poor still they have to go far to attain the targeted level of financial inclusion. Majority of rural households are not aware about internet banking, mobile banking and online banking. The government should co-ordinate all the stakeholders like banks, NGOs etc. to reach the aim of financial inclusion with a greater focus on micro dimensions of financial products and services because illiteracy, pattern of occupation and poor physical access are the outcomes of social exclusion of low-income families.

Abidi (2014) reported that opening of no-frill account will not ensure financial inclusion. For the successful implementation of financial inclusion plans step by step initiatives are required. As a first step, the people should be provided with financial education or literacy to make them understood on financial products. They should be aware of financial risk and opportunities. The study has emphasised on delivery of quick financial services, and it is suggested that prosperity and continued success of India will be the measure of its inclusive development.

Chhabra (2014) argued that the emergence of financial inclusion is a policy for inclusive growth in several countries. Despite of significant growth of financial sector in India a vast segment of population especially low-income groups or underprivileged section of society have not been covered under financial inclusion. The main reasons for low financial inclusion are lack of adequate supportive infrastructure, absence of appropriate technology, financial illiteracy, lack of suitable financial products and its inflexibility. Performance audit and use of innovative and suitable financial products by banks may boost the level of financial inclusion.

Meenakshi (2014) pointed out that there is a phenomenal growth of banking facilities in Goa, and monthly income, number of adult members and the age of household head have a positive effect on financial inclusion in urban as well as rural households. The regularity of deposits, identified as an important determinant in use of banking services, depends on the proximity of bank branches. It implies on financial literacy programme for the successful implementation of financial inclusion policies.

Priyanka (2014) elucidated that almost all rural people have access to bank account, yet they do not possess NFAs. She recommended that financial inclusion policy should be given more priority to bring the unbanked rural people to the formal banking services and the concept of financial inclusion and its benefits are to be popularised among them. Financial education and counselling for the villagers may be ensured for achieving targeted level of financial inclusion.

Salathia (2014) examined the direct impact of financial inclusion on social empowerment, economic empowerment and economic development. The study considered financial inclusion as an important tool for overcoming problems of poverty. In the wake of inclusive growth for the overall development of the economy, central bank along with other financial intermediaries must realise the importance of financial inclusion in promoting the banking habits among people. The bank managers should hear the problems of customers and BCs. The initiatives by voluntary organisations for creating financial awareness and education through different programme may be considered for ensuring financial inclusion.

Serrao (2014) found that all households without any discrimination have access to formal banking services in Karnataka. SCBs are playing the major role for providing banking services to the weaker section households followed by SHGs, banks etc. Urban households are accessing a greater number of formal financial institutions than the rural households. Distance is a constraint to the rural BPL households to avail the banking services and banking penetration is at below average level. Cognitive changes among the households have been happened once they are provided with formal financial access.

Tiwari (2014) revealed that the most important sources of credit in the rural areas are MFIs, SHGs and moneylenders. SHGs are the most popular means of savings and credit. Out of total households which were indebted, only around 7 per cent availed loan from banks including loan granted under KCCs and GCCs. Majority of the rural people neither aware nor dealt with BCs or BFs. The researcher opined that appropriate measures to be taken by the authorities to render financial services to the weaker sections of the society along with proper examination of its effectiveness.

Bajrang (2015) observed that even though 94 per cent households in Haryana have bank accounts, 33 per cent of them are not usually making transactions. Relaxation in minimum balance requirements in no-frill accounts and provision of various government schemes through bank accounts were identified as the major reasons for opening accounts in public sector banks. The role of post offices in

financial inclusion has been declined due to the lack of technology updates and better services provided by the SCBs and financial literacy is the major obstacle for financial inclusion in the state.

Choudhury (2015) has drawn three aspects of livelihoods – "vulnerability, coping strategies and financial inclusion". The lives in rural areas are subject to various natural, manmade, idiosyncratic, covariant, catastrophic, non-catastrophic, micro, meso and macro risks. Even though the rural households could manage micro risks and meso risks they expect government assistance to manage macro risks which happen due to flood, cyclone etc. Although there are various measures to raise the ability of clients to afford financial services, the study reveals that financial inclusion gap still exist in some areas, and expansion of agent banking model, mobile financial services and mobile microfinance would be the remedies to fill this gap.

Gour (2015) emphasised on financial inclusion in respect of consumer finance. The study revealed that 57.75 per cent of consumers bought white goods through the consumer finance or consumer loans. The consumers were found satisfied that the consumer finance improves their standard of living in the society. The role of commercial banks is pivotal in respect of opening of new branches for providing more credit facilities in rural areas to uplift the standard of living of rural people.

Jyothi (2015) outlined that financial inclusion programme of the governments are ineffective among women coffee plantation workers in Malnad region of Karnataka as low HDI index value that they are suffering from high mortality rate and low standard of living. Majority of them have a low perception of financial relief due to the non-availability of basic amenities. Poor awareness level about FIPs, lack of organizational bargaining skill, lack of co-ordination of agencies working under FIPs etc. have been identified as the major reasons for ineffectiveness of FIPs.

Maheswari (2015) has tried to identify the level of awareness of banks and its relationship with socio economic conditions of rural women. Nobody in the study

area has availed education loan and vehicle loan and young and old aged respondents are reluctant to avail formal financial services from banks, post offices and insurance companies due to their lack of awareness. Hence, the banks should create awareness on bankig services, sanction loans in time and offer high rate of interest on the deposits of rural women and charge low rate of interest on the loans availed by the rural women to achieve the aim of financial inclusion programme.

Manjunath (2015) explored that the non-institutional agencies are playing a vital role in advancing credit. The financial and non-financial services provided by the urban microfinance institutions have an impact on improvement of economic and social status of the urban poor. The performance of the SHG-BLP is declining due to many reasons like decline in the formation of new SHGs. It is suggested to develop new low-cost banking services which are suitable to the rural and semi-urban people to make them financially included.

Phatowali (2015) found that the problem of financial exclusion is mostly in-voluntary in nature and banking infrastructure is not perceived as a bottleneck for urban financial inclusion. The ignorance about banking services, lack of KYC documents and poor economic conditions are the major reasons for being unbanked. Place, dwelling type, income, age, education, awareness level and safety of deposits are the factors influencing the choice of saving instruments. Cash savings at home is found as the mostly followed saving style in the absence of a bank account. The state of Assam lags behind the national level in all parameters of financial inclusion considered and there is a negative correlation between awareness level and insurance coverage among the urban people.

Supkar (2015) concluded that both male and female groups at different age levels are aware of banks and financial products due to the expansion of banking sectors and initiatives taken by the government and banks. There is a positive correlation between level of education and level of awareness about banking products. Distance is not regarded as a reason for not availing financial services, but transaction cost is the detrimental factor in this respect.

Aherkar (2016) found that rural women are not educated or majority of them are illiterate and hence financial products including insurance products tailored for the poor have to be developed. Base level financial literacy training should be imparted by the banks to BCs/BFs and NGOs so that they can aware the poor clients about financial products and services. Technology is regarded as the great enabler to achieve the goal of financial inclusion.

Digambarrao (2016) pointed out that financial inclusion has exercised a positive effect on education expenses, expenditure pattern, leisure expenses, social status expenses and expenses on consumer durables of BPL household beneficiaries in Nanded District, Maharashtra and thereby poverty alleviation is achieved by increasing the living standards. It is concluded that all the problems to financial inclusion are cyclical in nature.

Joshi & Rajpurohit (2016) have found that still banking services are not accessible to 26 per cent of rural customers. Many of banking services are unknown to the rural people. Three fourth of respondents are still unaware about the benefits of PMJDY scheme. Lack of understanding about role of banking services is the main reason for low level of awareness towards financial inclusion schemes.

Kelly (2016) concluded that there is a strong relationship between the engagements of a state in international organizations that promote financial inclusion and the adoption of financial inclusion policy of the state. Recently India became the first emerging market to donate funds to assist the poor that focuses on financial inclusion. Mexico is an example for the countries that adopted financial inclusion policy and regulation endorsed by international organizations. The role of strong leaders who are having the capacity to effect change can improve the level of financial inclusion. There is a strong relationship between the state capacity and financial inclusion.

Seman (2016) explored the role of the type of financial system and other determinants, especially the institutional settings, in financial inclusion and impact of Islamic banking system on financial inclusiveness. Despite the rapid growth of Islamic finance in recent years Islamic finance assets yet concentrated in GCC

countries. There is a positive impact of Islamic banking in financial inclusion, particularly in Islamic countries.

Seshaiah (2016) has affirmed that financial inclusion initiatives might be come from the governments, financial regulators and banking industry. Lack of surplus money is identified as the major barrier for saving money. It is found that more than 75 per cent of respondents see the role of financial inclusion on their control over family assets, household budget and division of labour. In order to ensure the targeted level of financial inclusion RBI has to issue licenses for more private banks in rural areas and the government should encourage mobile banking and technology enabled financial empowerment.

Yorulmaz (2016) has focused on the construction of comprehensive financial inclusion indices around the world. Primary indicators for the construction of financial inclusion index are credit –income ratio, deposit-income ratio and volume of life insurance premium while geographic ATM penetration, bank cost-income ratio and geographic branch penetration are the less valuable indicators. In general, higher income countries are highly financially included relating to the lower-middle-, and lower-income countries. Financial inclusion has a direct effect on the wellbeing of the poor. Hence there should be policies to initiate financial sector reforms to ensure the supply of financial services to the poor by granting more credits through all financial institutions.

Bohra (2017) has investigated the relationship of financial literacy, technology, microfinance and SHGs with financial inclusion in Rajasthan. The study revealed that most of the rural people are not aware of BC/BF model. Scheduled tribes are more financially excluded followed by scheduled castes in comparison to general and other backward communities. Income level and level of education have a greater effect on the level of financial inclusion. The gap between the demand for financial services and its supply contributes towards financial exclusion in rural areas. The banks and financial institutions should try to expand their branches and establish BCs and RRBs to reach their services at the door steps of rural population.

Maherali (2017) examined the impact of financial inclusion and digital payments on income and tax revenue across the countries in the world. Digital payments lead the countries to the formal economy. The volume of tax revenue collected by the governments largely depends on the income of those countries. Mobile phone technology will have a greater role in financial inclusion as there is a gap between people having cell phone and do not have a bank account and gradually it may be bridged by the mobile banking solutions.

Mwakyusa (2017) has reported that the households are engaging in multiple income generating activities to enhance their livelihood, but it does not improve their financial life. The households are having some financial behaviours relating to saving, spending and borrowing and all these behaviours are inter-related. Borrowings from SHGs, friends etc. are not sufficient to meet their financing needs. The households are facing financial challenges like low income, lack of capital, price fluctuations etc. Majority of households do not have financial literacy and money management skills even they have attained primary education.

Ogunleye (2017) has checked the effect of microfinance on repayment rate and lower perceived risk among the female clients in Nigeria. It is worthy to note that lending to women improves repayment rate. It indicates that a higher proportion of female clients are associated with fewer provisions or lower portfolio at risk. The amount of credit demanded by and accessed by female entrepreneurs from microfinance banks and their performance on repayment are much significant. The microfinance banks should focus on women clients as there is a positive correlation between lending and improvement of the poor in Nigeria.

Jose (2019) assessed the effectiveness of RBI's financial inclusion schemes among low-income households in Kerala. Majority of low-income households actively participate in BSBDAs yet some other financial products still unused by them. The financial inclusion initiatives are effective among low-income households and they are benefitted. The study highlighted the need for advanced and flexible financial products to fulfil the financial needs of poor rural households.

Joshi (2019) put forward certain suggestions for speeding up the financial inclusion process among poor households in India. The existing financial inclusion programs have to be monitored and improved instead of introducing new schemes. The scope of financial inclusion does not confine to opening of a bank account rather concentrate on increasing usage of all banking services. As lack of financial awareness is identified as a major issue financial education shall be initiated as a part of school curriculum. A private public participation is needed in banking sector for ensuring inclusive growth. Proper training should be given to BCs and bank employees. Technological advancement and mobile penetration may be properly exploited for accelerating financial inclusion.

2.3 Financial Inclusion - Microfinance and Self-Help Groups

Sangeetha (2011) opined that marine fishery is regarded as a sector characterised by poverty and socio-economic backwardness. She found that about 10 per cent of fisher households in coastal Kerala are totally financially excluded and they don't have any dealings with fiancial institutions. They are depending more on informal fiananical agencies for meeting their emergency financial requirements. But, SHG membership could reduce the borrowals from informal lenders. The efforts of microfinance institutions is highly recommended for promoting the individual savings.

Goodwin-Groen (2012) has found that local informal social norms, like saving or paying back loans and lack of trust in formal banking system, are embedded into the microfinance laws and regulations. The importance of participatory change processes and informal social norms are consistent across the world and it will change the way of addressing the financial inclusion by the governments and other donors.

Arputhamani (2013) reported that the women are so far unaware of banking procedure and related operational strategies. Even though there are various efforts taken by the Govt., banks, SHGs, NGOs etc. to open the bank accounts, there are no follow-up measures by these bodies. SHG model is successful for enhancing the standard of living of members. The study identified the lack of reach, higher

transaction cost, cost of opening and maintenance are the major challenges to financial inclusion. Financial education, awareness and credit counselling are required to achieve the financial inclusion among the poor and marginalised people. The banking services may be provided by local people and NGOs through BC model.

Ranjani (2013) described that there is a positive impact of microfinance at household, enterprise and individual levels. The formal institutional lending by commercial banks do not fulfill need of the society that people are feeling difficulties regarding documentation requirements, procedure for sanctioning loan and rigid terms of repayment and hence they hesitate to approach the banks. None the less instructions by the government to banks to permit no-frill accounts many of the people are not having a bank account and even those who are having bank account, do not use it effectively.

Aslam (2014) has outlined that microfinance penetration in India is not uniform but state-specific factors play a major role in the growth of microfinance. The role of microfinance in poverty eradication and women empowerment are remarkable. SHGs- bank linkage programme mainly concentrates in southern states and the states like Kerala, Karnataka and Tamilnadu have performed well in financial inclusion. More bank branches should be opened in backward regions of the country and the vulnerable section of the society should be encouraged to open no-frill accounts in an easier way in public as well as private sector banks. The highly covered network of post office may be utilised for financial inclusion of rural people in backward regions.

Kaur (2014) opined that the policy objective of financially stabled inclusive growth cannot be achieved until the universal financial inclusion is ensured. Financial inclusion by adopting innovative products faces the challenge of tradeoff between financial inclusion and financial stability. The initiatives by government through microfinance movement and SHGs help in development of rural economy and empowerment of poor people in rural areas. It considers the micro credit

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intervention programme as a tool for improvement of rural poor's socio-economic conditions, poverty alleviation and their sustainable development.

Naveen Kumar (2014) argued that performance of MFIs in financial inclusion is depended on the level of awareness of services and there is a positive correlation between microfinance models and factors of empowerment. Both central and state government promoted MFIs, commercial banks, co-operative banks, RRBs etc. should take initiatives to bring financially excluded to the formal financial services. There should be the involvement of commercial banks for rural and urban branch expansion with the help of BCs and BFs.

Babita (2015) has reviewed that the modification of no-frill accounts to Basic Savings Bank Deposit (BSBD) accounts has reduced the KYC clause which is beneficial to the rural people. There are varied saving patterns among the village people. The illiteracy of village people created some problems in practical implementation of RuPay card even it is a credit card along with insurance coverage. Banking Correspondents do fill the absence of bank branches.

Kongalappa (2015) observed that 78 per cent of SHG members have borrowed loan mainly for agricultural and allied activities from SHGs and all of them have repaid the same on time. SHGs bring women into the economic development and thereby lead to social upliftment and poverty eradication. SHGs help the people to increase their self-esteem, protect from exploitation of money lenders and inculcate the saving habits among them.

Kumari (2015) found that the urban poor are financially, socially and legislatively excluded in Kolkata City of West Bengal State. The MFI members are better in access to the formal banking services than the non-members, the latter mostly depend on informal sources. It is inferred that there is a clear association between microfinance membership and higher level of financial inclusion index, and a positive correlation between level of education and level of financial inclusion while no correlation between family size and level of financial inclusion. Insufficiency of SHG and SBLP model of microfinance sometimes tend their members to rely on informal sources.

Dutt (2016) has reported that microcredit, number of years of microcredit membership, expenditure, age of marriage and own business and household land ownership are positively correlated with women empowerment. It is found that the factors like agricultural work, husband's business and number of children are negatively significant with the women empowerment. At the same time the age of customers to microfinance, their educational qualifications and the number income earners in the family in no way affect the women empowerment.

Reddy (2016) asserted that MGNREGS has a greater role in financial inclusion among the women beneficiaries. The study suggested the RBI to ask banks to submit their financial inclusion plans for the coming years and to provide a special literacy programme as a part of governing policies among the rural illiterates in unbanked areas. Biometric ATMs may be established in rural areas to assist the illiterate customers.

2.4 Financial Literacy and Financial Inclusion

Gloria (2014) has found that the financial decisions of the households are joint decisions and all the households have opened savings bank account mainly for borrowing purposes. The awareness level on financial inclusion initiatives of Government of India among the low-income households is low to moderate. The socio-economic factors and financial literacy are associated and it has a significant role on financial inclusion, and the Govt., RBI, banks and other financial institutions should take financial literacy initiatives for financial inclusion.

Joseph (2014) has studied the intesnsity of financial inclusion and financial literacy among the rural people. Life insurance is the second preferred savings avenue after bank accounts. 16 per cent of them are highly aware about financial products and services. It is concluded that financial inclusion becomes a reality not merely by access to financial services without ensuring the active participation of people in financial products and services.

Usha (2016) reported that a very small per cent of fisher households in Kerala use their bank accounts for taking loans and receiving remuneration from the

employers. The new-generation products and services have very low usage penetration among them. Financial inclusion status of Alappuzha is creditable in India with 100 per cent financial inclusion index score. The commercial banks have not addressed the financial requirements of fisher households and hence they still depend upon money lenders and relatives for their financial decisions. The commercial banks should reduce EMI amount on loan repayment and ensure the service of financial literacy counsellors.

2.5 Banks and Financial Inclusion

Anil Kumar (2013) has studied the progress of district co-operative banks and coverage of SHG bank linkage programme in India and Kerala. He found that urban households are more financially inclusive than rural households. The beneficiaries have proper awareness on SB and FD accounts and their interest rates, and they prefer gold loans and agricultural loans rather than personal loans. The customers were opening accounts mainly for making deposits and for taking loans. The unfeasible proposal from the group is the most important problem associated with the delivery of micro credit. Easy availability of loans from groups as well as from banks was the dominant factor which motivated the beneficiaries to join their affinity groups. DCBs have to arrange financial awareness campaign among the customers to popularise their products and services.

Jain (2013) has found that there is no association between the rural public's gender and opening of a bank account. Monthly income of rural public has an impact on financial inclusion and most of them are preferring public sector banks to open the account. The major reason for opening account is doing savings followed by receipt of payments under various government schemes. The rural people are not possessing bank account due to unsuitability of banking products, rigid banking procedures, law income and lack of financial knowledge. Public sector banks are efficient performers than the private sector banks for promoting financial inclusion.

Kumari (2013) has outlined that all the people in rural and semi-urban areas in Madurai District are having the banking facility within the reach, and all of them are aware of opening no-frills accounts. The people are generally opening no-frills

accounts to save for meeting the marriage expenses of children and they are borrowing from the banks due to the low rate of interest. It is suggested to provide loan with relaxed norms and to establish financial literacy cell or credit counseling centers to advertise and aware the uneducated and illiterate individuals about various financial products and services.

Rajaswaminathan (2013) found that most of the people are aware on the advantages of holding a bank account. It suggested the RBI and governments to motivate the banks for expanding branches, deposits, ATMs and BC model or USBs. and to aware new private sector banks on priority sector lending and utilization of loans to ensure the poverty eradication and social welfare of the people. The BCs have performed well by connecting the people to the bank and formal financial services. The study foresees the success of financial inclusion drive in India if financial literacy is properly addressed with the growth of IT.

Ajit (2014) reported that 60 per cent of banked people in Ahmednagar District of Maharashtra have accounts with co-operative banks. Among the banking services deposit service is the only service utilized by most of the respondents. The distance of the banks, level of poverty and level of unemployment are the major factors in determining the level of financial inclusion. All the bankers opine that financial inclusion initiatives are taken by them only due to the pressure from RBI. There is a positive correlation between employment status and level of income and financial inclusion. It is suggested that branchless banking through BCs and PACS shall be promoted as the brick-and-mortar bank model is very costly, and banks should provide counseling and advisory services to the weaker sections of the society to make them financially included.

Sasitha Begam (2014) pointed out that lack of nearby financial institutions is regarded as the major obstacle for financial inclusion. Low income of consumers and high cost of financial services are identified as the main reasons for financial exclusion. The customers are aware of conventional banking services but they don't know much about modern banking services. It is suggested that many bank branches have to be opened in unbanked rural and backward areas equipped with trained and

motivated staff. The rural people have to be encouraged not only to open no-frill accounts but also to inculcate the habit of savings. Banks should conduct awareness campaign among the village people to make them aware about formal sources of finance.

Bhasin (2015) reported that lack of awareness to save is perceived by the rural people as the main reason for financial exclusion. But the bankers disagree to this statement and they opine that insufficient earning to save is regarded as the top most reason for financial exclusion. Lack of banking habits and more familiarity with money lenders are also the reasons identified for financial exclusion amongst the villagers. It is admitted by the bankers themselves that banks' reluctance to open accounts to the poor as one of the important causes for exclusion. Financial depth and stability due to financial inclusion is depending on educational status, socio-economic status etc. The study demands for the technology-based initiatives as well as peer group pressure for financial inclusion and 'financial education' should be made as a compulsory subject in schools.

Rupa (2015) has claimed that the rural areas are moving from negative growth to positive growth and BC model is more effective for branch penetration. The role of lead bank scheme is effective that it leads to geographic and demographic branch penetration at state level and district level. The study identified low level of income as the adverse factor on saving ability of the poor people and the people are saving mostly to meet unforeseen expenditure and medical and education expenditures. Lack of savings is the main reason for not having account, followed by lack of awareness and advice, and long distance to bank branches. Majority of poor people are opening accounts for receiving payments under DBT scheme and only 5 per cent of them have an intention to keep their money safe.

Suganya (2015) observed that no-frill accounts opened in the bank branches are inoperative and hence the bank official should take steps to make them operative. The banks should provide the services like credit cards, overdraft facilities, ATM card etc. along with no-frill accounts. Proximity is identified as a major issue faced by the people in backward areas for availing banking services. The

rural people are not much aware about BC model. Hence, mass media advertisement about banking services under schemes of financial inclusion is suggested to reach the people in rural areas.

Biju (2016) explored that higher level of financial inclusion prevails in Kerala due to the extensive bank network and greater coverage of banking services. BCs have played a major role in opening the BSBD accounts. It is found that small and marginal farmers depend more on non-institutional and informal financial sources. Level of education, income and size of land holdings are identified as the major determinants of financial inclusion followed by occupation, caste, age, religion etc. Insufficient income, lack of security or collateral and procedural formalities for getting loans were the key issues reported by the small and marginal farmers in financial inclusion.

Saleth Mary (2016) viewed that public sector banks have more influence in financial inclusion than private sector banks as they extend services effectively as per the regulation of the governments in rural areas. Educational qualification, type of occupation and area of residence are the major factors influencing the level of financial inclusion. Inadequate income, emergency expenses and higher installment amount are the main reasons for irregular payment of installments by the rural people. In respect of insurance penetration, the rural people mostly prefer life policies followed by accident insurance and medical insurance. Filling of forms for opening account, bank employees' reluctance and minimum balance requirements are found to be the discouraging factors to financial inclusion.

2.6 Measurement of Financial Inclusion

Sarma (2008) has proposed a robust and comprehensive index of financial inclusion (IFI) by considering multi-dimensions of financial inclusion, which is comparable across the countries. The approach was similar to the approach of UNDP, applied for development of HDI. The three dimensions considered for the construction of index are banking penetration, availability of banking services and usage of the banking system.

Chithra & Selvam (2013) have measured the financial inclusion index across the states in India. It is found that Uttar Pradesh is thickly covered in terms of number of bank branches while Chhattisgarh is thinly covered. Uttar Pradesh has the highest score in number of deposit accounts and Odisha obtained the lowest score. In respect of financial inclusion index Maharashtra is at the top, followed by Uttar Pradesh. Socio-economic factors, infrastructural factors and banking factors all are significantly related with financial inclusion.

Laha (2015) has established an empirical relationship between financial inclusion and human development in South Asia, especially in Indian states. A comprehensive measure of financial inclusion is constructed for incorporating different financial inclusion dimensions. Among the south Asian countries India occupies the third position in financial inclusion index and belongs to the category of medium human developed countries. Financial inclusion has a great influence on human capital and human development, and average HDI of south Asian countries is less than that of developing countries. There is a positive correlation between level of human development and level of financial inclusion among Indian states.

Revathy & Maheswari (2015) have measured the level of financial inclusion among rural women in the angle of different elements, namely access to financial services from banks, post offices, insurance companies and self-help groups. The study revealed that the rural women are more aware about financial services and hence 80 per cent of them are financially included. 39 per cent are financially included by no-frills account and 37 per cent by post office recurring deposits and insurance policies. It is concluded that there is a moderate level of financial inclusion among rural women through SHGs.

Bapat & Bhattacharyay (2016) have analysed the demographic profile of urban poor in India by using a measure namely adult bank ratio. Relationship between adult bank ratio and household characteristics are analysed by regression model. Urban poor consists of two categories – paid employed and self-employed. The demographic characteristics of households like age, gender, income, occupation, family type etc. are found as the major determinants of financial inclusion.

Bhuvana & Vasantha (2016) have analysed various dimensions for measuring financial inclusion and thereby constructed a financial inclusion index to rank the districts of Tamil Nadu. Four parameters have been taken for measuring financial inclusion index, namely bank penetration, deposit penetration, credit penetration and availability of business correspondents. The government and other authorities have to ensure the access of rural people to the banking services in those rural areas where financial inclusion index is at low level.

Raichoudhury (2016) has measured the financial inclusion across various countries by analysing the relationship between Index of Financial Inclusion (IFI) and Human Development Index (HDI) across countries. A three-dimensional approach is followed for designing financial inclusion index which is similar to HDI. There is a positive correlation between IFI and HDI across the countries. The identified dimensions include banking penetration, availability of banking services and usage of banking services. San Marino is ranked as highly financially included, followed by Switzerland and Portugal and all the three countries belong to high income countries also. IFI is least in South Sudan. The countries with lower level of financial inclusion belong to middle income and lower income countries.

Sethy (2016) has constructed a financial inclusion index on the basis of demand side and supply side indicators and thereby observed an increasing trend in financial inclusion index in India. Demand side indicators like banking penetration, availability of banking services and usage of banking system, and supply side indicators like access to savings and insurance and bank risk are considered for developing the index. India was categorised as highly financially included on the basis of demand side indictors whereas it had low financial inclusion index in respect of supply side indicators. Delhi placed at top among Indian states in financial inclusion index while Mizoram lies at the bottom.

2.7 Technology-driven Financial Inclusion and Branchless Banking

Zaman & Chowdhury (2012) have evaluated the present position in technology driven banking and projected its future prospects in Bangladesh in the light of the probable future challenges. Technology driven banking consists of

services like CBS, debit and credit cards, EFT, ATM, POS, banking Kiosk, SWIFT, MICR etc. Inadequate knowledge on technology driven banking, lack of strategic plan and international standard communication channel, high establishment cost, inefficient clearing house facilities etc. are the challenges identified for technology driven banking. The banks should increase the customer awareness, introduce the services suitable to the local and aged customers and provide incentives in the form of low service charges for technology driven services.

Chopra & Sherry (2014) have suggested low-cost technology solution for financial services with Aadhaar authentication to ensure financial inclusion in India. POS, micro-ATM and mobile technology solutions are not optimal for providing branchless banking to the deprived society. Restriction to urban areas, high operating costs, need for power and guaranteed connectivity are the challenges identified with ATMs. Kiosk banking suffers from the limitations of basic IT infrastructure, power and internet connectivity. An integrated mobile based financial services with Aadhaar authentication is required under which financial services can be accessed through Aadhaar authentication, and it will ensure branchless banking to wider population and self-service transactions by beneficiaries.

Mallick & Das (2014) concluded that the use of IT in Indian banking sector improves internal processes of banks and better and innovative facilities and services to the customers. The innovative banking services include ATM, EFT, RTGS, ECS, debit card and credit card, CBS, net banking, mobile banking, tele-banking, SMS banking, banking kiosk, MICR, money link card, phone-link service, point of sale terminal, e-cheque and SWIFT. RBI has taken various steps towards the development of information technology in banking sector.

Singh et al. (2014) highlighted the need for technological interventions to reduce the cost and enhance the productivity of business. Adoption of core banking solutions, growth of ATMs, development of National Payment Systems, pre-paid payment systems and POS terminals are the technological development in banking sector. Branch network, BC or BF model and MFIs are the models adopted by the banks, being the novel financial inclusion initiatives, to reduce the difficulties like

distance of branches, location of customers and literacy of customers. POS and Kiosk banking model, being technology enabled financial inclusion models, help the rural people to reach at the formal banking services. Intelligent selection of a blend of business models and technology will make the financial inclusion a reality.

Rebeena & Rosa (2015) have examined the changes and challenges in Indian banking sector due to technological advancement. Along with online banking and mobile banking, the number of ATMs and use of debit and credit cards are also extensively increased due to their convenience. Core banking solutions led to the increase in number of bank branches of public sector banks and nationalised banks. Transaction cost, developing and maintaining technology, customer awareness and customer retention, competition in banking sector, employee training, and security issues are the major challenges in technological advancement.

Bhuvana et al. (2016) tried to identify the factors influencing the usage of ICT and analyse the effect of ICT on financial inclusion among the rural people. The factors for adoption of ICT in rural areas are reviewed as individual factors, environmental factors and technological factors. In India 97 per cent of newly opened accounts in public sector banks are under PMJDY scheme. The study identified GCC, KCC, no-frills account, RTGS, Electronic Clearing Service (ECS), NEFT, mobile banking, Government-to-Person (G2P) payments, core banking systems, ATM etc. as the technological advancement for financial inclusion.

Gupta & Khanna (2016) have concluded that the demographic factors influence the level of usage of banking delivery channels, like ATMs, net banking, m-banking etc., of public sector banks in India. ATMs are the mostly preferred banking service by the respondents, followed by internet banking and mobile banking. Delivery channels have been mostly used for fund transfer, checking balances and bill payments. In respect of demographic characteristics of respondents, there exists significant difference in usage of ATMs, net banking and m-banking among various professional, age, income and qualification groups.

Kumar (2016) opined that rapid technological advancement compelled the banking sector innovations. ICICI bank was the first bank introduced the internet

bank and mobile ATM facility in India. ATM facility and credit card facilities were inroduced in India by HSBC and Central Bank of India respectively. E-banking substituted the traditional brick and mortar banking system and thereby ensured increased volume of business transactions. In kiosk banking, a retailer opens no-frills bank account for customers by biometric authentication and the customers can deposit, withdraw or transfer money through the kiosk branch.

Sundaram & Sriram (2016) have investigated the level of financial inclusion through the usage of branchless banking technologies. The study observed that out of the total accounts opened in PMJDY merely 23 per cent are active. Age has a significant influence on branchless banking technologies and identified a direct relationship between level of income and usage of internet banking. But the level of education has no effect on technological factors. Improvement of branchless technology in banking system is essential to reduce the imbalance between cost and technological availability and thereby ensure the access of vulnerable people to the financial system.

Sundaram et al. (2016) have studied the effect of ICT and use of branchless banking in financial inclusion. ATM, NEFT, RTGS, IMPS and financial service kiosks are identified as the mostly used branchless banking services by the rural people. Irrelevance of services and lack of safety are the main reasons for non-access to ICT, followed by lack of balance in accounts and unreasonable and hidden transaction charges. Financial literacy is the major factor for not using ICT, followed by use of traditional methods, lack of regular income, high network charges and technological complexity.

Sahoo (2017) has found that there is a growth in number of ATMs by public sector banks, private sector banks and foreign banks. Indian banking sector has grown with innovations blended with information technology. The entrance of new generation banks and foreign banks in Indian banking industry compelled the entire banking companies to render the technology-based services. The technological advancements in banking sector are backing to the enhanced efficiency and reduction in cost. Innovative banking techniques ensure the competitive ability of

the banks, and the technological advancement in Indian banking sector improves the internal processes of banks and it results in innovative services to the customers.

Salihu & Metin (2017) reviewed customer satisfaction regarding two electronic banking services, namely ATM and e-banking. There is a strong correlation between services and reliabilty whereas a pathetic correlation exists between efficiency and satisfaction. One unit increase in electronic banking product improvements, relating to the type of technology, location and number of ATMs, results an increase of 0.522 units in customer satisfaction. Likewise, one unit increase in relaibility will result an increase of 0.383 units in customer satisfaction and one unit increase in efficiecy leads to 0.310 units decrease in customer satisfaction. People do not have trust in speedy banking services since they perceive it as highly risky.

Umar Farook & Sudalaimuthu (2017) have studied the impact of technology-based banking operations on financial inclusion. The customers view public sector banks as more technically advanced. Majority of them opined that technology is an essential tool for banking operations and hence they prefer technology-based banking over conventional banking. Quality of service is perceived as the most valuable banking attribute, followed by trust and type of technology used. Technology tools like ATM, internet banking, cards, mobile wallets etc. are mostly used by majority of customers.

2.8 Kiosk Banking and Business Correspondents

Kumar et al. (2006) found that corresponding banking in Brazil is successful in penetrating poor and remote regions. BC model reduces the cost of financial access by small sized transactions and point of service interface with retailers. Increased labour cost and unionisation insisted banks to new services, and public support is considered as a factor for accelerating the same. Technology upgradation was regarded as a major challenge while implementing this model.

Vasudevan (2008) has reported that BC model is effective in achieving financial inclusion. 51.9 per cent feel BCs as useful while 77.7 per cent accept BCs

as a helper or advisor for their financial decisions. More than half of bank managers agreed that BC model may be suitable for financial inclusion in slum areas. Fear of entering bank and its procedures, confusion regarding deposits and withdrawals, reluctance to ask for help etc. are identified as the major problems faced by customers whereas the major problems confronted by the bank branches are understaffing, lack of freedom to modify existing bank procedure, lack of training, inadequate infrastructure etc.

Das (2009) found that the distance to bank branch was a major reason for not availing banking services as each visit costs an average of ₹ 42. But, increase in number of bank branches is less than proportionate to the increase in population of UP. More than 90 per cent of rural people prefer door-step banking services. The development of technological platform and appointment of right entities as BCs will have a pivotal role in financial inclusion of the country.

Laureti & Matthews (2009) have evaluated the costs and revenues of the BCs in providing no-frills bank account with cash deposit and withdrawal facility. The primary source of BC's revenue is bank commission for enrolling new customers. There are two revenue models – transaction based and balance-based models. In the first model a commission of 0.5 per cent payable on deposits and withdrawals by customers and in second model earnings depend on the balance of customers' accounts. The transaction-based BCs may achieve sustainability by pursuing customers who demand larger transactions and discourage smaller transactions, and balance-based BCs should raise longer investments as they can promote financial inclusion in the long run.

Thorat et al. (2010) have studied the feasibility in engaging corporate retail networks as BCs of banks. Retail agents are expecting training and capacity building, marketing expenses, initial investment, operational independence, remuneration, branding and image building etc., from their concerned banks. Some network types are suitable to BCs and retail agents are required to cover their costs. Accessibility and transparency are the key determinants for gaining customer

confidence. Financial literacy to all stakeholders and study of demand side of BC network are essential for the success of BC model.

Jain (2011) suggested the start-up business model innovation which is critical to the national financial inclusion programs as it develops a model for value creation. External environment has a greater role in value creation through business model.Inter-ministerial Group (IMG) highlighted Interbank Mobile Payment Service (IMPS), Aadhar, Interoperable Infrastructure for Accounting Small Transactions (INFAST), Real time Micro Transaction Switch (REMIT), Account Mapper and Point of Sale (POS) devices as the elements for a national ICT based framework.

Hingrajiya (2012) examined the viability of BC model for financial inclusion. 60 per cent BCs are doing BC business as their secondary occupation and average number of accounts opened by BCs is 54. Many of the villagers are not aware about the BC services and the concept of financial inclusion, due to their illiteracy. 90 per cent clients are satisfied with BC services, while some others are having complaints about the devices. 83 per cent of accounts of BC clients are operative and 78 per cent of non-clients have bank account. 34 per cent non-clients are not availing BC services due to the lack of trust. The major issues faced by BC model are improper working of POS device, delay in getting smart cards, lack of internet connectivity, requirements of KYC norms, lack of awareness and trust in BCs and small amount of savings by the villagers.

Kapoor & Shivshankar (2012) have looked into the supply side aspects of business correspondent network managers as they are the critical stakeholders in BC model. BCNMs offer some innovated banking and non-banking services, in a smaller level, to meet their customers' needs and 73 per cent of BCNMs are working with more than two banking partners. Most of BCNMs opined that there is a moderate support by banks for selection and training of agents and one-third of BCNMs seek the assistance of their field staff to manage customer grievances. Although the commission offered by the banks are inadequate BCNMs are still optimistic.

Kishore (2012) has studied on role of BC model as an innovative technology-based banking model for boosting financial inclusion in India. The BC model has been established for reaching all the villages having a population of more than 2,000. BCs help the banks to ensure greater reach to the reason lacking financial services, doorstep banking and better loan performance. The BC model has the potential to change the lives of poor and vulnerable people who are far away from banking services and it helps for their overall social empowerment and community development. To cross the hurdles confronted by BCs banks should design viable business model for BCs and all the government payments should be routed through bank accounts.

Ujjawal et al. (2012) have studied on viability of BCs and agents. 78 per cent agents are engaged in some businesses and they consider BC business as a secondary activity and 19 per cent agents are providing other financial services like insurance and value-added products in addition to their agency work. Refundable cost on security deposits, non-refundable cost for set up the business and regular revenue expenditures for their operations are the major elements of costs to agents while commission on transactions, fixed salary and revenue from value-added products and services are the sources of revenue. Although all agents are satisfied with the training given, they are confronted with some problems like excessive processing time taken by base branch, communication issues with BCs, cash management and liquidity issues, risk in handling cash, technological problems and competition from CSPs and agents of other BCs. Product diversity, expansion of scope of CSPs, standardisation and documentation, promotion and marketing, financial literacy, training to CSPs etc. are the suggested measures for popularising the BC model.

Ballem et al. (2013) reported that an SHG-BC model is initiated due to the difficulty in raising capital, regulatory restrictions on collecting savings, regular source of income etc. The study stressed on the need for adequate reward to all the stakeholders in branchless banking to meet the objectives of financial inclusion as many of BCs in India tend to fail due to lack of profits to continue their operations.

The factors like good product mix of both savings and credit, strong leadership, careful selection of bank partners and active participation of bank officials make the SHG-BC model a success.

Grameen Foundation (2013) found that the major challenges confronted in BC model are lack of appropriate products, streamlining back-office operations, lack of customer awareness, defining ownership and responsibilities and business case building. The suggested potential solutions for the challenges are breaking down client segments (mapping), product packaging, move beyond financial transactions, village level profitability analysis of BCs, using of financial literacy training institutes, tracking account applications by capturing their movement by using software, incorporating financial inclusion into the bank branch's Key Performance Indicators (KPIs), developing different business plans for urban BCs and rural BCs etc.

Mahajan & Kalel (2013) have reported that a small number of self-help groups are functioning in the slum, but they are not sufficient to meet the financial needs of slum dwellers. There exist disparities between the amount of loan required and the amount of loan actually taken. 54 per cent slum dwellers need loan of below ₹100 daily and 28 per cent have taken loan from bank and others are depending money lenders etc. for meeting their financial requirements. This disparity can be met through BC model by providing daily credit to them. The study observed that the occupation and social categories of slum dwellers have no influence on financial inclusion, but religion has an effect on it.

Maitra et al. (2013) reported that there is an exponential growth in number of beneficiaries of FINO. Acquisition of micro-customers, customer servicing, doorstep banking through agents and micro-branches, portfolio of innovative products etc. are considered as the key advantages of FINO. The role of FINO in financial inclusion is pervasive as it not only developed the system and process but also a whole set of products to serve their customers well as it provides financial awareness programme for customers in association with national and international partners. Low financial literacy, difficulty in finding right correspondent, reluctance of states to accept

technology-based BC model and lack of soft and hard infrastructure in rural areas are identified as the major challenges faced by FINO.

Radhakumari & Bala (2013) have pointed out that the opening of no-frill accounts has helped the customers to free from the informal sources. Four-fifth of customers opened their accounts for future savings. Age and awareness level of customers are not related while level of education has a very good relation with awareness about financial services offered in their villages. Although the customers are aware about financial services still, they depend upon informal financial sources. The villagers opened the account with BCs due to their trust and confidence in BCs. While BCs indicate the issues relating to network connectivity and payment of commission, customers look for the ATM and loan facility from BC outlets.

Shetty (2013) has studied the role of BC model in financial inclusion and it is observed that 92 per cent BCs are taking their BC business as subsidiary occupation, and banks prefer young people to appoint as BCs. Financial inclusion is not confined to open no-frills account, but includes the access to all financial products and services. BCs are considered as the "grass root channel of financial inclusion plan". The major challenges faced by BC model include the increased number of inactive accounts, inadequate compensation to BC and unwillingness of bank customers to accept BCs for deposits.

Sultana et al. (2013) have observed that opening of no-frill accounts do not make free the customers from the clinches of informal financial sources. Majority of customers opened their no-frill accounts to save for future. It is found that age, education level and level of financial awareness of customers are independent. In order to move with the directions of RBI, banks are asked for solving BC's issues relating to network connectivity, guaranteeing of regular source of income, frequent visits by bank officers at BCs and launching of toll-free contact facility to resolve their doubts and grievances.

Wright et al. (2013) described the reach and quality of BC agent networks in India and the policy interventions to catalyse higher quality agent network across India. It is found that more than 58 per cent of agents in India earn below ₹ 3,000

per month which is not enough to offer quality services. The study identified eight key requirements for the successful agent network - offering of one or two anchor products, careful selection of agents, regular effective training to agents and bank staff, adequate compensation to agents, marketing support and monitoring from banks, assistance from banks to manage liquidity challenges, integration of BC technology platforms into mainstream financial system and direct access to the core banking system.

Ananth & Öncü (2014) have observed that lack of financial literacy worsens the information unevenness between the financial service providers and consumers in AP. Low skill levels of BCs and lack of training restrict their capacity to daily operations. The banks deployed three different technology platforms, namely kiosk banking, handheld point of sale machines and ultra small branches, for implementing BC model.. BCs have greater flexibility in terms of technology and working hours. But they carry various risks related with technology failure and procedural complexities. Failure of POS machines and non-issuance of passbooks by parent banks to account holders also create problems to the BCs. Introduction of relevant customised products and services through BC model is required to reach the financially excluded population.

Bankers Institute of Rural Development (2014) has studied the feasibility of Business and Development Correspondent (B & DC) model adopted by NABARD Financial Services Limited (NABFINS). The study revealed that most of the B & DCs are not maintaining balance sheet and income and expenditure details of NABFINS project and majority of expenditure are in respect of staff salaries and travelling purposes. New SHGs formed by B&DCs influence the business growth of NABFINS and they are facing high staff erosion. All B&DCs are satisfied with the project and willing to continue with NABFINS due to its simple procedures, timely loans and doorstep delivery.

Chopra & Sherry (2014) found that 58 per cent rural and urban poor people are using branchless banking services for remittence, 31 per cent for receiving government benefit payments and 11 per cent for savings while none of them

availed for credit or insurance products.Most of them preferred BC transactions due to their illiteracy and fear of technology and theft. 34 per cent people feel that the branchless banking services are very easy to use and 93 per cent avail the services from BCs. Difficulty in filling forms, overcrowdedness, limited working hours, distance, loss of wages etc. are the major difficulties identified with branch banking.

Jegadeeshwaran & Rahmath (2014) suggested that the banks, BCs and post offices should cover the fully excluded urban poor to make them fully inluded in the formal financial services as the financial inclusion initiatives mostly confined to the rural poor. Most of the beneficiaries of BC model are old aged pensioners and women and many of them are uneducated. It is also needed to attach other facilities like GCC, ATM card, overdraft etc. to the no-frills accounts to ensure the accounts operational. The banks and post offices should conduct surveys to find out the unbanked and underbanked population to achieve the inclusive growth.

Kolloju (2014) observed that the advanced technology facilitates the BCs to reach to the customers by opening no-frills bank accounts compliance with KYC norms. BCs and BFs are acting as an alternative to branch banking to reach out the financially excluded population by providing banking services at the doorsteps of rural people without physical bank branches. The present regulations are not flexile for BC arrangements. The BCs are of the opinion that mobilisation of savings, lack of professional orientation to BC staff and lack of financial literacy of customers are the major challenges which adversely affect the business.

Kumar & Balasubramanian (2014) have studied the effectiveness of BC model. Banks recruit the young people (average age 32) as BCs and 64 per cent of BCs are female, and 34 per cent BCs are graduates. Only 60 per cent of accounts opened through BCs are active. BCs earn fixed and variable revenues from opening accounts and other transactions. Costs to the standalone BCs (₹ 1,000) are more than that to CSPs (₹ 370) and 86 per cent BCs are running BC as their main occupation. The major factors contributing to the viability of BC model are selection of good standing person as BCs, the proximity of BCs to link bank branch, proper selection of villages, choice of technology and transparency in sharing remunerations.

Radhakumari (2014) observed that similar problems have been faced by all beneficiaries while opening no-frill accounts. Many of the villagers have opened their no-frill accounts due to their trust in BCs even though they are not aware about the BC services. Availability of income, family economic requirements, interest in savings etc., has been found as the major factors affecting the period for which the account is opened. BCs face the problems of lack of support from bank officials to solve their problems, non-issuance of passbooks, limited services, monetary limits for transactions etc.

SIDBI (2014) observed that key constraints involved in BC model are lack of infrastruture (power outages, limited GPRS connectivity, lack of good road connectivity etc.), operational issues (lack of field support by TSPs, low level of literacy, lag in delivery of smart cards etc.), technologiocal problems in respect of shift from offline to online mode and failure in fingerprint recognition, unsustainable business models for agents, like delay in commission payments, lack of customers' trust in BC channel, understaffed banks and lack of bank support and frequent policy changes. BC agents, BCNMs and banks have to ensure best practices and direct involvement in BC operations.

Camara et al. (2015) have highlighted the efforts for the access to formal financial services through the banking correspondent business model across 101 developed and less-developed countries in the world. They classified the banking correspondent models into two, namely pure banking correspondents and hybrid banking correspondents. While pure banking correspondents act directly on behalf of banks hybrid banking correspondents provide financial services on behalf of non-bank electronic money issuers. The latter have agreements with banks assuring potential or indirect reach to the formal financial products and services. Technology is considered as an essential element in banking correspondent business model for interaction between financial service providers and their customers. The attributes like proximity, security conditions, degree of trust and merchant business structure make a bricks and mortar store as a banking agent under this model.

IFMR LEAD (2015) has examined the centres which provide financial and non-financial services and the challenges for kiosk banking from demand and supply perspectives. The average age of VLEs is 32 years and all are male having an educational qualification of tenth standard and above. Male and female beneficiaries equally use the kiosk banking services and all of them have at least one savings account. Continuous support and adequate training for VLEs are required for effective functioning of CSC model. 80 per cent of VLEs opined that the interactions with other VLEs are beneficial to learn about the procedures. The infrastructure, competition with other kiosks, customer service issues and staffing issues are the major challenges. 95 per cent of beneficiaries feel easy to access CSCs and majority of them use kiosk banking services for receiving government benefits.

Murray (2015) observed that BCs have a greater role in microfinance sector in India. BC portfolio and bank funding to business correspondents do not replicate in balance sheet and audited financial statements of MFI. There may be a 60:40 own and BC portfolio when an NBFC acts as a BC. There may be risks of increased exposure and risk of quality of own portfolio when an MFI becomes a BC. BCs are advantageous to banks and MFIs that they ensure local touch to the banking operations, lower cost for delivery and recovery of credit, mitigation of continued funding risk, opportunity for faster growth of MFIs, lower funding cost and ability to provide services like savings and money transfer.

Pandian & Mishra (2015) have reported that people tend to invest more for better housing and most of the households have access to banking services. The major issues faced by co-operative banks include lack of core banking solutions, competition from commercial banks, lesser government support, lack of IT enabled services, KYC norms and communication gap between banks and BCs. BCs and BFs are encountered with many issues like cash management, low amount of commission, unknown amount of commission, no platform for grievance redressal, non-issuance of passbooks by banks to customers, unavailability of account statements to customers without finger impression and lack of security arrangements by banks etc.

Renuka (2015) noted that BC model intends to ensure financial inclusion and bank outreach by providing technology based comprehensive financial services to the underprivileged by reducing transaction cost. BC model has a greater impact on all the psychological factors, like general awareness and banking habits, rather than social and financial factors. Savings in tranport cost as the major reason for opening account through BCs, followed by shorter distance to BC outlets and lesser operating time. SMS facility in English language, inability to recover investments in micro insurance products, lack of financial literacy and customer education are the major challenges in BC model.

Sundaram & Sriram (2015) noted an increasing trend in number of bank accounts opened by BC model. Regardig to the difficulties of BCs 43.33 per cent BCs feel that technological problems, like faulty bio-metric scanners and card readers, as the major one and only 3.33 per cent BCs consider the lack of clarity on information from bank officials as a trouble. It is inferred that BCs are facing difficullties to move towards financial inclusion and the banks are recommended to provide a resonable time for BCs to settle their financial transactions.

Tandon et al. (2015) have assessed the possibilities, issues and challenges of BC model. BC model is a branchless mode of banking to ensure the doorstep delivery of financial services to the weaker sections of population, particularly in rural areas. This model bridges the gap between formal financial system and unbanked people by identifying the borrowers, collecting and verifying loan applications and creating financial awareness. BC model has the possibilities in terms of benefits to banks without operating physical branches and easy access for unbanked people in remote locations to basic banking services. Lack of encouragement and promotion of BC model from the part of banks, non-operational no-frills accounts, lack of training to BC staff and shortage of sufficient funding are the major constraints.

Thiruma (2015) has found that all the BCs are aware about bank services. Smart card, RuPay debit card and Aadhaar card are the ways to access accounts, opened by BCs. The village people are not much aware about services of banks and

BCs, due to lack of time and savings, and illiteracy. Some villagers are not using BC services as they don't have trust in the concept of BCs and they feel it as inconvenient for them. The faulty POS devices, delay in getteing smart cards, problem of network connectivity in remote locations, lack of financial literacy etc., are the main challenges in running BCs in villages.

Dhar & Sarkar (2016) observed that the initiatives under BC model for achieving financial inclusion couldn't move much from the infantry stage. The study suggested making aware the beneficiaries about the benefits of BC model to them in long run through the frequent interactions of BC field workers. A coordinated effort of banks, BC companies and the local self-government authorities is required for the successful conduct of BC services.

Hegde & Kotian (2016) opined that branchless banking will be an effective tool for financial inclusion if it ensures necessary infrastructures and conducts awareness programme. It is found that all the rural people possess bank accounts. 68 per cent of them motivated to open the accounts by PMJDY and BCs. Around 80 per cent of rural people possess SB account and they are aware about branchless banking. Majority of them are using the BC services. Although most of them opined that branchless banking helps them to save their cost, time and energy there are some constraints, that push them back from using branchless banking services, like technology apprehension, lack of awareness and illiteracy.

Kalliala (2016) assessed the usefulness of correspondents to credit unions and the potential improvement of financial inclusion ensuing from the spread of credit union BCs. In banking correspondent network of Brazil, CU BCs are a marginal phenomenon, increased rapidly. CU correspondents are mostly concentrated on bill payment services rather than credit services and there are no relational services like savings or investments. Limited technological platform is identifed as the major constraint for increasing the scope of CU BCs. There is a correlation between credit union financials and the usage of correspondents with Return on Assets , Return on Equity, size and coverage with services.

Krishna & Kuberudu (2016) have found that even though there is a progress in appointing BCs in unbanked villages, the aim of financial inclusion not yet reached at the desired level. The government and banks are not conducting any financial awareness programme, and hence the people are not using the available banking services and social security schemes, insurance and other services provided by the governments for welfare of STs. The major challenges faced by the BCs are inadequate compensation, lack of regular training programme and higher transaction cost. In order to tackle these challenges, the banks should increase the number of qualified BCs and train them to reach the unbanked villages, open more physical bank branches and ensure the effective utilisation of technology.

Parameswari (2016) suggested that the efforts for financial inclusion do not limit with opening of a bank account, but to assure the rural peoples' access to credit facilities also to fulfil their financial needs. BC model has a greater potential to boost financial inclusion in our country and hence banks and BCs have to ensure the financial sustainability of this channel. BCs felt that the training given to them are inadequate and, low and delayed remuneration, lack of cash holding capacity and lack of awareness of banking norms reduce their confidence in this model. Majority of clients are satisfied with services of BCs. However, the clients observed certain issues regarding network connectivity, malfunctioning of devices and unapproved charges imposed by BCs.

Shylaja et al. (2016) have empahsised on the role of PMJDY and BC model in speeding up the financial inclusion in India. The number of households availing banking services has been increased by 7.82 per cent over the period of last 10 years. Even though the number of households having access to banking services in rural as well as urban areas is showing a growing trend, 45.6 per cent of rural households are still not reached to banking services. The number of bank branches, number of ATMs, crdit accounts, credit outstanding, deposit accounts and the amount of deposit mobilised in rural and urban locations are positively correlated with availability of banking services in both rural and urban areas.

Siddharthan & Yogalakshmi (2016) noted that there is an increase in number of branches and BC network. The average age of BCs is 35.5 years and 60 per cent BCs are female. 41 per cent BCs earn a monthly income of ₹ 4,000 – ₹ 5,000 and 26 per cent BCs are not having employment before taking the BC business. A BC serve an average of three villages and 98 per cent BCs are aware about savings bank account and 45 per cent are aware about para-banking services like insurance. 98 per cent BCs are getting due recognition and respect from branch managers of banks. The payment of remuneration in time is the most important factor in efficiency of BCs, but only 21 per cent BCs report the timely receipt of remuneration.

Syamali & Parameswari (2016) found that there is a considerable increase in number of BC outlets by SBI during the period of study. SBI adopted kiosk banking, based on technology supporting biometric authentication. 40 per cent of customers are aware about personal banking and 53 per cent of them have availed any of the personal banking services. The customers mostly hold savings deposit accounts rather than FD and RD because of their irregualr income. BC agents are facing some challenges like network problem, fingerprint mismatch etc. Banks and BCs have to enagage awareness programmes among the villagers to motivate them to come out from the exploitation of money lenders and informal financiers.

Vijayasarathi & Velmurugan (2016) have listed out the various benefits of self-service kiosk. They include reduction of bank staff's work burden and transaction cost for transfer, saving time and paper work, printing account statements and adding beneficiaries for fund transfer. A customer can operate the kiosks either by ATM card or internet banking for the banking transactions. The main difficulties identified by the study include non-availability of standing instruction mark option, non-availability of branch and ATM locator, no languages other than English, no acknowledgement receipts, network errors etc.

Bhuvana & Vasantha (2017) have described the factors determining mobile banking usage and the mediating effect of BC model on attitude and behavioural intention of rural customers for the acceptance of mobile banking technology. There is a significant and positive effect of attitude on behavioural intention and a

significant effect of attitude on BC model. BC model ensures the mobile banking services to rural people.

Souza (2017) observed that BCs are playing an effective role in creating awareness about formal financial services and government schemes. BCs are acting as financial service facilitators as well as they provide fund transfer services to the clients. BCs opined that operating ICT based services without adequate technical training is difficult. More than 75 per cent of BCs agree that they are getting regular training programme, and technology service providers are pre-emptive in delivery of ICT based services to the clients. Although a large number of NFAs opened by customers in banks a considerable number of accounts exist as dormant, due to physical distance to bank branches and psychological factors.

Gahlot (2018) found that BC agents serve almost all the villages in Haryana by providing banking services. Public sector banks have BCAs in 94.3 per cent villages as BCAs are the major players for financial inclusion. BCA's share in opening bank accounts is 80.8 per cent with public sector banks and the remaining with private sector banks and RRBs. 61.45 per cent of customers are satisfied with services of BCAs. It is found that about 50 per cent of village people are not much aware about financial services of BCs, and banks due to their illiteracy and lack of time to get understood with this model. Network problem is opined as a major issue in BC model, which compel the clients to visit BCs twice for opening an account. The overall efficacy of BC model in Haryana is 37.67 whereas some of the villages have about 60 per cent efficacy.

Gangrade (2018) found that self-service banking kiosk has a major role in routine banking activities like money transfer, deposit of money and cheque etc. Seven key factors are considered for identifying the awareness level of customers on self-service banking technology. Service convenience is the major factor contributing towards the awareness, followed by easiness and comfort and unlimited free facilities. The study concluded that customers are very much aware about self-service banking.

Uzma & Pratihari (2019) indicated the reasons for the worse breakeven of CSPs under BC model and attempted to propose a new model by using standard financial modelling technique for ensuring the economic viability of CSPs. In the present model, the uneven volume of transactions and high operating costs results in long run disequilibrium. In new model the range of financial products offered through CSPs have been increased so that the number of transactions can be increased and thereby exceed the revenue over operating cost. The study found CSPs as the infirm link in BC model, which should be built up by prevailing over the challenges with the active support of banks.

Kumar & Aluvala (2020) opined that though BC model in India offers banking and monetary administration in an efficient manner they face some difficulties, such as insufficient amount of commission, management of customers and management of cash. It is also found that low level of customers' awareness and fraud from customers' side are the major challenges in BC model.

Dhar & Jaiswal (2021) studied on the financial aberrations of BC customers in rural area. Non-issuance of slips for transactions, fraudulent calls, unauthorised activation of social security schemes, unauthorised charges for withdrawal of money and passbook printing, unauthorised access to debit card PIN etc. were identified as the major cases of financial aberrations of BC customers. All such issues occurred due to the lack of financial literacy and lack of awareness of the customers. Proper financial literacy programme was recommended for strengthening the BC model by enhancing the confidence of the beneficiaries.

Korna & Sambe (2021) in a study conducted among the rural dwellers in Nigeria observed that most of the rural dwellers could access the kiosk banking services and it helped them to increase their living standard. The study established somewhat relationship between kiosk banking and socio-economic development of the dwellers. The major challenges in kiosk banking were listed as service charges, limited number of services, cost of transportation, internet connectivity issues etc. Affordable service charges, expansion of kiosk banking services to more locations

and increased scope of services would help to increase the popularity of kiosk banking and standard of living of the rural dwellers as well.

2.9 Research Gap

This chapter discussed the various studies related to financial inclusion and role of technology and branchless banking on financial inclusion at national and international level. Those researches have been undertaken to study different aspects of financial inclusion in general and some of the financial inclusion initiatives in specific. But no studies so far explored the effectiveness of BC model in financial inclusion in Indian state, Kerala. Although BC model offers valuable banking services at the door step of rural people BC agents or CSPs, who are the root players in BC channel face a number of problems. Those problems confronted by CSP and their clients in kiosk banking not yet deliberated in any previous studies. This study is an attempt to unveil in detail the role of kiosk banking services in financial inclusion with special reference to SBI CSPs in Kerala.

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Chapter 3

Financial Inclusion and Kiosk Banking – An Overview

3.1 Introduction

Every research has a backup of some theoretical and conceptual framework relating thereto, to make the concepts clearer. This chapter is an attempt to cover all such relevant conceptual background of the study in a detailed manner and discusses the concepts relating to financial exclusion, financial inclusion, and kiosk banking and business correspondents. It also covers national as well as state level progress of financial inclusion in India.

The banking sector in India is very rich and developed with a systematic structure of banking institutions and agencies. Though there is such a developed banking structure in India, a considerable population is still out of banking services due to various barriers. Exclusion means the absence of inclusion and hence financial exclusion arises when a segment of society is excluded from the formal financial sector of a country. The excluded segment of society may include poor rural and urban population, old aged people, women, migrant labourers and other vulnerable and marginalised sections. GoI and RBI had taken a lot of measures and initiatives to bring such financially excluded people to the mainstream formal financial institutions and agencies and thereby ensure financial inclusion. Among those financial inclusion initiatives business correspondent/business facilitator model have a greater impact. The kiosk banking services through BCs could bring the financially excluded people to the world of formal financial products and services in rural areas where no brick-and-mortar bank branches exist.

3.2 Financial Exclusion – The Concept

It's quite necessary to discuss about financial exclusion before coming to the concept of financial inclusion. Financial exclusion prevents the disadvantaged and poor people of a country from its formal financial systems (Conroy, 2005; Leyshon & Thrift, 1995). Sinclair (2001) viewed financial exclusion as the inability of people

to access the required financial services. In the words of McKillop & Wilson (2007) financial exclusion is the difficulty, inability as well as hesitancy of a particular group in accessing mainstream financial services.

Mohan (2006) opined that financial exclusion is the lack of access of a particular segment of society to the appropriate, safe, fair and low cost financial products and services. Financial exclusion is considerd as a process where a group is prevented from accessing fair and affordable financial products and services, which leads to reduction in their ability to participate in social and economic activities and increase in financial hardship and worsened poverty (Burkett & Sheehan, 2009). Thus, financial exclusion can be observed as a process which excludes a certain segment of society in a country from the formal financial products and services due to a number of hurdles.

3.2.1 Reasons for Financial Exclusion

Financial exclusion is neither a single nor a straight forward process, but it happens due to a variety of reasons, such as complete exclusion by the finacial service providers in the form of refusal to accept certain people as their customers, and self-exclusion. In between the extremes of being excluded and self-excluded there exists a grey area of price exclusion, condition exclusion and marketing exclusion(Kempson & Whyley, 1999). Kochhar & Chakrabarty (2009) observed supply-side issues and demand-side issues for fianancial exclusion. Ayyagri & Beck (2015) also agreed with existence of supply driven and demand driven reasons for financial exclusion. Geographic distances and high financial transaction costs are supply side reasons whereas lack of financial literacy, low income, lack of money, lack of documentation, religious reasons etc., are demand side reasons. Lack of income, lack of financial awareness, easy access to alternative credit and lack of interest from commercial banks become the causes of financial exclusion (Maheswari, 2015).

Kempson et al., (2000) found mistrust among people towards financial service providers as a result of lack of appropriate financial products for meeting their financial needs, restricted access, non-affordability of financial services, lack of

financial literacy, psychological barriers and mistrust of suppliers, language and cultural reasons, and the impact of government policies and regulations. According to the Treasury Committee UK (2006) inappropriate or excessively high charges, religious belief and cultural barriers, disability, low income level, lack of geographical access, regulations of government, self-exclusion and lack of information cause financial exclusion.

People are financially excluded due to demand side and supply side barriers. Lack of awareness, unaffordable products, high transaction cost, inconvenient and inflexible financial products, low financial literacy, irregular income, lack of trust in banks, cultural obstacles and social exclusion form the demand side barriers. Outreach issues, business models with high fixed cost, age factor, bank charges, lack of communication and infrastructure, lack of technology, language barriers etc., are the supply side barriers (Chakrabarty, 2010; Chakrabarty, 2012; Subbarao, 2009). Financial exclusion occurs due to lack of geographical or physical access, lack of documentation and minimum balance requirements insisted by the formal financial institutions (Beck et al., 2008).

3.2.2 Dimensions of Financial Exclusion

Financial exclusion is a muti-dimensional concept. Kempson et al., (2000) identified the following particular dimensions of financial exclusion in addition to the major dimension of geographical access as access exclusion, condition exclusion, price exclusion, marketing exclusion, and self-exclusion.

There are five A's in dimensions of financial exclusion – availability, access, awareness, appropraiteness and affordability (Burkett & Sheehan, 2009). Anderloni et al., (2008) considered four key areas (banking transactions, savings, credit and insurance) where all people should have access, but they are excluded by transaction banking exclusion, savings exclusion, credit exclsuion and   insurance exclusion.

3.2.3 Factors Affecting Access to Financial Services

A number of factors explain the people's level of access to financial services. Factors like income inequality, adult literacy and information availability explain the extent of financial inclusion (Mohanty, 2015).

Figure 3.1 shows the demarcation between involuntary exclusion and voluntary self-exclusion. The population consist two categories as users of formal financial services and non-users of formal financial services. The latter belongs to the financially excluded and this exclusion may be occurred involuntarily or voluntarily. Ineligibility, financial discrimination, financial illiteracy, non-affordability and other factors contribute involuntary financial exclusion. Some other people are voluntarily excluded their own because of no need of financial services and cultural and religious factors.

Figure 3.1

Users and Non-users of Formal Financial Services
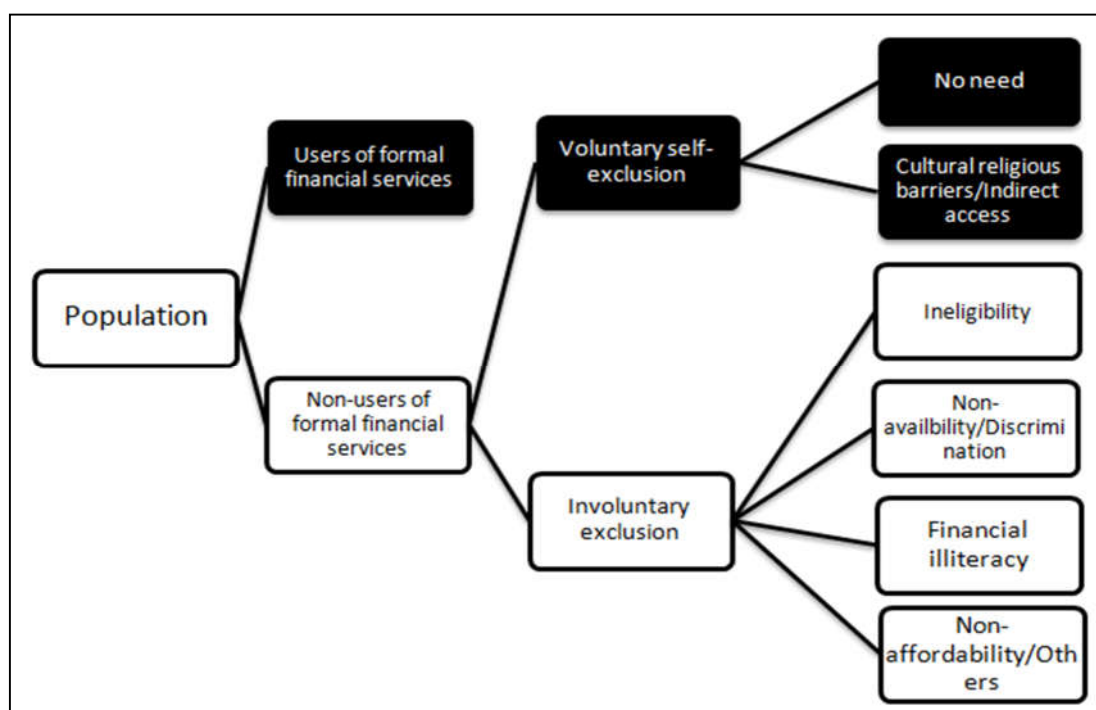
Source: (The World Bank, 2008, p 29)

In a Report on Currency and Finance, Reserve Bank of India (2008) identified twelve factors namely, gender issues, age factor, legal identity, limited literacy, place of living, psychological and cultural barriers, social security payments, bank charges, terms and conditions, level of income, type of occupation, and attractiveness of the product, which are influencing the access of people to financial services in different countries.

3.2.4 Consequences of Financial Exclusion

Financial exclusion has socio-economic consequences as it directly or indirectly affects the capacity of people in raising and allocating monetary resources, and which makes them socially excluded (Anderloni et al., 2008). The nature and extent of denial of financial services determine the intensity of consequences of financial exclusion. It may result in occurrence of crimes, decline in investment, availing credit at excessive rate of interest, increased unemployment, social exclusion etc., (Leeladhar, 2005). Mohan (2006) described two adverse consequences of financial exclusion, viz., formal lenders charge higher interest and customers' inability to repay the loans.

Financial exclusion affects not only the individuals and their families, but affects the society as well (Kempson et al., 2000; The Treasury Committee UK, 2006). The consequences can be denial of access to financial services, more complex money management, relies on moneylenders, unemployment, lack of savings, insecurity of money, limited opportunities for borrowing, difficulty in obtaining assets, difficulty in meeting ends of life, child poverty and social exclusion. Financial exclusion mostly affects the disadvantaged segment of the society, sometimes leads to social exclusion. Individuals suffer the problems of higher charges for basic financial transactions, denial of access to appropriate financial products, risk in holding money etc. Social exclusion, poverty and loss of business opportunity for banks are the societal and national level consequences (Reserve Bank of India, 2008).

3.3 Financial Inclusion – The Concept

Financial inclusion is not any nation's internal matter, rather a global concern. All the countries across the world are severely concerned about it. The

economic growth of a country is largely depending upon the level of financial inclusion in that country. The policy makers and monetary regulators are always striving to achieve cent per cent financial inclusion. Financially included population, no doubt, will boost the economic activities of a country.

Inclusion is the state of no exclusion. Financial inclusion refers to the transformation of weaker sections of the society from financial darkness to financial lightness. We can describe financial inclusion as the absence of financial exclusion. This is very important to ensure the access of vulnerable financial groups, such as poor people, peoples from scheduled and backward categories, women etc., to the formal financial products and services. An adult with a bank account is said to be financially included (Maherali, 2017).

In the words of Subbarao (2009) "financial inclusion is a win-win opportunity for the poor, for the banks and for the nation" (p 16). The Committee on Financial Inclusion defined financial inclusion as "the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low-income groups at an affordable cost" (Rangarajan, 2008, p 35). Financial inclusion is the totality of savings, insurance, payment and remittance, affordable credit, financial advice and bank accounts, as shown in figure 3.2.

Figure 3.2

Financial Inclusion
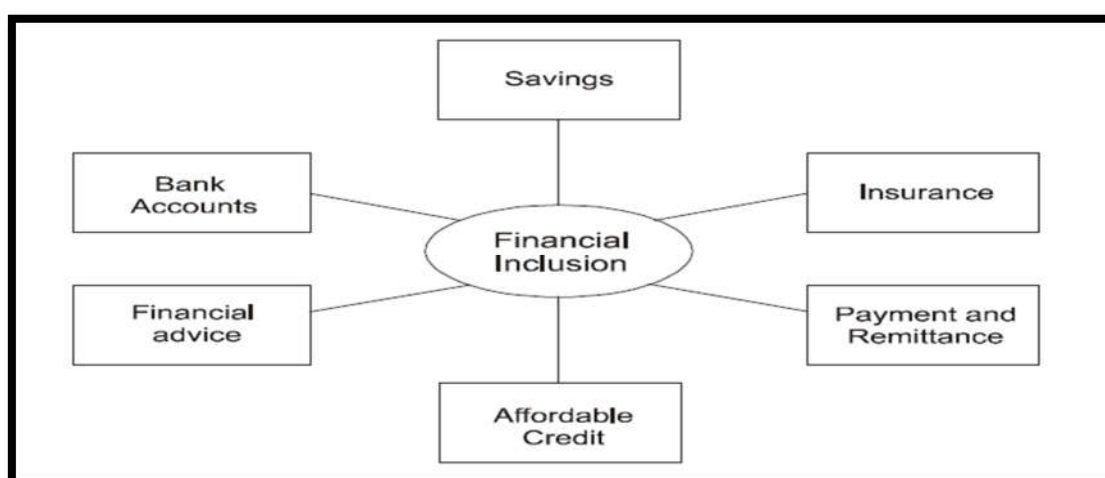
Source: (Rangarajan, 2008, p 34)

The Committee on Financial Sector Reforms defined financial inclusion as "universal access to a wide range of financial services at a reasonable cost. These include not only banking products but also other financial services such as insurance and equity products" (Rajan, 2008, p 50). According to Chakrabarty (2011) "financial Inclusion is the process of ensuring access to appropriate financial products and services needed by all sections of the society in general, and vulnerable groups such as weaker sections and low-income groups in particular, at an affordable cost in a fair and transparent manner by regulated mainstream institutional players" (p 1832).

The Centre for Financial Inclusion (2009) viewed full financial inclusion as a state where all the people can conveniently access quality financial services at an affordable cost. Financial inclusion, in the words of Leeladhar (2005), is delivery of affordable banking services to disadvantaged and low-income sections of the society. Thorat (2006) observed financial inclusion as the provision of inexpensive financial services to the excluded by formal financial service providers. "Financial inclusion is the absence of price or non-price barriers in the use of financial services" (The World Bank, 2008, p 27).

Sarma (2008) defined financial inclusion as "a process that ensures the ease of access, availability and usage of formal financial system for all members of an economy" (p 3). Financial inclusion aims at bringing poor to the formal financial system by offering financial services to them in an affordable manner (United Nations, 2016). Financial inclusion is ensured when individuals and business enterprises have an opportunity for accessing and using affordable financial services and products (CGAP; UNCDF; The World Bank).

Financial inclusion is the access of households and enterprises to formal financial services which are both affordable and appropriate (Ayyagari & Beck, 2015). The access of all sections of society to a variety of financial services by financial education and awareness may promote financial and social inclusion (OECD, 2013). The accessability of people to financial products and services is financial inclusion (The Treasury Committee UK, 2006). Regan & Paxton (2003) are of the view that opening of a bank account is one of the steps towards financial inclusion,it alone does not make people financially included. But,financial inclusion

can be achieved only when people have "opportunity, ability and confidence" in using appropriate financial products and services. People with a bank account and access to credit and savings will move with the spectrum of financial inclusion. Financial inclusion is a holistic concept rather than a concept in isolation, focusing more than that of opening a bank account and availng credits (Bandara, 2011).

A widest part of population must be provided with the access to financial products and services in a convenient and affordable manner (WSBI & ESBG, 2010). According to CRISIL (2013) assurance of formal financial services to every sections of society results in financial inclusion. A refocus is needed in expansion of access to saving and insurance products and other finanacial services rather than merely focusing on credit expansion. Financial inclusion broadens and deepens financial services along with financial education to all those who are having no access or a minimum access to financial services (Rajan, 2008; Rajan, 2014).

The inclusion of every households in banking system lead to financial inclusion (Reddy, 2007), besides formal banking institutions, SHGs and MFIs play significant role in financial inclusion (Dev, 2006). Formal financial system as a whole, as given in figure 3.3, constitute the corpus of financial inclusion.

Figure 3.3

Financial Inclusion and Formal Financial System
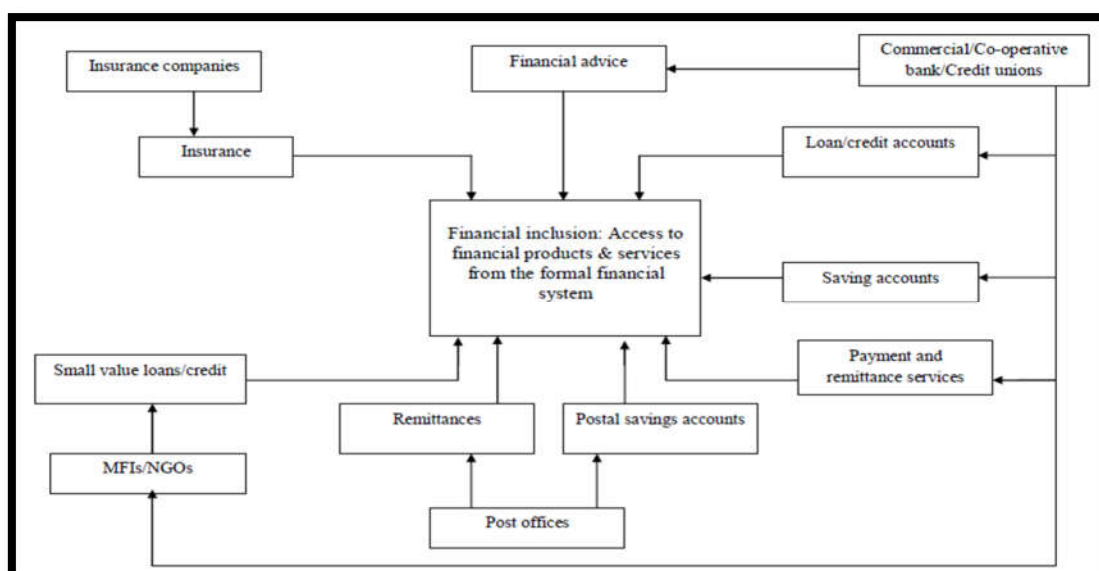
Source: (Reserve Bank of India, 2008, p 298)

Broadly, financial inclusion is a process where people from marginal sector are brought to the mainstream by ensuring a range of welfare oriented financial services such as basic bank account, savings deposits, money transfer, small loans and insurance (Acharya, 2013; Fuller & Mellor, 2008; Joshi, 2013).

The above discussions reveal that there is no globally and generally accepted definition for financial inclusion. All the definitions are focusing on different aspects and dimensions of financial inclusion. These are depending on the geographical, social and economic conditions of different countries and those conditions are seldom identical. This study defines financial inclusion as *a state where all segments of the society feel themselves as a part of financial system of the country to which they belong. They all are having access to the formal financial products and services.*

3.3.1 Objectives of Financial Inclusion

Financial inclusion is meant to discourage urban and rural people from dealings with unorganised moneylenders and make them confident to use formal banking services (Tanksale, 2012). The initial aim of financial inclusion initiatives is to meet the basic banking needs of the people and subsequently ensure access to all the financial products and services (Chakrabarty, 2010).

In a study Mahajan (2014) reported that financial inclusion will help to reduce disparities in income and savings, which ensure the savings by the weaker sections of the society. It bridges the gap between weaker sections of the society and livelihood sources, and lower income households can sustain their livelihoods. Financial inclusion also has some political objectives which can be achieved through government packages.

Chakrabarty (2009) highlighted the appropriate technology, appropriate and efficient delivery model, mainstream banks' determination and involvement, strong collaboration among banks, TSPs and BC services, involvement of all (especially state administration), and liberalisation of BC model.

3.3.2 Scope and Importance of Financial Inclusion

Financial inclusion can be attained with the involvement of the state by enacting statutes and by the banking community's effort to bring the society into the purview banking sector (Leeladhar, 2005). Financial inclusion assesses the 'breadth of needs' in respect of people's need for accessibility to appropriate range of financial services and products, and the 'depth of engagement' relating to opportunities for accessing such products and services (Regan & Paxton, 2003). The scope of financial inclusion is as wide to include bank accounts, timely credit, savings products, insurance products, payment services, mortgage, financial advisory services and entrepreneurial credit (Chakrabarty, 2009). Financial inclusion is the total of no-frills savings bank account, and banks and other financial institutions (insurance companies, mutual funds and pension companies) along with micro-finance institutions and information technology (Bohra, 2017).

Financial inclusion helps in distribution and management of productive financial resources and it reduces the role of exploitative informal financial sector and inequalities in income of the people, and thereby reduces the level of poverty. It also protects socially and economically excluded population and nurtures the growth of economy (Ajit, 2014). The barriers of risk assessment and lack of physical access are overwhelmed by designing and delivering financial products which may cover provision of small credits, usage of intermediaries and delivery of insurance products (Kempson & Whyley, 1999). Ariyoshi, et al., (2015) argued that there are positive and negative effects for financial inclusion. While bank assets are diversified on one side credit standards are destructed on the other side. Good framework, good policy and good co-ordination are suggested for success of financial inclusion.

3.3.3 Model for Financial Inclusion

A three-stage model has been discussed for financial inclusion. In first stage, awareness and financial literacy to be ensured among unbanked people in all areas. They must be provided with basic banking services in second stage. In third stage,

innovative strategies to be applied for lowering operating cost of the banks, by mutually sharing their infrastructure (D'souza, 2013).

The meaning of financial inclusion and the reasons for the occurrence of financial exclusion have been discussed under various aspects, such as product, price, awareness, delivery, and people and attitudes. Financial inclusion means the provision of a range of affordable and competitive products and services to the clients, by making aware them on its terms and conditions with simple and convenient delivery process at a lower transaction cost in remote areas under the care of specially trained staff in a timely and patient manner (Arunachalam, 2008).

3.3.4 Dimensions of Financial Inclusion

Financial inclusion strategy has four basic pillars – Financial literacy or financial education, accessibility, product availability and risk management (Sredojević, 2016). Understanding the depth and breadth of financial inclusion is muti-dimensional. There are three generally accepted dimensions − access, quality and usage. uncdf (2016) confirmed that the access to financial services, usage of financial services and quality of financial products and services as the three dimensions of financial inclusion.

The three dimensions – access to financial services, use of financial services and quality, makes the concept of financial inclusion more complex and these three dimensions are inter-related each other. While the first and third are supply driven dimensions the second one is a demand driven dimension (Kelly, 2016). All these three approaches play different roles. While one tries to take the number of users of financial services, the second and third approaches assess the quality of financial services offered and the barriers to access those financial services respectively (Beck et al., 2008).

Alliance for Financial Inclusion (2010) viewed financial inclusion as a 'multi-faceted' conept which comprises four dimensions such as access, quality, usage, and welfare. Serrao (2014) also agreed with the same four dimensions. Hanning & Jansen (2010) presented the dimensions of financial inclusion in a

different way. In addition to the common three dimensions of access, quality and usage, they added impact as the fourth dimension. Rahman (2015) emphasised on some other four aspects of financial inclusion. They are convenient accessibility, take-up rate of financial products, responsible usage and satisfaction level. Reddy (2016) is of the view that there are three 'tangible and critical' dimensions for financial inclusion in India – bank branch penetration, credit penetration and deposit penetration. Financial provision and financial participation are viewed as the two major aspects of financial inclusion (Choudhury, 2015). The former is supply side aspect and the latter is demand side aspect. In view of the above discussions the major dimensions of financial inclusion are as follows:

1. Access Dimension –This is a supply side dimension which is focused on the ability of people to avail financial products and services from formal financial service providers.

2. Usage Dimension –This is a demand side dimension which is emphasised on measuring the extend of usage of financial products and services by the people. The frequency of usage and combination of financial products used by the households are also considered.

3. Quality Dimension – This dimension belongs to supply driven and which encompasses the perception of customers towards the financial products and services offered to them. It measures the suitability of the offered financial services to cater their financial needs.

4. Welfare Dimension – This dimension measures the post-usage implications of financial products and services. to what extent. It measures the socio-economic effect of formal financial services on the lives of people in respect of their income, consumption pattern, women empowerment etc. This dimension is also referred as satisfaction dimension or impact dimension.

3.3.5 Principles and Indicators of Financial Inclsuion

Nachiket Mor Committee put forward four design principles for financial inclusion and financial deepening (Mor, 2013). Firstly, systematic stability to be

ensured to speed up the financial inclusion among low income households. Secondly, a transparent balancesheet to be prepared by the participants to exhibit true picture of their affairs. Thirdly, each participant in the system must be treated impartially irrespective of their institional character. Finally, a financial system must be responsible to the customers.

Nine principles such as leadership, diversity, innovation, protection, empowerment, co-operation, knowledge, proportionality, and framework have been put forwarded by G20 Toronto Summit (2010) which are not rigid, but give an insight to the policymakers across the world for ensuring innovative financial inclusion.

Jérusalmy (2009) identified the following indicators of financial inclusion:

1.   Level of access of people to bank accounts

2.   Supply side elements of financial inclusion

3.   Reasons for not using bank accounts by people

4.   Capacity of people to live without holding a bank account

5.   Bank account related accessibility

6.   Elements related with access to credit

7.   Opportunities for credit at lower interest or with acceptable conditions

8.   Elements related with regulation of credit supply

9.   Credit and debit database context

3.3.6 Measurement of Financial Inclusion

Degree of financial inclusion is measured by various financial inclusion indices on the basis different dimensions. The major approaches among them are discussed as under:

Mandira Sarma proposed an index for measuring level of financial inclusion, namely Index of Financial Inclusion (IFI). IFI is similar to that of approach adopted by UNDP for constructing its various development indexes (Sarma, 2008). Three basic dimensions were taken into account for the construction of IFI – "banking penetration (BP), availability of banking services (BS) and usage of banking system (BU)". BP indicates the number of banked people, and BS represents number of bank branches and ATMs available per 1000 people. BU indicates the usage of banking services by marginally banked population. Value of IFI varies from zero to one, where 'zero' represents 'complete financial exclusion' and 'one' indicates 'complete financial inclusion'. Countries across the globe can be grouped into three categories on the basis of value of IFI, as high (0.5<IFI<=1), medium (0.3<=IFI<0.5) and low (0<=IFI<0.3).

Rashmi Umesh Arora followed the same methodology as adopted by Sarma (2008) for measuring the level of financial access in developed and developing countries across the world. A multi-dimensional approach has been used for constructing a financial access index (Arora, 2010). This index is an improvement over IFI in the sense that it considers the dimensions of ease of transactions and transaction cost. This model has taken into account three dimensions – physical access or outreach, ease of transactions or time taken and cost of transactions. Multiple indicators are identified under each of these dimensions unlike in Sarma (2008) where single indicator is considered for each dimension.

The Global Findex indicators focus on the access to and use of different financial services. While access is determined by supply of services use is determined by both supply and demand. The Global Findex indicators measure the level of use of financial services among different segments of the society (Demirguc-Kunt & Klapper, 2012). The Global Findex is constructed by collecting data across the world.

CRISIL Inclusix was developed as the first financial inclusion measure in India, computed on the basis of RBI's data. Four parameteres of banking services, such as branch penetration (BP), deposit penetration (DP), credit penetration (CP)

and insurance penetration (IP) jointly form the basis for construction of CRISIL Inclusix. A scale of 0 to 100 has been used to measure the level of financial inclusion . There are four levels of financial inclusion on the basis of CRISIL Inclusix score - high (score - above 65.0), above average (score – between 50.1 and 65.0), below average (score – between 35.0 and 50.0) and low (score – below 35.0).

Cámara & Tuesta (2014) considered three dimensions for measuring level of financial inclusion. They are usage dimension, barriers dimension and access dimension. The first two dimensions are determined by demand side indicators while third dimension by supply side indicators. The usage level is assessed by considering three indicators as holding of financial product, savings and a loan in a formal financial institution. The barriers are the hindrances that pull back people from availing formal financial services and access indicates the ability of people to use the formal financial services.

3.3.7 Digital Financial Inclusion

Financial inclusion through use of digital financial services is called digital financial inclusion. Those financial services can be delivered through digital technology (Nilekani, 2019). In the words of Lauer & Layman (2015) digital financial inclusion is "digital access to and use of formal financial services by excluded and underserved populations" (p 1), and they considered digital transactional platform, retail agents and digital devices as three important components of digital financial inclusion.

3.4 Business Facilitator (BF) and Business Correspondent (BC) Model

Khan Committee recommended for setting up of two different innovative models for supporting the banking activities by linking the banks with institutional agents and other entities (Khan, 2005) . These models were expected to provide financial and non-financial services to the people in unbanked and underbanked locations. The first model is referred as Business Facilitator (BF) Model and the second one is called as Business Correspondent (BC) Model. On the basis of recommendations, RBI permitted the banks to appoint BFs and BCs in January

2006. These two models have been considered as the major policy initiatives for financial inclusion in India. Both the models have been discussed below:

3.4.1 Business Facilitator (BF) Model

BFs are acting as the intermediaries between banks and rural poor for be through certan intermediaries extending non-financial services. These intermediaries may be NGOs, farmers' clubs, co-operatives, community based organisations, IT enabled rural outlets of corporate entitities, post offices, insurance agents, village knowledge centres, KVIC or KVIB units etc (Rangarajan, 2008). The functions performed by BFs are illustrated in table 3.1.

Table 3.1

Functions of Business Facilitators

1	Identification of borrowers and fitment of activities
2	Collection of applications and verification of primary information or data
3	Preliminary appraisal of credit based on standard norms set by banks and using local data or information (a simple credit scoring model may be employed)
4	Marketing of the financial products including savings or providing product information
5	Processing and submission of applications to banks
6	Promotion and nurturing SHGs or JLGs
7	Post-sanction monitoring
8	Monitoring and handholding of SHGs/ JLGs/ Credit Groups/ others
9	Follow-up for recovery

Source: (Khan, 2005, para 3.4)

3.4.2 Business Correspondent (BC) Model

The evolution of BC model can be traced in Brazil, which was existed there since 1970s as an effective banking model for financial inclusion. BC model is a branchless banking model developed for providing formal financial services in rural areas where lacking bank branches through the retail agents of banks, called business correspondents (BCs). This is the model that integrates 'Brick and Mortar'

structure with 'Mouse and Click' technology for supporting financial inclusion (Mundra, 2016). Almost all the basic banking services have been undertaken by the BCs with the support of link bank branches. BCs generally deal in 'cash in and cash out' transactions. The role of BCs have been increased with the implementation of PMJDY. BCs may be organisations or individuals, popularly known as "Bank Mitras". RBI has notified the list of individuals and entitites who are eligible to be acted as BCs of different banks. These technology based banking agents provide banking services at the door steps of the rural clients in an affordable manner. As per the RBI guidelines distance between BC outlets and base branch should not exceed thirty kilometers in rural and urban areas and five kilometers in metro centres.

According to Frost & Sullivan (2009), "business correspondent is an agent authorised to undertake transactions for pre-defined levels of cash on behalf of a specific financial institution" (p 34). BCs, being non-financial institutions, offer basic financial services to ensure the access to formal financial system (Camara et al., 2015). These are the partnerships of banks with non-banking entities for distribution of financial services (Kumar et al., 2006). BCs are not considered as extension to the banks, but merely third parties acting on behlaf of banks in rural areas where bank branches do not exist (Kochhar & Chakrabarty, 2009).

3.4.2.1 Stakeholders in BC Model

The following are the major five players in a BC model (Mas et al., 2012):

1. **Banks** –Banks are the major players in BC model as they open and operate bank accounts and banking transactions for the customers through BCs. A bank branch is always linked with BCs for supporting the banking activities offered through BC channel.

2. **Business Correspondents (BCs) –** BCs are the individuals or organisations appointed by banks for offering banking services to the people in unbanked or underbanked locations.

3. **Agent Network Managers (ANMs) –** ANMs are the 'outsourced agents' of BCs in order to identify and screen the CSPs and train them. In most of the cases, BCs themselves perform these functions too.

4. **Customer Service Points (CSPs) –** CSPs or BCAs (Business Correspondent Agents) are the retail outlets acting as the agents for BCs under BC model. They are the ground level players in BC model as they have direct relationship with end users or clients.

5. **Technology Service Providers (TSPs)** – TSPs provide technical platform under BC model. They provide and maintain secure and low cost electronic solutions for facilitating branchless banking through CSPs or BCAs. Most often BCs themselves act as TSPs also.

3.4.2.2 How BC Model Operates?

Under BC model there is a principal-agent relationship exists between the bank and BCs. BCs being the agent appoints their sub-agents, namely CSPs or BCAs. Most often BCs may act as TSPs also for providing technical support to CSPs. Thereby CSP acts a major link between BC, link bank branch and the clients. BCs have to keep a security deposit with bank as per the policy of bank. Banks will compensate the BCs for the services under this model, a predetermined portion of such remuneration will be shared by BCs with their CSPs. As a commission based model the bank will pay commission for every transactions, such as opening new account, deposits and withdrawals, money transfer etc., carried out through CSPs. BCs are not permitted to charge any fee or commission from the clients for their services. Figure 3.4 illustrates well the operation of BC model in India.

Figure 3.4

Operation of BC Model
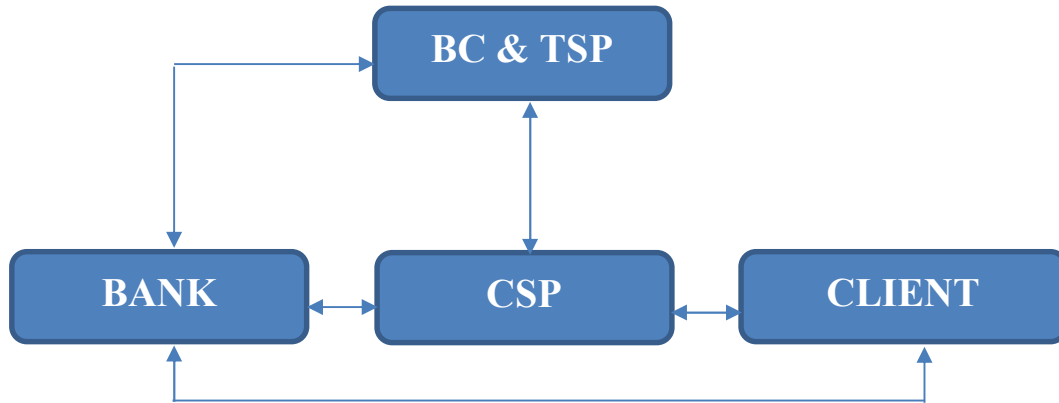
Source: Secondary Data

3.4.2.3 Forms of BC Models

There are different forms of BC models based on technology, credits and savings and system. Mor (2013) viewed two types of BCs such as BCs directly established by banks and established by governement or non-governement organisations. Phatowali (2015) reported two technology BC models – smart card based kiosk model and mobile hand set based model. Under the first model smart cards are issued to both CSP and customers. CSP uses their smart card for POS machine authentication and customers use their smart card for finger print authentication. Through a secured channel (such as GSM, CDMA etc.) CSP access the bank's server for the financial transactions. In second model, CSPs use GPRS enabled mobile handsets along with a handheld printer, barcode reader etc. for financial transactions at the door step of the customers.

According to Camara et al. (2015) BC models can be classified into two as pure banking correspondents and hybrid banking correspondents. In the former, BCs directly provide financial services to the clients on behalf of the bank whereas the latter model is characterised by offering of financial services through indirect access points also.   Three models for BC have been identified by Kumar & Balasubramanian (2014). They are corporate agent model, standalone model and customer pay model. Under the corporate agent model a bank will appoint a corporate agent and they will extend financial services through CSPs or BCAs with

the support of TSPs. BCs under this model are sometimes referred as BC Network Managers (BCNMs). Standalone model is a model of BCs where banks appoint BCs and the latter directly serve the clients with the assistance of a technology vendor. Unlike the first two models in customer pay model, the amount charged for services from the customers will be paid to BCs and TSPs as per the agreement.

3.4.2.4 Who can be BCs?

RBI specified the eligibility criteria for individuals and institutions to be appointed as BCs of banks through its circulars time to time. As per the regulations the individuals and entities as given in table 3.2 are eligible for BC activities:

Table 3.2

Eligible Individuals/Entities for Appoinment as BCs

Individual BCs	*Institutional BCs*
• Retired bank employees • Retired teachers • Retired government employees • Ex-servicemen • Individual owners of Kirana/Medical/Fair price shops • Individual Public Call Office (PCO) operators • Agents of Small Savings schemes of Government of India/Insurance Companies • Individuals who own Petrol Pumps • Authorized functionaries of well-run Self Help Groups (SHGs) which are linked to banks • Any other individual including those operating Common Service Centres (CSCs)	• NGOs/ MFIs set up under Societies/ Trust Acts • Section 25 Companies • Cooperative Societies registered under Mutually Aided Cooperative Societies Acts/ Cooperative Societies Acts of States/Multi State Cooperative Societies Act • Post Offices • Companies registered under the Indian Companies Act, 1956 with large and widespread retail outlets • Non-deposit taking **Non-Banking Financial Companies** (NBFCs-ND)

Source: RBI Circulars

3.4.2.5 Role and Functions of BCs

The role of BCs in financial inclusion is pivotal. As mentioned by Shaik & Babu (2019) BC performs the role of a gap-filler that abridges the gap between bank and its clients and the role of counsellor by awaring the rural people about financial products and services. And also they play the role of a promoter, monitor and an agent for selling financial products. The following activities are supposed to be undertaken by the BCs at places other than bank premises or ATMs (as per RBI Circular RBI/2010-11/217DBOD.No.BL.BC.43 /22.01.009/2010-11):

i.   "Identification of borrowers

ii.   Collection and preliminary processing of loan applications including verification of primary information or data

iii.   Creating awareness about savings and other products and education and advice on managing money and debt counselling

iv.   Processing and submission of applications to banks

v.   Promoting, nurturing and monitoring of Self Help Groups/ Joint Liability Groups/Credit Groups/others

vi.   Post-sanction monitoring

vii.   Follow-up for recovery

viii.   Disbursal of small value credit

ix.   Recovery of principal / collection of interest

x.   Collection of small value deposits

xi.   Sale of micro insurance/ mutual fund products/ pension products/ other third party products

xii.   Receipt and delivery of small value remittances/ other payment instruments"

As a result of all the above mentioned functions BC channel can become a better substitute for branch banking for extending the banking services at the doorstep of the unreached people in unbanked and underbanked locations in a cost effective manner.

3.4.2.6 Problems faced by BCs in India

Although BC model performs well in achieving financial inclusion by serving the rural people through technology driven branchless banking services, this model is suffering from various issues and challenges. The Working Group to Review the Business Correspondent Model indicates the major issues relating to risk in handling of large volume of cash, lack of financial literacy of the clients, non-profitability of the model, regulatory issues relating to cash settlement and distance criterion and a variety of risks in delivery of banking services (Bhaskar, 2009). Souza (2017) added some other issues such as misappropriation of cash by BC staff and technological and social barriers.

Grameen Foundation (2013) viewed the finacial non-viability, existence of inoperative accounts, liquidity issues and low level of financial literacy of clients as the key challenges in implementing BC model. SIDBI (2014) pointed out some major problems faced by BCs, they include lack of proper infrastructure, non-availability of insurance coverage for cash handling, technical issues, availability of limited line of financial products etc. Report of the Committee on Medium-term Path on Financial Inclusion found lack of customers' financial aawreness, irregular demand for financial services, competition among BCs, lack of resources, and inadequate support from BC company as the major barriers for BCs in India (Mohanty, 2015).

BC model in India is confronted with varying forms of risks such as operational and liquidity risk, regulatory risk and reputational risk (Ujjawal et al., 2012) . They include risk related with management of cash, passive accounts, poor network connectivity etc.

3.4.2.7 BC Registry and BC Certification

As per the directions of RBI, Indian Banks' Association (IBA) set up BC registry and BC certification. BC registry is an online portal developed by IBA for updating the information relating to BCs all over the country. The database provides state-wise, bank-wise, district and sub-district wise information of existing BCs in India. BC certification is meant to offer basic and advance certificate courses for enhancing the operational skills of the BCs. Indian Institute of Banking and Finance (IIBF) provides courses for BC/BFs on basics of banking operations and procedures.

3.5 Kiosk Banking

KIOSK stands for the Norwegian term "Kommunikasjon Integrert Offentlig Service Kontor" (www.abbreviations.com), which means Communication Integrated Public Service Office. The origin of the term 'kiosk' can be traced from French, Turkish and Persian, which means 'pavilion' (www.whatis.techtarget.com). Kiosk can be referred as small booth or stall for providing various services. Kiosk banking is a DIY (Do it yourself) banking service. Kiosks are the internet supported booths located in remote areas. The concept of kiosk banking is used in India in relation with BC model. Kiosk banking can be regarded as an initiative of financial inclusion by RBI in order to ensure the basic banking services in remote and rural locations where bank branches do not exist. Kiosk banking services have been carried out by small shops, common service centres etc. with the support of banks in public sector, private sector and co-operative sector.

Kiosk banking is a technology model usually operated by agents with basic technological infrastructure for extending banking services in unbanked rural areas (Chopra & Sherry, 2014). Kiosk banking outlets are acting as the link between bank and customers as they provide all the basic banking services, such as deposit of cash, withdrawal of cash, money transfer, overdraft facilities etc. Kiosk banking services in India have been offered through Business Correspondents (BCs), Business Correspondent Agents (BCAs), Bank Mitra or Customer Service Points (CSP). In this study the terms BC, BCA, Bank Mitra and CSP are used interchangeably.

3.5.1 Customer Service Points (CSPs) and Kiosk Banking

CSPs are those individuals or entitties who are eligible to be enrolled as BCs under BC model. They are the micro-level entrepreneurs may or may not have some other business activities. The CSPs have to ensure basic technological infrastructure such as PC or laptop, printer, biometric reader, internet connectivity etc. to be acted as agent in kiosk banking.

CSPs play a major role in opening different forms of deposit accounts and offering other basic banking and non-banking services to the clients in rural locations. They help to make the rural people conscious about savings, and advice them in financial matters and collect loan applications and forward those applications to the bank after a preliminary processing . CSPs may open a deposit account (most often BSBDAs) by capturing the fingerprint details with the help of a biometric device, and such details along with photograph will be proceeded to the link bank branch for further processes. The following are the major kiosk banking services provided by the CSPs:

   i.   Opening deposit accounts (BSBD, FD and RD accounts)

   ii.   Aadhar Enabled Banking Services (AEPS) such as cash deposit, cash withdrawal, balance enquiry, fund transfer and generation of mini-statement.

   iii.   Kisan Credit Card (KCC) and General Credit Card (GCC)

   iv.   Loan Deposit

   v.   Tatkal Remittance

   vi.   Rupay ATM Card

   vii.   Pradhan Mantri Jan Dhan Yojana (PMJDY)

   viii.   Atal Pension Yojana (APY)

   ix.   Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)

   x.   Pradhan Mantri Suraksha Bima Yojana (PMSBY)

   xi.   Other third party financial products

3.5.2 Skills and Best Practices of CSPs

In order to perform the functions of CSPs certain skills to be acquired by them which include functional skills and behavioural skills. Functional skills are concerned with the knowledge of various aspects of banking, deposits, credits, KYC requirements, usage and troubleshooting of POS and biometric devices etc. Communication skills, persuation skills and empathic and service oriened customer support are the behavioural skills (Souza, 2017). As best practices CSPs have to maintain the records of clients, ensure cordial relationship with link branch staff, undertake financial education programme, acquire technical knowledge and to provide non-financial services also to the clients at their CSP (SIDBI, 2014).

3.6 State Bank of India (SBI) - Financial Inclusion and Kiosk Banking

SBI, the largest bank in India, is playing a major role in kiosk banking in the country with largest number of CSPs. The role of SBI is pivotal in working of BC model in India to achieve financial inclusion. SBI appointed many BCs to carry out banking transactions for SBI. The BCs thereby appoint their agents as CSPs. Kiosk banking is operating through those CSPs on a commission basis. Any person having the age of not less than twenty one years with an educational qualification of tenth and above can be a CSP of SBI. There are many BCs authorised by SBI to appoint CSPs on behalf of SBI for kiosk banking. 62,731 BC outlets were working in India for SBI Kiosk banking as on 30th September 2020 (IBA BC Registry).

As per the kiosk banking policy, a CSP of SBI is not allowed to do business on behalf of any other banks and a BC has to keep a security deposit. The settlement of cash transactions has been carried out through a current account opened by the BCs, namely Settlement Account. The bank distributes banners and stationeries for the CSPs. SBI Kiosks provide almost all the kiosk banking services mentioned earlier. Being an SBI CSP it will have an association with SBI and will be provided with SBI software, biometric and finger printing devices, banners and logo of SBI. The CSPs are paid with a commission for every kiosk banking services. At present SBI fixed certain limits for kiosk banking transactions. The amount of deposit, withdrawal and remittance are restricted to the extent of ₹20,000 per transaction.

AEPS and debit card transactions are limited up to ₹30,000 per transactions whereas the limit for IMPS is ₹5,000 per transaction.

Table 3.3

State Bank of India and Financial Inclusion

Financial Inclusion	**As on 31.03.2018**	**As on 31.03.2019**	**As on 31.03.2020**
Number of BC outlets	58,274	57,467	61,089
PMJDY Accounts: Number (in Crore) Deposits (₹ in Crore)	10.03 17,021	10.97 22,997	12.05 29,604
Total F.I. Accounts: Number (in Crore) Deposits (₹ in Crore)	13.42 23,982	14.25 31.235	15.52 38,033
Transactions (BC channel): Number (in Crore) Amount (₹ in Crore)	31.22 1,24,931	39.75 1,73,381	49.29 2,27,469
Financial Literacy Centres (FLCs): (Cumulative) No. of FLCs No. of outdoor activities conducted No. of persons participated in outdoor activities	336 77,280 55,95,342	338 106,730 72,54,262	341 136,725 89,36,568
Rural Self-Employment Training Institutes (RSETIs): (Cumulative) Since 2011 No. of RSETIs No. of training programmes conducted No. of youth trained	151 23,007 6,13,020	151 26,568 7,10,401	152 29,444 8,03,407

Source: www.sbi.co.in

Table 3.3 illustrates the role of SBI in financial inclusion in our country. In the year 2019-20 there were 61,089 BC outlets against 58,724 in 2017-18 and 57,467 in 2018-19. 12.05 Crore accounts have been opened under PMJDY and there

were deposits of 29,604 Crore Rupees in 2019-20, which shows a growth rate of 28.7 per cent in relation to the year 2018-19. There were 15.52 Crore financial inclusion accounts in the year 2019-20 with deposits of 38,033 Crore Rupees. The number of transactions through BCs also shows a positive growth of 24 per cent in 2019-20 (49.29 Crore) over 2018-19 (39.75 Crore), and the amount of BC transactions reported at 2,27,469 Crore Rupees in 2019-20. In 2019-20, 341 FLCs conducted 136,725 outdoor financial literacy activities with the participation of 89,36,568 persons. 8,03,407 youths got trained through 29,444 training programmes conducted by 152 RSETIs in the year 2019-20.

Table 3.4

State wise Distribution of CSPs of SBI in India

Sl. No	State / UTI	Number of BCs
1	Andaman and Nicobar Islands	1
2	Andhra Pradesh	2,553
3	Arunachal Pradesh	307
4	Assam	3,220
5	Bihar	6,005
6	Chandigarh	12
7	Chhattisgarh	1,378
8	Dadra and Nagar Haveli	14
9	Daman and Diu	4
10	Delhi	730
11	Goa	7
12	Gujarat	1,840
13	Haryana	1,185
14	Himachal Pradesh	491
15	Jammu and Kashmir	220

16	Jharkhand	2,144
17	Karnataka	2,842
18	Kerala	844
19	Lakshadweep	1
20	Madhya Pradesh	4,938
21	Maharashtra	5,473
22	Manipur	155
23	Meghalaya	197
24	Mizoram	19
25	Nagaland	122
26	Odisha	4,520
27	Puducherry	31
28	Punjab	939
29	Rajasthan	4,837
30	Sikkim	29
31	Tamil Nadu	2,564
32	Telangana	2,525
33	Tripura	163
34	Uttar Pradesh	6,868
35	Uttarakhand	759
36	West Bengal	4,794
Total		**62,731**

Source: IBA BC Registry (As on 30th September 2020)

Table 3.4 shows the number of SBI BC outlets in different states of India. SBI, being the largest public sector bank in the country, has a total number 62,731 BC kiosk banking outlets in India. 59.7 per cent of BC outlets (37,435) are located in seven states such as Uttar Pradesh (6,868), Bihar (6,005), Maharashtra (5,473), Madhya Pradesh (4,938), Rajasthan (4,837), West Bengal (4,794) and Odisha

(4,520) in order. Andhra Pradesh, Assam, Jharkhand, Karnataka, Tamil Nadu and Telangana also have more than 2,000 BCs of SBI in each state, which constitute 25.3 per cent of total. Only one BC exists each in Andaman and Nicobar Islands and Lakshadweep. The number of BCs is less in other Union Territories also. The growth in number of BCs during six months after 31st March 2020 (total 61,089 as in table 3.6) till 30th September 2020 was of 1,642 (2.7 per cent).

Table 3.5

District wise Distribution of CSPs of SBI in Kerala

Sl. No	Districts	Number of BCs	Percentage of Total
1	Thiruvananthapuram	109	12.9
2	Kollam	62	7.3
3	Alappuzha	77	9.1
4	Pathanamthitta	32	3.8
5	Kottayam	55	6.5
6	Idukki	54	6.4
7	Ernakulam	71	8.4
8	Thrissur	50	5.9
9	Palakkad	69	8.2
10	Malappuram	111	13.2
11	Kozhikkode	64	7.6
12	Wayanad	19	2.3
13	Kannur	55	6.5
14	Kasaragod	16	1.9
Total		**844**	**100.0**

Source: IBA BC Registry (As on 30th September 2020)

Table 3.5 elucidates the number of BC outlets of SBI in different districts of the state Kerala. The largest number of BCs (13.2 per cent) is functioning in Malappuram district with 111 BCs, followed by Thiruvananthapuram with 109 BCs (12.9 per cent) and Alappuzha with 77 BCs (9.1 per cent). It is observed that 335 BC outlets (39.6 per cent) are located in South Kerala, 265 BC outlets (31.5 per cent) in North Kerala and 244 BC outlets (28.9 per cent) in Central districts of Kerala. The number of kiosk banking outlets is very less in Kasargode (16) and Wayanad (19) districts.

Table 3.6

Taluk wise Distribution of CSPs of SBI in Sample Districts

Sl. No	Taluks	Number of BCs
	A. Thiruvananthapuram District	
1	Chirayinkeezhu	16
2	Kattakada	11
3	Nedumangadu	23
4	Neyyattinkara	33
5	Thiruvananthapuram	20
6	Varkala	6
	Total	**109**
	B. Palakkad District	
1	Alathur	10
2	Chittur	13
3	Mannarkkad	14
4	Ottapalam	13
5	Palakkad	11
6	Pattambi	8
	Total	**69**
	C. Malappuram District	
1	Eranad	27
2	Kondotty	5
3	Nilambur	16
4	Perinthalmanna	19
5	Ponnani	5
6	Tirur	13
7	Tirurangadi	26
	Total	**111**
	Grand Total	**289**

Source: IBA BC Registry (As on 30th September 2020)

Table 3.6 illustrates the number of SBI BCs in different taluks of three sample districts (Thiruvananthapuram, Palakkad and Malappuram) considered for the study. Total number of BC outlets (CSPs) in three districts constitutes 289. Out of 109 BCs in Thiruvananthapuram district, majority (51.4 per cent) belongs to Neyyattinkara (33) and Nedumangad (23), and the other four taluks (Chirayinkeezhu, Kattakada, Thiruvananthapuram and Varkala) have 53 BC outlets (48.6 per cent). Three taluks in Palakkad district (Mannarkkad, Chittur and Ottappalam) jointly have 40 BCs out of 69 (58 per cent) and there are 29 BCs (42 per cent) in the remaining three taluks (Alathur, Palakkad and Pattambi). In Malappuram district, 72 out of 111 SBI BCs (64.9 per cent) are located in three taluks (Eranad, Tirurangadi and Perinthalmanna) and there are 39 BCs (35.1 per cent) in the remaining four taluks, namely Nilambur, Tirur, Kondotty and Ponnani. Out of all the 19 taluks in sample districts Neyyattinkara has largest number of BC outlets while Ponnani and Kondotty have least number of BCs.

3.7 Development of Banking in India

Banking system in India has travelled through a long path to reach at its today's form. A structural transformation can be seen apparently in development of Indian banking industry which can be discussed under the following heads:

3.7.1 Pre-independence Period (Before 1947)

Indigenous bankers, moneylenders, nidhis etc. represented the earliest form of banking business in India. During the last of eighteenth century some of the British agencies started banks in modern form. The enactment of Joint Stock Companies Act 1850 was the turning point in development of banking institutions in corporate pattern and it lead to the formation of many commercial banks. Oudh Commercial Bank and some other banks in that line were the products of this Act. The three presidential banks established by East India Company in Bengal, Bombay and Madras were merged into a single entity, namely, Imperial Bank of India in the year 1921 (later it was renamed as State Bank of India in 1955).

Before independence more than 600 banks existed in India. Although many of those banks were unsuccessful some of the them established during this period still exist in India with a greater market share, such as, Allahabad Bank (1865), Punjab National Bank (1894), Bank of India (1906), Canara Bank (1906), Bank of Baroda (1908), Central Bank of India (1911) etc. It is reported that the existence of 1258 banking entities in 1930, and all these were registered as per Indian Companies Act, 1913. RBI, being the central bank of India, was established in the year 1935 under the Reserve Bank of India Act 1934. Prior to the establishment of RBI, Imperial Bank of India performed some of the functions of central bank.

The number of commercial banks reported in 1870 was eight whereas in 1934 it was 123. A significant number of failures of banks also reported during this period. 42 banks were failed in 1914 and 51 in 1935. There were 158 co-operative banks in 1928-29. In 1947, there were 656 commercial banks.

3.7.2 Post-independence Period (1947 onwards)

The developments taken place in Indian banking industry after independence can be deliberated under the following three phases:

3.7.2.1 Pre-nationalisation Phase (1947-1969)

RBI was nationalised in 1949 with the enactment of the Reserve Bank of India (Transfer of Public Ownership) Act, 1948. The enactment of Banking Regulation Act in 1949 by combining all the previous laws of banking was an important milestone in the history of Indian banking business. Imperial Bank of India was nationalised with the enactment of State Bank of India Act in 1955, and renamed as State Bank of India. With the enactment of State Bank of India (Subsidiary) Act, seven subsidiaries of SBI were nationalised in 1959. In 1963, RBI set up a refinancing agency, namely Agricultural Refinance Corporation (ARC), for providing medium and long term financial assistance to agricultural sector. Later, it

was renamed as Agricultural Refinance and Development Corporation (ARDC) in 1975.

The most remarkable event in the history of banking in India was happened in the year 1969 when fourteen major commercial banks were nationalised, followed by the enactment of Banking Laws (Amendment) Act, 1968. Nationalisation was a necessity of those days in order to prevent the concentration of economic power in the hands of a few and to ensure the flow of credit towards agriculture and other priority sectors. After the first phase nationalisation of banks, initiatives have been taken for the extension of banking services to rural areas by the introduction of lead bank scheme in 1969.

3.7.2.2 Post-nationalisation Phase (1969-1991)

The major developments during this period were the establishment of Regional Rural Banks (RRBs) in 1975 and the second phase of nationalisation in 1980. The financial needs of small borrowers and weaker section of the society were addressed during this period. As a result, RBI established Credit Guarantee Corporation of India Ltd in 1971 and introduced Differential Rate of Interest Scheme in 1972. RRBs were started with an objective of balanced rural development. Six more banks were nationalised in April 1980 and thus the total number of nationalised banks became twenty. In 1989 RBI announced a new approach, namely service area approach for modifying lead bank scheme for effective rural lending. Some apex banks were also launched during this period, such as, National Bank for Agriculture and Rural Development - NABARD (1982), Export Import Bank of India - EXIM Bank (1982), National Housing Bank - NHB (1988) and Small Industries Development Bank of India - SIDBI (1990). The number of commercial banks was 85 in 1969 and 84 in 1980.

3.7.2.3 Liberalisation Phase (1991 onwards)

The banking sector in India made its historical revolt during this phase. For examining the structural, organisational, functional and procedural aspects of financial system the Central Government appointed a high-level committee under the chairmanship of Shri. M. Narasimham (Committee on Financial System - CFS) in August 1991. The committee submitted its report in November 1991 with varied recommendations which were the bases for restructuring financial sector in India. It focused on making sure the operational flexibility, internal autonomy to banks in decision making and professionalism in banking functions. The committee argued for increasing banks' profitability and uniformity in accounting policies especially regarding income recognition and provisioning. It resulted in introduction of prudential norms in 1992 and the entry of private sector banks in 1993.

The Indian banking sector witnessed for the second phase of reforms with the recommendations on the report, of Committee on Banking Sector Reforms (CBSR) under the chairmanship of Shri. M. Narasimham, submitted in April 1998. The committee pointed out the need for a stronger banking system with two or three larger banks, setting up of small local banks and increasing the capital adequacy ratio.

The entry of private sector banks created a fundamental restructuring in Indian banking industry. Thereafter various foreign banks started their branches in India and the public sector banks and private sector banks have been treated alike. Some of the foreign banks started even joint ventures with Indian counterparts. The introduction of payment banks and small finance banks with advanced technology and innovative banking have made Indian banking sector more developed.

3.8 Financial Inclusion and Kiosk Banking in India – A National Level Evaluation

The progress of financial inclusion in India has been discussed in respect of financial access in India, various committees on financial inclusion, major policy initiatives by GoI, RBI and NABARD for financial inclusion and their impact on level of financial inclusion in India.

3.8.1 Financial Access in India

The accessibility of Indian rural and urban population to banking services is discussed in terms of growth of formal financial access, number of commercial bank branches, number of ATMs, outstanding deposits with commercial banks, outstanding loans from commercial banks, number of deposit accounts and credit accounts, number of banking outlets in villages, and number of BC outlets in villages and urban locations.

Table 3.7

Households Availing Banking Services in India

Households	As per Census 2001			As per Census 2011		
	Number of Households	Households Availing Banking Services	Per cent	Number of Households	Households Availing Banking Services	Per cent
Rural	1382,71,559	416,39,949	30.1	1678,26,730	913,69,805	54.4
Urban	536,92,376	265,90,693	49.5	788,65,937	534,44,983	67.8
Total	**1919,63,935**	**682,30,642**	**35.5**	**2466,92,667**	**1448,14,788**	**58.7**

Source: Department of Financial Services, Govt. of India

Table 3.7 explains the inclusion of households in banking services in India. As per the population census in 2001 there were only 35.5 per cent of population availed banking services. The share of rural households was only 30.1 per cent while around 50 per cent of urban households were taking part in formal financial system. After a period of ten years, as per the census in 2011, 58.7 per cent of Indian

population became financially included. 54.4 per cent rural households and 67.8 per cent urban households have been availing banking services in India.

Table 3.8

Growth of Formal Financial Access in India

Year	Commercial Banks		Number of insurance corporations		Branches of Commercial Banks		Automated Teller Machines (ATMs)	
	No.	Growth in %	No.	Growth in %	No.	Growth in %	No.	Growth in %
2010	169	--	48	--	85,219	--	61,833	--
2011	169	0.0	48	0.0	90,965	6.7	76,741	24.1
2012	173	2.4	51	6.3	98,643	8.4	9,7,121	26.6
2013	157	-9.2	51	0.0	1,06,551	8.0	1,15,849	19.3
2014	151	-3.8	52	2.0	1,17,869	10.6	1,63,230	40.9
2015	157	4.0	52	0.0	1,26,561	7.4	1,84,139	12.8
2016	157	0.0	53	1.9	1,35,506	7.1	2,02,060	9.7
2017	162	3.2	66	24.5	1,40,674	3.8	2,13,553	5.7
2018	161	-0.6	68	3.0	1,42,868	1.6	2,13,653	0.0
2019	161	0.0	70	2.9	1,46,031	2.2	2,10,070	-1.7
CAGR	-0.5%		4.3%		6.2%		14.6%	

Source: Compiled from IMF Financial Access Survey Reports

Table 3.8 illustrates the growth of formal financial access in India in respect of number of commercial banks, number of insurance corporations, branches of commercial banks and number of ATMs along with the percentage of growth for a period of ten years from 2010 to 2019. Compound Annual Growth Rate (CAGR) regarding number of commercial banks shows an overall rate of -0.5 per cent while positive growth has been reported in number of insurance corporations, branches of commercial banks and ATMs at 4.3 per cent, 6.2 per cent and 14.6 per cent respectively. The highest annual growth in number of commercial banks is seen in 2015, which is too merely 4 per cent. It is reduced from 3.2 per cent to -0.6 per cent during 2018 and remains constant in 2019. A tremendous growth (at 24.5 per cent) can be seen in the year 2017 in number of insurance corporations and thereafter it was decreased to 3 per cent and 2.9 per cent in 2018 and 2019 respectively. 10.6 per cent growth is reported in number of branches commercial banks in the year 2014.

After a negative trend in growth for four years from 2015 to 2018, it was revived at 2.2 per cent in 2019. Although there is a positive CAGR the number of ATMs in India evidenced a negative growth rate of 1.7 per cent in 2019. The highest growth rate is reported in 2014 (40.9 per cent) commensurate with the growth in number of bank branches in that year.

Table 3.9

Growth in Number of Commercial Bank Branches and ATMs in India per 100000 Adults

Year	Commercial Bank Branches		Automated Teller Machines (ATMs)	
	Number	**Growth in %**	**Number**	**Growth in %**
2010	10.00	--	7.24	--
2011	10.47	4.7	8.82	21.8
2012	11.14	6.4	10.95	24.1
2013	11.80	5.9	12.82	17.1
2014	12.82	8.6	17.73	38.3
2015	13.52	5.5	19.64	10.8
2016	14.21	5.1	21.17	7.8
2017	14.51	2.1	22.00	3.9
2018	14.50	-0.1	21.65	-1.6
2019	14.58	0.6	20.95	-3.2
CAGR	**4.3%**		**12.5%**	

Source: Compiled from IMF Financial Access Survey Reports

Table 3.9 shows the growth in number of commercial bank branches and ATMs in India per one lakh adult population. It is seen that there are 4.3 per cent and 12.5 per cent CAGR in bank branches and ATMs per one lakh adult people. After showing an increasing trend in commercial bank branches up to the year of 2014 a significant decrease was recounted in the following three consecutive years. However it shows a slight positive growth (0.6 per cent) in 2019. Despite of a positive CAGR the number ATMs per one lakh adults has been decreased significantly from the year 2015 onwards. During the year 2019 a negative growth of 3.2 per cent is reported in number of ATMs.

Table 3.10

Growth in Outstanding Deposits with and Outstanding Loans from Commercial Banks

Year	Outstanding Deposits (% of GDP)	Growth in %	Outstanding Loans (% of GDP)	Growth in %
2010	59.74	--	43.82	--
2011	61.69	3.3	46.65	6.5
2012	61.12	-0.9	48.3	3.5
2013	62.43	2.1	49.19	1.8
2014	63.81	2.2	50.39	2.4
2015	64.79	1.5	49.95	-0.9
2016	62.37	-3.7	48.87	-2.2
2017	62.75	0.6	46.31	-5.2
2018	60.27	-4.0	46.21	-0.2
2019	63.27	5.0	48.55	5.1
CAGR	0.6%		1.1%	

Source: Compiled from IMF Financial Access Survey Reports

Table 3.10 elucidates the growth in outstanding deposits with commercial banks and outstanding loans from commercial banks as a percentage of GDP in India for a period of ten years from 2010 to 2019. An overall growth rate of 0.6 per cent and 1.1 per cent can be seen in deposits to GDP and loans to GDP respectively. There is a zigzag growth trend in outstanding deposits during the last 10 years. However, it's quite encouraging (5 per cent) in 2019. In respect of growth in outstanding loans to GDP the highest rate (6.5 per cent) is reported in 2011, thereafter in no years such a growth was regained. Nevertheless, the growth rate in 2019 is the second largest one during the whole ten years period of observation. In conclusion, growth rate reported in 2019 in respect of both outstanding deposits with

and outstanding loans from commercial banks shows a positive sign as these two elements jointly act as the barometer of banking penetration among the people.

Table 3.11

Number of ATMs of Scheduled Commercial Banks (as on 31st March 2019)

Bank Group	Rural	Semi-urban	Urban	Metropolitan	Total
Public Sector Banks	27,683 (20.3)	40,183 (29.5)	38,498 (28.3)	29,734 (21.8)	**136,098 (100.0)**
Private Sector Banks	5,339 (8.4)	15,388 (24.3)	16,683 (26.3)	25,930 (40.9)	**63,340 (100.0)**
Foreign Banks	21 (2.3)	18 (2.0)	166 (18.2)	709 (77.6)	**914 (100.0)**
Small Finance Banks	372 (21.6)	460 (26.7)	482 (28.0)	406 (23.6)	**1720 (100.0)**
Total	**33,415 (16.5)**	**56,049 (27.7)**	**55,829 (27.6)**	**56,779 (28.1)**	**202,072 (100.0)**
Growth over Previous Year	**-3.1%**	**-1.4%**	**-2.4%**	**-2.7%**	**-2.3%**

Source: RBI Report on Trend and Progress of Banking in India 2017-18 & 2018-19
Note: *Figures in parentheses indicate percentage of row total*

Table 3.11 explicates bank group wise ATM penetration in rural, semi-urban, urban and metropolitan locations in India. Growth in number of ATMs in 2018-19 over the year 2017-18 indicates a declining fashion (-2.3 per cent) in all the locations. Number of ATMs is very low (16.5 per cent) in rural areas whereas it is 28.1 per cent in metropolitan areas, 27.7 per cent in semi-urban locations and 27.6 per cent in urban areas. It is very clear from the table that majority (55.7 per cent) of ATMs are located in urban and metro areas. Regarding the share of banks in number of ATMs, public sector banks have a leading position with 67.4 per cent of total ATMs. Private sector banks, foreign banks and small finance banks have the ATMs at a share of 31.3 per cent, 0.5 per cent and 0.8 per cent respectively.

Table 3.12

Number of Branches of Scheduled Commercial Banks (as on 31ˢᵗ March 2019)

Bank Group	Rural	Semi-urban	Urban	Metropolitan	Total
Public Sector Banks	28,800 (32.8)	24,599 (28.0)	16,975 (19.3)	17,486 (19.9)	**87,860 (100.0)**
Private Sector Banks	6,836 (21.1)	10,306 (31.8)	6,760 (20.9)	8,473 (26.2)	**32,375 (100.0)**
Foreign Banks	13 (4.3)	10 (3.3)	39 (13.0)	238 (79.4)	**300 (100.0)**
Total	**35,649 (29.6)**	**34,915 (29.0)**	**23,774 (19.7)**	**26,197 (21.7)**	**120,535 (100.0)**
Growth over Previous Year	**0.8%**	**0.8%**	**0.6%**	**-0.2%**	**0.5%**

Source: RBI Report on Trend and Progress of Banking in India 2017-18 & 2018-19
Note: *Figures in parentheses indicate percentage of row total*

Table 3.12 regarding number of branches of SCBs explains the bank group wise share in number of branches in rural, semi-urban, urban and metropolitan locations. In relation to the previous year (2017-18) there is a slight but positive (0.5 per cent) growth in total number of branches of SCBs in 2018-19. But, it is interesting to note that a growth of 0.8 per cent each in number of branches in rural and semi-urban areas. Majority (58.6 per cent) of branches of SCBs are located in rural and semi-urban areas. Out of total 72.9 per cent of branches belong to public sector banks, followed by private sector banks (26.9 per cent) and foreign banks (0.2 per cent). The focus of public sector banks towards financial inclusion is very clear from their number of branches in rural and semi-urban areas, totaled at 60.8 per cent.

Table 3.13

Number of Accounts (Including Deposit and Credit Accounts) of SCBs per 1,000 Population

Year	Number of Accounts	Year-on-Year Growth in Percentage
2015-16	1,413	--
2016-17	1,550	9.7
2017-18	1,611	3.9
2018-19	1,491	-7.4
CAGR	**1.8%**	

Source: Sustainable Development Goals National Indicator Framework Progress Report 2020, Ministry of Statistics & Programme Implementation, Govt. of India.

Table 3.13 illustrates the number of deposit and credit accounts of SCBs per 1,000 population for a period of four years. An overall growth of 1.8 per cent is reported. However, while looking at the year-on-year growth rate it is declining from 9.7 per cent (2016-17) to 3.9 per cent and -7.4 per cent in the years 2017-18 and 2019 respectively.

Table 3.14

Banking Outlets in Villages

Year (Ending on 31st March)	Banking Outlets in Villages – Branches	Banking Outlets in Villages – BCs	Banking Outlets in Villages – Other Modes	Banking Outlets in Villages – Total
2010	33,378	34,174	142	67,694
2011	34,811	80,802	595	1,16,208
2012	37,471	1,41,136	3,146	1,81,753
2013	40,837	2,21,341	6,276	2,68,454
2014	46,126	3,37,678	0	3,83,804
2015	49,571	5,04,142	0	5,53,713
2016	51,830	5,31,229	3,248	5,86,307
2017	50,860	5,43,472	3,761	5,98,093
2018	50,805	5,15,317	3,425	5,69,547
2019	52,489	5,41,129	3,537	5,97,155
2020*	54,561	5,41,175	3,481	5,99,217
CAGR	**24.4%**			

Source: RBI Annual Reports, 2009-10 to 2019-20
* Provisional

Table 3.14 elucidates the number of banking outlets in villages in the form of bank branches, BC outlets and other outlets. On 31ˢᵗ March 2020 there are 5,99,217 banking outlets in villages. CAGR for eleven years from 2010 to 2020 has been reported 24.4 per cent growth in number of banking outlets. 90.3 per cent of total banking outlets in villages are functioning through BCs in the year 2019-20, which clearly explains the role of BCs in financial inclusion in rural areas. Number of bank branches has been increased by 63.5 per cent and number of BC outlets has been increased by 1,483.6 per cent between 2009-10 and 2019-20.

Table 3.15

Banking Outlets in Villages – Business Correspondents

Year (Ending on 31st March)	Banking Outlets in Villages>2000-BCs	Banking Outlets in Villages<2000- BCs	Total Banking Outlets in Villages – BCs
2016	98,958	4,32,271	5,31,229
2017	1,05,402	4,38,070	5,43,472
2018	1,00,802	4,14,515	5,15,317
2019	1,30,687	4,10,442	5,41,129
2020*	1,49,106	3,92,069	5,41,175
CAGR	**10.8%**	**-2.4%**	**0.5%**

Source: RBI Annual Reports, 2015-16 to 2019-20
Provisional

Table 3.15 describes the number of BC outlets in villages in India for a period of five years from 2015-16 to 2019-20. An apparent growth of 10.8 per cent is seen in number of BC outlets in villages having population of more than 2000 throughout this period despite of a slight decrease in the year 2017-18. Number of BC outlets in villages where population is less than 2000 has a negative growth (-2.4 per cent) during the last five years. It is very clear that the number has decreased from 2017-18 onwards. However, there is a CAGR of 0.5 per cent in total number of BC outlets in villages. More number of BC outlets was reported in 2016-17 and thereafter it was decreased by 5 per cent in 2017-18.

Table 3.16

Urban Locations Covered through BCs

Year (Ending on 31st March)	Number of Urban Locations	Year-on-Year Growth in Percentage
2010	447	--
2011	3,771	743.6
2012	5,891	56.2
2013	27,143	360.8
2014	60,730	123.7
2015	96,847	59.5
2016	1,02,552	5.9
2017	1,02,865	0.3
2018	1,42,959	39.0
2019	4,47,170	212.8
2020*	6,35,046	42.0
CAGR	**106.7%**	

Source: RBI Annual Reports, 2009-10 to 2019-20
* Provisional

Table 3.16 shows the number of urban locations in India covered through BCs during the last eleven years from 2009-10 to 2019-20. There is an overall growth of 106.7 per cent during this period. Year-on-year growth in 2010-11 was 743.6 per cent over the year 2009-10. But no such growth has reported during the subsequent years and a very least growth (0.3 per cent) was reported in 2016-17. In 2018-19, there was a growth of 212.8 per cent in number of urban locations covered by BCs and later it was decreased to 42 per cent in the last year.

3.8.2 Committees on Financial Inclusion in India

Full financial inclusion is a matter of economic growth in our country. The policymakers always strive to achieve financial inclusion by introducing innovative measures. Various committees were appointed for proposing recommendations in this regard. The major committees on financial inclusion in India along with their recommendations can be discussed as under:

3.8.2.1 Khan Committee

The Internal Group to examine issues relating to Rural Credit and Microfinance, headed by H.R. Khan, is considered as the pioneer committee on financial inclusion and microfinance in India (Khan, 2005). The committee recommended two innovative models for promoting basic banking services by linking banks and external parties, namely Business Facilitator (BF) Model and Business Correspondent (BC) Model. The former supports banks through non-financial services whereas the latter extends financial services through external parties. It put forward the guidelines regarding the eligibilities and selection criteria of entities under these models. The committee also emphasised on the need for expanding banking outreach to under-banked people through ICT.

3.8.2.2 Rangarajan Committee

The committee on financial inclusion under the chairmanship of Dr. C. Rangarajan put forward a comprehensive definition for financial inclusion and some revolutionary recommendations for ensuring financial inclusion in India (Rangarajan, 2008). The committee defined financial inclusion as the access of weaker and vulnerable sections to financial services. A mission mode approach was recommended by preparing National Rural Financial Inclusion Plan (NRFIP) for providing financial access to rural population. The committee recommended 'targeted branch expansion' and product innovation in identified districts, and setting up of two financial inclusion funds for meeting costs of promotional activities and technology adoption – Financial Inclusion Promotion and Development Fund and Financial Inclusion Technology Fund. Regarding BC/BF model, the committee suggested to appoint microfinance institutions, ex-servicemen, retired government employees etc. under BC/BF model, and prepare training modules for them.

3.8.2.3 Raghuram Rajan Committee

A High Level Committee on Financial Sector Reforms was appointed, under the chairmanship of Raghuram G. Rajan, for identifying the challenges and changes

in regulatory and supervisory structure and other areas in Indian economy (Rajan, 2008). The committee viewed financial inclusion as a process beyond merely providing credit facilities rather it is the provision of variety financial services such as savings, insurance and remittance. Commercial viability is to be increased by product innovation and cost efficiency to reach the financially excluded poor. The committee recommended a 'two-pronged approach' through the creation of small finance banks and strengthen the relationship between small and large financial institutions. It is also believed that use of technology can reduce the cost of delivering financial services to the poor.

3.8.2.4 Malegam Committee

A sub-committee of the Central Board of Directors of Reserve Bank of India was constituted to study the issues and concerns in MFI sector under the chairmanship of Y.H. Malegam. The committee pointed out the need for creation of a separate category of NBFCs in MF sector, namely NBFC-MFI for providing financial services to low income people (Malegam, 2011). This committee recommended for publishing a Customer Protection Code, establishing Credit Information Bureaus and ensuring transparency in interest for regulating NBFC-MFIs.

3.8.2.5 Mor Committee

The committee on Comprehensive Financial Services for Small Businesses and Low Income Households, chaired by Dr. Nachiket Mor, offered six vision statements. They are Universal Electronic Bank Account (UEBA), ubiquitous access to payment services and deposit products at reasonable charges, sufficient access to affordable formal credit, universal access to range of deposit and investment products at reasonable charges, universal access to a range of insurance and risk management products at reasonable charges, and right to suitability (Mor, 2013). The committee recommended reviewing the definitions of priority sector lending so that the credits granted to small and marginal farmers and landless labourers shall be taken as direct agricultural credit. The Ministry of Finance may establish a unified

financial redress agency for redressing grievances of customers regarding financial services.

3.8.2.6 Vadera Committee

Internal Working Group constituted to revisit existing priority sector lending guidelines, under the headship of Lily Vadera, suggested to introduce PSLCs (Priority Sector Lending Certificates) by which banks can concentrate in some sections of priority sector(Vadera, 2015). The working group recommended to retain priority sector lending satus to MSMEs and to ensure bank credits to weaker and vulnerable sections of the society.

3.8.2.7 Mohanty Committee

The Committee on Medium-term Path on Financial Inclusion, headed by Deepak Mohanty, worked out a medium-term (five years) plan for financial inclusion in India (Mohanty, 2015). The committee indicated the role of government in ensuring mobile connectivity as the low cost mobile technology can improve financial inclusion among the underprivileged households. The committee demanded for special efforts from the part of banks to reach the financially excluded women. The committee recommended linking the individual bank accounts with a UID like Aadhaar. For strengthening BC operations BC outlets or CSPs should be opened in the location where customers are confident to deal with. A registry of BC agents to be created by IBA (Indian Banks' Association) and advanced training should be given to BCs for enhancing their competence.

3.8.2.8 Bhaskar Committee

The Working Group to Review the Business Correspondent Model, under the headship of P. Vijaya Bhaskar, reviewed the performance of BC model. Three critical aspects of financial inclusion such as access to banking markets, access to credit markets and financial education have been identified (Bhaskar, 2009). The committee recommended educating the people about benefits of banking services in their regional languages, by the financial support from FIF of NABARD. Banks should display information about their BCs, and the progress of BC model should be

published on their websites and other medias. The banks should ensure the confidentality of their customers' information and proper measures should be taken for redressing grievances of customers. Banks have been asked to revise the compensation to BCs and offer a wide variety of financial services through BCs.

3.8.3 Major Policy Initiatives for Financial Inclusion in India

The process of financial inclusion in India reached at its today's form by passing through different policy measures and initiatives by the GoI, RBI, and NABARD. In 1960s RBI started its efforts to achieve the goal of financial inclusion by channelizing the credit to the underprivileged sections of the society. It resulted in nationalisation of 14 largest commercial banks. The major financial inclusion policy initiatives in our country from 1969 onwards have been summarised by the researcher as in table 3.17.

Table 3.17

Policy Measures, Schemes and Initiatives for Financial Inclusion

1969	• Nationalisation 14 commercial banks
1970	• Lead Bank Scheme
1972	• "Priority Sectors" defined for including agricultural and allied activities • Differential Rate of Interest (DRI) Scheme
1975	• Establishment of Regional Rural Banks (RRBs)
1977	• One branch in a banked location after opening four branches in unbanked locations (1:4 license scheme)
1980	• Nationalisation of six more commercial banks
1982	• Establishment of NABARD
1989	• Introduction of Service Area Approach (SAA)
1992	• Self-Help Group-Bank Linkage Programme (SHG-BLP)
1998	• Kisan Credit Card (KCC) Scheme
2000	• Establishment of SIDBI Foundation for Micro Credit (SFMC)
2003	• Swarojgar Credit Card (SCC) Scheme
2005	• RBI advised banks to offer "No-frills Accounts" (NFAs)
2006	• Business Correspondents (BC)/Business Facilitators (BF) Model • General Credit Card (GCC) Scheme • SHG-Post Office Linkage Programme

2007	• Financial Literacy and Credit Counselling Centres (FLCCs)
2008	• Submission of Report of Committee on Financial Inclusion • Submission of Report High Level Committee on Financial Sector Reforms • Relaxation in Know Your Customer (KYC) Norms • Financial Inclusion Fund (FIF) and Financial Inclusion Technology Fund (FITF) • Guidelines for mobile banking transactions by RBI
2009	• Unique Identity Number (UID)/Aadhaar • Simplified Branch Authorisation & ATM expansion
2010	• Three Year Financial Inclusion Plan (FIP)
2011	• Swabhimaan Campaign
2012	• Submission of Report of Committee on Comprehensive Financial Services for Small Businesses and Low Income Households • Revision of guidelines on FLCs (Financial Literacy Centres) • RBI permitted to establish Ultra Small Banks (USBs) • Introduction of Basic Savings Bank Deposit Account (BSBDA) to replace NFAs
2013	• Direct Benefit Transfer (DBT)
2014	• Introduction of Pradhan Mantri Jan Dhan Yojana (PMJDY) • RBI guidelines for establishment of Payment Banks (PBs) • Establishment of Joint Liability Groups (JLGs)by NABARD • National Pension System (NPS)
2015	• Submission of Report of Committee on Medium-term Path on Financial Inclusion • Introduction of Small Finance Banks (SFBs) • Pradhan Mantri Mudra Yojana (PMMY) • Atal Pension Yojana (APY) • Pradhan Mantri Suraksha Bima Yojana (PMSBY) • Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)
2016	• Stand Up India Scheme
2017	• Pradhan Mantri Vaya Vandana Yojana (PMVVY) • RBI started to observe Financial Literacy Week in every year
2018	• Guidelines to SLBC for revamping Lead Bank Scheme • 'Train the Trainers' Programme for Capacity Building of BCs
2019	• Submission of Report of Expert Committee on Micro, Small and Medium Enterprises (MSME) • Preparation of National Strategy for Financial Inclusion (NSFI) by RBI for 2019-24

Source: RBI Annual Reports (Various Years); Kelly (2016); Singh & Naik (2017); Jose (2019)

The most popular financial inclusion measures and schemes among those mentioned in Table 3.17 are briefly explained as under:

3.8.3.1 Kisan Credit Card (KCC) Scheme

KCC Scheme is an innovative credit delivery system prepared by NABARD in 1998 as per the recommendations of R.V. Gupta Committee on Agricultural credit. The scheme is meant to provide single window term credit for supporting farmers in order to meet their financial needs for agriculture and allied activities in a simple and .timely manner. Commercial banks, regional rural banks and co-operatives are the providers of credit under this scheme.

Table 3.18

Progress in Kisan Credit Card (KCC) Scheme

Year (Ending on 31st March)	KCC - Total (No. in Million)	KCC - Total (Amount in ₹ Billion)
2010	24	1,240
2011	27	1,600
2012	30	2,068
2013	34	2,623
2014	40	3,685
2015	43	4,382
2016	47	5,131
2017	46	5,805
2018	46	6,096
2019	49	6,680
2020*	48	6,391
CAGR	**7.2%**	**17.8%**

Source: RBI Annual Reports, 2009-10 to 2019-20
* *Provisional*

Table 3.18 shows the progress in number and amount of KCCs during the last eleven years. A CAGR of 7.2 per cent is observed in number of KCCs and 17.8 per cent in amount of KCCs. Although there were progressive growth in number and amount of KCCs during the period of ten years from 2009-10 to 2018-19, during the year 2019-20 which were reduced to 48 million in number (-2.04 per cent) and 6391 billion rupees (-4.32 per cent).

3.8.3.2 Swarojgar Credit Card (SCC) Scheme

This scheme was launched by NABARD in 2003 for providing credit for meeting the working capital needs of small scale borrowers and micro-entrepreneurs such as small artisans, self-employed persons, fishermen, handloom weavers, SHGs etc. in a flexible, timely and affordable manner. Under this scheme, a credit card and passbook are issued by commercial banks, RRBs and co-operatives to the applicant on a condition that the applicants have no default history with any financial institution. A composite loan with a term of five years is offered under SCC scheme.

3.8.3.3 No-frills Accounts (NFAs)

As a measure of financial inclusion RBI introduced No-frills Account in November 2005 and thereby asked banks to open savings accounts for the low-income populations with zero or very low minimum balances. The account holders were offered basic banking services in a transparent manner with nil or very lower service charges. The maximum balance in NFAs restricted to ₹50,000 without cheque book and net banking facility. All NFAs were converted into BSBDAs in 2012, as per the guidelines of RBI in this regard.

3.8.3.4 Basic Savings Bank Deposit Account (BSBDA)

BSBDA was introduced to replace the NFAs, and RBI directed all the banks to offer BSBDA to all without any minimum balance requirements. These accounts are considered as normal banking services and the accountholders can deposit cash without any maximum limit and withdraw cash with a restriction of maximum four times in a month. ATM facility is also available to the account holders and the banks are not entitled to levy any charge for these facilities. But certain restrictions such as

KYC requirements are applicable for opening a BSBDA. Those who are having a savings bank account with the same bank are not eligible for opening BSBDA. The savings bank accounts offered through Pradhan Mantri Jan Dhan Yojana (PMJDY) are BSBDAs.

Table 3.19

Progress in Number of Basic Savings Bank Deposit Accounts

Year (Ending on 31st March)	BSBDA - Through branches (No. in Million)	BSBDA - Through BCs (No. in Million)	BSBDA - Total (No. in Million)	Year-on-Year Growth in Percentage
2010	60	13	73	--
2011	73	32	105	43.8
2012	81	57	138	31.4
2013	101	81	182	31.9
2014	126	117	243	33.5
2015	210	188	398	63.8
2016	238	231	469	17.8
2017	254	280	533	13.6
2018	247	289	536	0.6
2019	255	319	574	7.1
2020*	262	339	600	4.5
CAGR	**15.9%**	**38.6%**	**23.4%**	

Source: RBI Annual Reports, 2009-10 to 2019-20
* Provisional

Table 3.19 illustrates the progress in number of BSBDAs for eleven years from 2009-10 to 2019-20. The number of BSBDAs is an important indicator of financial inclusion. The highest year – on –year growth rate (63.8 per cent) was reported in 2014-15, obviously it happened as a result of launching of PMJDY. But the growth rates in subsequent years were not much progressive. The table reveals that there is 23.4 per cent growth in total number of BSBDAs during this period whereas 15.9 per cent and 38.6 per cent growth in BSBDAs through branches and BC outlets respectively. It magnifies the role of BC outlets in financial inclusion as majority (56.5 per cent) of total number of BSBDAs was opened through BCs in 2019-20.

Table 3.20

Progress in Outstanding Amount in Basic Savings Bank Deposit Accounts

Year (Ending on 31st March)	BSBDA - Through branches (Amount in ₹ Billion)	BSBDA - Through BCs (Amount in ₹ Billion)	BSBDA - Total (Amount in ₹ Billion)	Year-on-Year Growth in Percentage
2010	44	11	55	--
2011	58	18	76	38.2
2012	110	11	120	57.9
2013	165	18	183	52.5
2014	273	39	312	70.5
2015	365	75	440	41.0
2016	474	164	638	45.0
2017	691	285	977	53.1
2018	731	391	1121	14.7
2019	878	532	1410	25.8
2020*	958	726	1684	19.4
CAGR	**36.1%**	**52.0%**	**40.8%**	

Source: RBI Annual Reports, 2009-10 to 2019-20
* Provisional

Table 3.20 elucidates progress in outstanding amount in BSBDAs for a period of eleven years from 2009-10 to 2019-20. CAGR in total amount outstanding in BSBDAs during this period is 40.8 per cent. 36.1 per cent and 52 per cent respectively are the CAGRs reported relating to amount in BSBDAs through branches and BC outlets. The highest year – on – year growth (70.5 per cent) was reported in 2013-14 in total amount outstanding in BSBDAs. In 2019-20 this growth was only 19.4 per cent. It is also noted that there was an increase of 2961.8 per cent in outstanding amount in BSBDAs in 2019-20 in comparison to the year 2009-10.

Table 3.21

Progress in Overdraft Facility Availed in Basic Savings Bank Deposit Accounts

Year (Ending on 31st March)	OD facility availed in BSBDAs (No. in Million)	OD facility availed in BSBDAs (Amount in ₹Billion)
2010	0.2	0.1
2011	0.6	0.3
2012	3	1
2013	4	2
2014	6	16
2015	8	20
2016	9	29
2017	9	17
2018	6	4
2019	6	4
2020*	6	5
CAGR	**40.5%**	**47.9%**

Source: RBI Annual Reports, 2009-10 to 2019-20
Provisional

Table 3.21 illustrates the progress in overdraft facility availed by the customers on their BSBDAs. During the last eleven years (2009-10 to 2019-20) a remarkable growth is reported both in number of OD facilities availed and amount of ODs with a CAGR of 40.5 per cent and 47.9 per cent respectively. However, there were no changes in growth rate in number of OD facilities during the last three years and it remains unchanged at 6 million. An increase of one billion rupees is found in amounts of ODs availed in the year 2019-20 in relation to the previous year.

Table 3.22

Progress in ICT Accounts through Business Correspondents

Year (Ending on 31st March)	ICT-A/Cs-BC-Total Transactions (Number in million)	ICT-A/Cs-BC-Total Transactions (Amount in ₹billion)
2010	27	7
2011	84	58
2012	156	97
2013	250	234
2014	329	524
2015	477	860
2016	827	1,687
2017	1,159	2,652
2018	1,489	4,292
2019	2,102	5,913
2020*	3,232	8,706
CAGR	**61.4%**	**103.9%**

Source: RBI Annual Reports,2009-10 to 2019-20
* *Provisional*

Table 3.22 explains the improvement in total number of ICT accounts opened along with the total amount of transactions for a period of last eleven years. CAGR reported during this period are 61.4 per cent and 103.9 per cent in number of ICT accounts and total amount of transactions respectively. In 2019-20 there were 3232 million ICT accounts with transactions of 8706 billion rupees. It is observed that an incessant year to year growth in number of ICT accounts and amount of transactions across the period.

3.8.3.5 General Credit Card (GCC) Scheme

GCC is another form of entrepreneurial credit like KCC. RBI introduced GCC scheme to issue GCC through banks for extending credit facility for meeting the working capital and other term loan requirements of their entrepreneurial

customers in rural and semi-urban areas. The scheme is implemented through branches of SCBs and RRBs. A revolving credit is extended under this scheme, without insisting on any security, by fixing a credit limit on the basis of income assessment, restricted up to a maximum of ₹25,000 for an individual. The banks will charge interest at an appropriate and reasonable rate for the credit facility under GCC scheme. As per the RBI guidelines, the customers should not be excluded from issuance of GCC even if they have been issued any other credit card.

Table 3.23

Progress in General Credit Card (GCC) Scheme

Year (Ending on 31st March)	GCC - Total (No. in Million)	GCC - Total (Amount in ₹ Billion)
2010	1	35
2011	2	35
2012	2	42
2013	4	76
2014	7	1,097
2015	9	1,302
2016	11	1,493
2017	13	2,117
2018	12	1,498
2019	12	1,745
2020*	20	1,940
CAGR	**34.9%**	**49.4%**

Source: RBI Annual Reports, 2009-10 to 2019-20
* Provisional

Table 3.23 elucidates the progress in number of GCCs issued and the amount outstanding on it. During the last eleven years there were CAGR of 34.9 per cent and 49.4 per cent in number and amount respectively. The progress of GCC scheme is apparent from the table that a continuous increase was observed year to year up to the year 2016-17, in which year there were a total number of 13 million GCCs at a value of 2117 billion rupees. After a decline in 2017-18, it regained the growth rate from 2018-19 onwards.

3.8.3.6 Three Year Financial Inclusion Plan (FIP)

RBI asked all the public sector and private sector banks to prepare and submit a three year board approved Financial Inclusion Plan (FIP) in 2010 and incorporate it with their business plans in order to ensure a structured financial inclusion. The first FIP was implemented during 2010-13. The implementation of FIPs has been strictly monitored by RBI.

3.8.3.7 Swabhimaan Campaign

The Government of India launched a programme, namely Swabhimaan Campaign, in February 2011 with an aim of expanding banking and financial services to all the rural areas having a population of not less than 2000 by the end of March 2012. The campaign was a proactive step to ensure basic banking services such as deposits and withdrawals of cash and remittance of fund at the door step of the small and marginal farmers through the intermediaries called Business Correspondents (BCs) or Bank Saathi or Bank Mitr.

3.8.3.8 Pradhan Mantri Jan Dhan Yojana (PMJDY)

Government of India introduced PMJDY in 2014 for ensuring access of unbanked households to banking facilities. Aim of this National Mission for Financial Inclusion (NMFI) was to serve the financially un-served people by providing facility to open BSBD account in any bank branch or BC outlet. PMJDY is executed in a mission mode with six pillars – universal access to banking facilities, providing basic banking accounts with OD facility and Rupay Debit Card to all households, financial literacy programme, creation of credit guarantee fund, micro insurance and unorganised sector pension schemes like Swavalamban (Department of Financial Services, 2014).

The first phase covered a period of one year from 15th August 2014 to 14th August 2015; during this period the mission was to ensure at least one basic bank account for each household with an accident insurance cover of ₹1,00,000 for Rupay cardholders. During the second phase from 15th August 2015 to 14th August 2018, the focus shifted to the provision of micro insurance and unorganised pension

schemes. After 14th August 2018 the focus was reviewed as 'account for every adult' and the existing OD limit was raised from ₹5,000 to ₹10,000, and the maximum age for availing OD from 60 years to 65 years. Insurance cover also enhanced from ₹1,00,000 to ₹2,00,000.

3.8.3.9 Pradhan Mantri Mudra Yojana (PMMY)

PMMY was launched in 2015 to provide MUDRA loans to non-corporate and non-farm SMEs through commercial banks, RRBs, SFBs, MFIs and NBFCs under three different sub-schemes such as 'Shishu', 'Kishore' and 'Tarun'. A maximum loan amount of ₹10,00,000 is offered under this scheme for a period up to five years without any collateral securities

3.8.3.10 Atal Pension Yojana (APY)

In 2015, the Government of India initiated APY as a new pension scheme for workers in unorganised sector by replacing Swavalamban scheme. Any Indian citizen, being a bank account holder, within the age group of 18 to 40 years is eligible to be a member in APY, if he is not a member of any other statutory social security scheme. At the age of 60 the subscriber will get monthly pension of an amount varying from ₹ 1,000 to ₹5,000, depends on his contribution to the scheme.

3.8.3.11 Pradhan Mantri Suraksha Bima Yojana (PMSBY)

PMSBY was launched in 2015 as an annually renewable accident insurance scheme offered through general insurance companies in respect of death and full or partial disability due to an accident. The people belongs to the age group of 18 to 70 years can enrol to this scheme with an individual annual premium of ₹12. The scheme assures risk coverage of ₹2,00,000 for accidental death and full disability and ₹1,00,000 for partial disability.

3.8.3.12 Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)

PMJJBY was also introduced by the Government of India in 2015 as one year renewable life insurance scheme (coverage of death only), offered through banks for their PMJDY account holders. The scheme is open to all people in age range of 18 to 50 years. Annual premium of ₹330 will be automatically deducted from the account of the insured at his option. The assured amount under this scheme is ₹2,00,000.

3.8.3.13 Stand Up India Scheme

Stand up India scheme was launched by the GoI in April 2016 for assisting the scheduled caste, scheduled tribe or women entrepreneurs by providing bank loans ranging from ₹10,00,000 to ₹ 1,00,00,000   at a lowest rate of interest. Scheduled banks provide the loan for a maximum period of seven years on the guarantee of CGFSIL (Credit Guarantee Fund for Stand up India) along with primary and collateral securities.

3.8.3.14 Pradhan Mantri Vaya Vandana Yojana (PMVVY)

PMVVY is a pension scheme launched by the GoI through LIC in 2017 for senior citizens to ensure a guaranteed amount of pension for a period of ten years.

3.9 Financial Inclusion and Kiosk Banking in Kerala – A State Level Evaluation

The progress in level of kiosk banking in the state of Kerala has been discussed in detail in the following pages in respect of number of deposit accounts and credit accounts, number of banking outlets, number of ATMs, number of commercial bank branches, number of co-operative bank branches, number of BC outlets and progress GCC and KCC in Kerala.

Table 3.24

Level of Financial Inclusion in Kerala

Year	CRISIL Inclusix Score	CRISIL Inclusix Rank
2010	71.3	4
2011	76.1	3
2012	80.4	3
2013	88.9	2
2014	90.3	2
2015	92.1	2
2016	90.9	1

Source: CRISIL Inclusix 2013, 2014, 2015 & 2018

Table 3.24 illustrates the CRISIL inclusix rank of Kerala for a period of seven years from 2010 to 2016. It is found that the state of Kerala secured first rank in the year 2016 with a score of 90.9 after improving its rank from four to three and so on.

Table 3.25

District-wise Level of Financial Inclusion in Kerala

District	CRISIL Inclusix Score & Rank						
	2010	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Trivandrum	83.4 (5)	91.1 (3)	94.8 (5)	100.0 (1)	100.0 (1)	100.0 (1)	99.0 (16)
Kollam	58.1 (70)	63.6 (59)	70.5 (43)	85.2 (33)	86.9 (39)	90.1 (41)	91.2 (29)
Pathanamthitta	94.2 (1)	96.2 (1)	100.0 (1)	100.0 (1)	100.0 (1)	100.0 (1)	100.0 (1)
Alappuzha	72.1 (23)	78.7 (15)	84.2 (11)	100.0 (1)	97.7 (14)	100.0 (1)	100.0 (1)
Kottayam	80.7 (10)	86.7 (5)	93.8 (7)	100.0 (1)	100.0 (1)	100.0 (1)	100.0 (1)
Ernakulam	88 (3)	88.3 (4)	94.9 (4)	100.0 (1)	100.0 (1)	100.0 (1)	100.0 (1)

Idukki	57.7 (75)	64.9 (53)	70.5 (44)	90.2 (17)	90.6 (29)	96.8 (24)	89.5 (38)
Thrissur	79.1 (12)	85.4 (6)	97.2 (3)	100.0 (1)	100.0 (1)	100.0 (1)	100.0 (1)
Palakkad	64.1 (39)	67.7 (42)	71.5 (37)	85.4 (32)	87.7 (35)	90.8 (40)	88.2 (46)
Malappuram	51.0 (115)	55.0 (113)	56.5 (124)	64.9 (114)	67.4 (147)	70.7 (151)	63.2 (220)
Kozhikode	67.4 (33)	72.0 (28)	72.7 (33)	81.2 (43)	85.9 (43)	88.8 (47)	92.0 (26)
Kannur	69.1 (29)	75.0 (22)	73.2 (32)	82.7 (38)	87.4 (37)	88.9 (46)	90.7 (31)
Kasargode	73.7 (19)	78.3 (17)	79.9 (20)	87.1 (28)	89.7 (30)	91.9 (35)	90.5 (33)
Wayanad	70.9 (25)	75.5 (20)	78.2 (24)	82.4 (39)	84.4 (46)	86.0 (53)	79.6 (80)

Source: CRISIL Inclusix 2013, 2014, 2015 & 2018
Note: Figures in parentheses indicate all India level CRISIL Inclusix rank

Table 3.25 depicts the CRISIL inclusix score and rank of each district in the state of Kerala from the year 2010 to 2016. In 2016, Pathanamthitta, Alappuzha, Kottayam, Ernakulam and Thrissur secured first rank with score of 100. The performance of other five districts (Trivandrum, Kollam, Kozhikode, Kannur and Kasargode) was also remarkable with a score of more than 90. These districts' rank lies in between 16 and 33. But the financial inclusion score of the districts like Wayanad and Malappuram were relatively low, 79.6 and 63.2 respectively. However, all the districts except Malappuram had high level of financial inclusion in 2016 as CRISIL interprets the score above 65 as 'high'. The level of financial inclusion in Malappuram is considered as 'above average'.

Table 3.26

Number of Accounts (Including Deposit and Credit Accounts) of SCBs per 1,000 People in Kerala

Year	Number of Accounts	Year-on-Year Growth in Percentage
2015-16	2,040.1	--
2016-17	21,12.3	3.5
2017-18	2,253.2	6.7
2018-19	2,099.7	-6.8
CAGR	**1.0%**	

Source: Sustainable Development Goals National Indicator Framework Progress Report 2020, Ministry of Statistics & Programme Implementation, Govt. of India.

Table 3.26 explains the number of deposit and credit accounts per 1000 adults with scheduled commercial banks in Kerala from 2015-16 to 2018-19. CAGR of one per cent is reported during this period. Year-on-year growth shows a negative trend and in the year 2018-19 it was decreased by 6.8 per cent.

Table 3.27

Number of Banking Outlets per 1,00,000 People in Kerala

Year	Number of Outlets	Year-on-Year Growth in Percentage
2015-16	8.4	--
2016-17	10.2	21.4
2017-18	18.5	81.4
2018-19	28.5	54.1
CAGR	**50.3%**	

Source: Sustainable Development Goals National Indicator Framework Progress Report 2020, Ministry of Statistics & Programme Implementation, Govt. of India.

Table 3.27 shows the number of banking outlets per one lakh people in Kerala. During the period from 2015-16 to 2018-19 an overall growth rate of 50.3 per cent is observed in number of banking outlets. But there was a decrease in year to year growth rate in the year 2018-19.

Table 3.28

Automated Teller Machines (ATMs) per 1,00,000 People in Kerala

Year	Number of ATMs	Year-on-Year Growth in Percentage
2015-16	26.1	--
2016-17	27.3	4.6
2017-18	27.7	1.5
2018-19	27.4	-1.1
CAGR	**1.6%**	

Source: Sustainable Development Goals National Indicator Framework Progress Report 2020, Ministry of Statistics & Programme Implementation, Govt. of India.

Table 3.28 explains the number of ATMs per 1,00,000 people in Kerala for a period of four years from 2015-16 to 2018-19. In the year 2018-19, 27.4 ATMs were there for one lakh people while 27.7 in the year 2017-18 (declined by 1.1 per cent). However, an overall growth rate of 1.6 per cent is reported during this period.

Table 3.29

Commercial Bank Branches in Kerala

Bank Group	Rural	Semi-urban	Urban	Total
Public Sector Commercial Banks	141 (4.1)	2400 (70.6)	861 (25.3)	**3402 (100.0)**
Regional Rural Banks (KGB)	53 (8.4)	542 (85.4)	39 (6.2)	**634 (100.0)**
Private Sector Commercial Banks	143 (6.2)	1,600 (69.6)	555 (24.2)	**2,298 (100.0)**
Small Finance Banks	89 (38.5)	109 (47.2)	33 (14.3)	**231 (100.0)**
Total	**426 (6.5)**	**4,651 (70.8)**	**1,488 (22.7)**	**6,565 (100.0)**

Source: SLBC Kerala (as on 20th May 2020)
Note: Figures in parentheses indicate percentage of row total

Table 3.29 shows the number of different groups of bank branches in rural, semi-urban and urban areas in Kerala. A total number of 6,565 bank branches exist in Kerala, out of which 70.8 per cent (4,651) branches locate in semi-urban areas. In aggregate 77.3 per cent bank branches in Kerala are functioning in non-urban areas. This indicates the branch penetration among the rural and semi-urban people. Majority (51.8 per cent) of bank branches in Kerala belong to public sector

commercial banks. 35 per cent branches are of private sector commercial banks and 9.7 per cent belongs to RRBs (Kerala Gramin Bank). Small finance banks also have a place in Kerala banking sector with 231 branches (3.5 per cent). It is also observed that a very meager number of bank branches (6.5 per cent) are situated in rural areas and the share of public sector banks is only 4.1 per cent.

Table 3.30

District-wise Number of Commercial Bank Branches in Kerala

District	Public Sector Commercial Banks	Regional Rural Banks (KGB)	Private Sector Commercial Banks	Small Finance Banks	Total
Thiruvananthapuram	459 (13.5)	46 (7.3)	207 (9.0)	15 (6.5)	**727 (11.1)**
Kollam	237 (7.0)	25 (3.9)	132 (5.7)	10 (4.3)	**404 (6.2)**
Pathanamthitta	201 (5.9)	31 (4.9)	148 (6.4)	8 (3.5)	**388 (5.9)**
Alappuzha	215 (6.3)	17 (2.7)	149 (6.5)	14 (6.0)	**395 (6.1)**
Kottayam	268 (7.9)	37 (5.8)	195 (8.5)	14 (6.0)	**514 (7.8)**
Ernakulam	552 (16.2)	33 (5.2)	408 (17.8)	18 (8.0)	**1,011 (15.4)**
Idukki	94 (2.8)	14 (2.2)	62 (2.7)	15 (6.5)	**185 (2.8)**
Thrissur	308 (9.1)	46 (7.3)	388 (16.9)	33 (14.3)	**775 (11.8)**
Palakkad	259 (7.6)	24 (3.8)	145 (6.3)	40 (17.3)	**468 (7.1)**
Malappuram	198 (5.8)	95 (15.0)	151 (6.6)	25 (10.8)	**469 (7.1)**
Kozhikode	246 (7.2)	81 (12.8)	138 (6.0)	12 (5.2)	**477 (7.3)**
Kannur	188 (5.5)	96 (15.1)	101 (4.4)	5 (2.1)	**390 (5.9)**
Kasargode	114 (3.3)	58 (9.1)	49 (2.1)	10 (4.3)	**231 (3.5)**
Wayanad	63 (1.9)	31 (4.9)	25 (1.1)	12 (5.2)	**131 (2.0)**
Total	**3,402 (100.0)**	**634 (100.0)**	**2,298 (100.0)**	**231 (100.0)**	**6,565 (100.0)**

Source: SLBC Kerala (as on 20th May 2020)
Note: Figures in parentheses indicate percentage of column total

Table 3.30 illustrates the number of branches of different commercial bank groups in districts of the State Kerala. Out of total 6,565 bank branches, 2,428 (37 per cent) are located in southern districts, 2,439 (37.2 per cent) in central districts and 1,698 (25.8 per cent) in northern districts in Kerala. Ernakulam district dominates with 1,011 bank branches (15.4 per cent), followed by Thiruvananthapuram (11.1 per cent) and Kottayam (7.8 per cent). The least number of bank branches are located in Wayanad district (2 per cent). Ernakulam and Thiruvananthapuram districts also lead in number of public sector and private sector commercial bank branches. In number of branches of RRBs Kannur (15.1 per cent) and Malappuram (15 per cent) districts have dominance. Palakkad (17.3 per cent) and Thrissur (14.3 per cent) districts have leading positions in number of branches of small finance banks.

Table 3.31

Co-operative Bank Branches in Kerala

Bank Group	Rural	Semi-urban	Urban	Total
District Co-operative Banks	0 (0.0)	0 (0.0)	805 (100.0)	**805 (100.0)**
KSCARDB (incl. PCARDBs)	117 (69.2)	38 (22.5)	14 (8.3)	**169 (100.0)**
KSCB	0 (0.0)	0 (0.0)	21 (100.0)	**21 (100.0)**
Total	**117 (11.8)**	**38 (3.8)**	**840 (84.4)**	**995 (100.0)**

Source: SLBC Kerala (as on 20th May 2020)
Note: Figures in parentheses indicate percentage of row total

Table 3.31 exemplifies the number of co-operative bank branches in rural, semi-urban and urban locations in Kerala. Out of total 995 branches, 840 (84.4 per cent) are located in urban areas whereas only 38 branches (3.8 per cent) are in semi-urban locations. 80.9 per cent of co-operative bank branches are of district co-operative banks. The co-operative banks have a pivotal role in ensuring financial inclusion in Kerala.

Table 3.32

Number of BC Outlets in Kerala as on 31stMarch 2019

Bank Group	No. of Bank Mitra Outlets				Total No. of Akshaya Banking Kiosk/ CSC	Total
	Urban Locations	Semi-urban Locations	Rural Locations	Total Bank Mitra outlets		
Public Sector Commercial Banks	166 (13.4)	545 (44.1)	140 (11.4)	851 (68.9)	384 (31.1)	**1235 (100.0)**
Regional Rural Banks (KGB)	0 (0.0)	0 (0.0)	12 (100.0)	12 (100.0)	0 (0.0)	**12 (100.0)**
Private Sector Commercial Banks	42 (17.5)	151 (62.9)	36 (15.0)	229 (95.4)	11 (4.6)	**240 (100.0)**
Small Finance Banks	1 (100.0)	0 (0.0)	0 (0.0)	1 (100.0)	0 (0.0)	**1 (100.0)**
Total	**209 (14.0)**	**696 (46.8)**	**188 (12.6)**	**1,093 (73.5)**	**395 (26.5)**	**1,488 (100.0)**

Source: SLBC Kerala

Note: Figures in parentheses indicate percentage of row total

Table 3.32 explains the number of BC outlets of different bank groups in urban, semi-urban and rural locations in Kerala. In aggregate 1,488 BC outlets exist in Kerala, out of which 1,235 (83 per cent) are of public sector commercial banks. 240 (16.1 per cent) BC outlets belong to private sector commercial banks and small finance banks have only one bank mitra outlet in Kerala. 395 (26.5 per cent) BC outlets are run by Akshaya Centres and CSCs. 696 (46.8 per cent) bank mitra outlets are located in semi-urban areas whereas 188 (12.6 per cent) outlets in rural locations and 209 (14 per cent) in urban locations.

Table 3.33

Number of Commercial Bank Branches in Kerala

Year (Ending on 31st March)	Rural	Semi-urban	Urban	Total	Year-on-Year Growth in Percentage
2010	467	2,878	965	4,310	--
2011	474	3,070	1,029	4,573	**6.1**
2012	484	3,339	1,088	4,911	**7.4**
2013	499	3,640	1,140	5,279	**7.5**
2014	433	3,956	1,299	5,688	**7.7**
2015	462	4,146	1,377	5,985	**5.2**
2016	477	4,241	1,468	6,186	**3.4**
2017	377	4,506	1,449	6,332	**2.4**
2018	335	4,496	1,425	6,256	**-1.2**
2019	365	4,589	1,472	6,426	**2.7**
CAGR	**-2.7%**	**5.3%**	**4.8%**	**4.5%**	

Source: SLBC Kerala

Table 3.33 shows the number of commercial bank branches in rural, semi-urban and urban areas in Kerala for a period of ten years from 2009-10 to 2018-19. An overall growth rate of 4.5 per cent is reported during this period. There were growth in number of bank branches by 5.3 per cent in semi-urban areas and 4.8 per cent in urban areas while a negative growth by 2.7 per cent in rural areas. It is observed that there was a positive growth in number of bank branches till the year 2013-14, but thereafter year-on-year growth rate was decreased considerably. However, a regaining is observed in the year 2018-19 (2.7 per cent) after continuous fall in growth rate during the preceding four years.

Table 3.34

Number of ATMs of Commercial Banks in Kerala

Year (Ending on 31st March)	Number of ATMs	Year-on-Year Growth in Percentage
2013	4,874	--
2014	6,730	38.1
2015	8,477	26.0
2016	8,966	5.8
2017	9,182	2.4
2018	9,140	-0.5
2019	9,011	-1.4
CAGR	**10.8%**	

Source: SLBC Kerala

Table 3.34 depicts the number of ATMs of commercial banks in Kerala during a period of seven years from 2012-13 to 2018-19. Although a CAGR of 10.8 per cent is reported during this period, year-on-year growth rates indicate a clear fall and it reached at -1.4 per cent in the year 2018-19. It is observed that the number of ATMs increased to 9,011 in the year 2018-19 from 4,874 in 2012-13.

Table 3.35

Progress of KCC in Kerala

Year (Ending on 31st March)	KCC - No. of Accounts (incl. Co-op Banks)	KCC - Amount in ₹ Crore (incl. Co-op Banks)
2017	17,83,124	14,963
2018	16,97,541	16,497
2019	16,99,495	17,530
CAGR	**-2.4%**	**8.2%**

Source: SLBC Kerala

Table 3.35 explains the progress of KCC scheme in respect of number of accounts and amount. Although there is a CAGR of 8.2 per cent in amount of KCCs,

there is a negative growth (-2.4 per cent) in number of accounts. In 2018-19, there were 16,99,495 accounts with an amount of 17,530 crore rupees.

Table 3.36

District wise Distribution of BCs in Kerala

Sl. No	District	Number of BCs	Percentage of Total
1	Thiruvananthapuram	221	12.5
2	Kollam	177	10.0
3	Alappuzha	107	6.0
4	Pathanamthitta	57	3.2
5	Kottayam	100	5.7
6	Idukki	120	6.8
7	Ernakulam	164	9.3
8	Thrissur	135	7.7
9	Palakkad	167	9.5
10	Malappuram	174	9.9
11	Kozhikkode	157	8.9
12	Wayanad	49	2.8
13	Kannur	94	5.3
14	Kasaragod	42	2.4
Total		**1,764**	**100.0**

Source: IBA BC Registry (As on 30th September 2020)

Table 3.36 shows the distribution of BC outlets in different districts of Kerala. It is found that out of total 1,764 BC outlets, 221 (12.5 per cent) locate in the state capital district Thiruvananthapuram. In Kollam district, there are 177 BCs (10 per cent), followed by Malappuram district with 174 BCs (9.9 per cent) and Palakkad district with 167 BCs (9.5 per cent). Kasargode district has least number (only 42) of BC outlets (2.4 per cent) in Kerala.

Table 3.37

Bank wise Distribution of BCs in Kerala

Sl. No	Name of Bank	Number of BCs	Percentage of Total
1	Bank of Baroda	9	0.5
2	Canara Bank	159	9.0
3	Central Bank of India	22	1.2
4	Corporation Bank	9	0.5
5	Dhanlaxmi Bank	16	0.9
6	HDFC Bank	275	15.6
7	IDFC First Bank	113	6.4
8	Indian Bank	58	3.3
9	Indian Overseas Bank	32	1.8
10	Punjab National Bank	32	1.8
11	South Indian Bank	7	0.4
12	State Bank of India	844	47.8
13	Syndicate Bank	35	2.0
14	Tamilnad Mercantile Bank Ltd.	1	0.1
15	UCO Bank	9	0.5
16	Union Bank of India	143	8.1
Total		**1,764**	**100.0**

Source: IBA BC Registry (As on 30th September 2020)

Table 3.37 elucidates the number of BC outlets of different banks in Kerala. It's quite obvious to see that more number of BC outlets (844) in the state have been operated under SBI, it figures 47.8 per cent of the total. The second most number of BCs belongs to the private sector bank, HDFC Bank, which has 275 BC outlets (15.6 per cent) in the state. Canara Bank (9 per cent) and Union Bank of India (8.1 per cent) also have a remarkable share in BC model in Kerala. All other banks' share in BC channel in Kerala in aggregate is 19.5 per cent. It is also seen that only 16 banks provide banking services through their BCs in the state.

3.10 Conclusion

Financial inclusion initiatives of RBI and GoI boosted the level of financial inclusion in the country at a greater extend. Various committees in this regard recommended many innovative measures to overcome the issues of financial exclusion. BC/BF model was one among them to ensure easy and convenient access of all sections of the people to the formal financial services. Growth in number of commercial bank branches, ATMs and BC outlets confirmed the progress in level of financial inclusion. Such a progress can be apparently visible in the state of Kerala with 4.5 per cent growth in number of commercial bank branches during the period from 2010 to 2019 and growth of 10.8 per cent in number of ATMs during the period from 2013 to 2019. The level of financial inclusion in Kerala is considerably leveraged by 1,764 BC outlets (as on 30th September 2020) across the state.

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Chapter 4

Customer Service Points and Kiosk Banking

4.1 Introduction

Customer Service Point (CSP) is the backbone of kiosk banking. The role of CSPs are pivotal in BC model as they are acting as the root level players and connecting links between banks and people in the areas where branch banking is neither available nor accessible. In other words, CSPs are the ambassadors of BC model and the success and failure of this model highly relies on the performance of CSPs. Also CSPs are the 'mini bank branches' in the sense that they are offering basic banking services at their outlet. It is quite necessary to have a detailed investigation on the performance of CSPs so as to put forward suggestions for improving this model of banking. This chapter covers the supply side analysis from the perspectives of CSPs in respect of their delivery of banking services, operational skills, best practices, service delivery satisfaction, and problems. The study has been conducted among 150 sample CSPs of SBI from three districts of Kerala State. 57 of them (38 per cent) represent Malappuram district, 35 CSPs (23.3 per cent) belong to Palakkad district and 58 CSPs (38.7 per cent) from Thiruvananthapuram district. Collected data from sample CSPs have been analysed with the help of statistical tools like Kruskal Wallis test, Mann-Whitney U test and Chi-square test.

4.2 Institutional Profile of CSPs

Institutional profile of CSPs consist of their nature of business, experience in kiosk banking, proximity to link branch, number of villages allotted for service, existence of separate kiosk banking counter, number of working hours, number of staff employed for kiosk banking and training acquired by the CSP entrepreneurs. Detailed analysis in respect of institutional profile follows.

4.2.1 Type of Business

The nature of business of CSPs can be categorised, according to the priority given by the entrepreneurs, into two as primary and secondary. Some of the CSPs are functioning CSP business as their primary business while some others are doing it as a secondary or 'side' business. The former category depends on CSP business for their livelihood and they spend all their efforts for the same.

Table 4.1

District wise Distribution according to Type of Business

Districts	Type of Business		Total
	Primary	Secondary	
Malappuram	25 (43.9)	32 (56.1)	57 (100.0)
Palakkad	24 (68.6)	11 (31.4)	35 (100.0)
Thiruvananthapuram	33 (56.9)	25 (43.1)	58 (100.0)
Total	82 (54.7)	68 (45.3)	150 (100.0)

Source: Primary Data
Note: *Figures in parentheses represent percentages of row total*

From table 4.1 it is clear that majority of CSPs (56.1 per cent) in Malappuram district are considering their CSP business as secondary one along with other businesses for earning an additional income. However, 68.6 per cent CSPs in Palakkad and 56.9 per cent CSPs in Thiruvananthapuram district are doing this as their main business. In aggregate, majority (54.7 per cent) of CSPs' business are of primary in nature.

4.2.2 Experience in Kiosk Banking

Experience of CSPs is important in kiosk banking as their years of expertise definitely would enhance the quality in delivery of banking services at their outlet. It

will also improve their relationship with local people in service area and thereby their client base will be enhanced.

Table 4.2

District wise Distribution according to Experience in Kiosk Banking

Districts	Years of Experience in Kiosk Banking			Total
	Up to 1	2 - 5	More than 5	
Malappuram	15 (26.3)	28 (49.1)	14 (24.6)	57 (100.0)
Palakkad	12 (34.3)	13 (37.1)	10 (28.6)	35 (100.0)
Thiruvananthapuram	12 (20.7)	29 (50.0)	17 (29.3)	58 (100.0)
Total	39 (26.0)	70 (46.7)	41 (27.3)	150 (100.0)
Mean	3.60			

Source: Primary Data
Note: *Figures in parentheses represent percentages of row total*

From table 4.2, it is observed that 49.1 per cent CSPs in Malappuram district have a kiosk banking experience for 2 to 5 years and 26.3 per cent of them are new in kiosk banking with experience of one year or less. In Palakkad district, 37.1 per cent CSPs are doing kiosk banking for a period of 2 to 5 years while 34.3 per cent are relatively freshers in this field. One half of the CSPs in Thiruvananthapuram district have kiosk banking experience for a period of 2 to 5 years whereas 29.3 per cent of them are doing kiosk banking for more than 5 years. The average kiosk banking experience of CSPs across the districts is reported as 3.60 years.

4.2.3 Distance to Link Bank Branch

CSPs have to settle their kiosk banking transactions regularly with the SBI bank branch to which it is linked. Distance to link branch is a concern in terms of both the volume of transactions and easiness in settlement of transactions. More the distance to link branch more the volume of transactions as the clients always prefer to do their bank transactions with CSPs which are nearer to them rather than remote bank branch. At the same time daily settlement of transactions of CSP at link branch

create difficulties in respect of time and cost of travelling, if the branch is located in a distant place.

Table 4.3

District wise Distribution according to Distance to Link Bank Branch

Districts	Distance (in KM)			Total
	Below 2	2-5	6-10	
Malappuram	38 (66.7)	9 (15.8)	10 (17.5)	57 (100.0)
Palakkad	16 (45.7)	8 (22.9)	11 (31.4)	35 (100.0)
Thiruvananthapuram	27 (46.6)	18 (31.0)	13 (22.4)	58 (100.0)
Total	81 (54.0)	35 (23.3)	34 (22.7)	150 (100.0)

Source: Primary Data
Note: *Figures in parentheses represent percentages of row total*

Table 4.3 shows that majority (54 per cent) of the CSPs are located within two kilometer radius of their link bank branches. 66.7 per cent CSPs in Malappuram, 45.7 per cent in Palakkad and 46.6 per cent in Thiruvananthapuram have link branches within 2 kilometer distance. It is also observed that 17.5 per cent, 31.4 per cent and 22.4 per cent of CSPs respectively from Malappuram, Palakkad and Thiruvananthapuram districts are 6 to 10 kilometers far away from their link branches.

4.2.4 Number of Villages Allotted to CSPs for Kiosk Banking

CSPs are allotted a certain number of villages as their service area for kiosk banking depending on the rural population and availability of bank branches. The geographical coverage of CSPs can be understood from the following table in respect of number of villages allotted to and served by them.

Table 4.4

District wise Distribution according to Number of Villages Allotted for Kiosk Banking

Districts	No. of Villages			Total
	One	Two	Three & More	
Malappuram	33 (57.9)	6 (10.5)	18 (31.6)	57 (100.0)
Palakkad	20 (57.1)	0 (0.0)	15 (42.9)	35 (100.0)
Thiruvananthapuram	35 (60.3)	8 (13.8)	15 (25.9)	58 (100.0)
Total	88 (58.7)	14 (9.3)	48 (32.0)	150 (100.0)

Source: Primary Data
Note: *Figures in parentheses represent percentages of row total*

Table 4.4 explains that majority (58.7 per cent) of CSPs are allotted with one village as their service area for kiosk banking. The service area of 9.3 per cent of CSPs is confined to two villages. 31.6 per cent CSPs in Malappuram district, 42.9 per cent in Palakkad district and 25.9 per cent in Thiruvananthapuram districts are serving people from more than two villages by delivering kiosk banking services.

4.2.5 Existence of Separate Counter for Kiosk Banking

As mentioned earlier some of the CSPs are doing kiosk banking as secondary business along with other activities. In such cases there may or may not have a separate counter for kiosk banking. However, it is better to have an exclusive counter for kiosk banking so as to cater the banking needs of clients comfortably.

Table 4.5

District wise Distribution according to Existence of Separate Counter for Kiosk Banking

Districts	Separate Counter		Total
	Yes	No	
Malappuram	42 (73.7)	15 (26.3)	57 (100.0)
Palakkad	30 (85.7)	5 (14.3)	35 (100.0)
Thiruvananthapuram	52 (89.7)	6 (10.3)	58 (100.0)
Total	124 (82.7)	26 (17.3)	150 (100.0)

Source: Primary Data
Note: *Figures in parentheses represent percentages of row total*

Table 4.5 elucidates that most of the CSPs (82.7 per cent) have an exclusive counter for kiosk banking at their outlets. 26.3 per cent CSPs in Malappuram, 14.3 per cent in Palakkad and 10.3 per cent in Thiruvananthapuram are doing kiosk banking functions without having a separate counter for the same.

4.2.6 Number of Working Hours

Convenient timing is one of the advantages of kiosk banking in relation to branch banking. The working hours of bank branches may not be convenient to the rural people as majority of them belong to the occupational groups of daily workers, self-employed, farmers etc. CSPs in rural locations really meant to fulfil the needs of such a population. The survey reports that the working hours of CSPs vary from 5 hours to 12 hours a day.

Table 4.6

District wise Distribution according to Number of Working Hours

Districts	Number of Working Hours per Day			Total
	Up to 7	**8 - 10**	**More than 10**	
Malappuram	7 (12.3)	33 (57.9)	17 (29.8)	57 (100.0)
Palakkad	5 (14.3)	30 (85.7)	0 (0.0)	35 (100.0)
Thiruvananthapuram	8 (13.8)	42 (72.4)	8 (13.8)	58 (100.0)
Total	20 (13.3)	105 (70.0)	25 (16.7)	150 (100.0)
Mean	9.24			

Source: Primary Data

Note: *Figures in parentheses represent percentages of row total*

From table 4.6 it is revealed that 70 per cent of CSPs are working 8 to 10 hours a day for delivering kiosk banking services to their clients. The working hours of 13.3 per cent CSPs are limited up to 7 hours. Average working hours of CSPs per day across the state is 9.24. While 29.8 per cent CSPs in Malappuram district and 13.8 per cent in Thiruvananthapuram district work for more than 10 hours a day, none of the CSPs in Palakkad district is functioning for more than 10 hours.

4.2.7 Number of Staff Employed in CSPs for Kiosk Banking

There is a positive relation between volume of business and number of staff employed in an enterprise. More the number of business transactions more the number of staff in CSP. Some of the CSP entrepreneurs themselves may solely carry on the business of kiosk banking without employing further staff whereas some CSPs appoint more than two staff for the same.

Table 4.7

District wise Distribution according to Number of Staff Employed

Districts	Number of Staff			Total
	Nil	One	Two & More	
Malappuram	42 (73.7)	9 (15.8)	6 (10.5)	57 (100.0)
Palakkad	31 (88.6)	4 (11.4)	0 (0.0)	35 (100.0)
Thiruvananthapuram	47 (81.0)	7 (12.1)	4 (6.9)	58 (100.0)
Total	120 (80.0)	20 (13.3)	10 (6.7)	150 (100.0)

Source: Primary Data
Note: *Figures in parentheses represent percentages of row total*

Table 4.7 disclosed that 120 CSPs (80 per cent) have not appointed any additional staff for kiosk banking in their outlets and CSP entrepreneurs themselves do it. Only 10.5 per cent and 6.9 per cent of CSPs respectively from Malappuram and Thiruvananthapuram districts have appointed two and more additional staff in their kiosk banking points.

4.2.8 Availability of Training to CSPs

Training imparts knowledge and skill for better doing of an activity. Kiosk banking through CSPs is one which requires sufficient, and time bound training in basic banking and kiosk banking technology.

Table 4.8

District wise Distribution according to Training Acquired

Districts	Training Acquired		Total
	Yes	**No**	
Malappuram	39 (68.4)	18 (31.6)	57 (100.0)
Palakkad	23 (65.7)	12 (34.3)	35 (100.0)
Thiruvananthapuram	32 (55.2)	26 (44.8)	58 (100.0)
Total	94 (62.7)	56 (37.3)	150 (100.0)

Source: Primary Data

Note: *Figures in parentheses represent percentages of row total*

From table 4.8 it is found that 62.7 per cent of CSP entrepreneurs are formally trained in kiosk banking related matters. District wise, 68.4 per cent CSPs in Malappuram, 65.7 per cent in Palakkad and 55.2 per cent in Thiruvananthapuram have acquired sufficient training.

4.3 Economic and Operational Profile of CSPs

Economic profile of CSPs consists of amount of initial investment in fixed assets, monthly recurring expenditures and monthly income from CSPs. Operational profile involves number of deposit accounts opened, number of active deposit accounts, number of banking transactions per day, number of transactions per account per month and amount of balance kept per account.

4.3.1 Investment in Fixed Assets

An entrepreneur has to invest a considerable amount initially for acquiring the required infrastructure for starting the functions of a CSP. Initial investment may be related with acquisition of computer, printer, biometric devices, safe, cash counting machine, outlet interiors etc. Following table displayed the amount of initial investment by the CSPs.

Table 4.9

District wise Distribution according to Investment in Fixed Assets

Districts	Investment in Fixed Assets (Amount in ₹)				Total
	Up to 50,000	50,001 – 1,00,000	1,00,001 – 2,00,000	More than 2,00,000	
Malappuram	26 (45.6)	12 (21.1)	14 (24.6)	5 (8.8)	57 (100.0)
Palakkad	14 (40.0)	12 (34.3)	9 (25.7)	0 (0.0)	35 (100.0)
Thiruvananthapuram	23 (39.7)	9 (15.5)	11 (19.0)	15 (25.9)	58 (100.0)
Total	63 (42.0)	33 (22.0)	34 (22.7)	20 (13.3)	150 (100.0)
Mean	136016.67				
Chi-square	16.788				
Sig.	.010*				

Source: Primary Data

Note: *Figures in parentheses represent percentages of row total*

* Significant at 5 per cent level

Table 4.9 indicates that 42 per cent of CSPs in sample districts had invested an amount up to ₹50,000 whereas 13.3 per cent CSPs invested more than ₹2,00,000 for their infrastructure. Average amount of initial investment in fixed assets by CSPs is reported as ₹1,36,017. District wise, 8.8 per cent CSPs in Malappuram and 25.9 per cent in Thiruvananthapuram have invested above ₹2,00,000. The table presented a Chi-square value of 16.788 and p value of 0.010<0.05, which is significant at 5 per cent level. Hence, it can be inferred that the amount of initial investment by CSPs in fixed assets are not same among the sample districts.

4.3.2 Monthly Recurring Expenses

In addition to the initial investment CSPs incur certain regular operating expenses relating to their day to day functions, which may include salary to staff, room rent, electricity charges, net connectivity charges, stationery expenses, travelling expenses etc.

Table 4.10

District wise Distribution according to Monthly Recurring Expenses

Districts	Monthly Recurring Expenses (Amount in ₹)			Total
	Up to 5,000	5,001 – 10,000	More than 10,000	
Malappuram	34 (59.7)	8 (14.0)	15 (26.3)	57 (100.0)
Palakkad	21 (60.0)	5 (14.3)	9 (25.7)	35 (100.0)
Thiruvananthapuram	25 (43.1)	13 (22.4)	20 (34.5)	58 (100.0)
Total	80 (53.4)	26 (17.3)	44 (29.3)	150 (100.0)
Mean	10425.67			
Chi-square	4.123			
Sig.	.390			

Source: Primary Data
Note: *Figures in parentheses represent percentages of row total*

Table 4.10 depicts that 29.3 per cent of CSPs incur a monthly recurring expenses of more than ₹10,000 for operating kiosk banking. The average amount spent by the CSPs amounting to ₹10,425.67 per month as the operational expenses. 60 per cent CSPs in Palakkad and 59.7 per cent in Malappuram district incur recurring expenses up to ₹5,000 per month. In Thiruvananthapuram district, 34.5 per cent CSPs have to expend more than ₹10,000 per month as recurring expenses.

Chi-square test result displays p value of 0.390>0.05 (Chi-square value 4.123), which is not significant at 5 per cent level. Thus, it is inferred that there does

not exist relationship between districts of CSPs and the monthly recurring expenses incurred for operating kiosk banking.

4.3.3. Monthly Income from CSPs

Source of revenues derived from kiosk banking to CSPs mainly consists of commission for enrolment or account opening and income from financial transactions. They also fetch some income from non-financial services. The following table illustrates average monthly income earned by CSPs from their operations.

Table 4.11

District wise Distribution according to Monthly Income from CSP

Districts	Monthly Income (Amount in ₹)				Total
	Up to 5,000	5,001 – 10,000	10,001 – 15,000	Above 15,000	
Malappuram	36 (63.2)	15 (26.3)	2 (3.5)	4 (7.0)	57 (100.0)
Palakkad	18 (51.4)	16 (45.7)	1 (2.9)	0 (0.0)	35 (100.0)
Thiruvananthapuram	34 (58.6)	21 (36.2)	2 (3.4)	1 (1.7)	58 (100.0)
Total	88 (58.7)	52 (34.7)	5 (3.3)	5 (3.3)	150 (100.0)
Mean	5215.00				
Chi-square	6.897				
Sig.	.330				

Source: Primary Data
Note: *Figures in parentheses represent percentages of row total*

Majority of CSPs (58.7 per cent) could earn monthly income of only ₹5,000 or less from the operation of CSP as seen in table 4.11. It is also reported that the average income from CSPs amounted to ₹5,215. District wise, 63.2 per cent of CSPs from Malappuram, 51.4 per cent from Palakkad and 58.6 per cent from Thiruvananthapuram have earned up to ₹5,000 as the monthly income from CSP. Only 6.6 per cent CSPs could earn a monthly income of more than ₹10,000. These

figures indicate the economic non-viability of this model of banking. The same can be understood from the table 4.12.

There does not exist relationship between districts of CSPs and their monthly income from CSP as the Chi-square value is 6.897 and p value is 0.330>0.05 (not significant at 5 per cent level).

4.3.4 Expenses and Incomes of CSPs

The following cross table illustrates the relationship between monthly recurring expenses and monthly earnings from CSPs. The comparison between expenses (excluding capital expenditure) and income of CSPs will give a clear picture of the depth of economic non-viability of running CSPs.

Table 4.12

Expenses and Incomes of CSPs

Expenses (Amount in ₹)	Incomes (Amount in ₹)			Total
	Up to 5,000	5,001 – 10,000	More than 10,000	
Up to 5,000	56 (70.0)	23 (28.8)	1 (1.2)	80 (100.0)
5,001 – 10.000	9 (34.6)	15 (57.7)	2 (7.7)	26 (100.0)
More than 10,000	23 (52.3)	14 (31.8)	7 (15.9)	44 (100.0)
Total	88 (58.7)	52 (34.7)	10 (6.6)	150 (100.0)

Source: Primary Data
Note: *Figures in parentheses represent percentages of row total*

It is clear from table 4.12 that only 7 CSPs (15.9 per cent) who had spent more than ₹10,000 per month for operating expenses could earn monthly income of more than ₹10,000. 52.3 per cent among them earned monthly income of ₹5,000 or less and 31.8 per cent could earn income in a range of ₹5,001 - ₹10,000. Out of 80 CSPs who had expended up to ₹5,000, 56 (70 per cent) could reach the equilibrium. Among the CSPs who had spent operating expenses of ₹5,001 - ₹10,000 per month 57.7 per cent could achieve the equilibrium.

4.3.5 Number of Savings Bank Deposit Accounts Opened

As far as CSPs are concerned opening of financial inclusion account (BSBDA) is the most significant kiosk banking service. Relaxed KYC requirements, easiness and convenience in account opening etc. make the CSPs attractive to the people for opening a bank account. Number of accounts opened is also a measure of effectiveness of BC model so that the level of financial inclusion can be increased.

Table 4.13

District wise Distribution according to Number of Deposit Accounts Opened

Districts	No. of Deposit Accounts				Total
	Up to 100	101 - 500	501 - 1000	More than 1000	
Malappuram	17 (29.8)	13 (22.8)	19 (33.3)	8 (14.0)	57 (100.0)
Palakkad	7 (20.0)	10 (28.6)	7 (20.0)	11 (31.4)	35 (100.0)
Thiruvananthapuram	15 (25.9)	27 (46.6)	9 (15.5)	7 (12.1)	58 (100.0)
Total	39 (26.0)	50 (33.3)	35 (23.3)	26 (17.3)	150 (100.0)
Mean	958.46				
Chi-square	15.404				
Sig.	.017*				

Source: Primary Data
Note: *Figures in parentheses represent percentages of row total*
* Significant at 5 per cent level

From table 4.13 it is found that 17.3 per cent of CSPs have opened more than 1000 savings bank deposit accounts for their clients whereas 26 per cent of them helped the clients to open up to 100 accounts. The average number of accounts opened through a CSP is reported as 958.46. District wise, CSPs in Palakkad leads in thousand plus accounts club (31.4 per cent), followed by Malappuram (14 per cent) and Thiruvananthapuram (12.1 per cent). Chi-square test result showed p value of 0.017<0.05, which is significant at 5 per cent level (Value = 15.404). Thus, it is inferred that districts of CSPs and number of deposit accounts opened are significantly associated.

4.3.6 Number of Active Deposit Accounts

Existence of dormant or inactive accounts is a major issue in financial inclusion. Many of the time people will open an account for getting social security benefits and other government benefits and thereafter it remains passive for a longer period of time. It is a main concern in financial inclusion that mere opening of a bank account does not help to improve the level of financial inclusion.

Table 4.14

District wise Distribution according to Number of Active Deposit Accounts

Districts	No. of Active Deposit Accounts				Total
	Up to 100	101 - 500	501 – 1000	More than 1000	
Malappuram	32 (56.1)	18 (31.6)	0 (0.0)	7 (12.3)	57 (100.0)
Palakkad	12 (34.3)	9 (25.7)	9 (25.7)	5 (14.3)	35 (100.0)
Thiruvananthapuram	28 (48.3)	21 (36.2)	4 (6.9)	5 (8.6)	58 (100.0)
Total	72 (48.0)	48 (32.0)	13 (8.7)	17 (11.3)	150 (100.0)
Mean	460.28				
Chi-square	20.493				
Sig.	.002*				

Source: Primary Data
Note: *Figures in parentheses represent percentages of row total*
Significant at 1 per cent level

Table 4.14 displays that 11.3 per cent CSPs have more than 1000 active deposit accounts while 48 per cent have active accounts of 100 or less. On an average, active number of deposit accounts per CSP is 460.28. Majority of CSPs in Malappuram (56.1 per cent), 34.3 per cent in Palakkad and 48.3 per cent in Thiruvananthapuram have 100 or less active deposit accounts. While comparing the number of accounts opened and number of active accounts we may conclude that only 47.18 per cent of deposit accounts are active and the remaining 52.82 per cent accounts remain dormant or inactive due to various reasons. Since the Chi-square value is 20.493 and p value is 0.002<0.05 (significant at 5 per cent level) it is inferred that there is significant relationship between districts of CSPs and number of active deposit accounts.

4.3.7 Number of Banking Transactions per Day

As already mentioned one of the sources of revenue of CSPs is commission on the financial transactions carried out through their outlets. The following table shows the average number of banking transactions made through CSPs per day.

Table 4.15

District wise Distribution according to Number of Banking Transactions per Day

Districts	No. of Banking Transactions				Total
	Up to 10	11 - 20	21 – 50	More than 50	
Malappuram	24 (42.1)	16 (28.1)	11 (19.3)	6 (10.5)	57 (100.0)
Palakkad	20 (57.1)	5 (14.3)	6 (17.1)	4 (11.4)	35 (100.0)
Thiruvananthapuram	32 (55.2)	4 (6.9)	13 (22.4)	9 (15.5)	58 (100.0)
Total	76 (50.7)	25 (16.7)	30 (20.0)	19 (12.7)	150 (100.0)
Mean	29.23				
Chi-square	10.181				
Sig.	.117				

Source: Primary Data
Note: *Figures in parentheses represent percentages of row total*

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More than one half of the CSPs (50.7 per cent) carry out 10 or less banking transactions per day while 12.7 per cent are dealing with more than 50 transactions per day as given in table 4.15. Average number of transactions per CSP per day is reported as 29.23. In Palakkad district majority (57.1 per cent) of CSPs carry out 10 or less banking transactions and 6.9 per cent CSPs in Thiruvananthapuram carry out 11 to 20 transactions per day. Chi-square value of 10.181 and p value of 0.117>0.05 (not significant at 5 per cent level) indicate that there is no association between districts to which CSPs belong and number of banking transactions per day carried out through them.

4.3.8 Number of Transactions per Account per Month

Number of financial transactions made by an account holder indicates the extent of his banking behaviour and trust and confidence in CSP. Number of monthly transactions made by each accountholder through CSPs can be observed from table 4.16.

Table 4.16

District wise Distribution according to Number of Transactions per Account per Month

Districts	Number of Transactions per Account			Total
	1 - 2	**3 - 4**	**5 & Above**	
Malappuram	21 (36.8)	27 (47.4)	9 (15.8)	57 (100.0)
Palakkad	15 (42.9)	13 (37.1)	7 (20.0)	35 (100.0)
Thiruvananthapuram	22 (37.9)	25 (431)	11 (19.0)	58 (100.0)
Total	58 (38.7)	65 (43.3)	27 (18.0)	150 (100.0)
Mean	3.49			
Chi-square	1.003			
Sig.	.909			

Source: Primary Data

Note: *Figures in parentheses represent percentages of row total*

Client accountholders of 43.3 per cent CSPs have 3 to 4 banking transactions per month on their account and 18 per cent have 5 and more transactions. District wise, 47.4 per cent CSPs in Malappuram have clients with 3 to 4 transactions and 42.9 per cent in Palakkad have accountholders with 1 to 2 banking transaction per month. 3.49 is the average number of transactions per account per month. Chi-square result showed a value of 1.003 and p value of 0.909>0.05, which is not significant at 5 per cent level. Thus, we may infer that there is no significant relationship between districts of CSPs and number of transactions per account per month.

4.3.9 Average Amount of Balance per Account

Although the savings bank deposit accounts opened through CSPs are no-frill or zero balance accounts in nature active customers may maintain certain amount as balance on their accounts. Amount of balance kept by the clients depends on their income and savings level.

Table 4.17

District wise Distribution according to Amount of Balance per Account

Districts	Amount of Balance (Amount in ₹)				Total
	Up to 500	501 – 1,000	1,001 – 5,000	More than 5,000	
Malappuram	5 (8.8)	16 (28.1)	27 (47.4)	9 (15.8)	57 (100.0)
Palakkad	10 (28.6)	7 (20.0)	15 (42.9)	3 (8.6)	35 (100.0)
Thiruvananthapuram	15 (25.9)	17 (29.3)	22 (37.9)	4 (6.9)	58 (100.0)
Total	30 (20.0)	40 (26.7)	64 (42.7)	16 (10.7)	150 (100.0)
Mean	2219				
Chi-square	9.572				
Sig.	.144				

Source: Primary Data
Note: *Figures in parentheses represent percentages of row total*

Table 4.17 shows that accountholders of only 10.7 per cent CSPs maintain a balance of more than ₹5,000 while the amount of balance kept by clients of 20 per cent is up to ₹500. 47.4 per cent of CSPs in Malappuram district have per account balance of ₹1,001 - ₹5,000. The average balance per account kept with CSPs amounted to ₹2,219. It may be inferred that there is no significant relationship between districts of CSPs and amount of balance kept by clients per account as the Chi-square value is 9.572 and p value is 0.144>0.05, which is not significant at 5 per cent level.

4.4 Availability of Kiosk Banking Services at CSPs

A number of kiosk banking services have been offered through the CSPs to the public affordably. 14 popular services among them have been identified and listed in the following table.

Table 4.18

Banking Services Offered through CSPs

Sl. No	Kiosk Banking Services	Yes/No	No. of Respondents	Percentage
1	BSBD Account Opening	Yes	150	100.0
		No	0	0.0
		Total	**150**	**100.0**
2	FD Account Opening	Yes	27	18.0
		No	123	82.0
		Total	**150**	**100.0**
3	RD Account Opening	Yes	51	34.0
		No	99	66.0
		Total	**150**	**100.0**
4	Cash Deposits	Yes	150	100.0
		No	0	0.0
		Total	**150**	**100.0**
5	Cash Withdrawals	Yes	150	100.0
		No	0	0.0
		Total	**150**	**100.0**
6	Money Transfer	Yes	150	100.0

			No	0	0.0
			Total	**150**	**100.0**
7	Balance Enquiry		Yes	150	100.0
			No	0	0.0
			Total	**150**	**100.0**
8	Tatkal Money Transfer		Yes	106	70.7
			No	44	29.3
			Total	**150**	**100.0**
9	IMPS transactions		Yes	150	100.0
			No	0	0.0
			Total	**150**	**100.0**
10	Passbook Printing		Yes	8	5.3
			No	142	94.7
			Total	**150**	**100.0**
11	Rupay ATM Card		Yes	90	60.0
			No	60	40.0
			Total	**150**	**100.0**
12	Loan Account Deposit		Yes	130	86.7
			No	20	13.3
			Total	**150**	**100.0**
13	Social Security Schemes		Yes	135	90.0
			No	15	10.0
			Total	**150**	**100.0**
14	AEPS Facility		Yes	150	100.0
			No	0	0.0
			Total	**150**	**100.0**

Source: Primary Data

From table 4.18 it is observed that all the CSPs offer certain kiosk banking services such as BSBD account opening, cash deposits, cash withdrawals, money transfer, balance enquiry, IMPS transactions and AEPS facility. All these are the most popular banking services too. 90 per cent CSPs offer social security schemes, 86.7 per cent offer service of loan account deposits, 70.7 per cent offers tatkal money transfer services and 60 per cent of CSPs offer Rupay ATM card facility. The least offered kiosk banking services through CSPs are passbook printing

services (5.3 per cent), FD account opening (18 per cent) and RD account opening (34 per cent).

4.5 Promotion Methods

CSPs adopt a number of promotional techniques for attracting the people to their outlets for kiosk banking. The ways of promotion involve advertisement in media including social media platforms, pamphlets and brochures, personal contact with people, financial awareness campaign in schools, colleges and public places and by establishing display boards showing the contact details of nearby CSP at bank branches.

Table 4.19

Promotion Methods Adopted by CSPs

Sl. No	Promotion Methods	Yes/No	No. of Respondents	Percentage
1	Medias (Incl. Social Media)	Yes	123	82.0
		No	27	18.0
		Total	**150**	**100.0**
2	Pamphlets and Brochures	Yes	87	58.0
		No	63	42.0
		Total	**150**	**100.0**
3	Personal Contact with Clients	Yes	150	100.0
		No	0	0.0
		Total	**150**	**100.0**
4	Financial Awareness Campaign	No	98	65.3
		Yes	52	34.6
		Total	**150**	**100.0**
5	Display Boards at Bank Branches	Yes	122	81.3
		No	28	18.7
		Total	**150**	**100.0**

Source: Primary Data

From table 4.19 it is clear that the entire 150 sample CSPs adopt personal contact with the clients as a promotion method. Advertising in media (including social media) is also a preferred way of promotion by 82 per cent CSPs. 81.3 per cent and 58 per cent CSPs respectively adopt display boards at bank branches and

pamphlets and brochures as their promotion techniques. But, only 34.6 per cent CSPs follow financial awareness campaign as a model for promotion.

4.6 Best Practices in Kiosk Banking

How well practicing kiosk banking is a matter which makes the business of CSPs successful and attractive to the clients and other stakeholders as well. Some of the best practices followed by the CSPs in kiosk banking have been listed in the following table.

Table 4.20

Best Practices in Kiosk Banking

Sl. No	Best Practices	Yes/No	No. of Respondents	Percentage
1	Maintaining records of clients	Yes	115	76.7
		No	35	23.3
		Total	**150**	**100.0**
2	Maintaining cordial relationship with bank manager and staff	Yes	128	85.3
		No	22	14.7
		Total	**150**	**100.0**
3	Conducting financial literacy programme	Yes	124	82.7
		No	26	17.3
		Total	**150**	**100.0**
4	Providing non-financial services	Yes	140	93.3
		No	10	6.67
		Total	**150**	**100.0**
5	Keeping a complaint register	Yes	134	89.3
		No	16	10.7
		Total	**150**	**100.0**
6	Issuing printed or handwritten receipts for transactions	Yes	150	100.0
		No	0	0.0
		Total	**150**	**100.0**
7	Maintaining empathic attitude with clients	Yes	150	100.0
		No	0	0.0
		Total	**150**	**100.0**

Source: Primary Data

As per table 4.20, the entire sample CSPs issue printed or handwritten receipts to clients for each transaction and maintain an empathic attitude with their clients. Most of them provide non-financial services (93.3 per cent), keep a complaint register (89.3 per cent), keep cordial relationship with bank officials (85.3 per cent), conduct financial literacy programme for the public (82.7 per cent), and maintain records of the clients (76.7 per cent).

4.7 Operational Knowledge and Skills

CSPs have to acquire certain knowledge and skills for operating kiosk banking. They should have knowledge on basic banking principles, required documents for availing banking services and KYC standards. Possessing skills in use and maintenance of biometric devices will help the CSPs to uninterruptedly cater the banking needs of people. The respondents were asked to rate the below given eight statements in five point response scale.

Table 4.21

Operational Knowledge and Skills of CSPs

Sl. No	Operational Knowledge and Skills	Mean	SD
1	Knowledge about basic banking principles and practices	4.21	.651
2	Knowledge about documents required for availing banking products/services	4.06	.779
3	Awareness about KYC norms	4.03	.962
4	Ability to use biometric device	4.69	.463
5	Ability to do minor trouble shooting of biometric device	3.84	1.024
6	Ability to provide financial counselling to the villagers in service area	4.11	.752
7	Ability to build trust and confidence among clients	4.21	.805
8	Ability to persuade villagers to avail basic banking services	4.19	.783

Source: Primary Data

From table 4.21 it is found that the CSPs possess reasonable operational knowledge and skills as the mean values are more than mean of response scale 3. Highly rated skill among the CSPs is their ability to use biometric device (mean 4.69), followed by both the knowledge on basic banking principles and practices, and ability to build trust and confidence among clients (mean 4.21 each). The least mean value (3.84) is reported to the ability to do minor trouble shooting of biometric device.

4.8 Personal Profile of CSP Entrepreneurs

Demographic characteristics of CSP entrepreneurs have significant effect on the operation of kiosk banking as the pattern of operation varies according to their gender, age group, educational qualification, occupation and level of income.

Table 4.22

Profile of CSP Entrepreneurs

Sl. No	Demographic Variables	No. of Respondents	Percentage	Cumulative Percentage
1	**Gender:**			
	Male	104	69.3	69.3
	Female	46	30.7	100.0
	Total	**150**	**100.0**	
2	**Age Group:**			
	Up to 25	5	3.3	3.3
	26 - 40	89	59.3	62.7
	41 - 55	46	30.7	93.3
	Above 55	10	6.7	100.0
	Total	**150**	**100.0**	
	Mean	**38.66**		
3	**Educational Qualification:**			
	XII	42	28.0	28.0
	UG	62	41.3	69.3
	PG	37	24.7	94.0

	Others	9	6.0	100.0
	Total	**150**	**100.0**	
4	**Occupation:**			
	Local Shop Keeper	28	18.7	18.7
	Retired	6	4.0	22.7
	Akshaya Centre	42	28.0	50.7
	Self-employed	14	9.3	60.0
	CSC	52	34.7	94.7
	Others	8	5.3	100.0
	Total	**150**	**100.0**	
6	**Monthly Income (Other than from CSP) in ₹**			
	Up to 10000	55	36.7	36.7
	10001 - 15000	40	26.7	63.3
	15001 - 20000	21	14.0	77.3
	Above 20000	34	22.7	100.0
	Total	**150**	**100.0**	
	Mean	**15,172.00**		

Source: Primary Data

As per table 4.22, out of 150 CSP entrepreneurs majority are male (69.3 per cent) and the participation of female category is very less in CSP operations (30.7 per cent). Regarding age, 59.3 per cent CSP entrepreneurs belong to the age group of 26 to 40 and only 6.7 per cent entrepreneurs have age of more than 55 years. The average age of CSP entrepreneurs is reported at 39 years. 66 per cent entrepreneurs are either graduates or post graduates while 28 per cent have completed the educational qualification of senior secondary level. In respect of occupation of CSP entrepreneurs, majority (62.7 per cent) of them operate either Common Services Centres (CSC) or Akshaya e centres. As far as monthly income from sources other than CSP is concerned, 36.7 entrepreneurs come under the income group of ₹10,000 or less and 22.7 per cent have monthly income of more than ₹20,000 from other sources. The average monthly income of CSP entrepreneurs from other sources is reported as ₹15,172.

The gender wise distribution of CSP entrepreneurs across the sample districts can be seen in the following table.

Table 4.23

District wise Distribution of CSP Entrepreneurs on the basis of Gender

Districts	Gender		Total
	Male	Female	
Malappuram	49 (86.0)	8 (14.0)	57 (100.0)
Palakkad	24 (68.6)	11 (31.4)	35 (100.0)
Thiruvananthapuram	31 (53.4)	27 (46.6)	58 (100.0)
Total	104 (69.3)	46 (30.7)	150 (100.0)
Chi-square	14.308		
Sig.	.001*		

Source: Primary Data

Note: *Figures in parentheses represent percentages of row total*
* Significant at 5 per cent level

From table 4.23 it is seen that 86 per cent of CSP entrepreneurs from Malappuram district are male and 14 per cent are female. In Palakkad district, out of 35 entrepreneurs 24 (68.6 per cent) belong to male category while 31.4 per cent represent female group. But, in Thiruvananthapuram district the distribution of male and female entrepreneurs are relatively equal (53.4 per cent and 46.6 per cent respectively). Result of Chi-square test shows a p value of 0.001<0.05 (Chi-square value 14.308) which is significant at 5 per cent level. Hence it is inferred that the distribution of male and female CSP entrepreneurs are not equal in sample districts.

4.9 Level of Service Delivery Satisfaction towards Kiosk Banking

CSPs, being the intermediaries between banks and their customers, play a vital role in kiosk banking. It is necessary to identify the level of satisfaction of CSPs towards kiosk banking in the sense that how they feel with their BC Company, linked bank branch and clients as a whole. For this purpose CSPs were asked to rate their levels of satisfaction towards kiosk banking in five points measuring scale

(highly dissatisfied to highly satisfied). Following table summarises the responses of CSPs.

Table 4.24

Level of Service Delivery Satisfaction towards Kiosk Banking

| Perceptions | Level of Satisfaction | | | | | Mean | SD |
	Highly Dissatisfied	Dissatisfied	Neutral	Satisfied	Highly Satisfied		
Support from banks/BC Co	7 (4.7)	17 (11.3)	16 (10.7)	96 (64.0)	14 (9.3)	3.62	.967
Financial awareness and literacy of clients	12 (8.0)	35 (23.3)	43 (28.7)	51 (34.0)	9 (6.0)	3.07	1.066
Availability of financial products	24 (16.0)	43 (28.7)	34 (22.7)	43 (28.7)	6 (4.0)	2.76	1.151
Affordability & accessibility of people to financial products	17 (11.3)	37 (24.7)	34 (22.7)	53 (35.3)	9 (6.0)	3.00	1.141
Attitude of people towards banking products	19 (12.7)	31 (20.7)	26 (17.3)	54 (36.0)	20 (13.3)	3.17	1.261
Attitude of bank staff	14 (9.3)	26 (17.3)	20 (13.3)	69 (46.0)	21 (14.0)	3.38	1.197
Technical support	20 (13.3)	36 (24.0)	24 (16.0)	65 (43.3)	5 (3.3)	2.99	1.161
Remuneration for BC transactions	51 (34.0)	88 (58.7)	1 (0.7)	10 (6.7)	0 (0.0)	1.80	.760
Training programme	33 (22.0)	41 (27.3)	36 (24.0)	40 (26.7)	0 (0.0)	2.55	1.108
Rules & regulations of bank for delivery of services	34 (22.7)	56 (37.3)	22 (14.7)	35 (23.3)	3 (2.0)	2.45	1.138

Source: Primary Data
Note: *Figures in parentheses represent percentages*

From table 4.24 it can be seen that 64 per cent CSPs are satisfied with support from banks and BC Companies while 4.7 per cent are highly dissatisfied. 8 per cent CSPs are highly dissatisfied and 6 per cent are highly satisfied with level of financial literacy and awareness of clients. 28.7 per cent each of CSPs are

dissatisfied and satisfied with availability of financial services to the clients through kiosk banking. While 35.3 per cent CSPs are satisfied 11.3 per cent are highly dissatisfied with affordability and accessibility of people to banking products. Regarding attitude of people towards banking products 36 per cent of CSPs are satisfied and 12.7 per cent are highly dissatisfied. Whereas 46 per cent CSPs are satisfied 9.3 per cent are highly dissatisfied with bank staff's attitude towards CSPs.

In respect of availability of technical supports to CSPs 43.3 per cent respondents are satisfied and 13.3 per cent are highly dissatisfied. 92.7 per cent CSPs are either dissatisfied or highly dissatisfied with remuneration granted for BC transactions and only 6.7 per cent CSPs have satisfaction with remuneration. About one half of the CSPs (49.3 per cent) are dissatisfied or highly dissatisfied with training given to CSPs while none of them are highly satisfied with it. 37.3 per cent sample CSPs are dissatisfied and 23.3 per cent are satisfied with rules and regulations of bank for delivering kiosk banking services through CSPs.

The mean values of five variables are reported as less than mean of response scale (3), which includes availability of financial products (2.76), availability of technical supports (2.99), and remuneration for BC transactions (1.80), availability of training (2.55) and rules and regulations of banks in delivery of financial services (2.45).

4.9.1 Level of Satisfaction towards Kiosk Banking According to Districts of CSPs

A null hypothesis is set that *there is no significant difference in level of satisfaction towards kiosk banking among CSPs from different districts.* Kruskal Wallis test has been used to test the given hypothesis.

Table 4.25

Level of Satisfaction towards Kiosk Banking among Districts

Districts	N	Mean Rank	Chi-square	Df	Sig.
Malappuram	57	65.28			
Palakkad	35	98.39	13.380	2	.001*
Thiruvananthapuram	58	71.73			
Total	150				

Source: Primary Data

* Significant at 5 per cent level

It is evident from table 4.25 that Palakkad district has higher mean rank (98.39) regarding level of satisfaction towards kiosk banking. The variance among different districts appears to be significant at 5 per cent that Chi-square value = 13.380 and p value = 0.001<0.05. The null hypothesis is rejected and it may be inferred that there is significant difference in level of satisfaction towards kiosk banking among CSPs from different districts.

4.9.2 Level of Satisfaction towards Kiosk Banking According to Type of Business

Mann-Whitney U test is used to test the null hypothesis that *there is no significant difference in level of satisfaction towards kiosk banking among primary and secondary types of CSP businesses*.

Table 4.26

Level of Satisfaction towards Kiosk Banking among Types of Business

Type	N	Mean Rank	Mann-Whitney U	Z	Sig. (2-tailed)
Primary	82	80.98			
Secondary	68	68.90	2339.000	-1.700	.089
Total	150				

Source: Primary Data

From table 4.26 it is observed that mean rank of primary category of CSPs is higher (80.98) in relation to their counterparts (68.90). Mann-Whitney U test result demonstrates Z value as -1.700 and p value as 0.089>0.05, which is not significant at 5 per cent level. The null hypothesis is accepted and inferred that there is no significant difference in level of satisfaction towards kiosk banking among primary and secondary types of CSP businesses.

4.9.3 Level of Satisfaction towards Kiosk Banking According to CSP Experience

In order to test the null hypothesis that *there is no significant difference in level of satisfaction towards kiosk banking among CSPs with different years of experience*, Kruskal Wallis has been used.

Table 4.27

Level of Satisfaction towards Kiosk Banking among Experience Groups

Years of Experience	N	Mean Rank	Chi-square	Df	Sig.
Up to 1	39	77.60			
2 - 5	70	68.42	4.184	2	.123
More than 5	41	85.59			
Total	150				

Source: Primary Data

As regards experience CSPs with more than 5 years of experience possess higher mean rank (85.59). Since Chi-square value is 4.184 and p value is 0.123>0.05, the null hypothesis is accepted at 5 per cent level of significance. Hence, it is inferred that that there is no significant difference in level of satisfaction towards kiosk banking among CSPs with different years of experience.

4.10 Problems Faced by CSPs in Kiosk Banking

Although a lot of financial services have been provided by CSPs in rural areas for achieving the goal of financial inclusion they are confronted with a number

of problems in delivering kiosk banking services. This study has classified the problems faced by CSPs under four different heads as financial problems, link bank branch and BC company related problems, marketing or clients related problems, and operational and technological problems.

4.10.1 Financial Problems

Financial problems in delivery of kiosk banking services are concerned with working capital requirements, liquidity and risk issues, increased operating cost and unreasonable commission for transactions.

Table 4.28

Financial Problems in Kiosk Banking

Sl. No	Financial Problems	Mean	SD
1	High operating cost	3.98	.878
2	Inadequate commission	4.55	.791
3	Difficulty in financing working capital requirements	4.29	.816
4	Cash management and liquidity	3.46	1.208
5	Lack of insurance coverage for risks	3.99	.997

Source: Primary Data

From table 4.28 it can be seen that all the mean values are more than the mean of response scale 3. The most severe financial problem is 'inadequate commission' (mean 4.55), followed by 'difficulty in financing working capital requirements' (4.29), 'lack of insurance coverage for risks' (3.99), 'high operating cost' (3.98) and 'cash management and liquidity' (3.46).

4.10.1.1 Financial Problems According to Districts of CSPs

For testing the null hypothesis, *there is no significant difference in financial problems in delivering kiosk banking services among the CSPs from different districts*, Kruskal Wallis test has been used as under.

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Table 4.29

Financial Problems among Districts

Districts	N	Mean Rank	Chi-square	df	Sig.
Malappuram	57	81.45			
Palakkad	35	71.31	1.761	2	
Thiruvananthapuram	58	72.18			.415
Total	150				

Source: Primary Data

From table 4.29 it is observed that the highest mean rank relating to financial problems in delivering kiosk banking services is reported in Malappuram district (81.45). Kruskal Wallis test result shows Chi-square value 1.761 and p value 0.415>0.05, which is not significant at 5 per cent level. It is inferred that there is no significant difference in financial problems in delivering kiosk banking services among the CSPs from different districts**.**

4.10.1.2 Financial Problems According to Type of Business

In order to test the null hypothesis *there is no significant difference in financial problems in delivering kiosk banking services among primary and secondary types of CSP businesses* Mann-Whitney U test is used.

Table 4.30

Financial Problems among Types of Business

Type	N	Mean Rank	Mann-Whitney U	Z	Sig. (2-tailed)
Primary	82	71.62			
Secondary	68	80.18	2470.000	-1.211	.226
Total	150				

Source: Primary Data

Table 4.30 presents the higher mean rank for secondary type of CSP businesses (80.18) in financial problems in delivering kiosk banking services. Test result inferred that there is no significant difference in financial problems in

delivering kiosk banking services among the primary and secondary types of CSP businesses as the Z value is -1.211 and p value is 0.226>0.05, which is not significant at 5 per cent level.

4.10.1.3 Financial Problems According to CSP Experience

Kruskal Wallis test has been used for testing the null hypothesis that *there is no significant difference in financial problems in delivering kiosk banking services among the CSPs with different years of experience in kiosk banking.*

Table 4.31

Financial Problems among Experience Groups

Years of Experience	N	Mean Rank	Chi-square	df	Sig.
Up to 1	39	76.04			
2 - 5	70	79.92	2.179	2	.336
More than 5	41	67.44			
Total	150				

Source: Primary Data

It is observed from table 4.31 that highest mean rank regarding financial problems in delivering kiosk banking services is reported among to CSPs having the experience of 2 to 5 years in kiosk banking (79.92). Kruskal Wallis test result presents Chi-square value of 2.179 and p value of 0.336>0.05, which is not significant at 5 per cent level. Hence, it is inferred that there is no significant difference in financial problems in delivering kiosk banking services among the CSPs with different years of experience in kiosk banking.

4.10.2 Link Branch/BC Company Related Problems

Problems related with link bank branch or BC Company consist of daily settlement issues, irregular payment of remuneration, lack of support from bank personnel, passbook related issues, lack of training, inadequacy of financial services, lack of financial support and frequent changes in bank policies.

Table 4.32

Link Branch/BC Company Related Problems in Kiosk Banking

Sl. No	Link Branch/BC Company Related Problems	Mean	SD
1	Difficulty in daily settlement	3.23	1.308
2	Delay and irregularity in payment of commission	3.29	1.233
3	Unsupportive bank manager/staff	2.75	1.158
4	Delay in issuing passbook to customers	3.09	1.253
5	Inadequate training to CSP staff	3.44	1.126
6	Limited number of financial services	3.89	1.044
7	No initial investment support from bank	4.43	.746
8	Frequent policy changes by banks	3.81	.930

Source: Primary Data

It is observed from table 4.32 that the severe link branch/BC Company related problem is lack of initial investment support from bank (mean 4.43), followed by limited number of financial services (3.89), frequent policy changes by banks (3.81), and inadequate training to CSP staff (3.44). The mean values of other three problems are also more than mean of response scale 3 (delay and irregularity in payment of commission – 3.29, difficulty in daily settlement – 3.23 and delay in issuing passbook to customers. But, the CSPs rate the issue of 'unsupportive bank manager and staff' as not a remarkable issue (mean 2.75).

4.10.2.1 Link Branch/BC Company Related Problems According to Districts of CSPs

A null hypothesis is set that *there is no significant difference in link branch/ BC company related problems in delivering kiosk banking services among the CSPs from different districts*. The hypothesis is tested with Kruskal Wallis test.

Table 4.33

Link Branch/BC Company Related Problems among Districts

Districts	N	Mean Rank	Chi-square	df	Sig.
Malappuram	57	83.32			
Palakkad	35	64.71	4.078	2	.130
Thiruvananthapuram	58	74.32			
Total	150				

Source: Primary Data

Table 4.33 depicts that the CSPs from Malappuram district have highest mean rank (83.32). Kruskal Wallis test result accepts the null hypothesis at 5 per cent level of significance since the p value is 0.130>0.05 (Chi-square value = 4.078). Hence, it can be inferred that there is no significant difference in link branch/ BC company related problems in delivering kiosk banking services among the CSPs from different districts**.**

4.10.2.2 Link Branch/BC Company Related Problems According to Type of Business

Mann-Whitney U test is used to test the null hypothesis that *there is no significant difference in link branch/ BC company related problems in delivering kiosk banking services among primary and secondary types of CSP businesses.*

Table 4.34

Link Branch/BC Company Related Problems among Types of Business

Type	N	Mean Rank	Mann-Whitney U	Z	Sig. (2-tailed)
Primary	82	74.15			
Secondary	68	77.13	2677.500	-.419	.675
Total	150				

Source: Primary Data

It is found from table 4.34 that mean rank of secondary category is dominated with 77.13. Mann-Whitney U test result shows Z value -0.419 and p

value 0.675>0.05 which is not significant at 5 per cent level. The null hypothesis is accepted and it may be inferred that there is no significant difference in branch/ BC company related problems in delivering kiosk banking services among primary and secondary types of CSP businesses.

4.10.2.3 Link Branch/BC Company Related Problems According to CSP Experience

The null hypothesis, *there is no significant difference in link branch/BC company related problems in delivering kiosk banking services among CSPs with different years of experience in kiosk banking,* is tested with Kruskal Wallis test as seen in the following table.

Table 4.35

Link Branch/BC Company Related Problems among Experience Groups

Years of Experience	N	Mean Rank	Chi-square	df	Sig.
Up to 1	39	80.36	.803	2	.669
2 - 5	70	74.96			
More than 5	41	71.79			
Total	150				

Source: Primary Data

From table 4.35, it is found that the mean rank regarding branch/BC company related problems in delivering kiosk banking services is high among CSPs with kiosk banking experience up to one year (80.36). Chi-square value 0.803 and p value 0.669>0.05 (not significant at 5 per cent level) resulted in acceptance of null hypothesis. It is inferred that there is no significant difference in link branch/BC company related problems in delivering kiosk banking services among CSPs with different years of experience in kiosk banking.

4.10.3 Marketing/ Clients Related Problems

Problems relating to marketing and clients include low level of financial literacy of clients, dormant deposit accounts, lack of trust in BC channel, lack of

marketing support, reluctance from clients for providing information, and competition from banks and other CSPs.

Table 4.36

Marketing/ Clients Related Problems in Kiosk Banking

Sl. No	Marketing/ Clients Related Problems	Mean	SD
1	Low level of financial literacy of clients	3.28	1.188
2	Large number of dormant BSBD accounts	3.82	.852
3	Lack of people's trust in BC channel	2.93	1.153
4	Lack of enough marketing support	3.81	1.013
5	Reluctance from clients for providing complete information	2.99	1.158
6	Competition from banks, CSPs of other banks etc.	2.74	1.058

Source: Primary Data

Table 4.36 reveals that the major marketing or clients related problem in kiosk banking is large number of dormant basic savings bank deposit accounts (mean rank 3.82), followed by lack of enough marketing support (3.81) and low level of financial literacy of clients (3.28). The remaining three marketing/ client related problems are not much serious that the mean values are less than mean of response scale 3. They are lack of people's trust in BC channel (2.93), reluctance from clients for providing complete information (2.99) and competition from banks, CSPs of other banks etc (2.74).

4.10.3.1 Marketing/ Clients Related Problems According to Districts of CSPs

Kruskal Wallis test is used to test the null hypothesis that *there is no significant difference in marketing/ clients related problems in delivering kiosk banking services among the CSPs from different districts*.

Table 4.37

Marketing/ Clients Related Problems among Districts

Districts	N	Mean Rank	Chi-square	df	Sig.
Malappuram	57	81.37			
Palakkad	35	74.53	1.899	2	.387
Thiruvananthapuram	58	70.32			
Total	150				

Source: Primary Data

According to table 4.37 the mean rank of Malappuram district is reported as higher (81.37), followed by Palakkad (74.53). Kruskal Wallis test result reveals that the difference among the districts with Chi-square value 1.899 and p value 0.387>0.05, which is not significant at 5 per cent level. Therefore, it is supposed that there is no difference in marketing/ clients related problems in delivering kiosk banking services among the CSPs from different districts.

4.10.3.2 Marketing/ Clients Related Problems According to Type of Business

A null hypothesis is set that *there is no significant difference in marketing/ clients related problems in delivering kiosk banking services among primary and secondary types of CSP businesses.* Mann-Whitney U test is used for testing the hypothesis.

Table 4.38

Marketing/ Clients Related Problems among Types of Business

Type	N	Mean Rank	Mann-Whitney U	Z	Sig. (2-tailed)
Primary	82	74.53			
Secondary	68	75.46	2785.500	-.009	.992
Total	150				

Source: Primary Data

As per table 4.38 secondary type of business has dominant mean rank of 75.46. Mann-Whitney U test result (Z -0.009 and p value 0.992>0.05) accepts the

null hypothesis at 5 per cent level. It is concluded that there is no significant difference in marketing/ clients related problems in delivering kiosk banking services among primary and secondary types of CSP businesses.

4.10.3.3 Marketing/ Clients Related Problems According to CSP Experience

Kruskal Wallis test is used to test the null hypothesis that *there is no significant difference in marketing/ clients related problems in delivering kiosk banking services among CSPs with different years of experience in kiosk banking.*

Table 4.39

Marketing/ Clients Related Problems among Experience Groups

Years of Experience	N	Mean Rank	Chi-square	df	Sig.
Up to 1	39	73.00			
2 - 5	70	88.49	15.023	2	.001*
More than 5	41	55.71			
Total	150				

Source: Primary Data
* Significant at 5 per cent level

As regards years of experience in kiosk banking CSPs with experience of 2 to 5 years possess higher mean rank (88.49). It is seen that the variance among CSPs with different years of experience is significant at 5 per cent level since Chi-square value = 15.023 and p value = 0.001<0.05. Therefore, it is inferred that there is significant difference marketing/ clients related problems in delivering kiosk banking services among CSPs with different years of experience in kiosk banking.

4.10.4 Operational and Technological Problems

The problems encountered by CSPs relating to their operations include power shortage, fingerprint errors, time out issues, net connectivity issues, lack of technical support and lack of passbook printing machine.

Table 4.40

Operational and Technological Problems in Kiosk Banking

Sl. No	Operational and Technological Problems	Mean	SD
1	Frequent power shortage	2.62	1.008
2	Errors in capturing fingerprints	4.07	.913
3	Time out issue while opening accounts	3.98	.937
4	Internet connectivity problem	3.22	1.186
5	Lack of technical support from TSPs	3.49	1.203
6	No passbook printing machine	4.79	.902

Source: Primary Data

Table 4.40 presents that the most affected operational and technological problem is non-availability of passbook printing machine (mean 4.79) afterwards errors in capturing fingerprints (4.07), time out issue while opening accounts (3.98), lack of technical support from technology service providers (3.49), and internet connectivity problem (3.22). Frequent power shortage is the only problem (mean 2.62), having mean value less than mean of response scale 3, which is not regarded as a major issue.

4.10.4.1 Operational and Technological Problems According to Districts of CSPs

Kruskal Wallis test is used for testing the null hypothesis that *there does not exist significant difference in operational and technological problems in delivering kiosk banking services among the CSPs from different districts.*

Table 4.41

Operational and Technological Problems among Districts

Districts	N	Mean Rank	Chi-square	Df	Sig.
Malappuram	57	73.28			
Palakkad	35	55.51	13.959	2	
Thiruvananthapuram	58	89.74			.001*
Total	150				

Source: Primary Data
Significant at 5 per cent level

Table 4.41 depicts that highest mean rank (89.74) is reported to the CSPs from Thiruvananthapuram district with regard to operational and technological problems in delivering kiosk banking services. As per Kruskal Wallis test result the variation in mean ranks is statistically significant at 5 per cent level (Chi-square value = 13.959 and p value = 0.001<0.05). Hence the null hypothesis stands rejected and inferred that there exists significant difference in operational and technological problems in delivering kiosk banking services among the CSPs from different districts.

4.10.4.2 Operational and Technological Problems According to Type of Business

In order to test the null hypothesis *there is no significant difference in operational and technological problems in delivering kiosk banking services among primary and secondary types of CSP businesses* Mann-Whitney U test is used.

Table 4.42

Operational and Technological Problems among Types of Business

Type	N	Mean Rank	Mann-Whitney U	Z	Sig. (2-tailed)
Primary	82	67.21			
Secondary	68	85.50	2108.000	-2.583	.010*
Total	150				

Source: Primary Data
Significant at 5 per cent level

As per table 4.42, among the type of CSP businesses mean rank of secondary category is dominated with 85.50. Mann-Whitney U test result reveals that there exists variance in mean ranks, with Z = -2.583 and p value = 0.010<0.05, at 5 per cent level. Hence, it is inferred that there is significant difference in operational and technological problems in delivering kiosk banking services among primary and secondary types of CSP businesses.

4.10.4.3 Operational and Technological Problems According to CSP Experience

For testing the null hypothesis, *there is no significant difference in operational and technological problems in delivering kiosk banking services among CSPs with different years of experience in kiosk banking,* Kruskal Wallis test is used as given in table 4.43.

Table 4.43

Operational and Technological Problems among Experience Groups

Years of Experience	N	Mean Rank	Chi-square	Df	Sig.
Up to 1	39	63.54			
2 - 5	70	80.43	4.098	2	.129
More than 5	41	78.46			
Total	150				

Source: Primary Data

In respect of operational and technological problems, the highest mean rank can be seen to the CSPs with experience of 2 to 5 years (80.43). Chi-square value 4.098 and p value 0.129>0.05 (not significant at 5 per cent level) results in acceptance of null hypothesis. Therefore it is inferred that there is no significant difference in operational and technological problems in delivering kiosk banking services among CSPs with different years of experience in kiosk banking.

4.10.5 Problems in Delivering Kiosk Banking Services

The following table summarises the descriptive statistics of various problems confronted by CSPs while delivering kiosk banking services in their service areas.

Table 4.44

Descriptive Statistics Relating to Problems Faced by CSPs in Kiosk Banking

Problems	N	Min	Max	Mean	Std. Deviation
Financial Problems	150	1.80	5.00	4.0533	.63359
Link Branch/BC Co. related Problems	150	1.00	4.75	3.4925	.62830
Marketing/Client related Problems	150	1.00	4.67	3.2611	.61258
Operational & Technological Problems	150	1.00	4.67	3.6944	.53282

Source: Primary Data

From table 4.44 it is found that among the problems encountered by CSPs in delivering kiosk banking services financial problems are most severe (mean 4.0533), after that operational and technological problems (3.6944), link branch/BC Company related problems (3.4925) and marketing/ client related problems.

When the above discussed four types of problems are taken together there may be differences in their mean values among the sample districts, types of CSP businesses and years of CSP experience.

4.10.5.1 Problems in Delivering Kiosk Banking Services According to Districts
of CSPs

To test the null hypothesis, *there is no significant difference in magnitude of problems in delivering kiosk banking services among the CSPs from different districts*, Kruskal Wallis test has been applied as given in the following table.

Table 4.45

Problems in Delivering Kiosk Banking Services among Districts

Districts	N	Mean Rank	Chi-square	df	Sig.
Malappuram	57	82.81			
Palakkad	35	65.41	3.541	2	
Thiruvananthapuram	58	74.41			.170
Total	150				

Source: Primary Data

It is evident from table 4.45 that Malappuram district has higher mean rank (82.81) regarding problems in delivering kiosk banking services. Difference among different districts appears to be not significant at 5 per cent level that Chi-square value = 3.541 and p value = 0.170 >0.05, and hence it is inferred that there is no significant difference in magnitude of problems in delivering kiosk banking services among the CSPs from different districts.

4.10.5.2 Problems in Delivering Kiosk Banking Services According to Type of
Business

Mann-Whitney U test is used to test the null hypothesis that *there is no significant difference in magnitude of problems in delivering kiosk banking services among primary and secondary types of CSP businesses*.

Table 4.46

Problems in Delivering Kiosk Banking Services among Types of Business

Type	N	Mean Rank	Mann-Whitney U	Z	Sig. (2-tailed)
Primary	82	72.35	2529.500	-.977	.329
Secondary	68	79.30			
Total	150				

Source: Primary Data

It is found from table 4.46 that secondary category is having dominant mean rank of 79.30. Mann-Whitney U test result shows Z value -0.977 and p value 0.329>0.05 which is not significant at 5 per cent level. The null hypothesis is accepted and it may be inferred that there is no significant difference in magnitude of problems in delivering kiosk banking services among primary and secondary types of CSP businesses.

4.10.5.3 Problems in Delivering Kiosk Banking Services According to CSP Experience

Kruskal Wallis test is used to test the null hypothesis that *there is no significant difference in magnitude of problems in delivering kiosk banking services among the CSPs with different years of experience in kiosk banking.*

Table 4.47

Problems in Delivering Kiosk Banking Services among Experience Groups

Years of Experience	N	Mean Rank	Chi-square	df	Sig.
Up to 1	39	72.83	3.279	2	.194
2 - 5	70	81.97			
More than 5	41	66.99			
Total	150				

Source: Primary Data

Table 4.47 shows that CSPs with kiosk banking experience of 2 to 5 years possess higher mean rank (81.97). It is seen that the difference among experience groups is not significant at 5 per cent level as Chi-square value = 3.279 and p value 0.194>0.05. Hence it is inferred that there is no significant difference in magnitude of problems in delivering kiosk banking services among the CSPs with different years of experience in kiosk banking.

4.11 CSPs' Opinion on Role of Kiosk Banking in Level of Financial Inclusion

Kiosk banking seems to be a model for enhancing the level of financial inclusion of the people in rural areas. Being the ground level players CSPs can evaluate the role of kiosk banking in financial inclusion. CSPs were asked to rate their opinion regarding role of kiosk banking in financial inclusion in a five-point measuring scale.

Table 4.48

Opinion on Role of Kiosk Banking in Improvement in Level of Financial Inclusion

Level of Agreement	No. of Respondents	Percentage	Mean	SD
Disagree	8	5.3		
Neither Agree Nor Disagree	18	12.0		
Agree	88	58.7	4.01	.760
Strongly Agree	36	24.0		
Total	150	100.0		

Source: Primary Data

From table 4.48 it can be seen that majority of CSPs (58.7 per cent) agreed to the statement that kiosk banking could improve the level of financial inclusion of rural people. While 24 per cent CSPs strongly believe in role of kiosk banking 12 per cent neither agree nor disagree on the statement. 5.3 per cent CSPs don't believe that kiosk banking have a role in financial inclusion. However, the mean value (4.01) indicates the positive responses of CSPs in this regard as it is more than mean of response scale (3).

4.12 Summary of Hypotheses Tested

Table 4.49 shows the summary of results of major hypotheses tested in respect of the level of service delivery satisfaction of CSPs towards kiosk banking and intensity of problems faced by CSPs in delivery of kiosk banking services.

Table 4.49

Results of Hypotheses Tested

Sl. No	Null Hypothesis (H$_0$)	Test & Values	Result	Inference
1	There is no significant difference in level of satisfaction towards kiosk banking among CSPs from different districts	Kruskal Wallis test $\square^2 =$ 13.380 p =.001*	H$_0$ Rejected	There is significant difference in level of satisfaction towards kiosk banking among CSPs from different districts
2	There is no significant difference in level of satisfaction towards kiosk banking among primary and secondary types of CSP businesses	Mann-Whitney U test Z = -1.700 p = .089	H$_0$ Accepted	There is no significant difference in level of satisfaction towards kiosk banking among primary and secondary types of CSP businesses
3	There is no significant difference in level of satisfaction towards kiosk banking among CSPs with different years of experience	Kruskal Wallis test $\square^2 =$ 4.184 p = .123	H$_0$ Accepted	There is no significant difference in level of satisfaction towards kiosk banking among CSPs with different years of experience
4	There is no significant difference in magnitude of problems in delivering kiosk banking services among the CSPs from different districts	Kruskal Wallis test $\square^2 =$ 3.541 p = .170	H$_0$ Accepted	There is no significant difference in magnitude of problems in delivering kiosk banking services among the CSPs from different districts
5	There is no significant difference in magnitude of problems in	Mann-Whitney	H$_0$ Accepted	There is no significant difference in magnitude of problems in

	delivering kiosk banking services among primary and secondary types of CSP businesses	U test Z = -0.977 p = .329		delivering kiosk banking services among primary and secondary types of CSP businesses
6	There is no significant difference in magnitude of problems in delivering kiosk banking services among the CSPs with different years of experience in kiosk banking	Kruskal Wallis test x^2 = 3.279 p = .194	H_0 Accepted	There is no significant difference in magnitude of problems in delivering kiosk banking services among the CSPs with different years of experience in kiosk banking

* Significant at 5 per cent level

4.13 Conclusion

In the light of analysis from the perspectives of CSPs the study unveiled the role played by them to improve the level of financial inclusion in rural areas of the state Kerala. Majority of CSP entrepreneurs run their kiosk banking business as primary occupation with several years of experience in separate counters. Each CSP invests an average amount of ₹1,36,017 in fixed assets and incurs average monthly recurring expenses of ₹10,426 for opening and operating kiosk banking business. However, their monthly revenue from CSPs is just half of the monthly recurring expenses, which is not sufficient to meet the equilibrium as the average revenue amounting to ₹5,215 only. While CSPs are satisfied with overall support from banks/BC company they are not at all satisfied with the remuneration for BC transactions. Lack of passbook printing machine and inadequate commission were rated as the major problems in delivering kiosk banking services. The study also reports that on average 52 per cent deposit accounts opened through CSPs remain dormant. Nonetheless CSPs believe that kiosk banking helped much for improvement of financial inclusion level of people up to a greater extent.

Chapter 5

Awareness and Usage of Kiosk Banking Services

5.1 Introduction

Financial inclusion is the key for development of a financial system. The success of a financial inclusion initiative can be measured on the basis of its level of effectiveness among the targeted group. BC model is considered as a successful weapon for ensuring financial inclusion among the people residing in rural areas where bank branches do not exist or the number of bank branches is not adequate to fulfil the banking needs of the population. Kiosk banking is a better alternative to the rural people for availing banking services at their own locality more conveniently and affordably.

This chapter deals with demand side analysis from the perspectives of users of kiosk banking services. It covers the factors influencing rural people towards kiosk banking services and their level of awareness on kiosk banking services and the extent of their usage of the same. The difficulties faced by clients in availing kiosk banking services also have been examined. The study has been conducted among 385 active clients of SBI CSPs in the state of Kerala from three sample districts. 146 respondents (37.9 per cent) belong to the northern district Malappuram, 90 respondents (23.4 per cent) belong to the central district Palakkad and 149 respondents (38.7 per cent) represent the southern district Thiruvananthapuram. The data have been analysed with the help of statistical tools like one way ANOVA, post hoc test, one sample t test, independent samples t test, Levene's test for equality of variances and chi-square test.

5.2 Demographic Profile of the Respondents

The following table describes the demographic features of respondents regarding their gender, age, educational qualification, occupation and level of income. All these variables have significant effect in determining the level of

financial inclusion and hence they are used, in this study, for further demand side analysis.

Table 5.1

Demographic Profile of the Respondents

Sl. No	Demographic Variables	No. of Respondents	Percentage	Cumulative Percentage
1	**Gender:**			
	Male	176	45.7	45.7
	Female	209	54.3	100.0
	Total	**385**	**100.0**	
2	**Age Group:**			
	Up to 20	9	2.3	2.3
	21 – 30	88	22.9	25.2
	31 – 40	110	28.6	53.8
	41 – 50	104	27.0	80.8
	More than 50	74	19.2	100.0
	Total	**385**	**100.0**	
	Mean	**39.46**		
3	**Educational Qualification:**			
	Up to X	171	44.4	44.4
	XII	105	27.3	71.7
	UG	77	20.0	91.7
	PG	18	4.7	96.4
	Others	14	3.6	100.0
	Total	**385**	**100.0**	
4	**Occupational Status:**			
	Agriculture	40	10.4	10.4
	Self-employed	89	23.1	33.5
	Business	30	7.8	41.3
	Daily Worker	68	17.7	59.0
	Salaried	56	14.5	73.5
	Housewife	56	14.5	88.1
	Student	46	11.9	100.0
	Total	**385**	**100.0**	

	Monthly Income (in ₹):			
5	Up to 5,000	64	16.6	16.6
	5,001 – 10,000	104	27.0	43.6
	10,001 – 15,000	92	23.9	67.5
	15,001 – 20,000	102	26.5	94.0
	More than 20,000	23	6.0	100.0
	Total	**385**	**100.0**	
	Mean	**12192.73**		

Source: Primary Data

Table 5.1explains that 209 out of 385 respondents (54.3 per cent) are female and 176 (45.7 per cent) are male. The data from CSPs also confirmed that majority of their clients belong to female category. Regarding age group 28.6 per cent are in the age group of 31- 40, 27 per cent belong to 41 -50 and 22.9 per cent of respondents represent the age group of 21 – 30. 19.2 per cent are from the age group of 51 and more. It is important to note that only 2.3 per cent respondents come under the age group of less than 21. The average age of sample respondents is reported at 39 (39.46). As far as their education level is concerned 44.4 per cent respondents are having the education up to tenth standard. 27.3 per cent of them have completed higher secondary education and 20 per cent are graduates. 4.7 per cent respondents are post graduates while 3.6 per cent possess other qualifications. It is found that the educational qualification of 71.7 per cent clients is higher secondary and below.

It is observed that 23.1 per cent respondents are self-employed, 17.7 per cent are daily workers and 14.5 per cent each are salaried and housewives. 11.9 per cent are students and 10.4 per cent represent farmers. With regard to monthly income of respondents 27 per cent belong to the income group of ₹5,001 - ₹10,000 and 26.5 per cent from ₹15,001 - ₹20,000. While majority of respondents represent middle income group 16.6 per cent and 6 per cent respectively belong the income group of less than ₹5,001 and more than ₹20,000. The average monthly income of clients is found as ₹12,192.73. 67.5 per cent of clients have monthly income up to ₹15,000 and 40 per cent belong to farmers, daily workers and students. It signifies that the

people from poor financial background constitute the major users of kiosk banking services.

Gender wise classification of respondents in sample districts can be seen in table 5.2

Table 5.2

Gender wise Distribution of Respondents in Sample Districts

Gender	Districts			Total
	Malappuram	**Palakkad**	**Thiruvananthapuram**	
Male	63 (35.8)	41 (23.3)	72 (40.9)	176 (100.0)
Female	83 (39.7)	49 (23.4)	77 (36.8)	209 (100.0)
Total	146 (37.9)	90 (23.4)	149 (38.7)	385 (100.0)

Source: Primary Data

Note: *Figures in parentheses represent percentages of row total*

The cross tabulation of gender and districts in table 5.2 shows that 40.9 per cent of male respondents belong to Thiruvananthapuram district, 35.8 per cent from Malappuram district and 23.3 per cent of them represent Palakkad district. Regarding to the female category 39.7 per cent belong to Malappuram district, 36.8 per cent and 23.4 per cent of respondents belong to the districts of Thiruvananthapuram and Palakkad respectively.

5.3 Source of Information about CSPs for Kiosk Banking

A number of promotion methods have been adopted by CSPs to inform the potential clients for Kiosk Banking, such as social media platforms, pamphlets, financial awareness campaigns etc. They also make use of their personal relation with local people to attract the latter to CSPs. The sources of information to the rural people about kiosk banking have been listed in table 5.3.

Table 5.3

Distribution of Respondents on the basis of Source of Information about CSPs

Source of Information	No. of Respondents	Percentage	Cumulative Percentage
Media (Incl. Social Media)	13	3.4	3.4
Pamphlets & Brochures	64	16.6	20.0
Friends & Relatives	151	39.2	59.2
Financial Awareness Campaign	28	7.3	66.5
Personal Contact with CSP Staff	38	9.9	76.4
Bank Officials	91	23.6	100.0
Total	**385**	**100.0**	

Source: Primary Data

It is seen from table 5.3 that 39.2 per cent of respondents were informed about CSPs through their friends and relatives, 23.6 per cent through bank officials and 16.6 per cent respondents started kiosk banking by the information through pamphlets and brochures distributed by CSPs. 9.9 per cent clients were informed by the direct contact with CSP staff, 7.3 per cent through CSP's financial awareness campaigns and only 3 per cent became aware about CSPs through media including social media. It is revealed that satisfaction and dissatisfaction towards kiosk banking are widely communicated among the clients through informal contacts.

5.4 Distances from Place of Residence to CSP

Proximity to the CSP is an important element in selection of Kiosk Banking services from CSPs as the people are preferring kiosk banking due to lack of bank branches at their location. Accessibility to formal financial services is regarded as a major concern in financial inclusion. The main attraction of kiosk banking is the availability of banking services at the door step or in nearby locality that more the distance less the accessibility.

5.4.1 Districts and Distance from Place of Residence to CSP

District wise classification of sample respondents according to the distance from their place of residence to CSP is displayed in the following table.

Table 5.4

District wise Distribution on the basis of Distance from Place of Residence to CSP

Districts	Distance to CSP			Total
	Less than 1 Km	1 to 2 Km	More than 2 Km	
Malappuram	26 (17.8)	90 (61.6)	30 (20.5)	146 (100.0)
Palakkad	24 (26.7)	48 (53.3)	18 (20.0)	90 (100.0)
Thiruvananthapuram	28 (18.8)	99 (66.4)	22 (14.8)	149 (100.0)
Total	78 (20.3)	237 (61.6)	70 (18.2)	385 (100.0)

Source: Primary Data
Note: *Figures in parentheses represent percentages of row total*

From table 5.4, it is observed that 61.6 per cent clients in Malappuram district have a distance of 1 to 2 kilometers from their place of residence to CSP, 20.5 per cent avail banking services from CSPs by travelling more than 2 kilometers and 17.8 per cent clients are very near to their CSP within one kilometer distance. 53.3 per cent respondents in Palakkad district have a distance of 1 to 2 kilometers to CSP while 26.7 per cent are within a radius of one kilometer and 20 per cent clients to travel more than 2 kilometers to their CSP. In Thiruvananthapuram district also majority (66.4 per cent) of respondents have remoteness of 1 to 2 kilometers whereas 20.3 per cent are within walking distance and 18.2 per cent reside more than 2 kilometers away from the CSP.

5.5 Awareness on Kiosk Banking Services

Under BC model banks offer a variety of kiosk banking services through CSPs to the rural people. Each service is different from others in terms of its utility and popularity. Kiosk banking services offered through CSPs can be broadly classified as deposit accounts, fund transfer, AEPS facility, saving plans, social security schemes and insurance products. Awareness of the rural people towards these services has paramount importance. Many of the time rural people, especially aged and uneducated category hesitate to avail these services due to lack of their awareness about the features and advantages of the same.

The level of awareness is measured in five-point scale. Following table summarises the responses of clients regarding their level of awareness towards kiosk banking services.

Table 5.5

Level of Awareness on Kiosk Banking Services

Kiosk Banking Services	Mean	SD	t	Sig.
Deposit Accounts	4.25	.733	113.752	.000*
Fund Transfer	3.52	1.061	65.203	.000*
AEPS facility	2.57	1.219	41.402	.000*
Saving Plans	2.93	1.000	57.521	.000*
Social Security Schemes	3.24	.631	100.828	.000*
Insurance Products	2.36	1.056	43.772	.000*

Source: Primary Data
Significant at 5 per cent level

From table 5.5 it can be seen that respondents have a high level of awareness on three kiosk banking services, namely deposit accounts, fund transfer and social security schemes as they have mean scores of more than scale average. Regarding the remaining three services such as AEPS facility, savings plans and insurance products the level of awareness of respondents are lower. Deposit accounts are most familiar kiosk banking services (mean 4.25), followed by fund transfer (3.52).

Similarly, insurance products (mean 2.36) are least familiar services to the clients, followed by AEPS facility (2.57).

The results of one sample t test also inferred that the awareness level of respondents towards various kiosk banking services is significant at 5 per cent level (p value 0.000<0.05).

5.5.1 Level of Awareness According to Districts of Respondents

One way ANOVA has been used to test the null hypothesis that *there is no significant difference in level of awareness on kiosk banking services among the clients belonging to different districts.*

Table 5.6

Level of Awareness on Kiosk Banking Services among Districts

Districts	N	Mean	Std. Deviation	Std. Error	F	Sig.
Malappuram	146	3.2306	.81515	.06746		
Palakkad	90	3.1852	.71345	.07520	2.467	.086
Thiruvananthapuram	149	3.0414	.71736	.05877		
Total	385	3.1468	.75799	.03863		

Source: Primary Data

As per table 5.6, district wise highest mean score (3.2306) is reported in Malappuram district. ANOVA result shows F value 2.467 and p value 0.086>0.05, which is not significant at 5 per cent level. Thus, the null hypothesis is accepted and it is inferred that there is no significant difference in level of awareness on kiosk banking services among the clients belonging to different districts.

5.5.2 Level of Awareness According to Gender of Respondents

Independent sample t test is used to test the null hypothesis that *there is no significant difference in level of awareness on kiosk banking services among male and female clients.*

Table 5.7

Level of Awareness on Kiosk Banking Services among Gender Groups

Gender	N	Mean	Std. Deviation	Levene's Test for Equality of Variances	t	Sig. (2-tailed)
Male	176	3.1799	.75812	F = .198 Sig. = .657	.788	.431
Female	209	3.1188	.75857			

Source: Primary Data

It is found from table 5.7 that male category of clients has highest mean score (3.1799). The result of Levene's test for equality of variances indicates that the variances of male and female groups are equal (F = 0.198, p value = 0.657). Independent samples t test result shows t value 0.788 and p value 0.431>0.05 which is not significant at 5 per cent level. The null hypothesis is accepted, and it may be inferred that there is no significant difference in level of awareness on kiosk banking services among male and female clients.

5.5.3 Level of Awareness According to Age of Respondents

With the help of one way ANOVA the null hypothesis, *there is no significant difference in level of awareness on kiosk banking services among different age groups of clients*, is tested.

Table 5.8

Level of Awareness on Kiosk Banking Services among Age Groups

Age (in years)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 20	9	3.7778	.27639	.09213	54.307	.000*
21 - 30	88	3.6534	.50743	.05409		
31 - 40	110	3.3530	.67303	.06417		
41 - 50	104	3.0160	.71111	.06973		
More than 50	74	2.3446	.46681	.05427		
Total	385	3.1468	.75799	.03863		

Source: Primary Data

* Significant at 5 per cent level

It is seen from table 5.8 that clients having age of 20 and below have dominant mean score (3.778) whereas the age group of more than 50 possess lowest mean score of 2.3446, which is the only category having mean score of less than the mean of response scale. It indicates the level of awareness is very high among youth (up to the age of 40) than that of the middle aged and aged respondents. Since ANOVA result shows F value of 54.307 and p value of 0.000<0.05 (significant at 5 per cent level), the null hypothesis stands rejected. As a result, it is inferred that there is significant difference in level of awareness on kiosk banking services among different age groups of clients.

In order to uncover the specific differences among different age groups in level of awareness towards kiosk banking services Post Hoc test is applied.

Table 5.9

Post Hoc Test for Level of Awareness among Age Groups

Age (in years)	Mean Difference	Sig.
Up to 20 - 21 to 30	.12437	.977
Up to 20 - 31 to 40	.42475	.260
Up to 20 - 41 to 50	.76175*	.003*
Up to 20 - More than 50	1.43318*	.000*
21 to 30 - 31 to 40	.30038*	.005*
21 to 30 - 41 to 50	.63738*	.000*
21 to 30 - More than 50	1.30881*	.000*
31 to 40- 41 to 50	.33700*	.001*
31 to 40- More than 50	1.00844*	.000*
41 to 50 - More than 50	.67143*	.000*

Mean difference is significant at 5 per cent level.

Result of Post Hoc test shows that age group of up to 20 years does not have variation in mean scores with age group of 21 to 30 years (p value 0.977>0.05) and 31 to 40 years (p value 0.260>0.05). All other age groups have significant mean differences among each other at 5 per cent level as the p values are less than 0.05.

5.5.4 Level of Awareness According to Educational Qualifications

A null hypothesis is set that *there is no significant difference in level of awareness on kiosk banking services among clients with different educational qualifications.* One way ANOVA has been used for testing the hypothesis.

Table 5.10

Level of Awareness on Kiosk Banking Services among Education Groups

Education	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to X	171	2.5692	.60059	.04593		
XII	105	3.3841	.51739	.05049		
UG	77	3.8333	.28868	.03290	99.997	.000*
PG	18	3.8611	.81700	.19257		
Others	14	3.7262	.22272	.05952		
Total	385	3.1468	.75799	.03863		

Source: Primary Data
* Significant at 5 per cent level

From table 5.10 it is found that mean score is high among the respondents belonging to the postgraduate category (3.8611) with regard to level of awareness towards kiosk banking services. It is also noted that education level increases mean value also increases. Result of ANOVA shows that p value (0.000<0.05) is statistically significant at 5 per cent level (F = 99.997). Hence, the null hypothesis is rejected and it is inferred that there is significant difference in level of awareness on kiosk banking services among clients with different educational qualifications.

Post Hoc test is applied for checking the specific differences between different education groups of respondents in respect of level of awareness towards kiosk banking services.

Table 5.11

Post Hoc Test for Level of Awareness among Education Groups

Educational Qualification	Mean Difference	Sig.
Up to X - XII	-.81493*	.000*
Up to X - UG	-1.26413*	.000*
Up to X - PG	-1.29191*	.000*
Up to X - Others	-1.15699*	.000*
XII - UG	-.44921*	.000*
XII - PG	-.47698*	.004*
XII - Others	-.34206	.160
UG - PG	-.02778	1.000
UG - Others	.10714	.958
PG - Others	.13492	.954

* Mean difference is significant at 5 per cent level

Post Hoc test result shows that the mean differences between the educational groups of twelfth standard and others (p value 0.160>0.05), undergraduates and post-graduates (p value 1.000>0.05), undergraduates and others (p value 0.958>0.05), and post-graduates and others are not significant at 5 per cent level. Since the p values are less than 0.05 all other education groups are assumed to have significant differences in their mean values at 5 per cent level.

5.5.5 Level of Awareness According to Occupation of Respondents

One way ANOVA is used to test the null hypothesis that *there is no significant difference in level of awareness on kiosk banking services among different occupational groups.*

Table 5.12

Level of Awareness on Kiosk Banking Services among Occupational Groups

Occupation	N	Mean	Std. Deviation	Std. Error	F	Sig.
Agriculture	40	2.3292	.29835	.04717		
Self-employed	89	3.2509	.65285	.06920		
Business	30	3.5722	.35473	.06476		
Daily Worker	68	2.5588	.45326	.05497	65.292	.000*
Salaried	56	3.8988	.43308	.05787		
Housewife	56	2.7976	.80949	.10817		
Student	46	3.7572	.28264	.04167		
Total	385	3.1468	.75799	.03863		

Source: Primary Data
Significant at 5 per cent level

Table 5.12 shows that regarding occupation salaried group have higher mean value (3.8988) followed by students (3.7572). The lower mean scores can be in seen in case farmers (2.3292) and daily workers (2.5588). From ANOVA results, since F= 65.292 and p value = 0.000<0.05 the null hypothesis is rejected at 5 per cent level of significance. It is inferred that there is significant difference in level of awareness on kiosk banking services among different occupational groups.

Table 5.13

Post Hoc Test for Level of Awareness among Occupational Groups

Occupation	Mean Difference	Sig.
Agriculture - Self-employed	-.92177*	.000*
Agriculture - Business	-1.24306*	.000*
Agriculture - Daily Worker	-.22966	.324
Agriculture - Salaried	-1.56964*	.000*
Agriculture - Housewife	-.46845*	.001*
Agriculture - Student	-1.42808*	.000*
Self-employed - Business	-.32129	.070
Self-employed - Daily Worker	.69211*	.000*
Self-employed - Salaried	-.64787*	.000*
Self-employed - Housewife	.45332*	.000*
Self-employed - Student	-.50631*	.000*
Business - Daily Worker	1.01340*	.000*
Business - Salaried	-.32659	.102
Business - Housewife	.77460*	.000*
Business - Student	-.18502	.761
Daily Worker - Salaried	-1.33999*	.000*
Daily Worker - Housewife	-.23880	.173
Daily Worker - Student	-1.19842*	.000*
Salaried - Housewife	1.10119*	.000*
Salaried - Student	.14156	.838
Housewife - Student	-.95963*	.000*

* Mean difference is significant at 5 per cent level

The results of Post Hoc test indicates that mean differences between the occupational groups of agriculture and daily workers (p value 0.324>0.05), self-employed and businessmen (p value 0.070>0.05) businessmen and salaried (p value 0.102>0.05), businessmen and students (0.761>0.05), daily workers and housewives (0.173>0.05), and salaried and students (0.838>0.05) are not significant at 5 per cent level. All other occupational groups have significant difference in their means at 5 per cent level (p value 0.000<0.05).

5.5.6 Level of Awareness According to Income of Respondents

One way ANOVA is used to test the null hypothesis that *there is no significant difference in level of awareness towards kiosk banking services among different income groups.*

Table 5.14

Level of Awareness on Kiosk Banking Services among Income Groups

Monthly Income (₹)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 5,000	64	3.4297	.74819	.09352		
5,001 – 10,000	104	2.6074	.73145	.07172		
10,001 – 15,000	92	2.9402	.59995	.06255		
15,001 – 20,000	102	3.5621	.51965	.05145	40.725	.000*
More than 20,000	23	3.7826	.42769	.08918		
Total	385	3.1468	.75799	.03863		

Source: Primary Data
Significant at 5 per cent level

Among income groups the respondents having income of more than ₹20,000 seems to have highest mean score (3.7826). ANOVA result shows F value of 40.725 and p value of 0.000<0.05 which is significant at 5 per cent level. Hence it is inferred that there is significant difference in level of awareness on kiosk banking services among different income groups.

Table 5.15

Post Hoc Test for Level of Awareness among Income Groups

Monthly Income (₹)	Mean Difference	Sig.
Up to 5,000 – 5,001 to 10,000	.82232[*]	.000*
Up to 5,000 – 10,001 to 15,000	.48947[*]	.000*
Up to 5,000 – 15,001 to 20,000	-.13240	.690
Up to 5,000 - More than 20,000	-.35292	.155
5,001 to 10,000 - 10,001 to 15,000	-.33285[*]	.003*
5,001 to 10,000 – 15,001 to 20,000	-.95472[*]	.000*
5,001 to 10,000 - More than 20,000	-1.17524[*]	.000*
10,001 to 15,000 – 15,001 to 20,000	-.62187[*]	.000*
10,001 to 15,000 - More than 20,000	-.84239[*]	.000*
15001 to 20,000 - More than 20,000	-.22052	.564

* Mean difference is significant at 5 per cent level.

Post Hoc test results reveal that there are significant mean differences among different income groups at 5 per cent level (p values are less than 0.05) except in between income group up to ₹5,000 and ₹15,001 to ₹20,000 (p value 0.690>0.05), up to ₹5,000 and more than ₹20,000 (p value 0.155>0.05), and ₹15,001 to ₹20,000 and more than ₹20,000 (0.564>0.05).

5.6 Usage of Kiosk Banking Services

A number of basic banking services have been offered through CSPs to the clients affordably at their own locality. The popularity of kiosk banking services can be measured on the basis of level of usage of those services by the clients. 14 kiosk banking services have been identified by the researcher. The following table provides the details regarding the extent to which the clients are availing available kiosk banking services from their CSPs.

Table 5.16

Kiosk Banking Services Availed through CSPs

Sl. No	Kiosk Banking Services	Yes/No	No. of Respondents	Percentage
1	BSBD Account	Yes	385	100.0
		No	0	0.0
		Total	**385**	**100.0**
2	FD Account	Yes	2	0.5
		No	383	99.5
		Total	**385**	**100.0**
3	RD Account	Yes	10	2.6
		No	375	97.4
		Total	**385**	**100.0**
4	Cash Deposits	Yes	385	100.0
		No	0	0.0
		Total	**385**	**100.0**
5	Cash Withdrawals	Yes	385	100.0
		No	0	0.0
		Total	**385**	**100.0**
6	Money Transfer	Yes	221	57.4
		No	164	42.6
		Total	**385**	**100.0**
7	Balance Enquiry	Yes	385	100.0
		No	0	0.0
		Total	**385**	**100.0**
8	Tatkal Money Transfer	Yes	11	2.9
		No	374	97.1
		Total	**385**	**100.0**
9	IMPS transactions	Yes	38	9.9
		No	347	90.1
		Total	**385**	**100.0**
10	Passbook Printing	Yes	76	19.7

		No	309	80.3
		Total	**385**	**100.0**
11	Rupay ATM Card	Yes	269	69.9
		No	116	30.1
		Total	**385**	**100.0**
12	Loan Deposit	Yes	102	26.5
		No	283	73.5
		Total	**385**	**100.0**
13	Social Security Schemes	Yes	44	11.4
		No	341	88.6
		Total	**385**	**100.0**
14	AEPS Facility	Yes	140	36.4
		No	245	63.6
		Total	**385**	**100.0**

Source: Primary Data

Table 5.16 reveals that all the 385 respondents avail four kiosk banking services, namely BSBD account, cash deposits, cash withdrawals and balance enquiry as these are the basic banking services. Besides these services, Rupay ATM card (69.9 per cent) and money transfer (57.4 per cent) are the popular services among the clients. While 36.4 per cent respondents avail AEPS facility 26.5 per cent of them are benefitted with loan deposit facility. Passbook printing, social security schemes and IMPS transactions have been used by 19.7 per cent, 11.4 per cent and 9.9 per cent of respondents respectively. FD accounts (0.5 per cent) are the least preferred kiosk banking services by the clients, followed by RD accounts (2.6 per cent) and tatkal money transfer (2.9 per cent).

5.6.1 Level of Usage of Kiosk Banking Services

On the basis of number of services availed by the clients through CSPs, the level of usage of kiosk banking services can be categorised into three as high, moderate and low. There are 14 kiosk banking services offered through CSPs to the clients. If a client avails not more than 4 services it is low level of usage. When the number of services availed ranges from 5 to 8, it is the case of moderate usage and

the level is high, if the number of services availed exceeds 8. In aggregate, majority of respondents (81.8 per cent) are moderate users while 10.1 per cent are high level users and 8.1 per cent are low level users in respect of kiosk banking services.

5.6.1.1 Districts and Level of Usage of Kiosk Banking Services

District wise distribution of respondents on the basis of their level of usage of kiosk banking services is given in the following table. Chi-square test is used to test the null hypothesis that *there is no relationship between districts and level of usage of kiosk banking services.*

Table 5.17

Districts and Level of Usage of Kiosk Banking Services

Districts	Level of Usage of Services			Total
	Low	Moderate	High	
Malappuram	8 (5.5)	115 (78.8)	23 (15.8)	146 (100.0)
Palakkad	10 (11.1)	73 (81.1)	7 (7.8)	90 (100.0)
Thiruvananthapuram	13 (8.7)	127 (85.2)	9 (6.0)	149 (100.0)
Total	31 (8.1)	315 (81.8)	39 (10.1)	385 (100.0)
Chi-square	10.224			
Sig.	.037*			

Source: Primary Data

Note: *Figures in parentheses represent percentages of row total*

Significant at 5 per cent level

From table 5.17 it is found that majority of respondents (78.8 per cent) from Malappuram district are the moderate users of kiosk banking services while 15.8 per cent are high level users and 5.5 per cent are using at low level. In Palakkad district, 81.1 per cent respondents have moderate level of usage, 11.1 per cent have minimum usage and 7.8 per cent belong to high level users of kiosk banking services. 85.2 per cent respondents in Thiruvananthapuram district are the moderate users while 8.7 per cent are low level users and 6.0 per cent of them are high level users.

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Chi-square test result shows that the level of usage of kiosk banking services among the three sample districts are not same since Chi-square value = 10.224 and p value = 0.037<0.05, which is significant at 5 per cent level. Hence, it is inferred that there exists relationship between districts and level of usage of kiosk banking services.

5.6.1.2 Gender and Level of Usage of Kiosk Banking Services

In order to test the null hypothesis that *there is no association between gender of clients and their level of usage of kiosk banking services* Chi-square test is applied as given in the following table.

Table 5.18

Gender and Level of Usage of Kiosk Banking Services

Gender	Level of Usage of Services			Total
	Low	**Moderate**	**High**	
Male	8 (4.5)	150 (85.2)	18 (10.2)	176 (100.0)
Female	23 (11.0)	165 (78.9)	21 (10.0)	209 (100.0)
Total	31 (8.1)	315 (81.8)	39 (10.1)	385 (100.0)
Chi-square	5.414			
Sig.	.067			

Source: Primary Data
Note: *Figures in parentheses represent row percentages*

Table 5.18 depicts that majority of male (85.2 per cent) and female (78.9 per cent) respondents are the moderate users of kiosk banking services. 4.5 per cent male and 11.0 per cent female clients are using kiosk banking services at minimum level whereas 10.2 per cent male and 10.0 per cent female belong to high level users.

Result of Chi-square test shows a value of 5.414 (p value 0.067>0.05), which is not significant at 5 per cent level. Therefore, it is inferred that there is no

association between gender of respondents and their level of usage of kiosk banking services.

5.7 Experiences in Kiosk Banking

Period of experience in kiosk banking is an important variable that contributes to the level of loyalty and satisfaction of clients to their CSP. For the purpose of analysis the respondents have been classified into three categories according to the period of experience in kiosk banking, such as below 6 months, 6 months to one year and more than one year. Out of total 385 respondents 210 (54.5 per cent) have experience of more than one year, 113 (29.4) are beneficiaries for a period from 6 months to one year, and 62 (16.1 per cent) have experience of less than 6 months.

5.7.1 Gender and Experience in Kiosk Banking

The association between gender of respondents and their experience in kiosk banking has been explained in the following cross tabulation.

Table 5.19

Gender and Experience in Kiosk Banking

Gender	Experience in Kiosk Banking			Total
	Below 6 months	6 months - One year	More than One year	
Male	20 (11.4)	50 (28.4)	106 (60.2)	176 (100.0)
Female	42 (20.1)	63 (30.1)	104 (49.8)	209 (100.0)
Total	62 (16.1)	113 (29.4)	210 (54.5)	385 (100.0)

Source: Primary Data
Note: *Figures in parentheses represent percentages of row total*

It can be observed from table 5.19 that majority of male respondents (60.2 per cent) have more than one year experience in kiosk banking, 28.4 per cent of them have experience of 6 months to one year and 11.4 per cent are new in kiosk banking with an experience of less than 6 months. Among female respondents 49.8 per cent have kiosk banking experience for more than one year, 30.1 per cent have 6 months to one year experience and 20.1 per cent of female clients have experience for less than 6 months.

5.8 Initial Amount of Deposits and Frequency of Visit by Clients

Opening a bank account is the primary step in banking process and thereby a person will be enrolled as a bank customer. In kiosk banking, one can open even a no-frill bank account without making any initial payment. However, the amount deposited at the time of opening a bank account is a matter which determines the capability and willingness of a customer in banking. Frequency of visit to CSP by the clients is an indication of their loyalty and interest towards CSP's services.

Out of 385 respondents 23 (6.0 per cent) had opened their accounts without any initial deposit, 30.4 per cent made an initial deposit from ₹1 to ₹500, 45.7 per cent had opened their bank account with an amount ranging from ₹501 to ₹1,000, and 17.9 per cent had deposited more than ₹1,000 at the time of opening their bank account. As response to the question regarding the number of times the clients visited their CSP during the last month, it is seen that 3.4 per cent of them didn't visit the CSP, 22.1 per cent visited once, 40.5 per cent visited two times, 26.0 per cent visited three to four times and 8.1 per cent had visited CSP for more than four times in the last month.

5.8.1 Gender and Initial Amount of Deposits

In order to check the relationship between gender of respondents and the amount of initial deposits made by them Chi-square test is applied as seen in the following cross table.

Table 5.20

Gender and Initial Amount of Deposits

Districts	Amount of Initial Deposit				Total
	No frill	₹1 - ₹500	₹501-₹1000	More than ₹1000	
Male	6 (3.4)	44 (25.0)	81 (46.0)	45 (25.6)	176 (100.0)
Female	17 (8.1)	73 (34.9)	95 (45.5)	24 (11.5)	209 (100.0)
Total	23 (6.0)	117 (30.4)	176 (45.7)	69 (17.9)	385 (100.0)
Chi-square	17.252				
Sig.	.001*				

Source: Primary Data

Note: *Figures in parentheses represent percentages of row total*

* Significant at 5 per cent level

It can be found from table 5.20 that 46.0 per cent of male and 45.5 per cent of female respondents have opened their bank accounts with an initial amount of deposit in a range of ₹501 - ₹1,000. Amongst the male respondents 3.4 per cent and female respondents of 8.1 per cent have not paid any sum of money as deposit at the time of opening their bank account.

Output of Chi-square test implies that there is relationship between gender of clients and the amount of initial deposits for opening a bank account since Chi-square value is 17.252 and p value is 0.001<0.05, which is significant at 5 per cent level.

5.8.2 Gender and Frequency of Visit to CSP

Gender of respondents and their frequency of visit to CSPs for kiosk banking may have relationship. In order to check this relationship Chi-square test has been applied.

Table 5.21

Gender and Frequency of Visit to CSP in Last Month

Districts	Frequency of Visit					Total
	Never	Once	Twice	3 - 4 times	More than 4 times	
Male	4 (2.3)	29 (16.5)	72 (40.9)	48 (27.3)	23 (13.1)	146 (100.0)
Female	9 (4.3)	56 (26.8)	84 (40.2)	52 (24.9)	8 (3.8)	90 (100.0)
Total	13 (3.4)	85 (22.1)	156 (40.5)	100 (26.0)	31 (8.1)	385 (100.0)
Chi-square	16.131					
Sig.	.003*					

Source: Primary Data
Note: *Figures in parentheses represent percentages of row total*
* Significant at 5 per cent level

Table 5.21 shows that 40.9 per cent of male and 40.2 per cent of female respondents had visited their CSP two times in last month. While 13.1 per cent male and 3.8 per cent female clients visited CSPs for more than 4 times, 2.3 per cent male and 4.3 per cent female respondents could not visit their CSP even for a single time during the last month.

Chi-square test result reveals that there is relationship between gender of clients and their frequency of visit to CSPs for kiosk banking since Chi-square value is 16.131 and p value is 0.003<0.05, which is significant at 5 per cent level.

5.9 Motivating Factors to Kiosk Banking

Rural people are attracted to kiosk banking due to the presence of various factors such as convenience in banking, accessibility and availability of banking services, safety etc. In aggregate 15 major factors were identified which may motivate the people to CSPs for availing kiosk banking services as listed in the following table. Five-point scale is used for measuring the effect of motivating factors in selection of kiosk banking.

Table 5.22

Motivating Factors to Kiosk Banking

Sl. No	Factors	Mean	Std. Deviation	t	Sig.
1	Very convenient timing	4.35	.635	134.180	.000*
2	Easy account opening	4.42	.611	141.726	.000*
3	Relaxed KYC norms	4.24	.816	101.906	.000*
4	No need of keeping minimum balance	4.67	.470	195.147	.000*
5	Withdrawal of any amount	4.04	.982	80.812	.000*
6	More easier and convenient than branch banking	4.28	.564	149.014	.000*
7	Within walking distance	3.95	.792	97.792	.000*
8	Entire day availability	3.70	.711	102.184	.000*
9	Availability of all basic banking services	2.70	.977	54.243	.000*
10	CSP is personally known	3.62	.849	83.704	.000*
11	Friendly and approachable staff	4.43	.541	160.693	.000*
12	Safe savings	4.23	.528	157.402	.000*
13	Trust and confidence in CSP	4.39	.577	149.365	.000*
14	Motivation by friends/relatives	3.63	.753	94.643	.000*
15	Financial awareness programme	3.13	.908	67.561	.000*

Source: Primary Data
Significant at 5 per cent level

From table 5.22 it can be seen that all the motivating factors, except 'availability of all basic banking services', are significant that the mean values are more than mean of response scale 3. The most attracted factor is 'no need of keeping minimum balance' (mean 4.67), followed by 'friendly and approachable staff' (4.43) and 'easy account opening' (4.42). The factor 'availability of all basic banking services' is (mean value 2.70) found as the least attracted one. The results of one sample t test infer that the effect of motivating factors in selection of kiosk banking

services is significant at 5 per cent level as p values of all the motivating factors are less than 0.05.

For further analysis the given motivating factors have been grouped into three variables as convenient banking factors, access and availability factors and trust, safety and awareness factors.

5.9.1 Convenient Banking Factors

Convenient banking factors include six components such as very convenient timing, easy account opening, relaxed KYC norms, no need of keeping minimum balance, withdrawal of any amount, and more easier and convenient than branch banking.

5.9.1.1 Convenient Banking Factors According to Districts of Respondents

One way ANOVA is used to test the null hypothesis that *there is no significant difference in priority of convenient banking factors in selection of kiosk banking services among the clients from different districts.*

Table 5.23

Convenient Banking Factors among Districts

Districts	N	Mean	Std. Deviation	Std. Error	F	Sig.
Malappuram	146	4.3185	.32807	.02715		
Palakkad	90	4.3185	.32637	.03440	.602	.548
Thiruvananthapuram	149	4.3557	.31874	.02611		
Total	385	4.3329	.32376	.01650		

Source: Primary Data

From table 5.23, it is clear that the mean score of Thiruvananthapuram district is higher (4.3557) regarding convenient banking factors, followed by Malappuram and Palakkad (4.3185 each). ANOVA output showed F value of 0.602 and p value 0.548>0.05, which is not significant at 5 per cent level. Thus it is

inferred that there is no significant difference in priority of convenient banking factors in selection of kiosk banking services among the clients from different districts.

5.9.1.2 Convenient Banking Factors According to Gender of Respondents

Independent sample t test is used to test the null hypothesis that *there is no significant difference in priority of convenient banking factor in selection of kiosk banking services among male and female clients.*

Table 5.24

Convenient Banking Factors among Gender Groups

Gender	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Male	176	4.3068	.31662	-1.453	.147
Female	209	4.3549	.32880		

Source: Primary Data

It is observed from table 5.24 that female respondents have higher mean score (4.3549) in respect of convenient banking factors which attracted them to avail kiosk banking services. t statistic -1.453 and p value 0.147>0.05 (not significant at 5 per cent level) indicates that there is no significant difference among male and female clients in effect of convenient banking factors for selection of kiosk banking services from CSPs.

5.9.1.3 Convenient Banking Factors According to Age of Respondents

The null hypothesis, *there is no significant difference in influence of convenient banking factors among different age groups in selection of kiosk banking*, has been tested with the help of one way ANOVA as given in the following table.

Table 5.25

Convenient Banking Factors among Age Groups

Age (in years)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 20	9	4.5185	.22737	.07579		
21 – 30	88	4.3902	.32937	.03511		
31 – 40	110	4.3212	.32615	.03110	3.386	.010*
41 – 50	104	4.2532	.34131	.03347		
More than 50	74	4.3716	.27246	.03167		
Total	385	4.3329	.32376	.01650		

Source: Primary Data
* Significant at 5 per cent level

Table 5.25 presents that those clients who belong to the age group of 20 and below have highest mean score (4.5185) in convenient banking factors while clients under the age group 41 to 50 years have lowest mean score (4.2532). ANOVA test result gives F value of 3.386 and p value of 0.010, which is significant at 5 per cent level. Hence, it is inferred that there is significant difference in influence of convenient banking factors among different age groups in selection of kiosk banking services.

5.9.1.4 Convenient Banking Factors According to Educational Qualifications

In order to test the null hypothesis, *there is no significant difference in influence of convenient banking factors in selection of kiosk banking services among the clients with different educational qualifications*, one way ANOVA test has been used as seen in the succeeding table.

Table 5.26

Convenient Banking Factors among Education Groups

Education	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to X	171	4.3031	.33805	.02585		
XII	105	4.3317	.30179	.02945		
UG	77	4.4221	.31598	.03601	3.237	.012*
PG	18	4.3889	.30250	.07130		
Others	14	4.1429	.26032	.06957		
Total	385	4.3329	.32376	.01650		

Source: Primary Data
* Significant at 5 per cent level

As per table 5.26 highest mean score is reported among under graduate category (4.4221), followed by post graduated respondents (4.3889). ANOVA results also confirm the variance in mean values among different education groups as F = 3.237 and p value = 0.012<0.05, which is significant at 5 per cent level. It can be inferred that there is significant difference among the education groups in effect of convenient banking factors in selection of kiosk banking services.

5.9.1.5 Convenient Banking Factors According to Occupation of Respondents

Convenience is an important concern among occupational groups as their timings of occupation are different. One way ANOVA is used to test the null hypothesis that *there is no significant difference in influence of convenient banking factors in selection of kiosk banking services among different occupational groups.*

Table 5.27

Convenient Banking Factors among Occupational Groups

Occupation	N	Mean	Std. Deviation	Std. Error	F	Sig.
Agriculture	40	4.2833	.40510	.06405		
Self-employed	89	4.2903	.32032	.03395		
Business	30	4.3778	.26237	.04790		
Daily Worker	68	4.2892	.31362	.03803	1.868	.085
Salaried	56	4.3720	.28778	.03846		
Housewife	56	4.3304	.34007	.04544		
Student	46	4.4493	.30403	.04483		
Total	385	4.3329	.32376	.01650		

Source: Primary Data

It is observed from table 5.27 that student respondents were reported with highest mean score (4.4493) and least mean values are reported for farmers (4.2833) and daily workers (4.2892) respectively. ANOVA test results show F value of 1.868 and p value of 0.085>0.05 (not significant at 5 per cent level) which accepts the null hypothesis that there is no significant difference in influence of convenient banking factors in selection of kiosk banking services among different occupational groups.

5.9.1.6 Convenient Banking Factors According to Income of Respondents

With the help of one way ANOVA the null hypothesis, *there is no significant difference in opinion regarding influence of convenient banking factors in selection of kiosk banking services among different income groups*, has been tested.

Table 5.28

Convenient Banking Factors among Income Groups

Monthly Income (₹)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 5,000	64	4.4401	.30192	.03774		
5,001 – 10,000	104	4.3141	.34078	.03342		
10,001 – 15,000	92	4.2699	.32858	.03426		
15,001 – 20,000	102	4.3546	.30278	.02998	3.073	.016*
More than 20,000	23	4.2754	.31626	.06595		
Total	385	4.3329	.32376	.01650		

Source: Primary Data

* Significant at 5 per cent level

Table 5.28 shows the highest mean score for income group up to ₹5000 (4.4401), followed by clients with monthly income ranges between ₹15,001 and ₹20,000 (4.3546). F value 3.073 and p value 0.016<0.05 (significant at 5 per cent level) rejects the null hypothesis and thus it is inferred that there is significant difference in opinion regarding influence of convenient banking factors in selection of kiosk banking services among different income groups.

5.9.2 Access and Availability Factors

Access and availability factors consist of five components such as CSP is within walking distance, entire day availability of CSP, availability of all basic banking services, CSP is personally known, and friendly and approachable CSP staff.

5.9.2.1 Access and Availability Factors According to Districts of Respondents

One way ANOVA test has been applied for testing the null hypothesis that *there is no significant difference in opinion regarding effect of access and availability factors in selection of kiosk banking services among the respondents from different districts.*

Table 5.29

Access and Availability Factors among Districts

Districts	N	Mean	Std. Deviation	Std. Error	F	Sig.
Malappuram	146	3.6932	.47687	.03947		
Palakkad	90	3.7133	.53970	.05689	.621	.538
Thiruvananthapuram	149	3.6483	.41567	.03405		
Total	385	3.6805	.46977	.02394		

Source: Primary Data

As per table 5.29 Palakkad district has been reported with highest mean score of 3.7133. ANOVA test result shows F value of 0.621 and p value of 0.538>0.05, which is not significant at 5 per cent level. Thus the null hypothesis is accepted, and it is inferred that there is no significant difference in opinion regarding effect of access and availability factors in selection of kiosk banking services among the respondents from different districts.

5.9.2.2 Access and Availability Factors According to Gender of Respondents

Independent sample t test is used to test the null hypothesis that *there is no significant difference in opinion regarding influence of access and availability factors in selection of kiosk banking services among male and female clients.*

Table 5.30

Access and Availability Factors among Gender Groups

Gender	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Male	176	3.7455	.44463		
Female	209	3.6258	.48427	2.506	.013*

Source: Primary Data
Significant at 5 per cent level

From table 5.30 it is observed that mean score of male respondents is higher (3.7455) in relation to their counterparts (3.6258). T test result demonstrates t value as 2.506 and p value as 0.013<0.05, which is significant at 5 per cent level. The null hypothesis is rejected and inferred that there is significant difference in opinion regarding influence of access and availability factors in selection of kiosk banking services among male and female clients.

5.9.2.3 Access and Availability Factors According to Age of Respondents

In order to test the null hypothesis, *there is no significant difference in opinion regarding the effect of access and availability factors in selection of kiosk banking services among different age groups*, one way ANOVA has been used.

Table 5.31

Access and Availability Factors among Age Groups

Age (in years)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 20	9	3.5333	.33166	.11055		
21 - 30	88	3.7568	.35292	.03762		
31 - 40	110	3.7309	.53049	.05058		
41 - 50	104	3.6154	.47435	.04651	1.900	.110
More than 50	74	3.6243	.48985	.05694		
Total	385	3.6805	.46977	.02394		

Source: Primary Data

Mean score of age group of 21-30 years is reported as high (3.7568) in respect of access and availability factors as per table 5.31. ANOVA test result (F = 1.900 and p value = 0.110>0.05) indicates the acceptance of the null hypothesis and it is inferred that there is no significant difference in opinion regarding the effect of access and availability factors in selection of kiosk banking services among different age groups.

5.9.2.4 Access and Availability Factors According to Educational Qualifications

With the help of one way ANOVA the null hypothesis, *there is no significant difference in influence of access and availability factors in selection of kiosk banking services among different education groups,* has been tested.

Table 5.32

Access and Availability Factors among Education Groups

Education	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to X	171	3.6257	.49496	.03785		
XII	105	3.7676	.51000	.04977		
UG	77	3.6156	.35358	.04029	4.856	.001*
PG	18	3.6444	.33294	.07847		
Others	14	4.1000	.20381	.05447		
Total	385	3.6805	.46977	.02394		

Source: Primary Data
* Significant at 5 per cent level

In respect of educational qualification of clients the mean score of 'others' is higher with 4.1000 as seen in table 5.32. ANOVA output shows that mean variation among different education groups is significant (F = 4.856, p value =0.001<0.05) at 5 per cent level. It is inferred that there is significant difference among the clients with different educational qualifications regarding the effect of access and availability factors for availing kiosk banking services.

5.9.2.5 Access and Availability Factors According to Occupation of Respondents

A null hypothesis is set that *there is no significant difference among different occupational groups in opinion regarding the influence of access and availability factors in selection of kiosk banking services.* For testing the hypothesis one way ANOVA is used as given in table 5.33.

Table 5.33

Access and Availability Factors among Occupational Groups

Occupation	N	Mean	Std. Deviation	Std. Error	F	Sig.
Agriculture	40	3.5500	.52379	.08282		
Self-employed	89	3.6652	.42723	.04529		
Business	30	4.2200	.36897	.06736		
Daily Worker	68	3.6412	.39027	.04733	9.091	.000*
Salaried	56	3.5714	.46308	.06188		
Housewife	56	3.6107	.54127	.07233		
Student	46	3.7478	.34107	.05029		
Total	385	3.6805	.46977	.02394		

Source: Primary Data
* Significant at 5 per cent level

Regarding occupational groups of clients better mean score is reported to businessmen (4.2200) followed by students (3.7478). The occupation wise variation with F=9.091 and p value=0.000<0.05 (significant at 5 per cent level) rejects the null hypothesis and hence it is inferred that there is significant difference among different occupational groups in opinion regarding the influence of access and availability factors in selection of kiosk banking services.

5.9.2.6 Access and Availability Factors According to Income of Respondents

One way ANOVA has been applied for testing the null hypothesis that *there is no significant difference among different income groups in opinion regarding the influence of access and availability factors in selection of kiosk banking services.*

Table 5.34

Access and Availability Factors among Income Groups

Monthly Income (₹)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 5,000	64	3.7000	.51021	.06378		
5,001 – 10,000	104	3.6327	.39127	.03837		
10,001 – 15,000	92	3.5739	.42681	.04450		
15,001 – 20,000	102	3.7922	.52041	.05153	3.222	.013*
More than 20,000	23	3.7739	.51630	.10766		
Total	385	3.6805	.46977	.02394		

Source: Primary Data
* Significant at 5 per cent level

As per table 5.34 Clients belonging to the income group of ₹15,001 – ₹20,000 seem to have high mean score of 3.7922. However, the variation among different income groups seem to be significant at 5 per cent level since p value is $0.013 < 0.05$, with F value of 3.222. Hence the null hypothesis stands rejected, and it infers that there is significant difference among different income groups in opinion regarding the influence of access and availability factors in selection of kiosk banking services.

5.9.3 Trust, Safety and Awareness Factors

Trust, safety and awareness factors comprise four components such as safe savings, trust and confidence in CSP, motivation by friends or relatives, and financial awareness programme.

5.9.3.1 Trust, Safety and Awareness Factors According to Districts of Respondents

To test the null hypothesis, *there is no significant difference among clients from different districts in opinion regarding the effect of trust, safety and awareness factors in selection of kiosk banking services,* one way ANOVA has been applied.

Table 5.35

Trust, Safety and Awareness Factors among Districts

Districts	N	Mean	Std. Deviation	Std. Error	F	Sig.
Malappuram	146	3.8390	.44016	.03643		
Palakkad	90	3.8528	.45422	.04788	.042	.959
Thiruvananthapuram	149	3.8507	.35820	.02935		
Total	385	3.8468	.41287	.02104		

Source: Primary Data

According to table 5.35 the mean score of Palakkad district is reported as higher (3.8528), followed by Thiruvananthapuram (3.8507). Test result reveals that variance in mean scores between districts and trust, safety and awareness factors is not statistically significant at 5 per cent level (F = 0.042 and p value = 0.959>0.05). Therefore, the null hypothesis is accepted and it is inferred that there is no significant difference among the clients from different districts in opinion regarding the effect of trust, safety and awareness factors in selection of kiosk banking services.

5.9.3.2 Trust, Safety and Awareness Factors According to Gender of Respondents

The null hypothesis, stating *there is no significant difference among male and female clients in opinion regarding the effect of trust, safety and awareness factors in selection of kiosk banking services,* is tested with independent sample t test.

Table 5.36

Trust, Safety and Awareness Factors among Gender Groups

Gender	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Male	176	3.8452	.42741	-.069	.945
Female	209	3.8481	.40126		

Source: Primary Data

As per table 5.36, among the gender categories mean score of female category is slightly dominated with 3.8481. T test result accepts the null hypothesis at 5 per cent level (t = -0.069 and p value = 0.945>0.05). Hence, it may be inferred that there is no significant difference among male and female clients in opinion regarding the effect of trust, safety and awareness factors in selection of kiosk banking services.

5.9.3.3 Trust, Safety and Awareness Factors According to Age of Respondents

In order to test the null hypothesis, *there is no significant difference in opinion regarding the effect of trust, safety and awareness factors in selection of kiosk banking services among different age groups*, one way ANOVA has been used.

Table 5.37

Trust, Safety and Awareness Factors among Age Groups

Age (in years)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 20	9	4.0833	.43301	.14434		
21 - 30	88	3.9148	.40981	.04369		
31 - 40	110	3.8045	.42886	.04089		
41 - 50	104	3.7981	.41815	.04100	2.057	.086
More than 50	74	3.8682	.36831	.04282		
Total	385	3.8468	.41287	.02104		

Source: Primary Data

From table 5.37, in the matter of trust, safety and awareness factors, the highest mean score can be seen to the age group up to the age of 20 years (4.0833), followed by the age group of 21 to 30 years (3.9148). It reveals that the youth are more attracted to kiosk banking in the ground of trust, safety and awareness concerns. ANOVA result discloses an insignificant mean variation at 5 per cent level (F = 2.057 and p value = 0.086>0.05) and the null hypothesis is accepted. It infers that there is no significant difference in opinion regarding the effect of trust, safety and awareness factors in selection of kiosk banking services among different age groups.

5.9.3.4 Trust, Safety and Awareness Factors According to Educational Qualifications

A null hypothesis is set that *there is no significant difference in opinion regarding the influence of trust, safety and awareness factors in selection of kiosk banking services among the clients with different educational qualifications*. One way ANOVA has been applied for testing the hypothesis.

Table 5.38

Trust, Safety and Awareness Factors among Education Groups

Education	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to X	171	3.8494	.39153	.02994		
XII	105	3.9190	.44600	.04352		
UG	77	3.7922	.40025	.04561	4.352	.002*
PG	18	3.5278	.41911	.09879		
Others	14	3.9821	.22922	.06126		
Total	385	3.8468	.41287	.02104		

Source: Primary Data
Significant at 5 per cent level

Table 5.38 depicts that the highest mean score (3.9821) is reported to the clients come under the group of educational qualification 'others'. ANOVA result shows that the variation in mean scores of different education groups is statistically significant at 5 per cent level in respect of trust, safety and awareness factors (F = 4.352 and p value = 0.002<0.05). It is inferred that there is significant difference in opinion regarding the influence of trust, safety and awareness factors in selection of kiosk banking services among the clients with different educational qualifications.

5.9.3.5 Trust, Safety and Awareness Factors According to Occupation of Respondents

The null hypothesis, *there is no significant difference in opinion regarding effect of trust, safety and awareness factors in selection of kiosk banking services among different occupational groups*, is tested with the help of one way ANOVA as given in the following table.

Table 5.39

Trust, Safety and Awareness Factors among Occupational Groups

Occupation	N	Mean	Std. Deviation	Std. Error	F	Sig.
Agriculture	40	3.9000	.34807	.05503		
Self-employed	89	3.7865	.41381	.04386		
Business	30	4.0167	.34699	.06335		
Daily Worker	68	3.8235	.42772	.05187	4.609	.000*
Salaried	56	3.6652	.41087	.05490		
Housewife	56	3.8929	.43395	.05799		
Student	46	4.0054	.35936	.05298		
Total	385	3.8468	.41287	.02104		

Source: Primary Data

* *Significant at 5 per cent level*

According to table 5.39, with reference to occupation businessmen dominate with the mean score of 4.0167, followed by students (mean 4.0054). ANOVA shows F value 4.609 and p value 0.000<0.05, which is significant at 5 per cent level. The null hypothesis stands rejected and it is inferred that there is no significant difference in opinion regarding effect of trust, safety and awareness factors in selection of kiosk banking services among different occupational groups.

5.9.3.6 Trust, Safety and Awareness Factors According to Income of Respondents

With the help of one way ANOVA the null hypothesis, *there is no significant difference in opinion regarding effect of trust, safety and awareness factors in selection of kiosk banking services among different income groups,* is tested.

Table 5.40

Trust, Safety and Awareness Factors among Income Groups

Monthly Income (₹)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 5,000	64	3.9219	.45616	.05702		
5,001 – 10,000	104	3.9231	.32321	.03169		
10,001 – 15,000	92	3.8016	.38790	.04044	4.024	.003*
15,001 – 20,000	102	3.8186	.45755	.04530		
More than 20,000	23	3.5978	.43130	.08993		
Total	385	3.8468	.41287	.02104		

Source: Primary Data
Significant at 5 per cent level

As per table 5.40 mean score of the income group ₹5,001 - ₹10,000 is higher (3.9231) regarding effect of trust, safety and awareness factors. ANOVA result F = 0.4024 and p value 0.003<0.05 (significant at 5 per cent level) rejects the null hypothesis and it implies that there is significant difference in opinion regarding the effect of trust, safety and awareness factors in selection of kiosk banking services among different income groups.

5.9.4 Overall Effect of Motivating Factors in Selection of Kiosk Banking Services

The effect of all the motivating factors, when they are taken together, in selection of kiosk banking services according to the districts, gender, age level, educational qualifications, occupation and monthly income of respondents has been discussed in the following tables.

5.9.4.1 Motivating Factors According to Districts of Respondents

A null hypothesis is set that *there is no significant difference in opinion regarding the overall effect of motivation factors in selection of kiosk banking services among the respondents belonging to different districts*. One way ANOVA has been used to test the given hypothesis.

Table 5.41

Motivating Factors among Districts

Districts	N	Mean	Std. Deviation	Std. Error	F	Sig.
Malappuram	146	3.9822	.31643	.02619		
Palakkad	90	3.9926	.33556	.03537	.034	.967
Thiruvananthapuram	149	3.9852	.25561	.02094		
Total	385	3.9858	.29850	.01521		

Source: Primary Data

It is evident from table 5.41 that Palakkad district has higher mean score (3.9926) regarding the influence of motivating factors. The variance among different districts appears to be not significant at 5 per cent that F = 0.034 and p value = 0.967>0.05. The null hypothesis is accepted, and it may be inferred that there is no significant difference in opinion regarding the overall effect of motivation factors in selection of kiosk banking services among the respondents belonging to different districts.

5.9.4.2 Motivating Factors According to Gender of Respondents

Independent sample t test is used to test the null hypothesis that *there is no significant difference in opinion regarding the overall influence of motivating factors in selection of kiosk banking services among male and female clients.*

Table 5.42

Motivating Factors among Gender Groups

Gender	N	Mean	Std. Deviation	Levene's Test for Equality of Variances	t	Sig. (2-tailed)
Male	176	3.9966	.30071	F = .029		
Female	209	3.9767	.29705	Sig. = .866	.650	.516

Source: Primary Data

From table 5.42 it is observed that mean score of male respondents is slightly higher (3.9966) in relation to their counterparts (3.9767). The result of Levene's test for equality of variances indicates that the variances of male and female groups are equal (F = 0. 029, p value = 0.866). Independent samples t test result demonstrates t value as 0.650 and p value as 0.516>0.05, which is not significant at 5 per cent level. The null hypothesis is accepted and inferred that there is no significant difference in opinion regarding the overall influence of motivating factors in selection of kiosk banking services among male and female clients.

5.9.4.3 Motivating Factors According to Age of Respondents

In order to test the null hypothesis, *there is no significant difference in opinion regarding the overall effect of motivating factors in selection of kiosk banking services among different age groups,* one way ANOVA has been used.

Table 5.43

Motivating Factors among Age Groups

Age (in years)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 20	9	4.0741	.18088	.06029		
21 - 30	88	4.0523	.24562	.02618		
31 - 40	110	3.9867	.32757	.03123		
41 - 50	104	3.9192	.31279	.03067	2.626	.034*
More than 50	74	3.9883	.28698	.03336		
Total	385	3.9858	.29850	.01521		

Source: Primary Data
* *Significant at 5 per cent level*

As regards age groups, respondents with age group up to 20 years possess higher mean score (4.0741), followed by the age group of 21 to 30 years (4.0523). It reveals that the effect of motivating factors among the youth is high. Since F value is 2.626 and p value is 0.034<0.05, the null hypothesis is rejected at 5 per cent level of significance. Hence, it is inferred that that there is significant difference in opinion

regarding the overall effect of motivating factors in selection of kiosk banking services among different age groups.

Table 5.44

Post Hoc Test for Motivating Factors among Age Groups

Age	Mean Difference	Sig.
Up to 20 - 21 to 30	.02180	1.000
Up to 20 - 31 to 40	.08741	.914
Up to 20 - 41 to 50	.15484	.559
Up to 20 - More than 50	.08579	.924
21 to 30 - 31 to 40	.06561	.531
21 to 30 - 41 to 50	.13304*	.017*
21 to 30 - More than 50	.06398	.647
31 to 40 - 41 to 50	.06744	.457
31 to 40 - More than 50	-.00162	1.000
41 to 50 - More than 50	-.06906	.541

Mean difference is significant at 5 per cent level.

Post Hoc test result shows that the mean difference between the age groups of 21 to 30 and 41 to 50 is significant at 5 per cent level (p value 0.017<0.05). The mean differences among other age groups are insignificant.

5.9.4.4 Motivating Factors According to Educational Qualifications

One way ANOVA has been applied for testing the null hypothesis that *there is no significant difference in opinion regarding the overall effect of motivating factors in selection of kiosk banking services among the clients with different educational qualifications*.

Table 5.45

Motivating Factors among Education Groups

Education	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to X	171	3.9563	.32894	.02515		
XII	105	4.0337	.29629	.02892		
UG	77	3.9853	.26127	.02977	1.779	.132
PG	18	3.9111	.19131	.04509		
Others	14	4.0857	.13942	.03726		
Total	385	3.9858	.29850	.01521		

Source: Primary Data

Table 5.45 illustrates that the highest mean score (4.0857) is reported to those clients who come under the group of educational qualification 'others'. ANOVA result explains that the variation in mean scores of different education groups is not significant at 5 per cent level in respect of overall influence of motivating factors (F = 1.779 and p value = 0.132>0.05). The null hypothesis is accepted, and it is inferred that there is no significant difference in opinion regarding the overall effect of motivating factors in selection of kiosk banking services among the clients with different educational qualifications.

5.9.4.5 Motivating Factors According to Occupation of Respondents

A null hypothesis is set that *there is no significant difference among different occupational groups in opinion regarding the overall influence of motivating factors in selection of kiosk banking services*. For testing the hypothesis one way ANOVA is used as given in table 5.46.

Table 5.46

Motivating Factors among Occupational Groups

Occupation	N	Mean	Std. Deviation	Std. Error	F	Sig.
Agriculture	40	3.9367	.34126	.05396		
Self-employed	89	3.9476	.27070	.02869		
Business	30	4.2289	.24925	.04551		
Daily Worker	68	3.9490	.29994	.03637	5.915	.000*
Salaried	56	3.9167	.23553	.03147		
Housewife	56	3.9738	.35155	.04698		
Student	46	4.0971	.24087	.03551		
Total	385	3.9858	.29850	.01521		

Source: Primary Data
Significant at 5 per cent level

As regards occupational groups of respondents highest mean score is reported to businessmen (4.2289) followed by students (4.0971). The occupation wise variation with F=5.915 and p value=0.000<0.05 (significant at 5 per cent level), rejects the null hypothesis and hence it is inferred that there is significant difference among different occupational groups in opinion regarding the overall influence of motivating factors in selection of kiosk banking services.

Table 5.47

Post Hoc Test for Motivating Factors among Occupational Groups

Occupation	Mean Difference	Sig.
Agriculture - Self-employed	-.01090	1.000
Agriculture - Business	-.29222*	.001*
Agriculture - Daily Worker	-.01235	1.000
Agriculture - Salaried	.02000	1.000

Agriculture - Housewife	-.03714	.996
Agriculture - Student	-.16043	.135
Self-employed - Business	-.28132*	.000*
Self-employed - Daily Worker	-.00145	1.000
Self-employed - Salaried	.03090	.996
Self-employed - Housewife	-.02624	.998
Self-employed - Student	-.14954	.066
Business - Daily Worker	.27987*	.000*
Business - Salaried	.31222*	.000*
Business - Housewife	.25508*	.002*
Business - Student	.13179	.447
Daily Worker - Salaried	.03235	.996
Daily Worker - Housewife	-.02479	.999
Daily Worker - Student	-.14808	.102
Salaried - Housewife	-.05714	.942
Salaried - Student	-.18043*	.029*
Housewife - Student	-.12329	.323

* Mean difference is significant at 5 per cent level

Post Hoc test result reveals that the mean differences between the occupational groups of agriculture and business (p value 0.001<0.05), self-employed and business (p value 0.000<0.05), business and daily workers (p value 0.000<0.05), business and salaried (p value 0.000<0.05), business and housewife (0.002<0.05), and salaried and students (p 0.029<0.05) are significant at 5 per cent level. The mean variances among other occupational groups are not significant.

5.9.4.6 Motivating Factors According to Income of Respondents

One way ANOVA has been applied for testing the null hypothesis that *there is no significant difference in opinion regarding the overall influence of motivating factors in selection of kiosk banking services among different income groups.*

Table 5.48

Motivating Factors among Income Groups

Monthly Income (₹)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 5,000	64	4.0552	.32346	.04043		
5,001 – 10,000	104	3.9827	.27432	.02690		
10,001 – 15,000	92	3.9130	.28245	.02945	2.933	.021*
15,001 – 20,000	102	4.0242	.30612	.03031		
More than 20,000	23	3.9275	.31069	.06478		
Total	385	3.9858	.29850	.01521		

Source: Primary Data
* Significant at 5 per cent level

According to table 5.48 respondents with monthly income up to ₹5,000 seem to have high mean score of 4.0552. Nevertheless, the deviation among different income groups seem to be significant at 5 per cent level since p value is 0.021 < 0.05, with F value of 2.933. Hence the null hypothesis is rejected and it infers that there is significant difference in opinion regarding overall influence of motivating factors in selection of kiosk banking services among different income groups.

Table 5.49

Post Hoc Test for Motivating Factors among Income Groups

Monthly Income	Mean Difference	Sig.
Up to 5,000 – 5,001 to 10,000	.07252	.534
Up to 5,000 – 10,001 to 15,000	.14216*	.027*
Up to 5,000 – 15,001 to 20,000	.03103	.965
Up to 5,000 - More than 20,000	.12767	.389
5,001 to 10,000 - 10,001 to 15,000	.06965	.469
5,001 to 10,000 - 15,001 to 20,000	-.04149	.852
5,001 to 10,000 - More than 20,000	.05516	.928
10,001 to 15,000 - 15,001 to 20,000	-.11114	.070
10,001 to 15,000 - More than 20,000	-.01449	1.000
15,001 to 20,000 - More than 20,000	.09665	.617

* Mean difference is significant at 5 per cent level.

Results of Post Hoc test depict that the mean difference between the income groups of up to ₹5,000 and ₹10,001 to ₹15,000 is significant at 5 per cent level (p value 0.027<0.05). The mean differences among other income groups are insignificant.

5.10 Difficulties in Using Kiosk Banking Services

Although kiosk banking services are considered as accessible, affordable and convenient banking services to the rural people at their locations the clients are suffering from various difficulties while using those services. Such difficulties may pull back the rural people from using kiosk banking services. A number of 14 difficulties were identified by the researcher which may retract the people from kiosk banking. The responses from the clients were measured in five-point scale.

Table 5.50

Difficulties in Using Kiosk Banking Services

Sl. No	Difficulties	Mean	SD	t	Sig.
1	Maximum limit set for transactions	4.07	1.051	75.931	.000*
2	Passbook is not issued	1.04	.200	102.267	.000*
3	Delay in issue of passbook	1.74	.990	34.507	.000*
4	ATM card is not issued	2.02	1.367	28.924	.000*
5	Passbook printing machine is not available	3.81	1.375	54.346	.000*
6	Network Issues	2.88	.767	73.783	.000*
7	Fingerprint device is not working properly	2.97	.730	79.743	.000*
8	Fingerprint mismatch	3.21	.827	76.023	.000*
9	Cumbersome procedure	1.78	.662	52.744	.000*
10	Limited number of banking services	4.25	.755	110.528	.000*
11	Unauthorised service charges	2.44	.701	68.247	.000*
12	Kiosk banking requires more time	1.82	.669	53.243	.000*
13	Not available for whole day	3.37	.711	93.108	.000*
14	Nonchalant CSP staff	1.57	.608	50.763	.000*

Source: Primary Data
Significant at 5 per cent level

From table 5.50 it can be seen that 5 out of 14 are major difficulties as their mean values are more than the mean of response scale 3. The most severe difficulty is 'limited number of banking services' (mean 4.25), followed by 'maximum limit set for transactions' (4.07) and 'passbook printing machine is not available' (3.81). The least affected difficulty is 'passbook is not issued' with mean value of 1.04, followed by 'nonchalant CSP staff' (1.57) and 'delay in issue of passbook' (1.74). One sample t test result reveals that all the listed difficulties confronted by the respondents are significant at 5 per cent level as all the p values are less than 0.05.

For the sake of further analysis the given difficulties experienced by the clients while availing kiosk banking services have been grouped into three variables

as banking related difficulties, technology related difficulties, and CSP operations related difficulties.

5.10.1 Banking Related Difficulties

Banking related difficulties include five components such as maximum limit set for transactions, passbook is not issued, delay in issue of passbook, ATM card is not issued, and passbook printing machine is not available.

5.10.1.1 Banking Related Difficulties According to Districts of Respondents

For testing the null hypothesis, *there is no significant difference in banking related difficulties in availing kiosk banking services among the respondents from different districts*, one way ANOVA has been used as under.

Table 5.51

Banking Related Difficulties among Districts

Districts	N	Mean	Std. Deviation	Std. Error	F	Sig.
Malappuram	146	2.4822	.50687	.04195		
Palakkad	90	2.7156	.41757	.04402	8.402	.000*
Thiruvananthapuram	149	2.4765	.48468	.03971		
Total	385	2.5345	.48785	.02486		

Source: Primary Data
* *Significant at 5 per cent level*

From table 5.51 it is observed that the highest mean score relating to banking related difficulties is reported in Palakkad district (2.7156). ANOVA test result shows F value 8.402 and p value 0.000<0.05, which is significant at 5 per cent level. It is inferred that there is significant difference in banking related difficulties among the clients from different districts.

5.10.1.2 Banking Related Difficulties According to Gender of Respondents

In order to test the null hypothesis, *there is no significant difference in banking related difficulties while using kiosk banking services among male and female clients,* independent samples t test is used.

Table 5.52

Banking Related Difficulties among Gender Groups

Gender	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Male	176	2.5545	.53642	.726	.468
Female	209	2.5177	.44346		

Source: Primary Data

Table 5.52 presents the higher mean score for male respondents (2.5545) in banking related difficulties in using kiosk banking services. Test result confirmed that there is no significant difference in banking related difficulties in availing kiosk banking services among the male and female clients as the t value is 0.726 and p value is 0.468>0.05, which is not significant at 5 per cent level.

5.10.1.3 Banking Related Difficulties According to Age of Respondents

One way ANOVA has been used for testing the null hypothesis *there is no significant difference in banking related difficulties among different age groups while availing kiosk banking services.*

Table 5.53

Banking Related Difficulties among Age Groups

Age (in years)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 20	9	2.5333	.30000	.10000	1.587	.177
21 - 30	88	2.5636	.46143	.04919		
31 - 40	110	2.6091	.50202	.04787		
41 - 50	104	2.5000	.52584	.05156		
More than 50	74	2.4378	.44865	.05215		
Total	385	2.5345	.48785	.02486		

Source: Primary Data

It is observed from table 5.53 that highest mean score regarding banking related difficulties is reported among the clients having the age of 31 to 40 years

(2.6091). ANOVA test result presents F value of 1.587 and p value of 0.177>0.05, which is not significant at 5 per cent level. Hence, it is inferred that there is no significant difference in banking related difficulties among different age groups while availing kiosk banking services.

5.10.1.4 Banking Related Difficulties According to Educational Qualifications

A null hypothesis is set that *there is no significant difference in banking related difficulties in availing kiosk banking services among the clients with different educational qualifications.* The hypothesis is tested with one way ANOVA.

Table 5.54

Banking Related Difficulties among Education Groups

Education	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to X	171	2.5743	.49543	.03789		
XII	105	2.5543	.43700	.04265		
UG	77	2.5455	.48843	.05566		
PG	18	2.3111	.45100	.10630	3.812	.005*
Others	14	2.1286	.60055	.16050		
Total	385	2.5345	.48785	.02486		

Source: Primary Data
* Significant at 5 per cent level

Table 5.54 depicts that the clients having educational qualification up to tenth standard have highest mean score (2.5743). ANOVA result rejects the null hypothesis at 5 per cent level of significance since the p value is 0.005<0.05 (F = 3.812). Hence, it can be inferred that there is significant difference in banking related difficulties in availing kiosk banking services among the clients with different educational qualifications.

5.10.1.5 Banking Related Difficulties According to Occupation of Respondents

The null hypothesis, *there is no significant difference in banking related difficulties in availing kiosk banking services among different occupational groups,* is tested with one way ANOVA as seen in the following table.

Table 5.55

Banking Related Difficulties among Occupational Groups

Occupation	N	Mean	Std. Deviation	Std. Error	F	Sig.
Agriculture	40	2.4100	.45280	.07159		
Self-employed	89	2.5461	.48408	.05131		
Business	30	2.6467	.49740	.09081		
Daily Worker	68	2.6735	.51474	.06242	3.087	.006*
Salaried	56	2.4000	.56311	.07525		
Housewife	56	2.4357	.42658	.05700		
Student	46	2.6261	.36904	.05441		
Total	385	2.5345	.48785	.02486		

Source: Primary Data
* Significant at 5 per cent level

From table 5.55 it is found that the mean score regarding banking related difficulties is high among daily workers (2.6735). ANOVA output (F 3.087 and p value 0.006<0.05) resulted in rejection of null hypothesis at 5 per cent level. It is inferred that there is significant difference in banking related difficulties in availing kiosk banking services among different occupational groups.

5.10.1.6 Banking Related Difficulties According to Income of Respondents

One way ANOVA is used to test the null hypothesis that *there is no significant difference in banking related difficulties in using kiosk banking services among different income groups.*

Table 5.56

Banking Related Difficulties among Income Groups

Monthly Income (₹)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 5,000	64	2.5688	.41590	.05199		
5,001 – 10,000	104	2.4558	.43841	.04299		
10,001 – 15,000	92	2.6043	.54911	.05725	1.381	.240
15,001 – 20,000	102	2.5471	.47921	.04745		
More than 20,000	23	2.4609	.63083	.13154		
Total	385	2.5345	.48785	.02486		

Source: Primary Data

Table 5.56 shows that clients having monthly income of ₹10,001 to ₹15,000 have highest mean score (2.6043) relating to banking related difficulties. ANOVA test result (F = 1.381 and p value = 0.240>0.05) indicates the acceptance of null hypothesis, at 5 per cent level. Thus, it is inferred that there is no significant difference in banking related difficulties in using kiosk banking services among different income groups.

5.10.2 Technology Related Difficulties

Technology related difficulties consists of three components, namely network issues, fingerprint device is not working properly, and fingerprint mismatch. Many of the time technological issues affect the hassle-free banking services from CSPs. How seriously these issues affect different groups of clients are discussed in the following tables.

5.10.2.1 Technology Related Difficulties According to Districts of Respondents

One way ANOVA is used to test the null hypothesis that *there is no significant difference in technology related difficulties in availing kiosk banking services among the clients from different districts.*

Table 5.57

Technology Related Difficulties among Districts

Districts	N	Mean	Std. Deviation	Std. Error	F	Sig.
Malappuram	146	2.9269	.58263	.04822		
Palakkad	90	3.0000	.56090	.05912	4.588	.011*
Thiruvananthapuram	149	3.1186	.50086	.04103		
Total	385	3.0182	.55221	.02814		

Source: Primary Data
* *Significant at 5 per cent level*

According to table 5.57 the mean score of Thiruvananthapuram district is reported as higher (3.1186), followed by Palakkad (3.000). But the mean score of Malappuram district is 2.9269, which is less than mean of response scale 3. It points out the technology related issues are not much severe in Malappuram district in relation to its counterparts. ANOVA test result also confirm the mean variance among the districts with F 4.588 and p value 0.011<0.05, which is significant at 5 per cent level. Therefore, it is inferred that there is significant difference in technology related difficulties in using kiosk banking services among the clients from different districts.

5.10.2.2 Technology Related Difficulties According to Gender of Respondents

A null hypothesis is set that *there is no significant difference in technology related difficulties in using kiosk banking services among the male and female clients.* Independent sample t test is used for testing the hypothesis.

Table 5.58

Technology Related Difficulties among Gender Groups

Gender	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Male	176	3.0057	.59252	-.407	.684
Female	209	3.0287	.51704		

Source: Primary Data

As per table 5.58 mean score of female category is dominated with 3.0287 and that of male category also exceeds the mean of response scale (3.0057). Both the categories rate technology related difficulties in same manner. T test result (t -0.407 and p value 0.684>0.05) accepts the null hypothesis at 5 per cent level. It is inferred that there is no significant difference in technology related difficulties in using kiosk banking services among the male and female clients.

5.10.2.3 Technology Related Difficulties According to Age of Respondents

Age of the clients and their technological knowledge are generally associated. The null hypothesis, *there is no significant difference in technology related difficulties in using kiosk banking services among different age groups,* has been tested with the help of one way ANOVA as given in the following table.

Table 5.59

Technology Related Difficulties among Age Groups

Age (in years)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 20	9	3.4444	.44096	.14699		
21 - 30	88	2.9545	.44972	.04794		
31 - 40	110	2.9303	.49687	.04737	5.274	.000*
41 - 50	104	2.9808	.66477	.06519		
More than 50	74	3.2252	.51495	.05986		
Total	385	3.0182	.55221	.02814		

Source: Primary Data
* Significant at 5 per cent level

From table 5.59 it is seen that highest mean score regarding technology related difficulties is reported to the age group up to 20 years (3.4444). As per ANOVA results the variation in mean scores is highly significant among age groups (F = 5.274 and p value = 0.000<0.05) at 5 per cent level. It can be inferred that there

is significant difference in technology related difficulties in using kiosk banking services among different age groups.

5.10.2.4 Technology Related Difficulties According to Educational Qualifications

One way ANOVA test is used for testing the null hypothesis that *there does not exist significant difference in technology related difficulties in using kiosk banking services among the clients with different educational qualifications*.

Table 5.60

Technology Related Difficulties among Education Groups

Education	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to X	171	3.1637	.52064	.03981		
XII	105	2.9873	.57906	.05651		
UG	77	2.8009	.41976	.04784	7.075	.000*
PG	18	2.8704	.51308	.12093		
Others	14	2.8571	.88399	.23626		
Total	385	3.0182	.55221	.02814		

Source: Primary Data
* Significant at 5 per cent level

Table 5.60 depicts that education wise highest mean score (3.1637) is reported to the clients come under the group of educational qualification 'up to X' with regard to technology related difficulties in using kiosk banking services. As per ANOVA result the variation in mean scores of different education groups is statistically significant at 5 per cent level (F = 7.075 and p value = 0.000<0.05). Hence the null hypothesis stands rejected, and inferred that there exists significant difference in technology related difficulties in using kiosk banking services among the clients with different educational qualifications.

5.10.2.5 Technology Related Difficulties According to Occupation of Respondents

For testing the null hypothesis, *there is no significant difference in technology related difficulties in using kiosk banking services among different occupational groups,* one way ANOVA is used as given in table 5.61.

Table 5.61

Technology Related Difficulties among Occupational Groups

Occupation	N	Mean	Std. Deviation	Std. Error	F	Sig.
Agriculture	40	3.4583	.54792	.08663		
Self-employed	89	3.0824	.60361	.06398		
Business	30	2.7111	.28679	.05236		
Daily Worker	68	3.0833	.49667	.06023	9.931	.000*
Salaried	56	2.7381	.59870	.08000		
Housewife	56	2.9464	.48732	.06512		
Student	46	3.0435	.35562	.05243		
Total	385	3.0182	.55221	.02814		

Source: Primary Data
* *Significant at 5 per cent level*

With reference to occupation, farmers dominate with the mean score of 3.4583, followed by daily workers (3.0833) in respect of technology related difficulties. F 9.931 and p value 0.000<0.05 (significant at 5 per cent level) result in rejection of null hypothesis. Therefore it is inferred that there is significant difference in technology related difficulties in using kiosk banking services among different occupational groups.

5.10.2.6 Technology Related Difficulties According to Income of Respondents

With the help of one way ANOVA the null hypothesis, *there is no significant difference in technology related difficulties in using kiosk banking services among different income groups*, has been tested.

Table 5.62

Technology Related Difficulties among Income Groups

Monthly Income (₹)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 5,000	64	3.0156	.53264	.06658		
5,001 – 10,000	104	3.1058	.48775	.04783		
10,001 – 15,000	92	3.1920	.56394	.05880	7.802	.000*
15,001 – 20,000	102	2.8431	.48906	.04842		
More than 20,000	23	2.7101	.76081	.15864		
Total	385	3.0182	.55221	.02814		

Source: Primary Data
Significant at 5 per cent level

Table 5.62 shows the highest mean score for income group ₹10,001-₹15,000 (3.1920), followed by clients with monthly income ranges between ₹5,001 and ₹10,000 (3.1058). F value 7.802 and p value 0.000<0.05 (significant at 5 per cent level) rejects the null hypothesis and thus, it is inferred that there is significant difference in technology related difficulties in using kiosk banking services among different income groups.

5.10.3 CSP Operations Related Difficulties

CSP operations related difficulties comprises six components such as cumbersome procedure, limited number of banking services, unauthorised service charges, kiosk banking requires more time, not available for whole day, and nonchalant CSP staff.

5.10.3.1 CSP Operations Related Difficulties According to Districts of Respondents

To test the null hypothesis, *there is no significant difference in CSP operations related difficulties in using kiosk banking services among the clients from different districts*, one way ANOVA has been applied as given in the following table.

Table 5.63

CSP Operations Related Difficulties among Districts

Districts	N	Mean	Std. Deviation	Std. Error	F	Sig.
Malappuram	146	2.4943	.36273	.03002		
Palakkad	90	2.5333	.25626	.02701	3.731	.025*
Thiruvananthapuram	149	2.5872	.23135	.01895		
Total	385	2.5394	.29530	.01505		

Source: Primary Data
* Significant at 5 per cent level

It is evident from table 5.63 that Thiruvananthapuram district has higher mean score (2.5872) regarding CSP operations related difficulties. In respect of CSP operations related difficulties variance among different districts appears to be significant at 5 per cent level that $F = 3.731$ and p value = $0.025 < 0.05$, and hence it is inferred that there is significant difference in CSP operations related difficulties in using kiosk banking services among the clients from different districts.

5.10.3.2 CSP Operations Related Difficulties According to Gender of Respondents

Independent sample t test is used to test the null hypothesis that *there is no significant difference in CSP operations related difficulties in using kiosk banking services among male and female clients.*

Table 5.64

CSP Operations Related Difficulties among Gender Groups

Gender	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Male	176	2.5540	.32915	.889	.375
Female	209	2.5271	.26364		

Source: Primary Data

It is found from table 5.64 that male category is having dominant mean value of 2.5540. T test result shows t value 0.889 and p value 0.375 which is not significant at 5 per cent level. The null hypothesis is accepted and it may be inferred that there is no significant difference in CSP operations related difficulties in using kiosk banking services among male and female clients.

5.10.3.3 CSP Operations Related Difficulties According to Age of Respondents

One way ANOVA is used to test the null hypothesis that *there is no significant difference in CSP operations related difficulties in using kiosk banking services among different age groups of clients*.

Table 5.65

CSP Operations Related Difficulties among Age Groups

Age (in years)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 20	9	2.5926	.08784	.02928	.773	.543
21 - 30	88	2.5038	.25891	.02760		
31 - 40	110	2.5333	.30019	.02862		
41 - 50	104	2.5417	.36408	.03570		
More than 50	74	2.5811	.22956	.02669		
Total	385	2.5394	.29530	.01505		

Source: Primary Data

Table 5.65 shows that clients with age of 20 and below possess higher mean score (2.5926) regarding CSP operation related difficulties. It is seen that the variance among age groups is not significant at 5 per cent level as F = 0.773 and p value 0.543>0.05, it is inferred that there is no significant difference in CSP operations related difficulties in using kiosk banking services among different age groups.

5.10.3.4 CSP Operations Related Difficulties According to Educational Qualifications

One way ANOVA has been applied for testing the null hypothesis that *there is no significant difference in CSP operations related difficulties in using kiosk banking services among the clients with different educational qualifications.*

Table 5.66

CSP Operations Related Difficulties among Education Groups

Education	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to X	171	2.5224	.25306	.01935		
XII	105	2.5397	.29736	.02902		
UG	77	2.5584	.31503	.03590	.396	.811
PG	18	2.5833	.26352	.06211		
Others	14	2.5833	.59107	.15797		
Total	385	2.5394	.29530	.01505		

Source: Primary Data

In respect of educational qualification of clients the mean score of PG and "other" qualified clients is higher with 2.5833 as seen in table 5.66. The results of ANOVA explain that p value is not statistically significant (0.811>0.05) at 5 per cent level (F = 0.396). The null hypothesis is accepted, and it may be inferred that there is no significant difference in CSP operations related difficulties in using kiosk banking services among the clients with different educational qualifications.

5.10.3.5 CSP Operations Related Difficulties According to Occupation of Respondents

The null hypothesis, *there is no significant difference in CSP operations related difficulties in using kiosk banking services among different occupational groups,* is tested with the help of one way ANOVA as given in table 5.67.

Table 5.67

CSP Operations Related Difficulties among Occupational Groups

Occupation	N	Mean	Std. Deviation	Std. Error	F	Sig.
Agriculture	40	2.6542	.19388	.03065		
Self-employed	89	2.5431	.28816	.03054		
Business	30	2.3778	.26600	.04856		
Daily Worker	68	2.5760	.22753	.02759	4.076	.001*
Salaried	56	2.6012	.42125	.05629		
Housewife	56	2.5030	.32488	.04341		
Student	46	2.4529	.18811	.02774		
Total	385	2.5394	.29530	.01505		

Source: Primary Data
* *Significant at 5 per cent level*

Regarding occupational groups higher mean score is reported to farmers (2.6542). ANOVA result, F= 4.076 and p value = 0.001<0.01, implies that the variance among different occupational groups are significant at 5 per cent level. As a result, null hypothesis is rejected and it is inferred that there is significant difference in CSP operations related difficulties in using kiosk banking service among different occupational groups.

5.10.3.6 CSP Operations Related Difficulties According to Income of Respondents

The null hypothesis, *there is no significant difference in CSP operations related difficulties in using kiosk banking services among different income groups*, is tested with the help of one way ANOVA as given in table 5.68.

Table 5.68

CSP Operations Related Difficulties among Income Groups

Monthly Income (₹)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 5,000	64	2.4271	.25176	.03147		
5,001 – 10,000	104	2.5545	.25169	.02468		
10,001 – 15,000	92	2.5815	.27122	.02828		
15,001 – 20,000	102	2.5343	.27784	.02751	3.589	.007*
More than 20,000	23	2.6377	.57440	.11977		
Total	385	2.5394	.29530	.01505		

Source: Primary Data
* *Significant at 5 per cent level*

Clients having monthly income of more than ₹20,000 seem to have high mean score of 2.6377 regarding operations related difficulties. As per ANOVA result there is significant difference in CSP operations related difficulties in using kiosk banking services among different income groups, at 5 per cent level (F = 3.589 and p value = 0.007<0.05).

5.10.4 Difficulties in Using Kiosk Banking Services

When all the aforesaid three categories of difficulties in using kiosk banking services are taken together how the intensity of difficulties varies among different groups of clients have been discussed in the following tables.

5.10.4.1 Difficulties in Kiosk Banking According to Districts of Respondents

A null hypothesis is set that *there is no significant difference in intensity of difficulties in using kiosk banking services among the respondents belonging to different districts.* One way ANOVA has been used to test the given hypothesis.

Table 5.69

Difficulties in Kiosk Banking among Districts

Districts	N	Mean	Std. Deviation	Std. Error	F	Sig.
Malappuram	146	2.5827	.33066	.02737		
Palakkad	90	2.6984	.24412	.02573		
Thiruvananthapuram	149	2.6616	.25300	.02073	5.337	.005*
Total	385	2.6403	.28635	.01459		

Source: Primary Data
* *Significant at 5 per cent level*

It is evident from table 5.69 that Palakkad district has higher mean score (2.6984) regarding difficulties in using kiosk banking services. The variance among different districts appears to be significant at 5 per cent level that F = 5.337 and p value = 0.005<0.05. The null hypothesis is rejected, and it may be inferred that there is significant difference in intensity of difficulties in using kiosk banking services among the respondents belonging to different districts.

Table 5.70

Post Hoc Test for Difficulties in Kiosk Banking among Districts

District	Mean Difference	Sig.
Palakkad - Malappuram	.11573*	.007*
Thiruvananthapuram - Malappuram	.07887*	.045*
Palakkad - Thiruvananthapuram	.03686	.593

Mean difference is significant at 5 per cent level.

Post Hoc test result reveals that the mean differences between Malappuram and Palakkad (p value 0.007<0.05), and Malappuram and Thiruvananthapuram (p value 0.045<0.05) are significant at 5 per cent level. But there is no significant mean difference between Palakkad and Thiruvananthapuram districts.

5.10.4.2 Difficulties in Kiosk Banking According to Gender of Respondents

Independent samples T test is used to test the null hypothesis that *there is no significant difference in intensity of difficulties in using kiosk banking services among male and female clients.*

Table 5.71

Difficulties in Kiosk Banking among Gender Groups

Gender	N	Mean	Std. Deviation	Levene's Test for Equality of Variances	T	Sig. (2-tailed)
Male	176	2.6510	.32025	F = 3.848	.673	.501
Female	209	2.6312	.25478	Sig. = .051		

Source: Primary Data

From table 5.71 it is observed that mean score of male respondents is slightly higher (2.6510) in relation to their counterparts (2.6312). The result of Levene's test for equality of variances indicates that the variances of male and female groups are equal (F = 3.848, p value = 0.051). T test result demonstrates t value as 0.673 and p value as 0.501>0.05, which is not significant at 5 per cent level. The null hypothesis is accepted and inferred that there is no significant difference in intensity of difficulties in using kiosk banking services among male and female clients.

5.10.4.3 Difficulties in Kiosk Banking According to Age of Respondents

In order to test the null hypothesis that *there is no significant difference in intensity of difficulties in using kiosk banking services among different age groups*, one way ANOVA has been used.

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Table 5.72

Difficulties in Kiosk Banking among Age Groups

Age (in years)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 20	9	2.7540	.16016	.05339		
21 - 30	88	2.6218	.26465	.02821		
31 - 40	110	2.6455	.25707	.02451	.746	.561
41 - 50	104	2.6209	.34838	.03416		
More than 50	74	2.6680	.26790	.03114		
Total	385	2.6403	.28635	.01459		

Source: Primary Data

In respect of age groups clients with age up to 20 years possess higher mean score (2.7540), followed by the age group of more than 50 years (2.6680). Since F value is 0.746 and p value is 0.561>0.05, the null hypothesis is accepted at 5 per cent level of significance. Hence, it is inferred that there is no significant difference in intensity of difficulties in using kiosk banking services among different age groups.

5.10.4.4 Difficulties in Kiosk Banking According to Educational Qualifications

One way ANOVA has been applied for testing the null hypothesis that *there is no significant difference in intensity of difficulties in using kiosk banking services among the clients with different educational qualifications*.

Table 5.73

Difficulties in Kiosk Banking among Education Groups

Education	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to X	171	2.6784	.25109	.01920		
XII	105	2.6408	.28750	.02806		
UG	77	2.6058	.26489	.03019	2.654	.033*
PG	18	2.5476	.29297	.06905		
Others	14	2.4796	.58997	.15768		
Total	385	2.6403	.28635	.01459		

Source: Primary Data
* Significant at 5 per cent level

Table 5.73 explains that the highest mean score (2.6784) is reported to those clients who are having the educational qualification up to tenth standard. ANOVA result explains that the variation in mean scores of different education groups is significant at 5 per cent level in respect of intensity of difficulties (F = 2.654 and p value = 0.033<0.05). The null hypothesis is rejected and it is inferred that there is significant difference in intensity of difficulties in using kiosk banking services among the clients with different educational qualifications.

Table 5.74

Post Hoc Test for Difficulties in Kiosk Banking among Education Groups

Educational Qualification	Mean Difference	Sig.
Up to X - XII	.03755	.824
Up to X - UG	.07261	.339
Up to X - PG	.13074	.342
Up to X - Others	.19877	.089
XII - UG	.03506	.923
XII - PG	.09320	.700
XII - Others	.16122	.270
UG - PG	.05813	.936
UG - Others	.12616	.544
PG - Others	.06803	.962

Even though ANOVA shows a significant difference in intensity of difficulties in using kiosk banking services among the clients with different educational qualifications Post Hoc result reveals that there are no significant mean differences among the educational groups at 5 per cent level.

5.10.4.5 Difficulties in Kiosk Banking According to Occupation of Respondents

A null hypothesis is set that *there is no significant difference among different occupational groups in intensity of difficulties in using kiosk banking services.* For testing the hypothesis one way ANOVA is used as given in table 5.75.

Table 5.75

Difficulties in Kiosk Banking among Occupational Groups

Occupation	N	Mean	Std. Deviation	Std. Error	F	Sig.
Agriculture	40	2.7393	.25908	.04096		
Self-employed	89	2.6597	.30017	.03182		
Business	30	2.5452	.23615	.04311		
Daily Worker	68	2.7195	.22833	.02769	3.692	.001*
Salaried	56	2.5587	.39573	.05288		
Housewife	56	2.5740	.25986	.03472		
Student	46	2.6413	.19777	.02916		
Total	385	2.6403	.28635	.01459		

Source: Primary Data

* Significant at 5 per cent level

As regards occupational groups of respondents highest mean score is reported to farmers (2.7393) followed by daily workers (2.7195). The occupation wise variation with F=3.692 and p value=0.001<0.05 (significant at 5 per cent level) reject the null hypothesis. Hence it is inferred that there is significant difference among different occupational groups in intensity of difficulties in using kiosk banking services.

Table 5.76

Post Hoc Test for Difficulties in Kiosk Banking among Occupational Groups

Occupation	Mean Difference	Sig.
Agriculture - Self-employed	.07957	.751
Agriculture - Business	.19405	.066
Agriculture - Daily Worker	.01975	1.000
Agriculture - Salaried	.18061*	.033*
Agriculture - Housewife	.16531	.069
Agriculture - Student	.09798	.672
Self-employed - Business	.11447	.460
Daily Worker - Self-employed -	.05983	.840
Self-employed - Salaried	.10104	.348
Self-employed - Housewife	.08573	.554
Self-employed - Student	.01841	1.000
Daily Worker - Business	.17430	.071
Salaried - Business	.01344	1.000
Housewife - Business	.02874	.999
Student - Business	.09607	.769
Daily Worker - Salaried	.16086*	.027*
Daily Worker - Housewife	.14556	.064
Daily Worker - Student	.07823	.768
Housewife - Salaried	.01531	1.000
Student - Salaried	.08263	.756
Student - Housewife	.06732	.892

* Mean difference is significant at 5 per cent level

Post Hoc test result shows that there are significant mean differences between the occupational groups of agriculture and salaried (p value 0.033<0.05), and daily worker and salaried (p value 0.027<0.05) at 5 per cent level. No significant mean differences were reported among the other occupational groups.

5.10.4.6 Difficulties in Kiosk Banking According to Income of Respondents

One way ANOVA has been applied for testing the null hypothesis that *there is no significant difference in intensity of difficulties in using kiosk banking services among different income groups.*

Table 5.77

Difficulties in Kiosk Banking among Income Groups

Monthly Income (₹)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 5,000	64	2.6038	.27939	.03492		
5,001 – 10,000	104	2.6374	.24857	.02437		
10,001 – 15,000	92	2.7205	.29454	.03071	2.676	.032*
15,001 – 20,000	102	2.6050	.24284	.02404		
More than 20,000	23	2.5901	.49964	.10418		
Total	385	2.6403	.28635	.01459		

Source: Primary Data
* Significant at 5 per cent level

According to table 5.77 clients with monthly income of ₹10,001 – ₹15,000 seem to have high mean score of 2.7205. However, the deviation among different income groups seem to be significant at 5 per cent level since p value is 0.032 < 0.05, with F value of 2.676. Hence the null hypothesis is rejected and it infers that there is significant difference in intensity of difficulties in using kiosk banking services among different income groups.

Table 5.78

Post Hoc Test for Difficulties in Kiosk Banking among Income Groups

Monthly Income (₹)	Mean Difference	Sig.
Up to 5,000 – 5,001 to 10,000	-.03357	.946
Up to 5,000 – 10,001 to 15,000	-.11670	.087
Up to 5,000 – 15,001 to 20,000	-.00125	1.000
Up to 5,000 - More than 20,000	.01373	1.000
5,001 to 10,000 - 10,001 to 15,000	-.08313	.246
5,001 to 10,000 - 15,001 to 20,000	.03232	.925
5,001 to 10,000 - More than 20,000	.04730	.951
10,001 to 15,000 - 15,001 to 20,000	.11545*	.039*
10,001 to 15,000 - More than 20,000	.13043	.282
15,001 to 20,000 - More than 20,000	.01498	.999

* Mean difference is significant at 5 per cent level.

Result of Post Hoc test shows that there is significant mean difference between the income groups of ₹10,001 to ₹15,000 - ₹15,001 to ₹20,000, at 5 per cent level. All other mean differences are insignificant.

5.11 Summary of Hypotheses Tested

Table 5.79 shows the summary of results of major hypotheses tested in respect of the awareness level, usage level, motivating factors and difficulties in using kiosk banking services.

Table 5.79

Results of Hypotheses Tested

Sl. No	Null Hypothesis (H$_0$)	Test & Values	Result	Inference
1	There is no significant difference in level of awareness on kiosk banking services among the clients belonging to	One way ANOVA F = 2.467 p = .086	H$_0$ Accepted	There is no significant difference in level of awareness on kiosk banking services among the clients belonging to

	different districts			different districts
2	There is no significant difference in level of awareness on kiosk banking services among male and female clients	T test t = .788 p = .431	H_0 Accepted	There is no significant difference in level of awareness on kiosk banking services among male and female clients
3	There is no significant difference in level of awareness on kiosk banking services among different age groups of clients	One way ANOVA F = 54.307 p = .000*	H_0 Rejected	There is significant difference in level of awareness on kiosk banking services among different age groups of clients
4	There is no is significant difference in level of awareness on kiosk banking services among clients with different educational qualifications	One way ANOVA F = 99.997 p = .000*	H_0 Rejected	There is significant difference in level of awareness on kiosk banking services among clients with different educational qualifications
5	There is no significant difference in level of awareness on kiosk banking services among different occupational groups	One way ANOVA F = 65.292 p = .000*	H_0 Rejected	There is significant difference in level of awareness on kiosk banking services among different occupational groups
6	There is no significant difference in level of awareness towards kiosk banking services among different income groups	One way ANOVA F = 40.725 p = .000*	H_0 Rejected	There is significant difference in level of awareness towards kiosk banking services among different income groups
7	There is no relationship between districts of clients and level of usage of kiosk banking services	Chi-square χ^2 = 10.224 p = .037*	H_0 Rejected	There is relationship between districts of clients and level of usage of kiosk banking services
8	There is no relationship between gender of clients and level of usage of kiosk banking services	Chi-square χ^2 = 5.414	H_0 Accepted	There is no relationship between gender of clients and level of usage of kiosk banking services

		p = .067		
9	There is no significant difference in opinion regarding the overall effect of motivation factors in selection of kiosk banking services among the respondents belonging to different districts	One way ANOVA F = .034 p = .967	H_0 Accepted	There is no significant difference in opinion regarding the overall effect of motivation factors in selection of kiosk banking services among the respondents belonging to different districts
10	There is no significant difference in opinion regarding the overall influence of motivating factors in selection of kiosk banking services among male and female clients	T test t = .650 p = .516	H_0 Accepted	There is no significant difference in opinion regarding the overall influence of motivating factors in selection of kiosk banking services among male and female clients
11	There is no significant difference in opinion regarding the overall effect of motivating factors in selection of kiosk banking services among different age groups	One way ANOVA F = 2.626 p = .034*	H_0 Rejected	There is significant difference in opinion regarding the overall effect of motivating factors in selection of kiosk banking services among different age groups
12	There is no significant difference in opinion regarding the overall effect of motivating factors in selection of kiosk banking services among the clients with different educational qualifications	One way ANOVA F = 1.779 p = .132	H_0 Accepted	There is no significant difference in opinion regarding the overall effect of motivating factors in selection of kiosk banking services among the clients with different educational qualifications
13	There is no significant difference among different occupational groups in opinion regarding the overall influence of motivating factors in selection of kiosk banking services	One way ANOVA F = 5.915 p = .000*	H_0 Rejected	There is significant difference among different occupational groups in opinion regarding the overall influence of motivating factors in selection of kiosk banking services
14	There is no significant	One way	H_0	There is significant

	difference in opinion regarding the overall influence of motivating factors in selection of kiosk banking services among different income groups	ANOVA F = 2.933 p = .021*	Rejected	difference in opinion regarding the overall influence of motivating factors in selection of kiosk banking services among different income groups
15	There is no significant difference in intensity of difficulties in using kiosk banking services among the respondents belonging to different districts	One way ANOVA F = 5.337 p = .005*	H_0 Rejected	There is significant difference in intensity of difficulties in using kiosk banking services among the respondents belonging to different districts
16	There is no significant difference in intensity of difficulties in using kiosk banking services among male and female clients	T test t = .673 p = .501	H_0 Accepted	There is no significant difference in intensity of difficulties in using kiosk banking services among male and female clients
17	There is no significant difference in intensity of difficulties in using kiosk banking services among different age groups	One way ANOVA F = .746 p = .561	H_0 Accepted	There is no significant difference in intensity of difficulties in using kiosk banking services among different age groups
18	There is no significant difference in intensity of difficulties in using kiosk banking services among the clients with different educational qualifications	One way ANOVA F = 2.654 p = .033*	H_0 Rejected	There is significant difference in intensity of difficulties in using kiosk banking services among the clients with different educational qualifications
19	There is no significant difference among different occupational groups in intensity of difficulties in using kiosk banking services	One way ANOVA F = 3.692 p = .001*	H_0 Rejected	There is significant difference among different occupational groups in intensity of difficulties in using kiosk banking services
20	There is no significant difference in intensity of difficulties in using kiosk banking services among different income groups	One way ANOVA F = 2.676 p = .032*	H_0 Rejected	There is significant difference in intensity of difficulties in using kiosk banking services among different income groups

* Significant at 5 per cent level

5.12 Conclusion

From the perspectives of clients kiosk banking services offered through CSPs near to their residence ensure basic banking services at their convenience in an affordable manner. Rural people could open and operate basic savings bank deposit accounts without maintaining minimum balance in their accounts, and they are very much aware about various deposit accounts and fund transfer facilities. Majority of respondents from sample districts are moderate users of kiosk banking services. Although kiosk banking provides a number of benefits to clients they are confronted with certain difficulties such as amount restrictions for transactions and limited number of financial services.

Chapter 6

Role of Kiosk Banking in Financial Inclusion

6.1 Introduction

The role of kiosk banking is pivotal in ensuring financial inclusion in rural areas in respect of different dimensions of financial inclusion. It can be studied well by considering the adequacy, availability, affordability and accessibility of banking services along with people's level of awareness on the banking services. This chapter attempts to examine the role of kiosk banking services in financial inclusion and the influence of motivating factors and level of awareness towards kiosk banking on changes in financial literacy and banking habits of the clients. The changes occurred in amount of monthly savings and deposits of clients due to kiosk banking as well as the overall satisfaction level of clients towards kiosk banking also have been studied. The data collected from 385 beneficiaries (clients) of kiosk banking in Kerala have been analysed with the help of statistical tools like one way ANOVA, Independent samples t test, Paired samples t test, Levene's test for equality of variances, Post hoc test, Multiple regression model, Chi-square test and Principal Component Analysis.

6.2 Role of Kiosk Banking in Financial Inclusion

In order to analyse the role of kiosk banking in financial inclusion among rural people in Kerala various dimensions of financial inclusion have to be identified. For this purpose the sample respondents were asked to rate their level of agreement towards 21 statements regarding the role of CSPs in financial inclusion. The responses have been measured in five point scale (1 as strongly disagree and 5 as strongly agree). With the help of data reduction technique of factor analysis these statements (variables) have been reduced into five components as discussed in the following pages.

Table 6.1

Descriptive Statistics of Statements Relating to Dimensions of Financial Inclusion

Sl. No	Statements	N	Mean	Std. Deviation
1	CSP helps to open various deposit accounts	385	4.54	.572
2	CSP provides cash withdrawal facilities	385	4.46	.519
3	CSP provides remittance/fund transfer facilities	385	3.97	.836
4	CSP provides loan facilities and credit counselling	385	1.97	.928
5	CSP is providing various insurance products	385	3.07	.548
6	CSP provides non-financial services also	385	4.07	.679
7	CSP makes me aware about basic financial services	385	3.51	.810
8	CSP helped me to create an awareness about modern banking services	385	3.14	1.020
9	CSP creates an awareness about various government schemes and programme	385	3.54	.806
10	CSP encourages me for opening a bank account	385	3.91	.578
11	CSP is very near to me within a walking distance	385	3.99	.734
12	CSPs are always available for meeting my financial needs	385	3.29	.807
13	CSP staff are easily approachable to me	385	4.01	.554
14	Financial services through CSPs are more cost effective	385	4.26	.684
15	I can easily open a BSBD Account	385	4.27	.550
16	I need not pay any service charges for BC services	385	3.35	.996
17	I need not keep minimum balance in my bank account	385	4.58	.621
18	Services provided through CSPs are adequate for fulfilling my financial needs	385	2.17	.921
19	CSPs help to avail all banking services at my door-step	385	3.39	.641
20	I need not approach a bank branch for further financial transactions	385	1.78	.850
21	Amount restricted by banks for transactions is adequate	385	1.85	1.041

Source: Primary Data

Table 6.1 illustrates that all the statements except four (CSP provides loan facilities and credit counselling, services provided through CSPs are adequate for fulfilling my financial needs, I need not approach a bank branch for further financial transactions, and amount restricted by banks for transactions is adequate) have mean values of more than 3. Initially, it gave KMO measure of sampling adequacy 0.669 and Bartlett's test of sphericity as Approx. Chi-square 2033.177, df 210 and p value = 0.000. However, while considering the table of communalities extracted four statements (CSP is very near to me within a walking distance, CSPs are always available for meeting my financial needs, financial services through CSPs are more cost effective, and I need not keep minimum balance in my bank account) were eliminated as their extraction values are less than 0.40. KMO and Bartlett's test has been conducted again after elimination of the aforesaid four statements. Its result can be seen in the following table.

Table 6.2

Cronbach's Alpha, KMO and Bartlett's Test

Cronbach's Alpha	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	Bartlett's Test of Sphericity	
.723	.687	Approx. Chi-Square	1636.349
		df	136
		Sig.	.000*

Source: Primary Data
Significant at 5 per cent level

Cronbach's Alpha test has been used to check the internal consistency of the data. As per table 6.2, it is found that Cronbach's Alpha for the selected 17 items is 0.723. Alpha of more than 0.7 is commonly accepted as good. Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy is a measure to check the correlation among the variables. Generally, KMO value of more than 0.50 is acceptable. The present study has a KMO value of 0.687, which indicates the appropriateness of factor analysis. Further Bartlett's Test of Sphericity shows approximate Chi-square of 1636.349, degree of freedom of 136 and p value of 0.000<0.05 which is significant at 5 per cent level. It may be concluded that in the light of Cronbach's Alpha, KMO and Bartlett's Test, factor analysis is appropriate tool for detailed analysis.

The following table gives the communalities extracted for the factors for dimensions of financial inclusion in respect of kiosk banking.

Table 6.3
Communalities Extracted

Sl. No	Statement No.	Statements	Initial	Extraction
1	S1	CSP helps to open various deposit accounts	1.000	.638
2	S2	CSP provides cash withdrawal facilities	1.000	.442
3	S3	CSP provides remittance/fund transfer facilities	1.000	.695
4	S4	CSP provides loan facilities and credit counselling	1.000	.694
5	S5	CSP is providing various insurance products	1.000	.461
6	S6	CSP provides non-financial services also	1.000	.427
7	S7	CSP makes me aware about basic financial services	1.000	.679
8	S8	CSP helped me to create an awareness about modern banking services	1.000	.689
9	S9	CSP creates an awareness about various government schemes and programme	1.000	.734
10	S10	CSP encourages me for opening a bank account	1.000	.456
11	S11	CSP staff are easily approachable to me	1.000	.530
12	S12	I can easily open a BSBD Account	1.000	.598
13	S13	I need not pay any service charges for BC services	1.000	.701
14	S14	Services provided through CSP are adequate for fulfilling my financial needs	1.000	.645
15	S15	CSPs help to avail all banking services at my door-step	1.000	.508
16	S16	I need not approach a bank branch for further financial transactions	1.000	.623
17	S17	Amount restricted by banks for transactions is adequate	1.000	.626
Extraction Method: Principal Component Analysis.				

Source: Primary Data

As shown in table 6.3, variable 9 (S9 - CSP creates an awareness about various government schemes and programme) carries highest communalities, followed by variable 13 (S13 - I need not pay any service charges for BC services) and so on. The least communalities is seen in case of variable 6 (S6 - CSP provides non-financial services also). As all the communalities are sufficiently large, varies from 0.427 to 7.34, the set of variables seems to be good for further analysis.

Principal component analysis method has been applied for extraction of the total variance explained on dimensions of financial inclusion, with Eigen values greater than 1.000.

Table 6.4

Total Variance Explained on Dimensions of Financial Inclusion

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.130	18.412	18.412	3.130	18.412	18.412
2	2.337	13.748	32.160	2.337	13.748	32.160
3	2.112	12.426	44.586	2.112	12.426	44.586
4	1.413	8.312	52.897	1.413	8.312	52.897
5	1.154	6.788	59.685	1.154	6.788	59.685
Extraction Method: Principal Component Analysis.						

Source: Primary Data

Table 6.4 shows that five factors which have Eigen values of greater than 1.000 explain about 60 per cent variation in responses on 17 variables. It is found that 18.412 per cent of variance is explained by factor 1; 13.748 per cent of variance is explained by factor 2; 12.426 per cent of variance is explained by factor 3; 8.312 per cent of variance is explained by factor 4 and 6.788 per cent of variance is explained by factor 5.

Rotated components matrix on the basis factor loadings of the five factors by Varimax with Kaiser Normalization is given below:

Table 6.5

Rotated Component Matrix

Sl. No.	Statements	Component				
		1	2	3	4	5
1	Services provided through CSP are adequate for fulfilling my financial needs	.788				
2	Amount restricted by banks for transactions is adequate	.778				
3	I need not approach a bank branch for further financial transactions	.755				
4	CSP helps to open various deposit accounts	.565				
5	CSP creates an awareness about various government schemes and programme		.836			
6	CSP makes me aware about basic financial services		.800			
7	CSP encourages me for opening a bank account		.478			
8	CSP provides non-financial services also		.446			
9	CSP helped me to create an awareness about modern banking services			.689		
10	CSP is providing various insurance products			.643		
11	CSP provides remittance/fund transfer facilities			.568		
12	CSP provides loan facilities and credit counselling			.538		
13	CSP provides cash withdrawal facilities			.449		
14	I can easily open a BSBD Account				.737	
15	CSPs help to avail all banking services at my door-step				.523	
16	I need not pay any service charges for BC services					.810
17	CSP staff are easily approachable to me					.468
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.						

Source: Primary Data

As per table 6.5, four variables such as services provided through CSP are adequate for fulfilling my financial needs (S14), amount restricted by banks for transactions is adequate (S17), I need not approach a bank branch for further financial transactions (S16) and CSP helps to open various deposit accounts (S1) constitute the first factor, and this factor is named as ***adequacy dimension***. Factor 2 consists of four variables - CSP creates awareness about various government schemes and programme (S9), CSP makes me aware about basic financial services (S7), CSP encourages me for opening a bank account (S10) and CSP provides non-financial services also (S6). This factor can be named as ***awareness dimension***.

Five variables contribute to the factor 3 - CSP helped me to create awareness about modern banking services (S8), CSP is providing various insurance products (S5), CSP provides remittance/fund transfer facilities (S3), CSP provides loan facilities and credit counselling (S4) and CSP provides cash withdrawal facilities (S2). This factor is renamed as ***availability dimension***. Factor 4 includes two variables such as I can easily open a BSBD Account (S12) and CSPs help to avail all banking services at my door-step (S15), and this factor can be named as ***accessibility dimension***. Two variables belong to the fifth factor - I need not pay any service charges for BC services (S13) and CSP staffs are easily approachable to me (S11). This factor is named as ***affordability dimension***.

Thus, we have five factors (dimensions) relating to the role of kiosk banking in financial inclusion. They are adequacy dimension, awareness dimension, availability dimension, accessibility dimension and affordability dimension.

Table 6.6 illustrates the summary of five factors extracted along with corresponding variables.

Table 6.6

Factors Extracted and Corresponding Variables

Sl. No	Statement Number	Statements
Factor 1 – Adequacy Dimension		
1	S14	Services provided through CSP are adequate for fulfilling my financial needs
2	S17	Amount restricted by banks for transactions is adequate
3	S16	I need not approach a bank branch for further financial transactions
4	S1	CSP helps to open various deposit accounts
Factor 2 – Awareness Dimension		
1	S9	CSP creates an awareness about various government schemes and programme
2	S7	CSP makes me aware about basic financial services
3	S10	CSP encourages me for opening a bank account
4	S6	CSP provides non-financial services also
Factor 3 – Availability Dimension		
1	S8	CSP helped me to create an awareness about modern banking services
2	S5	CSP is providing various insurance products
3	S3	CSP provides remittance/fund transfer facilities
4	S4	CSP provides loan facilities and credit counselling
5	S2	CSP provides cash withdrawal facilities
Factor 4 – Accessibility Dimension		
1	S12	I can easily open a BSBD Account
2	S15	CSPs help to avail all banking services at my door-step
Factor 5 –Affordability Dimension		
1	S13	I need not pay any service charges for BC services
2	S11	CSP staff are easily approachable to me

Source: Primary Data

The summary of descriptive statistics of factors explaining dimensions of financial inclusion is displayed in the following table:

Table 6.7

Descriptive Statistics of Factors Explaining Dimensions of Financial Inclusion

Factors	N	Min	Max	Mean	Std. Deviation
Adequacy Dimension	385	1.75	5.00	2.5870	.53115
Awareness Dimension	385	1.75	5.00	3.7584	.50236
Availability Dimension	385	2.40	5.00	3.3216	.47322
Accessibility Dimension	385	2.50	5.00	3.8338	.44006
Affordability Dimension	385	2.50	5.00	3.6779	.60502

Source: Primary Data

From table 6.7 it is observed that the highest mean value (3.8338) is reported to accessibility dimension, followed by awareness dimension (3.7584) and affordability dimension (3.6779). The least mean score is found for adequacy dimension (2.5870). Mean scores of all the dimensions except adequacy dimension are more than that of mean of response scale 3. Hence, we can say that the respondents have positive opinion regarding role of kiosk banking in financial inclusion apart from adequacy of banking services through CSPs.

6.2.1 Adequacy Dimension of Financial Inclusion

Adequacy dimension covers the adequacy in respect of number of services provided through CSPs and the maximum limit for amount of transactions in kiosk banking. The opinion of clients on adequacy dimension has been discussed on the basis of districts to which they belong, their gender, age level, educational qualification, occupation and monthly income.

6.2.1.1 Adequacy Dimension According to Districts of Respondents

One way ANOVA has been used to test the null hypothesis that *there is no significant difference in opinion of clients on adequacy dimension of financial inclusion across the districts.*

Table 6.8

Adequacy Dimension among Districts

Districts	N	Mean	Std. Deviation	Std. Error	F	Sig.
Malappuram	146	2.7432	.65715	.05439		
Palakkad	90	2.4750	.49584	.05227	10.752	.000*
Thiruvananthapuram	149	2.5017	.34934	.02862		
Total	385	2.5870	.53115	.02707		

Source: Primary Data

* *Significant at 5 per cent level*

Table 6.8 explains that the mean score of Malappuram district is dominant (2.7432), followed by Thiruvananthapuram (2.5017) and Palakkad (2.4750). Clients across the sample districts have a negative opinion on adequacy dimension in respect of role of kiosk banking in financial inclusion as the mean scores are less than mean of response scale 3. ANOVA results show that the variance among districts of clients on adequacy dimension is significant since the F statistic is 10.752 and p value is 0.000<0.05 (significant at 5 per cent level). Therefore, it can be inferred that there is significant difference in opinion of clients on adequacy dimension of financial inclusion across the districts.

6.2.1.2 Adequacy Dimension According to Gender of Respondents

In order to test the null hypothesis, *there is no significant difference in opinion of male and female clients in respect of adequacy dimension of financial inclusion,* independent samples T test is used.

Table 6.9

Adequacy Dimension among Gender Groups

Gender	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Male	176	2.5341	.51016	-1.799	.073
Female	209	2.6316	.54544		

Source: Primary Data

It is clear from table 6.9 that female clients have highest mean score (2.6316). Result of T test shows t = -1.799 and p value = 0.073>0.05, which is not significant at 5 per cent level. It is inferred that there is no significant difference in opinion of male and female clients in respect of adequacy dimension of financial inclusion.

6.2.1.3 Adequacy Dimension According to Age of Respondents

In order to test the null hypothesis, *there is no significant difference in opinion of clients with different age levels on role of kiosk banking in financial inclusion in respect of adequacy dimension,* one way ANOVA has been used.

Table 6.10

Adequacy Dimension among Age Groups

Age (in years)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 20	9	2.9722	.19543	.06514		
21 - 30	88	2.7642	.51187	.05457		
31 - 40	110	2.4409	.52125	.04970	6.981	.000*
41 - 50	104	2.5096	.51544	.05054		
More than 50	74	2.6554	.53428	.06211		
Total	385	2.5870	.53115	.02707		

Source: Primary Data
* Significant at 5 per cent level

Table 6.10 presents that the highest mean score regarding adequacy dimension of financial inclusion is reported among the clients having age up to 20 years (2.9722), followed by the age group of 21 to 30 years (2.7642). Since F value is 6.981 and p value is 0.000<0.05 (significant at 5 per cent level) the null hypothesis is rejected and therefore, it is inferred that there is significant difference in opinion of clients with different age levels on role of kiosk banking in financial inclusion in respect of adequacy dimension.

6.2.1.4 Adequacy Dimension According to Educational Qualifications

A null hypothesis is set that *there is no significant difference in opinion of clients with different educational qualifications on role of kiosk banking in financial inclusion regarding adequacy dimension.* For testing the hypothesis one way ANOVA has been used as seen in table 6.11.

Table 6.11

Adequacy Dimension among Education Groups

Education	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to X	171	2.5643	.48381	.03700		
XII	105	2.5143	.54024	.05272		
UG	77	2.6981	.58957	.06719	2.383	.051
PG	18	2.5417	.53722	.12662		
Others	14	2.8571	.56936	.15217		
Total	385	2.5870	.53115	.02707		

Source: Primary Data

In respect of adequacy dimension of financial inclusion highest mean score is reported to the clients with qualification of 'others' (2.8571). ANOVA result shows F value 2.383 and p value 0.051>0.05, which is not significant at 5 per cent level. Hence, it is inferred that there is no significant difference in opinion of clients with different educational qualifications on role of kiosk banking in financial inclusion regarding adequacy dimension.

6.2.1.5 Adequacy Dimension According to Occupation of Respondents

One way ANOVA has been applied for testing the null hypothesis that *there is no significant difference in opinion on role of kiosk banking in financial inclusion regarding adequacy dimension among the clients with different occupations.*

Table 6.12

Adequacy Dimension among Occupational Groups

Occupation	N	Mean	Std. Deviation	Std. Error	F	Sig.
Agriculture	40	2.5688	.38392	.06070		
Self-employed	89	2.5140	.48318	.05122		
Business	30	2.2083	.37762	.06894		
Daily Worker	68	2.4559	.33719	.04089	9.477	.000*
Salaried	56	2.5625	.63290	.08458		
Housewife	56	2.8705	.73080	.09766		
Student	46	2.8696	.32378	.04774		
Total	385	2.5870	.53115	.02707		

Source: Primary Data

* Significant at 5 per cent level

Table 6.12 showed the highest mean score among housewives (2.8705), followed by students (2.8696). However, all the respondents rate adequacy dimension at a level below mean of response scale 3. ANOVA result shows F value 9.477 and p value 0.000<0.05, which is statistically significant at 5 per cent level. The null hypothesis is rejected and thereby it is inferred that there is significant difference in opinion on role of kiosk banking in financial inclusion regarding adequacy dimension among the clients with different occupations.

6.2.1.6 Adequacy Dimension According to Income of Respondents

In order to test the null hypothesis, *there is no significant difference in opinion on role of kiosk banking in financial inclusion regarding adequacy dimension among different income groups,* one way ANOVA has been applied as seen in table 6.13.

Table 6.13

Adequacy Dimension among Income Groups

Monthly Income (₹)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 5,000	64	3.1484	.55763	.06970		
5,001 – 10,000	104	2.5769	.46095	.04520		
10,001 – 15,000	92	2.4647	.38442	.04008		
15,001 – 20,000	102	2.3824	.42465	.04205	30.245	.000*
More than 20,000	23	2.4674	.64095	.13365		
Total	385	2.5870	.53115	.02707		

Source: Primary Data
* *Significant at 5 per cent level*

Among the income groups highest mean score is reported to clients with monthly income up to ₹ 5,000 (3.1484), and this is the only income group rated adequacy dimension above the mean of response scale 3. Since F value is 30.245 and p value is 0.000<0.05 the null hypothesis stands rejected. Hence, it is inferred that there is significant difference in opinion on role of kiosk banking in financial inclusion regarding adequacy dimension among different income groups.

6.2.2 Awareness Dimension of Financial Inclusion

Awareness dimension covers the level of awareness of clients about basic financial services and various government schemes. The opinion of clients on awareness dimension has been discussed on the basis of districts to which they belong, their gender, age level, educational qualification, occupation and monthly income.

6.2.2.1 Awareness Dimension According to Districts of Respondents

One way ANOVA has been used to test the null hypothesis that *there is no significant difference in opinion on awareness dimension in respect of role of kiosk banking in financial inclusion among the clients from different districts.*

Table 6.14

Awareness Dimension among Districts

Districts	N	Mean	Std. Deviation	Std. Error	F	Sig.
Malappuram	146	3.7175	.50962	.04218	.802	.449
Palakkad	90	3.7750	.55467	.05847		
Thiruvananthapuram	149	3.7886	.46109	.03777		
Total	385	3.7584	.50236	.02560		

Source: Primary Data

As per table 6.14, regarding awareness dimension of financial inclusion the mean value is higher in Thiruvananthapuram district (3.7886), followed by Palakkad (3.7750) and Malappuram (3.7175). It is clear that respondents from the three districts have positive opinion regarding awareness dimension of financial inclusion through kiosk banking as all the mean scores are more than mean of response scale (3). ANOVA output shows that mean variation among different districts is not significant (F = 0.802, p value = 0.449>0.05) at 5 per cent level. It is inferred that there is no significant difference in opinion on awareness dimension of financial inclusion among clients from different districts.

6.2.2.2 Awareness Dimension According to Gender of Respondents

A null hypothesis, *there is no significant difference in opinion on awareness dimension in respect of role of kiosk banking in financial inclusion among male and female clients*, is set. Independent samples T test has been used for testing the hypothesis.

Table 6.15

Awareness Dimension among Gender Groups

Gender	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Male	176	3.7045	.52651	-1.939	.053
Female	209	3.8038	.47766		

Source: Primary Data

From table 6.15 it is found that the mean score of female respondents is higher (3.8038) in relation to their counterparts (3.7045) regarding awareness dimension of financial inclusion. T test result indicates that the mean variance is not significant at 5 per cent level (t value = -1.939 and p value = 0.053>0.05). The null hypothesis is accepted and it is inferred that there is no significant difference in opinion on awareness dimension in respect of role of kiosk banking in financial inclusion among male and female clients.

6.2.2.3 Awareness Dimension According to Age of Respondents

With the help of one way ANOVA the null hypothesis, *there is no significant difference in opinion on awareness dimension in respect of role of kiosk banking in financial inclusion among different age groups of clients*, is tested.

Table 6.16

Awareness Dimension among Age Groups

Age (in years)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 20	9	4.1111	.28260	.09420		
21 - 30	88	3.7727	.38958	.04153		
31 - 40	110	3.6773	.63476	.06052	4.402	.002*
41 - 50	104	3.6875	.51170	.05018		
More than 50	74	3.9189	.32873	.03821		
Total	385	3.7584	.50236	.02560		

Source: Primary Data
Significant at 5 per cent level

Table 6.16 depicts that the age group up to 20 years have highest mean score of 4.1111 and also this is the only one group having mean score of more than 4. Result of ANOVA (F = 4.402 and p value = 0.002<0.05) signifies that the variation in mean is significant at 5 per cent level. Hence, the null hypothesis is rejected. It is inferred that there is significant difference in opinion on awareness dimension in respect of role of kiosk banking in financial inclusion among different age groups of clients.

6.2.2.4 Awareness Dimension According to Educational Qualifications

One way ANOVA test is applied to test the null hypothesis that *there is no significant difference in opinion on awareness dimension in respect of role of kiosk banking in financial inclusion among the clients with different educational qualifications.*

Table 6.17

Awareness Dimension among Education Groups

Education	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to X	171	3.8099	.48171	.03684		
XII	105	3.8381	.36850	.03596		
UG	77	3.6071	.62622	.07136	6.470	.000*
PG	18	3.3472	.61917	.14594		
Others	14	3.8929	.25409	.06791		
Total	385	3.7584	.50236	.02560		

Source: Primary Data
Significant at 5 per cent level

From table 6.17 it is found that the clients having "other" educational qualifications have highest mean score regarding awareness dimension of financial inclusion (3.8929). As F value is 6.470 and p value is 0.000<0.05 the null hypothesis is rejected at 5 per cent level. Therefore, it is inferred that there is significant difference in opinion on awareness dimension in respect of role of kiosk banking in financial inclusion among the clients with different educational qualifications.

6.2.2.5 Awareness Dimension According to Occupation of Respondents

For testing the null hypothesis, *there is no significant difference in opinion on awareness dimension in respect of role of kiosk banking in financial inclusion among different occupational groups of clients*, one way ANOVA is used.

Table 6.18

Awareness Dimension among Occupational Groups

Occupation	N	Mean	Std. Deviation	Std. Error	F	Sig.
Agriculture	40	3.7250	.36603	.05787		
Self-employed	89	3.7135	.49364	.05233		
Business	30	3.6667	.65763	.12007		
Daily Worker	68	3.8419	.35330	.04284	4.086	.001*
Salaried	56	3.5357	.67324	.08996		
Housewife	56	3.9063	.49900	.06668		
Student	46	3.9022	.32693	.04820		
Total	385	3.7584	.50236	.02560		

Source: Primary Data
* Significant at 5 per cent level

Occupational group wise highest mean score is found among housewives (3.9063) and students (3.9022). ANOVA result (F = 4.086 and p value = 0.001<0.05) rejects the null hypothesis at 5 per cent level. Thus, it can be inferred that there is significant difference in opinion on awareness dimension in respect of role of kiosk banking in financial inclusion among different occupational groups of clients

6.2.2.6 Awareness Dimension According to Income of Respondents

The null hypothesis, *there is no significant difference in opinion on awareness dimension in respect of role of kiosk banking in financial inclusion among different income groups of clients*, is tested with one way ANOVA.

Table 6.19

Awareness Dimension among Income Groups

Monthly Income (₹)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 5,000	64	3.9531	.38800	.04850		
5,001 – 10,000	104	3.8462	.41411	.04061		
10,001 – 15,000	92	3.7554	.49997	.05213		
15,001 – 20,000	102	3.6569	.50728	.05023	10.309	.000*
More than 20,000	23	3.2826	.72419	.15100		
Total	385	3.7584	.50236	.02560		

Source: Primary Data
* *Significant at 5 per cent level*

As per table 6.19 the clients having monthly income up to ₹ 5,000 possess highest mean score (3.9531) in respect of awareness dimension of financial inclusion. F statistics 10.309 and p value 0.000<0.05 rejected the null hypothesis at 5 per cent level. Hence, it is inferred that there is significant difference in opinion on awareness dimension in respect of role of kiosk banking in financial inclusion among different income groups of clients.

6.2.3 Availability Dimension of Financial Inclusion

Availability dimension of financial inclusion involves the availability of basic financial services and counselling services to the rural people. The opinion of clients on availability dimension of financial inclusion has been discussed on the basis of districts to which they belong, their gender, age level, educational qualification, occupation and monthly income.

6.2.3.1 Availability Dimension According to Districts of Respondents

In order to test the null hypothesis, *there is no significant difference in opinion on availability dimension in respect of role of kiosk banking in financial inclusion among the clients from different districts,* one way ANOVA has been used as shown in table 6.20.

Table 6.20

Availability Dimension among Districts

Districts	N	Mean	Std. Deviation	Std. Error	F	Sig.
Malappuram	146	3.4096	.51049	.04225		
Palakkad	90	3.3311	.47703	.05028		
Thiruvananthapuram	149	3.2295	.41549	.03404	5.487	.004*
Total	385	3.3216	.47322	.02412		

Source: Primary Data
* *Significant at 5 per cent level*

In respect of opinion of clients on availability dimension of financial inclusion highest mean score is reported to Malappuram district (3.4096), followed by Palakkad (3.3311) and Thiruvananthapuram (3.2295). Since all the mean values are more than 3 it may be assumed that the clients agreed to the role of kiosk banking in respect of availability dimension of financial inclusion. ANOVA output explains that mean variation among different districts is significant (F = 5.487, p value =0.004<0.05) at 5 per cent level. It is inferred that there exists significant difference in opinion on availability dimension in respect of role of kiosk banking in financial inclusion among the clients from different districts.

6.2.3.2 Availability Dimension According to Gender of Respondents

Independent samples T test is used for testing the null hypothesis that *there is no significant difference in opinion on availability dimension in respect of role of kiosk banking in financial inclusion among male and female clients.*

Table 6.21

Availability Dimension among Gender Groups

Gender	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Male	176	3.3227	.48231		
Female	209	3.3206	.46658	.044	.965

Source: Primary Data

As per table 6.21 male and female respondents have almost same mean scores, 3.3227 and 3.3206 respectively. It shows that both the gender categories have same opinion on role of kiosk banking in ensuring availability dimension of financial inclusion. T test result confirmed it with t value of 0.044 and p value of 0.965>0.05, which is not significant at 5 per cent level. It results in acceptance of null hypothesis, thereby it is inferred that there is no significant difference in opinion on availability dimension in respect of role of kiosk banking in financial inclusion among male and female clients.

6.2.3.3 Availability Dimension According to Age of Respondents

Difference in opinion of clients on the basis of their age groups on availability dimension of kiosk banking is tested with the help of one way ANOVA. For this a null hypothesis is set, *there is no significant difference in opinion on availability dimension in respect of role of kiosk banking in financial inclusion among different age groups.*

Table 6.22

Availability Dimension among Age Groups

Age (in years)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 20	9	3.6444	.21858	.07286		
21 - 30	88	3.5977	.41522	.04426		
31 - 40	110	3.3436	.45986	.04385		
41 - 50	104	3.2577	.42784	.04195	20.518	.000*
More than 50	74	3.0108	.42894	.04986		
Total	385	3.3216	.47322	.02412		

Source: Primary Data
Significant at 5 per cent level

It is observed from table 6.22 that clients up to the age of 20 years have highest mean score (3.6444) in respect of opinion on availability dimension of financial inclusion. ANOVA test result shows F value of 20.518 and p value of

0.000<0.05, which is significant at 5 per cent level. The null hypothesis is rejected and it is inferred that there is significant difference in opinion on availability dimension in respect of role of kiosk banking in financial inclusion among different age groups.

6.2.3.4 Availability Dimension According to Educational Qualifications

One way ANOVA has been used to test the null hypothesis *that there is no significant difference in opinion on availability dimension in respect of role of kiosk banking in financial inclusion among the clients with different educational qualifications.*

Table 6.23

Availability Dimension among Education Groups

Education	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to X	171	3.1006	.40139	.03070		
XII	105	3.3619	.45581	.04448		
UG	77	3.6519	.38444	.04381	26.910	.000*
PG	18	3.5778	.29814	.07027		
Others	14	3.5714	.63661	.17014		
Total	385	3.3216	.47322	.02412		

Source: Primary Data
* Significant at 5 per cent level

From table 6.23 it is found that clients having degree qualification possess highest mean score (3.6519) in respect of opinion on availability dimension of financial inclusion. ANOVA test result shows significant variance in mean scores (F = 26.910 and p value = 0.000<0.05) at 5 per cent level. Thus, the null hypothesis stands rejected and we can infer that there is significant difference in opinion on availability dimension in respect of role of kiosk banking in financial inclusion among the clients with different educational qualifications.

6.2.3.5 Availability Dimension According to Occupation of Respondents

For testing the null hypothesis, *there is no is significant difference in opinion on availability dimension in respect of role of kiosk banking in financial inclusion among different occupational groups of clients,* one way ANOVA has been used.

Table 6.24

Availability Dimension among Occupational Groups

Occupation	N	Mean	Std. Deviation	Std. Error	F	Sig.
Agriculture	40	3.0400	.26096	.04126		
Self-employed	89	3.2742	.45864	.04862		
Business	30	3.5200	.34281	.06259		
Daily Worker	68	3.0529	.37792	.04583	18.576	.000*
Salaried	56	3.6071	.42634	.05697		
Housewife	56	3.2536	.51943	.06941		
Student	46	3.6609	.40633	.05991		
Total	385	3.3216	.47322	.02412		

Source: Primary Data
Significant at 5 per cent level

From table 6.24 it is observed that among the occupational groups students have highest mean score regarding opinion on availability dimension of financial inclusion (3.6609) and the mean values are varying among the occupational groups from 3.0400 to 3.6609. ANOVA test result confirmed the same that the mean differences are highly significant at 5 per cent level (F = 18.576 and p value = 0.000<0.05). Hence, the null hypothesis is rejected. It can be inferred that there is significant difference in opinion on availability dimension in respect of role of kiosk banking in financial inclusion among different occupational groups of clients.

6.2.3.6 Availability Dimension According to Income of Respondents

The null hypothesis, *there is no significant difference in opinion on availability dimension in respect of role of kiosk banking in financial inclusion among different income groups of clients*, is tested by using one way ANOVA.

Table 6.25

Availability Dimension among Income Groups

Monthly Income (₹)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 5,000	64	3.5781	.52749	.06594		
5,001 – 10,000	104	3.1250	.43905	.04305		
10,001 – 15,000	92	3.1848	.38228	.03986		
15,001 – 20,000	102	3.4275	.42032	.04162	16.250	.000*
More than 20,000	23	3.5739	.47215	.09845		
Total	385	3.3216	.47322	.02412		

Source: Primary Data
* *Significant at 5 per cent level*

Table 6.25 reveals that clients having income up to ₹5,000 have highest mean score (3.5781) regarding availability dimension of financial inclusion. ANOVA test result shows F value of 16.250 and p value of 0.000<0.05, which rejects the null hypothesis at 5 per cent level. Hence, it may be inferred that there is significant difference in opinion on availability dimension in respect of role of kiosk banking in financial inclusion among different income groups of clients.

6.2.4 Accessibility Dimension of Financial Inclusion

Accessibility dimension of financial inclusion refers to the easiness to reach the formal financial services. The opinion of clients on accessibility dimension of financial inclusion has been discussed on the basis of districts to which they belong, their gender, age level, educational qualification, occupation and monthly income.

6.2.4.1 Accessibility Dimension According to Districts of Respondents

To test the null hypothesis, *there is no significant difference in opinion of clients on accessibility dimension in respect of role of kiosk banking in financial inclusion among the clients from different districts*, one way ANOVA has been used as shown in the following table.

Table 6.26

Accessibility Dimension among Districts

Districts	N	Mean	Std. Deviation	Std. Error	F	Sig.
Malappuram	146	3.7911	.44628	.03693		
Palakkad	90	3.8222	.50454	.05318	1.638	.196
Thiruvananthapuram	149	3.8826	.38725	.03172		
Total	385	3.8338	.44006	.02243		

Source: Primary Data

Table 6.26 clarifies that the mean score of Thiruvananthapuram district is leading (3.8826) in respect of accessibility dimension of financial inclusion, tailed by Palakkad (3.8222) and Malappuram (3.7911). It is also clear from the table that the respondents have a belief in kiosk banking that it provides them accessibility to financial services since the mean scores of all the districts are greater than 3. Results of ANOVA display that the variance between districts of clients and their opinion on accessibility dimension is not significant as the F statistic is 1.638 and p value is 0.196>0.05 (at 5 per cent level). Thus, it is inferred that there is no significant difference in opinion on accessibility dimension in respect of role of kiosk banking in financial inclusion among the clients from different districts.

6.2.4.2 Accessibility Dimension According to Gender of Respondents

Independent sample t test is used to test the null hypothesis that *there is no significant difference in opinion on accessibility dimension in respect of role of kiosk banking in financial inclusion among male and female clients.*

Table 6.27

Accessibility Dimension among Gender Groups

Gender	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Male	176	3.8466	.45893	.524	.600
Female	209	3.8230	.42432		

Source: Primary Data

It is found from table 6.27 that male category is having dominant mean value of 3.8466. T test result shows t value 0.524 and p value 0.600 which is not significant at 5 per cent level. The null hypothesis is accepted and it may be inferred that there is no significant difference in opinion on accessibility dimension in respect of role of kiosk banking in financial inclusion among male and female clients.

6.2.4.3 Accessibility Dimension According to Age of Respondents

One way ANOVA is used to test the null hypothesis that *there is no significant difference in opinion on accessibility dimension in respect of role of kiosk banking in financial inclusion among different age groups.*

Table 6.28

Accessibility Dimension among Age Groups

Age (in years)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 20	9	3.7222	.26352	.08784	1.005	.405
21 – 30	88	3.8864	.48380	.05157		
31 – 40	110	3.7864	.43080	.04108		
41 – 50	104	3.8173	.45184	.04431		
More than 50	74	3.8784	.39527	.04595		
Total	385	3.8338	.44006	.02243		

Source: Primary Data

Table 6.28 shows that clients having the age of 21 to 30 years possess higher mean score (3.8864) regarding opinion on accessibility dimension of financial inclusion. It is seen that the variance among age groups is not significant at 5 per cent level as F = 1.005 and p value 0.405>0.05. It is inferred that there is no significant difference in opinion on accessibility dimension in respect of role of kiosk banking in financial inclusion among different age groups.

6.2.4.4 Accessibility Dimension According to Educational Qualifications

One way ANOVA has been applied for testing the null hypothesis that *there is no significant difference in opinion on accessibility dimension in respect of role of kiosk banking in financial inclusion among the clients with different educational qualifications.*

Table 6.29

Accessibility Dimension among Education Groups

Education	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to X	171	3.8158	.43010	.03289		
XII	105	3.8286	.41503	.04050		
UG	77	3.9091	.46402	.05288	.842	.499
PG	18	3.7500	.57522	.13558		
Others	14	3.7857	.42582	.11380		
Total	385	3.8338	.44006	.02243		

Source: Primary Data

In respect of educational qualification the mean score of degree qualified clients is higher with 3.9091 as seen in table 6.29. The results of ANOVA explain that p value is not statistically significant (0.499>0.05) at 5 per cent level (F = 0.842). The null hypothesis is accepted, and it may be inferred that there is no significant difference in opinion on accessibility dimension in respect of role of kiosk banking in financial inclusion among the clients with different educational qualifications.

6.2.4.5 Accessibility Dimension According to Occupation of Respondents

The null hypothesis, *there is no significant difference in opinion on accessibility dimension in respect of role of kiosk banking in financial inclusion among different occupational groups*, is tested with the help of one way ANOVA as given in table 6.30.

Table 6.30

Accessibility Dimension among Occupational Groups

Occupation	N	Mean	Std. Deviation	Std. Error	F	Sig.
Agriculture	40	3.8875	.40012	.06326		
Self-employed	89	3.8146	.44199	.04685		
Business	30	3.9667	.43417	.07927		
Daily Worker	68	3.6765	.42113	.05107	4.865	.000*
Salaried	56	3.7679	.44685	.05971		
Housewife	56	3.8125	.45289	.06052		
Student	46	4.0761	.36465	.05376		
Total	385	3.8338	.44006	.02243		

Source: Primary Data
Significant at 5 per cent level

Regarding occupational groups higher mean score is reported to students (4.0761), and they believe that kiosk banking has a role in ensuring their accessibility to basic banking services. ANOVA result, F= 4.865 and p value = 0.000<0.05, implies that the variance among different occupational groups are significant at 5 per cent level. Hence, null hypothesis is rejected and it is inferred that there is significant difference in opinion on accessibility dimension in respect of role of kiosk banking in financial inclusion among different occupational groups.

6.2.4.6 Accessibility Dimension According to Income of Respondents

The null hypothesis, *there is no significant difference in opinion on accessibility dimension in respect of role of kiosk banking in financial inclusion among different income groups,* is tested with the help of one way ANOVA as given in table 6.31.

Table 6.31

Accessibility Dimension among Income Groups

Monthly Income (₹)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 5,000	64	4.0156	.43615	.05452		
5,001 – 10,000	104	3.7981	.42677	.04185		
10,001 – 15,000	92	3.7391	.42244	.04404		
15,001 – 20,000	102	3.8186	.42676	.04226	4.455	.002*
More than 20,000	23	3.9348	.50687	.10569		
Total	385	3.8338	.44006	.02243		

Source: Primary Data
* *Significant at 5 per cent level*

Clients having monthly income up to ₹5,000 seem to have high mean score of 4.0156 regarding opinion on accessibility dimension of financial inclusion. As per ANOVA result there is significant difference in opinion on accessibility dimension in respect of role of kiosk banking in financial inclusion among different income groups, at 5 per cent level (F = 4.455 and p value = 0.002<0.05).

6.2.5 Affordability Dimension of Financial Inclusion

Affordability dimension of financial inclusion implies the cost effectiveness of formal financial services which can be availed by the people. The opinion of clients on affordability dimension of financial inclusion has been discussed on the

basis of districts to which they belong, their gender, age level, educational qualification, occupation and monthly income.

6.2.5.1 Affordability Dimension According to Districts of Respondents

So as to test the null hypothesis, *there is no significant difference in opinion among respondents on affordability dimension in respect of role of kiosk banking in financial inclusion according to districts to which they belong*, one way ANOVA has been used.

Table 6.32

Affordability Dimension among Districts

Districts	N	Mean	Std. Deviation	Std. Error	F	Sig.
Malappuram	146	3.7192	.60450	.05003		
Palakkad	90	3.7833	.58083	.06122	3.971	.020*
Thiruvananthapuram	149	3.5738	.60788	.04980		
Total	385	3.6779	.60502	.03083		

Source: Primary Data
* Significant at 5 per cent level

According to table 6.32, concerning affordability dimension of financial inclusion the mean value is greater in Palakkad district (3.7833), succeeded by Malappuram (3.7192) and Thiruvananthapuram (3.5738). It is clear that respondents from the three districts believe that kiosk banking services are relatively inexpensive to them as all the mean scores are more than that of mean of response scale (3). ANOVA result elucidates that mean difference among different districts is significant (F = 3.971, p value =0.020<0.05) at 5 per cent level. Thus, it is inferred that there exists significant difference in opinion among the clients from different districts on affordability dimension in respect of role of kiosk banking in financial inclusion.

6.2.5.2 Affordability Dimension According to Gender of Respondents

A null hypothesis is set that *there is no significant difference in opinion on affordability dimension in respect of role of kiosk banking in financial inclusion among the male and female clients.* Independent sample t test is used for testing the hypothesis.

Table 6.33

Affordability Dimension among Gender Groups

Gender	N	Mean	Std. Deviation	t	Sig. (2-tailed)
Male	176	3.7614	.57310	2.500	.013*
Female	209	3.6077	.62337		

Source: Primary Data
* Significant at 5 per cent level

As per table 6.33 mean score of male category is dominated with 3.7614 and that of female category also exceeds the mean of response scale (3.6077). T test result (t 2.500 and p value 0.013<0.05) rejects the null hypothesis at 5 per cent level. It is inferred that there is significant difference in opinion on affordability dimension in respect of role of kiosk banking in financial inclusion among the male and female clients.

6.2.5.3 Affordability Dimension According to Age of Respondents

The null hypothesis, *there is no significant difference in opinion among different age groups of clients on affordability dimension in respect of role of kiosk banking in financial inclusion*, has been tested with the help of one way ANOVA as given in the following table.

Table 6.34

Affordability Dimension among Age Groups

Age (in years)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 20	9	3.5556	.80795	.26932		
21 - 30	88	3.7045	.59033	.06293		
31 - 40	110	3.6545	.62349	.05945	4.223	.002*
41 - 50	104	3.8365	.61313	.06012		
More than 50	74	3.4730	.49582	.05764		
Total	385	3.6779	.60502	.03083		

Source: Primary Data
Significant at 5 per cent level

From table 6.34 it is seen that highest mean score regarding affordability dimension of financial inclusion is reported to the age group of 41 to 50 years (3.8365). As per ANOVA results the variation in mean scores is highly significant among age groups (F = 4.223 and p value = 0.002<0.05) at 5 per cent level. It can be inferred that there is significant difference in opinion among different age groups of clients on affordability dimension in respect of role of kiosk banking in financial inclusion.

6.2.5.4 Affordability Dimension According to Educational Qualifications

One way ANOVA test is used for testing the null hypothesis that *there is no significant difference in opinion on affordability dimension in respect of role of kiosk banking in financial inclusion among the clients with different educational qualifications*.

Table 6.35

Affordability Dimension among Education Groups

Education	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to X	171	3.6433	.58026	.04437		
XII	105	3.7667	.65437	.06386		
UG	77	3.6104	.61035	.06956	1.448	.217
PG	18	3.6111	.63142	.14883		
Others	14	3.8929	.34965	.09345		
Total	385	3.6779	.60502	.03083		

Source: Primary Data

As per ANOVA result the variation in mean scores of different education groups is statistically not significant at 5 per cent level (F = 1.448 and p value = 0.217>0.05). Hence the null hypothesis is accepted and it is inferred that there does not exist significant difference in opinion on affordability dimension in respect of role of kiosk banking in financial inclusion among the clients with different educational qualifications.

6.2.5.5 Affordability Dimension According to Occupation of Respondents

For testing the null hypothesis, *there is no significant difference in opinion on affordability dimension in respect of role of kiosk banking in financial inclusion among different occupational groups*, one way ANOVA is used as given in table 6.36.

Table 6.36

Affordability Dimension among Occupational Groups

Occupation	N	Mean	Std. Deviation	Std. Error	F	Sig.
Agriculture	40	3.5750	.48767	.07711		
Self-employed	89	3.6798	.48411	.05132		
Business	30	4.0333	.58624	.10703		
Daily Worker	68	3.6838	.63425	.07691	3.151	.005*
Salaried	56	3.5536	.59298	.07924		
Housewife	56	3.5625	.68796	.09193		
Student	46	3.8152	.69409	.10234		
Total	385	3.6779	.60502	.03083		

Source: Primary Data
* *Significant at 5 per cent level*

With reference to occupation, businessmen dominate with the mean score of 4.0333, followed by students (3.8152) in respect of opinion on affordability dimension of financial inclusion. F 3.151 and p value 0.005<0.05 (significant at 5 per cent level) results in rejection of null hypothesis. Therefore it is inferred that there is significant difference in opinion on affordability dimension in respect of role of kiosk banking in financial inclusion among different occupational groups.

6.2.5.6 Affordability Dimension According to Income of Respondents

With the help of one way ANOVA the null hypothesis, *there is no significant difference in opinion on affordability dimension in respect of role of kiosk banking in financial inclusion among different income groups,* has been tested.

Table 6.37

Affordability Dimension among Income Groups

Monthly Income (₹)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 5,000	64	3.7422	.64852	.08106		
5,001 – 10,000	104	3.6154	.57551	.05643		
10,001 – 15,000	92	3.5380	.58004	.06047	5.288	.000*
15,001 – 20,000	102	3.7255	.54331	.05380		
More than 20,000	23	4.1304	.74189	.15469		
Total	385	3.6779	.60502	.03083		

Source: Primary Data
* *Significant at 5 per cent level*

Table 6.37 shows the highest mean score of the clients having the income of more than ₹20,000 (4.1304), followed by clients with monthly income up to ₹5,000 (3.7422). F value 5.288 and p value 0.000<0.05 (significant at 5 per cent level) reject the null hypothesis. Thus it is inferred that there is significant difference in opinion on affordability dimension in respect of role of kiosk banking in financial inclusion among different income groups**.**

6.2.6 Opinion of Clients on Role of Kiosk Banking in Financial Inclusion

When all the above mentioned five dimensions of financial inclusion are taken together, how the opinion on dimensions of financial inclusion in respect of role of kiosk banking in financial inclusion varies among different groups of clients have been discussed in the following tables:

6.2.6.1 Opinion on Role of Kiosk Banking in Financial Inclusion According to Districts of Respondents

A null hypothesis is set that *there is no significant difference in opinion on role of kiosk banking in financial inclusion among the respondents belonging to different districts.* One way ANOVA has been used to test the given hypothesis.

Table 6.38

Opinion on Role of Kiosk Banking in Financial Inclusion among Districts

Districts	N	Mean	Std. Deviation	Std. Error	F	Sig.
Malappuram	146	3.4065	.33985	.02813		
Palakkad	90	3.3451	.27985	.02950	4.656	.010*
Thiruvananthapuram	149	3.3071	.20986	.01719		
Total	385	3.3537	.28400	.01447		

Source: Primary Data
* *Significant at 5 per cent level*

It is evident from table 6.38 that Malappuram district has highest mean score (3.4065) regarding the role of kiosk banking in financial inclusion. The variance among different districts appears to be significant at 5 per cent that F = 4.656 and p value = 0.010. The null hypothesis is rejected and it may be inferred that there is significant difference in opinion on role of kiosk banking in financial inclusion among the respondents belonging to different districts.

Table 6.39

Post Hoc Test for Role of Kiosk Banking in Financial Inclusion among Districts

District	Mean Difference	Sig.
Malappuram - Palakkad	.06143	.235
Malappuram - Thiruvananthapuram	.09938*	.007*
Palakkad - Thiruvananthapuram	.03795	.571

Mean difference is significant at 5 per cent level.

Post Hoc test result reveals that the mean difference between Malappuram and Thiruvananthapuram (p value 0.007<0.05) is significant at 5 per cent level. But there are no significant mean differences between Malappuram and Palakkad, and Palakkad and Thiruvananthapuram districts.

6.2.6.2 Opinion on Role of Kiosk Banking in Financial Inclusion According to Gender of Respondents

Independent sample t test is used to test the null hypothesis that *there is no significant difference in opinion on role of kiosk banking in financial inclusion among male and female clients.*

Table 6.40

Opinion on Role of Kiosk Banking in Financial Inclusion among Gender Groups

Gender	N	Mean	Std. Deviation	Levene's Test for Equality of Variances	t	Sig. (2-tailed)
Male	176	3.3402	.26952	F = .104	- .853	.394
Female	209	3.3650	.29581	Sig. = .747		

Source: Primary Data

From table 6.40 it is observed that mean score of female respondents is higher (3.3650) in relation to their counterparts (3.3402). The result of Levene's test for equality of variances indicates that the variances of male and female groups are equal (F = 0.104, p value = 0.747). T test result demonstrates t value as -0.853 and p value as 0.394>0.05, which is not significant at 5 per cent level. The null hypothesis is accepted and inferred that there is no significant difference in opinion on role of kiosk banking in financial inclusion among male and female clients.

6.2.6.3 Opinion on Role of Kiosk Banking in Financial Inclusion According to Age of Respondents

In order to test the null hypothesis, *there is no significant difference in opinion on role of kiosk banking in financial inclusion among different age groups,* one way ANOVA has been used.

Table 6.41

Opinion on Role of Kiosk Banking in Financial Inclusion among Age Groups

Age (in years)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 20	9	3.5948	.16228	.05409		
21 - 30	88	3.4893	.25564	.02725		
31 - 40	110	3.2984	.32206	.03071		
41 - 50	104	3.3167	.26954	.02643	9.647	.000*
More than 50	74	3.2973	.21682	.02520		
Total	385	3.3537	.28400	.01447		

Source: Primary Data
* Significant at 5 per cent level

As regards age groups, clients having age up to 20 years, possess higher mean score (3.5948), followed by the age group of 21 to 30 years (3.4893). Since F value is 9.647 and p value is 0.000<0.05, the null hypothesis is rejected at 5 per cent level of significance. Hence, it is inferred that that there is significant difference in opinion on role of kiosk banking in financial inclusion among different age groups**.**

Table 6.42

Post Hoc Test for Role of Kiosk Banking in Financial Inclusion among Age Groups

Age	Mean Difference	Sig.
Up to 20 – 21 to 30	.10547	.802
Up to 20 - 31 to 40	.29638*	.015*
Up to 20 - 41 to 50	.27803*	.028*
Up to 20 - More than 50	.29747*	.018*
21 to 30 - 31 to 40	.19091*	.000*
21 to 30 - 41 to 50	.17256*	.000*
21 to 30 - More than 50	.19201*	.000*
31 to 40 - 41 to 50	-.01835	.988
31 to 40 - More than 50	.00110	1.000
41 to 50 - More than 50	.01944	.990

Mean difference is significant at 5 per cent level.

Result of Post Hoc test shows that are no variation in mean scores of age group of up to 20 years with age group of 21 to 30 years (p value 0.802>0.05), age group of 31 to 40 years with age groups of 41 to 50 years (p value 0.988>0.05) and more than 50 years (p value 1.000>0.05), and age group of 41 to 50 years with age group of more than 50 years (p value 0.990>0.05). All other age groups have significant mean differences among each other at 5 per cent level as the p values are less than 0.05.

6.2.6.4 Opinion on Role of Kiosk Banking in Financial Inclusion According to Educational Qualifications

One way ANOVA has been applied for testing the null hypothesis that *there is no significant difference in opinion on role of kiosk banking in financial inclusion among the clients with different educational qualifications.*

Table 6.43

Opinion on Role of Kiosk Banking in Financial Inclusion among Education Groups

Education	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to X	171	3.2893	.23149	.01770		
XII	105	3.3770	.31421	.03066		
UG	77	3.4423	.31296	.03566	6.251	.000*
PG	18	3.3039	.23290	.05490		
Others	14	3.5420	.31818	.08504		
Total	385	3.3537	.28400	.01447		

Source: Primary Data

* Significant at 5 per cent level

Table 6.43 illustrates that the highest mean score (3.5420) is reported to those clients who come under the group of educational qualification 'others'. ANOVA result explains that the variation in mean scores of different education groups is significant at 5 per cent level in respect of opinion on role of kiosk banking in financial inclusion (F = 6.251 and p value = 0.000<0.05). The null hypothesis is rejected and it is inferred that there is no significant difference in opinion on role of kiosk banking in financial inclusion among the clients with different educational qualifications.

Table 6.44

Post Hoc Test for Role of Kiosk Banking in Financial Inclusion among Education Groups

Educational Qualification	Mean Difference	Sig.
Up to X - XII	-.08773	.080
Up to X - UG	-.15302*	.001*
Up to X - PG	-.01462	1.000
Up to X - Others	-.25272*	.010*
XII - UG	-.06529	.515
XII - PG	.07311	.838
XII - Others	-.16499	.224
UG - PG	.13840	.313
UG - Others	-.09969	.727
PG - Others	-.23810	.113

* Mean difference is significant at 5 per cent level

Post Hoc test result shows that the mean differences between the educational group up to tenth standard and graduates (p value 0.001<0.05), and educational group up to tenth standard and others (p value 0.010<0.05) are significant at 5 per cent level. Since the p values are more than 0.05 all other education groups are assumed to have no significant differences in their mean values at 5 per cent level.

6.2.6.5 Opinion on Role of Kiosk Banking in Financial Inclusion According to Occupation of Respondents

A null hypothesis is set that *there is no significant difference among different occupational groups in opinion on role of kiosk banking in financial inclusion.* For testing the hypothesis one way ANOVA is used as given in table 6.45.

Table 6.45

Opinion on Role of Kiosk Banking in Financial Inclusion among Occupational Groups

Occupation	N	Mean	Std. Deviation	Std. Error	F	Sig.
Agriculture	40	3.2529	.14665	.02319		
Self-employed	89	3.3100	.25282	.02680		
Business	30	3.3588	.28791	.05256		
Daily Worker	68	3.2457	.20677	.02508	10.340	.000*
Salaried	56	3.3571	.32177	.04300		
Housewife	56	3.4191	.36967	.04940		
Student	46	3.5985	.19224	.02834		
Total	385	3.3537	.28400	.01447		

Source: Primary Data
Significant at 5 per cent level

As regards occupational groups of respondents highest mean score is reported to students (3.5985) followed by housewives (3.4191). The occupation wise variation with F=10.340 and p value=0.000<0.05 (significant at 5 per cent level) rejects the null hypothesis. Hence, it is inferred that there is significant difference among different occupational groups in opinion on role of kiosk banking in financial inclusion.

Table 6.46

Post Hoc Test for Role of Kiosk Banking in Financial Inclusion among Occupational Groups

Occupation	Mean Difference	Sig.
Agriculture - Self-employed	-.05704	.919
Agriculture - Business	-.10588	.648
Agriculture - Daily Worker	.00727	1.000
Agriculture - Salaried	-.10420	.483
Agriculture - Housewife	-.16618*	.042*
Agriculture - Student	-.34552*	.000*
Self-employed - Business	-.04884	.976
Self-employed - Daily Worker	.06431	.742
Self-employed - Salaried	-.04716	.944
Self-employed - Housewife	-.10914	.196
Self-employed - Student	-.28849*	.000*
Business - Daily Worker	.11315	.451
Business - Salaried	.00168	1.000
Business - Housewife	-.06029	.953
Business - Student	-.23964*	.003*
Daily Worker - Salaried	-.11147	.233
Daily Worker - Housewife	-.17344*	.006*
Daily Worker - Student	-.35279*	.000*
Salaried - Housewife	-.06197	.880
Salaried - Student	-.24132*	.000*
Housewife - Student	-.17935*	.013*

* Mean difference is significant at 5 per cent level

The results of Post Hoc test indicates that mean differences between the occupational groups of agriculture and housewife (p value 0.042<0.05), agriculture and student (p value 0.000<0.05) self-employed and student (p value 0.000<0.05) businessmen and student (p value 0.003<0.05), daily workers and housewives (p value 0.006<0.05), daily workers and students (p value 0.000<0.05), salaried and

students (p value 0.000<0.05) and housewives and students (0.013<0.05) are significant at 5 per cent level. All other occupational groups have no significant differences in their mean values at 5 per cent level.

6.2.6.6 Opinion on Role of Kiosk Banking in Financial Inclusion According to Income of Respondents

One way ANOVA has been applied for testing the null hypothesis that *there is no significant difference in opinion on role of kiosk banking in financial inclusion among different income groups.*

Table 6.47

Opinion on Role of Kiosk Banking in Financial Inclusion among Income Groups

Monthly Income (₹)	N	Mean	Std. Deviation	Std. Error	F	Sig.
Up to 5,000	64	3.6360	.30734	.03842		
5,001 – 10,000	104	3.3026	.23248	.02280		
10,001 – 15,000	92	3.2564	.21759	.02269		
15,001 – 20,000	102	3.3166	.24120	.02388	24.668	.000*
More than 20,000	23	3.3529	.36218	.07552		
Total	385	3.3537	.28400	.01447		

Source: Primary Data
Significant at 5 per cent level

According to table 6.47 respondents with monthly income up to ₹5,000 seem to have high mean score of 3.6360. Nevertheless, the deviation among different income groups seem to be significant at 5 per cent level since p value is 0.000< 0.05, with F value of 24.668. Hence the null hypothesis is rejected, and it is inferred that there is significant difference in opinion on role of kiosk banking in financial inclusion among different income groups.

Table 6.48

Post Hoc Test for Role of Kiosk Banking in Financial Inclusion among Income Groups

Monthly Income (₹)	Mean Difference	Sig.
Up to 5,000 – 5,001 to 10,000	.33343[*]	.000*
Up to 5,000 – 10,001 to 15,000	.37964[*]	.000*
Up to 5,000 – 15,001 to 20,000	.31942[*]	.000*
Up to 5,000 - More than 20,000	.28309[*]	.000*
5,001 to 10,000 – 10,001 to 15,000	.04621	.710
5,001 to 10,000 – 15,001 to 20,000	-.01401	.995
5,001 to 10,000 - More than 20,000	-.05034	.912
10,001 to 15,000 – 15,001 to 20,000	-.06022	.469
10,001 to 15,000 - More than 20,000	-.09655	.480
15,001 to 20,000 - More than 20,000	-.03633	.972

* Mean difference is significant at 5 per cent level.

Post Hoc test results reveal that there are significant mean differences among different income groups at 5 per cent level in between income group up to ₹5,000 and ₹5,001 to ₹10,000 (p value 0.000<0.05), up to ₹5,000 and ₹10,001 to ₹15,000 (p value 0.000<0.05), up to ₹5,000 and ₹15,001 to ₹20,000 (p value 0.000<0.05), and up to ₹5,000 and more than ₹20,000 (0.000<0.05).

6.3 Changes in Savings and Deposits

Obviously, the amount of savings and amount of deposits by the people indicate their attitude and behaviour towards banking. Savings simply mean the sum of money from the part of present income put away for future use. Deposits refer to putting a part of the savings into any deposit accounts. The changes happened in the level of savings and deposits of the clients have been measured by comparing the average amount of monthly savings and deposits before and after availing kiosk banking services.

6.3.1 District wise Changes in Savings due to Kiosk Banking

Changes in average monthly savings of respondents due to kiosk banking across the three sample districts have been presented in the following table.

Table 6.49

Districts and Changes in Average Monthly Savings

Average Monthly Savings	Districts			Total
	Malappuram	Palakkad	Thiruvananthapuram	
Before Kiosk Banking (in ₹)	2936.30	2900.00	3060.40	2975.84
After Kiosk Banking (in ₹)	5540.41	5398.89	5617.45	5537.14
Changes in percentage	**(+) 88.69**	**(+) 86.17**	**(+) 83.55**	**(+) 86.0**

Source: Primary Data

From table 6.49, it is clear that average monthly savings by clients in Malappuram district have been increased by 88.69 per cent as the savings before kiosk banking was ₹2,936.30 and after kiosk banking it is ₹5,540.41. In Palakkad district, the amounts of average monthly savings have been increased to ₹5,398.41 from ₹2,900.00 and reported a positive change of 86.17 per cent. In Thiruvananthapuram district also there is increase in average amount of monthly savings by 83.55 per cent (from ₹3,060.40 to ₹5,617.45) due to kiosk banking. It is also seen that the highest rise in savings is reported in Malappuram district, followed by Palakkad and Thiruvananthapuram districts. 86 per cent growth is reported in amount of average monthly savings by the clients after they started to avail the kiosk banking services.

6.3.2 Gender wise Changes in Savings due to Kiosk Banking

Gender of respondents is significant in analysing the changes in average monthly savings before and after availing kiosk banking services. The following table may explain the same.

Table 6.50

Gender and Changes in Average Monthly Savings

Average Monthly Savings	Gender		Total
	Male	**Female**	
Before Kiosk Banking (in ₹)	3727.27	2343.06	2975.84
After Kiosk Banking (in ₹)	6561.93	4674.16	5537.14
Changes in percentage	**(+) 76.05**	**(+) 99.49**	**(+) 86.0**

Source: Primary Data

Table 6.50 reveals that the average monthly savings of male respondents have been increased by 76.05 per cent, from ₹3,727.27 to ₹6,561.93 after availing kiosk banking services. Amongst the female category also there is a positive change in average monthly savings from ₹2,343.06 to ₹4,674.16 due to kiosk banking, which reports an increase of 99.49 per cent. Percentage change in savings of the female clients is higher in relation to their counterparts.

6.3.3 Average Monthly Savings Before and After Availing Kiosk Banking Services

The relationship between the average amount of monthly savings of the sample respondents before and after availing kiosk banking services can be well explained from the cross table given below.

Table 6.51

Average Monthly Savings Before and After Kiosk Banking

Average Monthly Savings Before Kiosk Banking(in ₹)	Average Monthly Savings After Kiosk Banking (in ₹)					Total
	Up to 1,000	**1,001-2,000**	**2,001-5,000**	**5,001-10,000**	**More than 10,000**	
Up to 1,000	21 (16.4)	59 (46.1)	43 (33.6)	4 (3.1)	1 (0.8)	128 (100.0)
1,001-2,000	0 (0.0)	0 (0.0)	31 (83.8)	6 (16.2)	0 (0.0)	37 (100.0)
2,001-5,000	0 (0.0)	0 (0.0)	27 (16.2)	139 (83.2)	1 (0.6)	167 (100.0)
5,001-10,000	0 (0.0)	0 (0.0)	2 (3.8)	42 (80.8)	8 (15.4)	52 (100.0)
More than 10,000	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (100.0)	1 (100.0)
Total	21 (5.5)	59 (15.3)	103 (26.8)	191 (49.6)	11 (2.9)	385 (100.0)

Source: Primary Data

Note: *Figures in parentheses represent percentages of row total*

From table 6.51 it is observed that 59 out of 128 respondents (46.1 per cent) had savings up to ₹1,000 before kiosk banking became under the category of ₹1,001 - ₹2,000 after availing kiosk banking. But 16.4 per cent of respondents continue at the same level of savings even after using kiosk banking. 83.8 per cent of 37 respondents under ₹1,001 - ₹2,000 category before kiosk banking moved into the range of ₹2,001 - ₹5,000. 83.2 per cent (139 out of 167) respondents belonging to the savings group of ₹2,001 - ₹5,000 before kiosk banking could improve their level of savings to ₹5,001 - ₹10,000. While 80.8 per cent of 52 respondents had savings in the range of ₹5,001 – ₹10,000 continue in the same level, 15.4 per cent of such category could enhance their savings to more than ₹10,000. It emphasises that the

savings of the clients have been increased remarkably after availing kiosk banking services.

In order to test the null hypothesis, *there is no significant difference in average amount of monthly savings of clients before and after availing kiosk banking services*, paired samples t test has been applied as given in the following two tables.

Table 6.52

Paired Samples Statistics and Correlation for Average Monthly Savings

		Mean	N	Std. Deviation	Std. Error Mean	Correlation	Sig.
Pair 1	Average monthly savings before Kiosk Banking	2975.84	385	2551.993	130.062	.886	.000*
	Average monthly savings after Kiosk Banking	5537.14	385	3333.065	169.869		

Source: Primary Data
* *Significant at 5 per cent level*

Table 6.52 reveals that the mean amount of monthly savings of respondents before making use of kiosk banking services as ₹2975.84 (SD 2551.993) against the monthly savings of ₹5537.14 (SD 3333.065) after availing kiosk banking services. There is a high degree of positive correlation (r = 0.886) between average monthly savings before and after kiosk banking services at 5 per cent level (p value = 0.000<0.05).

Table 6.53

Paired Samples Test - Monthly Savings Before and After Kiosk Banking

		Paired Differences			t	df	Sig.
		Mean	Std. Deviation	Std. Error Mean			
Pair 1	Average monthly savings before Kiosk Banking - Average monthly savings after Kiosk Banking	-2561.299	1598.871	81.486	-31.432	384	.000*

Source: Primary Data
Significant at 5 per cent level

Paired samples t test result shows t value of -31.432 and p value of 0.000<0.05 (degree of freedom 384) at 5 per cent significant level. Hence, the null hypothesis stands rejected and it is inferred that there is significant difference in average amount of monthly savings of clients before and after availing kiosk banking services.

6.3.4 District wise Changes in Deposits due to Kiosk Banking

Changes in amount of average monthly deposits of respondents as a result of kiosk banking across the three sample districts have been displayed in the following table.

Table 6.54

Districts and Changes in Average Monthly Deposits

Average Monthly Deposits	Districts			Total
	Malappuram	Palakkad	Thiruvananthapuram	
Before Kiosk Banking (in ₹)	1507.53	1044.44	1273.15	1308.57
After Kiosk Banking (in ₹)	3603.42	3301.67	3418.12	3461.17
Changes in percentage	**(+) 139.03**	**(+) 216.12**	**(+) 168.48**	**(+)164.5**

Source: Primary Data

Table 6.54 elucidates that average monthly deposits by clients in Malappuram district have been increased by 139.03 per cent as the savings before kiosk banking was ₹1,507.53 and after kiosk banking it is ₹3,603.42. The amounts of average monthly deposits in Palakkad district have been improved to ₹3,301.67 from ₹1,044.44 and reported a positive change of 216.12 per cent. In Thiruvananthapuram district also there is increase in average amount of monthly deposits by 168.48 per cent (from ₹1,273.15 to ₹3,418.12) as a result of kiosk banking. It is also found that the highest growth rate in deposits is reported in Palakkad district, followed by Thiruvananthapuram and Malappuram districts. An overall growth of 164.5 per cent is reported in average amount of deposits of clients after availing kiosk banking services.

6.3.5 Gender wise Changes in Deposits due to Kiosk Banking

The following table explains the changes in average monthly deposits before and after availing kiosk banking services among male and female clients.

Table 6.55

Gender and Changes in Average Monthly Deposits

Average Monthly Deposits	Gender		Total
	Male	**Female**	
Before Kiosk Banking (in ₹)	1637.50	1031.58	1308.57
After Kiosk Banking (in ₹)	4126.70	2900.72	3461.17
Changes in percentage	**(+) 152.01**	**(+) 181.19**	**(+)164.5**

Source: Primary Data

It is found from table 6.55 that the average monthly deposits by male respondents have been improved by 152.01 per cent, from ₹1,637.50 to ₹4,126.70 after availing kiosk banking services. Among the female clients also there is a positive change in average monthly deposits from ₹1,031.58 to ₹2,900.72 as a result of kiosk banking, which reports an increase of 181.19 per cent. Percentage change in deposits among female clients is higher in relation to male clients.

6.3.6 Average Monthly Deposits Before and After Availing Kiosk Banking Services

The association between average amount of monthly deposits of the sample respondents before and after availing kiosk banking services can be clarified from the given cross table.

Table 6.56

Average Monthly Deposits Before and After Kiosk Banking

Average Monthly Deposits Before Kiosk Banking(in ₹)	Average Monthly Deposits After Kiosk Banking (in ₹)					Total
	Up to 1,000	1,001-2,000	2,001-5,000	5,001-10,000	More than 10,000	
Up to 1,000	71 (32.3)	60 (27.3)	86 (39.1)	3 (1.4)	0 (0.0)	220 (100.0)
1,001-2,000	0 (0.0)	0 (0.0)	70 (75.3)	23 (24.7)	0 (0.0)	93 (100.0)
2,001-5,000	0 (0.0)	0 (0.0)	28 (43.1	37 (56.9)	0 (0.0)	65 (100.0)
5,001-10,000	0 (0.0)	0 (0.0)	1 (25.0)	0 (0.0)	3 (75.0)	4 (100.0)
More than 10,000	0 (0.0)	0 (0.0)	0 (0.0)	2 (66.7)	1 (33.3)	3 (100.0)
Total	71 (18.4)	60 (15.6)	185 (48.1)	65 (16.9)	4 (1.0)	385 (100.0)

Source: Primary Data
Note: *Figures in parentheses represent percentages of row total*

From table 6.56 it is clear that 86 out of 220 respondents (39.1 per cent) had deposits up to ₹1,000 before kiosk banking became under the category of ₹2,001 - ₹5,000 after availing kiosk banking. However, 32.3 per cent of them continue at the same level of deposits even after using kiosk banking services. 75.3 per cent of 93 respondents under ₹1,001 - ₹2000 category before kiosk banking moved into the range of ₹2,001 - ₹5,000. 56.9 per cent of 65 clients representing the deposits group

of ₹2,001 - ₹5000 before kiosk banking could improve their level of deposits to ₹5,001 - ₹10,000. Although 3 out of 4 respondents (75.0 per cent) had deposits in the range of ₹5,001 – ₹10,000 could enhance their deposits to more than ₹10,000, the level of deposits of 25.0 per cent have decreased to the range of ₹2,001- ₹5,000.

In order to test the null hypothesis, *there is no significant difference in average amount of monthly deposits of clients before and after availing kiosk banking services,* paired samples t test has been applied as given in the following two tables.

Table 6.57

Paired Samples Statistics and Correlation for Average Monthly Deposits

		Mean	N	Std. Deviation	Std. Error Mean	Correlation	Sig.
Pair 1	Average monthly deposits before Kiosk Banking	1308.57	385	1666.428	84.929	.803	.000*
	Average monthly deposits after Kiosk Banking	3461.17	385	2336.913	119.100		

Source: Primary Data
* Significant at 5 per cent level

It is observed from table 6.57 that the mean of monthly deposits of respondents before availing kiosk banking services was ₹1,308.57 (SD 1666.248) and it has been increased to ₹3,461.17 (SD 2336.913) after starting to use the kiosk banking services from CSPs. A high degree of positive correlation is reported (r = .803) between average monthly deposits before and after practicing kiosk banking services. The correlation is significant at 5 per cent level (p value = 0.000<0.05).

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Table 6.58

Paired Samples Test - Monthly Deposits Before and After Kiosk Banking

		Paired Differences			t	df	Sig.
		Mean	Std. Deviation	Std. Error Mean			
Pair 1	Average monthly deposits before Kiosk Banking - Average monthly deposits after Kiosk Banking	-2152.597	1409.549	71.837	-29.965	384	.000*

Source: Primary Data
* *Significant at 5 per cent level*

The test statistic (t) -29.965, with p value 0.000<0.05 (at 384 degree of freedom), is significant at 5 per cent level. Hence, the null hypothesis is rejected and it is inferred that there is significant difference in average amount of monthly deposits of clients before and after availing kiosk banking services.

6.4 Changes in Level of Financial Literacy and Banking Habits

Kiosk banking might be a cause for improvement on the level of financial literacy and banking habits of the clients as they can very easily approach CSPs in their own location without sparing any time for visiting a bank branch. Fortunately, kiosk banking through CSPs made the banking easier to the laymen in rural areas. In order to study the changes in level of financial literacy and banking habits due to kiosk banking, three statements were given to the respondents to rate the same in five point scale

Table 6.59

Level of Financial Literacy and Banking Habits due to Kiosk Banking

Statements	Level of Agreement					Mean	SD	t	Sig.
	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree				
My financial literacy has been improved	0 (0)	0 (0.0)	60 (15.6)	235 (61.0)	90 (23.4)	4.08	.620	34.107	.000*
I could inculcate savings habit	0 (0)	0 (0.0)	40 (10.4)	192 (49.9)	153 (39.7)	4.29	.645	39.340	.000*
I am frequently doing financial transactions	0 (0)	20 (5.2)	163 (42.3)	169 (43.9)	33 (8.6)	3.56	.723	15.148	.000*

Source: Primary Data

Note: *Figures in parentheses represent percentages*

* Significant at 5 per cent level

From table 6.59 it is found that most of the respondents (84.4 per cent) either agreed or strongly agreed that their financial literacy have been improved due to kiosk banking while 15.6 per cent have neutral opinion in this respect. 49.9 per cent of clients agreed that kiosk banking could inculcate a savings habit among them whereas 39.7 per cent of them strongly agreed and 10.4 per cent neither agreed nor disagreed to this statement. Regarding the statement of frequency of financial transactions 8.6 per cent of respondents strongly agreed that their frequency of doing financial transactions has been increased and 5.2 per cent have disagreement with this statement. It also reveals that none of the respondents have strong disagreement with these statements. From the above table, it is also seen that the mean values of all the statements are more than that of mean of response scale, and highest mean value (4.29) is reported to the statement regarding inculcation of savings habit. One sample t test result reveals that all the three statements regarding changes in

financial literacy and banking habits are significant at 5 per cent level (p value = 0.000<0.05).

6.4.1 Influence of Motivating Factors and Level of Awareness towards Kiosk Banking on Financial Literacy and Banking Habits

The null hypothesis, *motivating factors and level of awareness towards kiosk banking services have no significant influence on level of financial literacy and banking habits of clients,* is tested with the help of multiple regression analysis.

Table 6.60

Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.727[a]	.528	.525	.29512
a. Predictors: (Constant), Motivating Factors, Level of Awareness				

Source: Primary Data

From table 6.60 it is seen that there exists a positive correlation (0.727) between independent variables (motivating factors and level of awareness) and dependent variable (level of financial literacy and banking habits), which indicates 72.7 per cent association between the predictors and outcome. R square 0.528 reveals that 52.8 per cent of variations in level of financial literacy and banking habits can be explained from the independent variables.

Table 6.61
ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37.195	2	18.597	213.525	.000[*]
	Residual	33.271	382	.087		
	Total	70.465	384			
a. Dependent Variable: Financial Literacy and Banking Habits						
b. Predictors: (Constant), Motivating Factors, Level of Awareness						

Source: Primary Data
* *Significant at 5 per cent level*

Regression model in ANOVA (table 6.61) shows that the model is significant at 5 per cent level in the sense that there is significant difference between motivating factors and level of awareness towards kiosk banking, and level of financial literacy and banking habits (F = 213.525 and p value = 000<0.05).

Table 6.62

Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.830	.204		4.074	.000*
	Level of Awareness	.351	.020	.621	17.397	.000*
	Motivating Factors	.411	.051	.286	8.017	.000*
a. Dependent Variable: Financial Literacy and Banking Habits						

Source: Primary Data
* Significant at 5 per cent level

Table 6.62 shows that the level of awareness (t = 17.397 and p value = 0.000<0.05, significant at 5 per cent level) and motivating factors (t = 8.017 and p value = 0.000<0.05, significant at 5 per cent level) have significant impact on level of financial literacy and banking habits of clients.

6.5 Level of Satisfaction towards Kiosk Banking

Kiosk banking through CSPs, by its nature of financial services, encourages the rural people to be a participant in banking transactions. The success of kiosk banking depends on the perception of its beneficiaries in the sense that higher the level of satisfaction higher the level of success of this model. The overall level of satisfaction of clients is measured in five point scale. Following table summarises the responses of clients regarding their level of satisfaction towards kiosk banking services.

Table 6.63

Level of Satisfaction towards Kiosk Banking

Level of Satisfaction	No. of Respondents	Percentage	Mean	SD
Neutral	81	21.0		
Satisfied	183	47.5		
Highly Satisfied	121	31.4	4.10	.718
Total	**385**	**100.0**		

Source: Primary Data

From table 6.63 it can be seen that 47.5 per cent of respondents are satisfied and 31.4 per cent are highly satisfied whereas 21.0 per cent of them are neither satisfied nor dissatisfied towards kiosk banking. A mean value of 4.10 is reported regarding the level of satisfaction towards kiosk banking, which is more than the mean of response scale (3). It concludes that none of the respondents are either dissatisfied or highly dissatisfied with kiosk banking.

6.5.1 Level of Usage of Kiosk Banking Services and Level of Satisfaction

Chi-square test is used to test the null hypothesis that *there is no relationship between clients' level of usage of kiosk banking services and their level of satisfaction towards kiosk banking.*

Table 6.64

Level of Usage and Level of Satisfaction

Level of Usage	Level of Satisfaction			Total
	Neutral	Satisfied	Highly Satisfied	
Low	7 (22.6)	14 (45.2)	10 (32.3)	31 (100.0)
Moderate	71 (22.5)	144 (45.7)	100 (31.7)	315 (100.0)
High	3 (7.7)	25 (64.1)	11 (28.2)	39 (100.0)
Total	81 (21.0)	183 (47.5)	121 (31.4)	385 (100.0)
Chi-square	6.329			
Sig.	.176			

Source: Primary Data

Note: *Figures in parentheses represent percentages of row total*

From table 6.64 it is found that 45.2 per cent of respondents who are using least number of kiosk services are satisfied with kiosk banking and 32.3 per cent of them are highly satisfied. 45.7 per cent of moderate users of kiosk banking services are satisfied and 31.7 per cent are highly satisfied. Majority of high level users of kiosk banking services (64.1 per cent) are satisfied and 28.2 per cent of them are highly satisfied with kiosk banking through CSPs.

The table also shows that Chi-square value = 6.329 and p value = 0.176>0.05, which is not significant at 5 per cent level. Hence, the null hypothesis is accepted and it is inferred that there does not exist relationship between level of usage of kiosk banking services and level of satisfaction towards kiosk banking.

6.6 Summary of Hypotheses Tested

Table 6.65 shows the summary of results of major hypotheses tested in respect of the role of kiosk banking in financial inclusion, changes in level of savings and deposits due to kiosk banking, changes in level of financial literacy and banking habits, and level of satisfaction of clients towards kiosk banking.

Table 6.65

Results of Hypotheses Tested

Sl. No	Null Hypothesis (H_0)	Test & Values	Result	Inference
1	There is no significant difference in opinion on role of kiosk banking in financial inclusion among the respondents belonging to different districts.	One way ANOVA F = 4.656 p = .010*	H_0 Rejected	There is significant difference in opinion on role of kiosk banking in financial inclusion among the respondents belonging to different districts.
2	There is no significant difference in opinion on role of kiosk banking in financial inclusion among male and female clients	T test t = -.853 p = .394	H_0 Accepted	There is no significant difference in opinion on role of kiosk banking in financial inclusion among male and female clients
3	There is no significant difference in opinion on	One way ANOVA F	H_0 Rejected	There is significant difference in opinion on

	role of kiosk banking in financial inclusion among different age groups	= 9.647 p = .000*		role of kiosk banking in financial inclusion among different age groups
4	There is no significant difference in opinion on role of kiosk banking in financial inclusion among the clients with different educational qualifications	One way ANOVA F = 6.251 p = .000*	H_0 Rejected	There is significant difference in opinion on role of kiosk banking in financial inclusion among the clients with different educational qualifications
5	There is no significant difference among different occupational groups in opinion on role of kiosk banking in financial inclusion	One way ANOVA F = 10.340 p = .000*	H_0 Rejected	There is significant difference among different occupational groups in opinion on role of kiosk banking in financial inclusion
6	There is no significant difference in opinion on role of kiosk banking in financial inclusion among different income groups	One way ANOVA F = 24.668 p = .000*	H_0 Rejected	There is significant difference in opinion on role of kiosk banking in financial inclusion among different income groups
7	There is no significant difference in average amount of monthly savings of clients before and after availing kiosk banking services	Paired Samples T test t = -31.432 p = .000*	H_0 Rejected	There is significant difference in average amount of monthly savings of clients before and after availing kiosk banking services
8	There is no significant difference in average amount of monthly deposits of clients before and after availing kiosk banking services	Paired Samples T test t = -29.965 p = .000*	H_0 Rejected	There is significant difference in average amount of monthly deposits of clients before and after availing kiosk banking services
9	Motivating factors and level of awareness towards kiosk banking services have no significant influence on level of financial literacy and banking habits of clients	Regression Co-efficient t = 17.397 p = .000* & t = 8.017 p = .000*	H_0 Rejected	Motivating factors and level of awareness towards kiosk banking services have significant influence on level of financial literacy and banking habits of clients

| 10 | There is no relationship between clients' level of usage of kiosk banking services and their level of satisfaction towards kiosk banking | Chi-square $\chi^2 =$ 6.329 p = .176 | H₀ Accepted | There is no relationship between clients' level of usage of kiosk banking services and their level of satisfaction towards kiosk banking |

* Significant at 5 per cent level

6.7 Conclusion

Responses from the clients in respect of their opinion on role of kiosk banking apparently prove that kiosk banking services could enhance the level of financial inclusion among rural people. Kiosk banking services through CSPs helped them to access the available basic banking services affordably. They are of the opinion that CSPs could also enhance their level of awareness on banking services. This study is witnessed for a remarkable increase in amount of savings and deposits of people after becoming a client in kiosk banking. Kiosk banking also helped its beneficiaries for increasing their level of financial literacy and for inculcating a savings habit among them. Clients from the sample districts expressed their satisfaction towards kiosk banking services. The beneficiaries of kiosk banking services in sample districts believe that kiosk banking has a major role in financial inclusion in respect of various dimensions.

Chapter 7

Summary of Findings and Conclusion

7.1 Introduction

To achieve financial inclusion objectives is a major concern of governing system of a country. It can be attained by planning and implementing innovative and systematic initiatives. In our country, the government, RBI, and NABARD have taken such revolutionary measures for ensuring financial inclusion. Major one among such initiatives is BC model which is functioning in India through CSPs. This model offers basic formal financial services in rural areas at an affordable cost. Role of CSPs in financial inclusion have been studied in detail in this study which covers the demand as well as supply side views. This chapter deliberates the major findings of the study in the light of the analysis of primary data collected from SBI CSPs and their clients in Kerala.

7.2 Statement of the Problem

Financial inclusion enables low-income groups as well as weaker sections of the society living in rural and unbanked or under-banked areas to enter into the formal financial services at an affordable cost. BC model through kiosk banking could attain the objectives of financial inclusion in our country at a greater extent. The role of Bank Mitras or Customer Service Points (CSPs) in financial inclusion is very critical and remarkable in our nation. In kiosk banking the people can visit the kiosk banking outlets in villages and avail the basic banking services. On 31st March 2020 there were 5,99,217 banking outlets in our country, 90.3 per cent of them were functioning through BCs. While number of bank branches increased by 63.5 per cent, number of BC outlets has been increased by 1,483.6 per cent during the period from 2010 and 2020. A growth rate of 23.4 per cent is reported during the period from 2009-10 to 2019-20 in number of financial inclusion accounts (BSBDAs). While 15.9 per cent growth in number of BSBDAs opened through branches 38.6 per cent is the growth in respect of BSBDAs opened through BC

outlets. Majority (56.5 per cent) of total number of BSBDAs was opened through BCs in 2019-20. It is also noted that there is an increase of 2961.8 per cent in outstanding amount in BSBDAs in 2019-20 in comparison to the year 2009-10 (RBI Annual Reports).

A total number of 6,565 bank branches exist in Kerala, out of which 70.8 per cent (4,651) branches locate in semi-urban areas. In aggregate 77.3 per cent bank branches in Kerala are functioning in non-urban areas. This indicates the branch penetration in rural and semi-urban areas in Kerala (SLBC Kerala, May 2020). In Kerala, there are 1,488 BC outlets, and 83 per cent of them are of public sector commercial banks. 696 (46.8 per cent) bank mitra outlets are located in semi-urban areas whereas 188 (12.6 per cent) outlets in rural locations and 209 (14 per cent) in urban locations. 395 (26.5 per cent) BC outlets are run by Akshaya Centres and CSCs. All these statistics show the role of kiosk banking services in financial inclusion in Kerala through BCs as it nurtures a savings and investment culture among the people, they don't have banking facilities.

In this context, it is required to evaluate the extent of influence of kiosk banking services in achieving the objective of financial inclusion in the state of Kerala. This study is an attempt to assess the role of kiosk banking services in financial inclusion with special reference to SBI Customer Service Points in Kerala by seeking the answers to the following research questions:

1. What are the banking services offered in kiosk banking through CSPs in Kerala?

2. How the CSPs feel while delivering kiosk banking services in Kerala?

3. What is the extent of awareness and usage of kiosk banking services among the rural people in Kerala?

4. Why the rural people are attracted to kiosk banking services?

5. What are the challenges faced by CSPs and the clients in kiosk banking?

6. Is there any considerable change in savings and deposits habit of rural people as a result of kiosk banking?

7.3 Objectives of the Study

This study is focused on the role of kiosk banking services in financial inclusion with special reference to SBI Customer Service Points (CSPs) in Kerala. The major objectives set for the study are as follows:

1. To assess the service delivery satisfaction of CSPs and the problems confronted by them in delivering kiosk banking services in Kerala.

2. To assess the awareness level and usage level of kiosk banking services among rural people in Kerala.

3. To identify the factors influencing rural people to kiosk banking services.

4. To analyse the difficulties confronted by clients in using kiosk banking services.

5. To examine the role of kiosk banking in financial inclusion in Kerala.

6. To analyse the impact of kiosk banking in savings and deposits habits of rural people in Kerala.

7.4   Hypotheses of the Study

By considering the objectives of the study the following null hypotheses have been formulated:

1. There is no significant difference in level of service delivery satisfaction among CSPs towards kiosk banking according to their districts, types of businesses and experience.

2. There is no significant difference in intensity of problems in delivering kiosk banking services according to their districts, types of businesses and experience of CSPs.

3. There is no significant difference in level of awareness on kiosk banking services among the clients belonging to different districts, gender, age, educational, occupational, and income groups.

4. There is no relationship between level of usage of kiosk banking services, and districts and gender groups of clients.

5. There is no significant difference in opinion on the effect of motivation factors in selection of kiosk banking services among the clients belonging to different districts, gender, age, educational, occupational, and income groups.

6. There is no significant difference in intensity of difficulties in using kiosk banking services among the clients belonging to different districts, gender, age, educational, occupational, and income groups.

7. There is no significant difference in opinion on role of kiosk banking in financial inclusion among the clients belonging to different districts, gender, age, educational, occupational, and income groups.

8. There is no significant difference in average amount of savings by clients before and after availing kiosk banking services.

9. There is no significant difference in average amount of deposits by clients before and after availing kiosk banking services.

10. There is no influence of motivating factors and level of awareness towards kiosk banking services on level of financial literacy and banking habits of clients.

11. There is no relationship between clients' level of usage of kiosk banking services and their level of satisfaction towards kiosk banking.

7.5   Research Methodology

A descriptive cum analytical research was done with the help of both secondary and primary data. For compiling secondary data research articles in

various national as well as international journals, books, reports, websites etc. were appropriately used. Primary data for the study were collected from SBI Customer Service Points and their clients from three sample districts in Kerala. The population for the study consists of 669 SBI CSPs and about three lakh active clients. Multi stage random sampling was applied for selection of samples. Out of 14 districts in Kerala three districts (Malappuram, Palakkad and Thiruvananthapuram) were randomly chosen as sample districts. Thereafter 150 CSPs were chosen as samples from supply side in proportion of number CSPs in each taluk of sample districts and 385 clients of those CSPs were also taken as samples from demand side, as suggested by Krejcie & Morgan (1970). Two separate well-structured questionnaires were deployed for gathering primary data. The collected data has been processed by using IBM SPSS Statistics 21 and Microsoft Excel. Descriptive as well as inferential statistical tools such as mean, standard deviation, one way ANOVA, post hoc test, one sample t test, independent samples t test, paired samples t test, multiple regression, Principal Component Analysis (PCA), Chi-Square test, Kruskal Wallis test and Mann-Whitney U test were used appropriately.

7.6 Chapterisation

The study has been reported in eight chapters as follows:

Chapter 1 – *Introduction*

Chapter 2 – *Review of Literatures*

Chapter 3 – *Financial Inclusion and Kiosk Banking - An Overview*

Chapter 4 – *Customer Service Points and Kiosk Banking*

Chapter 5 – *Awareness and Usage of Kiosk Banking Services*

Chapter 6 – *Role of Kiosk Banking in Financial Inclusion*

Chapter 7 - *Summary of Findings and Conclusion*

Chapter 8 - *Recommendations*

7.7 Findings of the Study

The major findings derived from the analysis of both primary and secondary data have been summarized under the following heads:

7.7.1 Progress in Level of Financial Inclusion in India

1)   In India, inclusion of households in banking services recorded a considerable growth. While 35.5 per cent of population availed banking services as per 2001 census the banking access of population was increased to 58.7 per cent in 2011. The inclusion of rural population increased from 30.1 per cent to 54.4 per cent and urban population from 49.5 per cent to 67.8 per cent throughout this period.

2)   A negative overall growth (CAGR -0.5 per cent) is reported in number of commercial banks during 10 years from 2010 to 2019. At the same time positive growth is visible in number of insurance corporations (4.3 per cent), branches of commercial banks (6.2 per cent) and number of ATMs (14.6 per cent) during this period.

3)   During the period from 2010 to 2019 there was a remarkable growth (CAGR 4.3 per cent) in number of commercial bank branches per one lakh population and 12.5 per cent growth in number of ATMs per one lakh population in India. Year-wise a slight positive growth (0.6 per cent) in number of commercial bank branches and negative growth of 3.2 per cent in number of ATMs per one lakh population were reported in 2019.

4)   There was a zigzag growth trend in outstanding deposits with commercial banks (CAGR 0.6 per cent) and outstanding loans from commercial banks (CAGR 1.1 per cent) as a percentage of GDP in India from 2010 to 2019. However, growth rate reported in 2019 in respect of both outstanding deposits with and outstanding loans from commercial banks (5 per cent and 5.1 per cent respectively) shows a positive sign as these two elements jointly act as the barometer of banking penetration among the people.

5)   Regarding the share of banks in number of ATMs public sector banks have a leading position with 67.4 per cent of total ATMs. Private sector banks, foreign banks and small finance banks have the ATMs at a share of 31.3 per cent, 0.5 per cent and 0.8 per cent respectively. Number of ATMs is very low (16.5 per cent) in rural areas whereas majority (55.7 per cent) of ATMs are located in urban and metro areas.

6)   Majority (58.6 per cent) of branches of scheduled commercial banks are located in rural and semi-urban areas. 72.9 per cent of branches belong to public sector banks, followed by private sector banks (26.9 per cent) and foreign banks (0.2 per cent). The focus of public sector banks towards financial inclusion is very clear from their number of branches in rural and semi-urban areas, totalled at 60.8 per cent.

7)   An overall growth of 1.8 per cent is reported in number of deposit and credit accounts of scheduled commercial banks per 1,000 population during four years from 2015-16 to 2018-19. A decrease of 7.4 per cent is recorded in 2018-19 in relation to 2017-18.

8)   Number of bank branches has been increased by 63.5 per cent and number of BC outlets has been increased by 1,483.6 per cent in villages during the period from 2009-10 to 2019-20. An overall growth (CAGR) of 24.4 per cent in number of banking outlets is recorded in villages. 90.3 per cent of banking outlets in villages are functioning through BCs in the year 2019-20, which clearly explains the role of BCs in financial inclusion in rural areas.

9)   An apparent growth of 10.8 per cent is found in number of BC outlets in villages having population of more than 2000 throughout the period from 2015-16 to 2019-20 despite of a slight decrease in the year 2017-18. Number of BC outlets in villages where population is less than 2000 has a negative growth (-2.4 per cent). However, there is a CAGR of 0.5 per cent in total number of BC outlets in villages.

10) There is an overall growth of 106.7 per cent in number of urban locations in India covered through BCs during the period from 2009-10 to 2019-20. In 2018-19, there was a growth of 212.8 per cent in number of urban locations covered by BCs and later it was decreased to 42 per cent in the last year.

11) In number and amount of KCCs during the period from 2009-10 to 2019-20 an overall growth of 7.2 per cent is observed. Although there were progressive growth in number and amount of KCCs from 2009-10 to 2018-19, during the year 2019-20 which were reduced to 48 million in number (-2.04 per cent) and 6,391 billion in rupees (-4.32 per cent).

12) The highest year – on –year growth (63.8 per cent) in number of BSBDAs was reported in 2014-15, obviously was happened as a result of launching of PMJDY. But the growth rates in subsequent years were not much progressive. There is 23.4 per cent growth in total number of BSBDAs during the period (2009-10 to 2019-20) whereas 15.9 per cent and 38.6 per cent growth in BSBDAs through branches and BC outlets respectively. It magnifies the role of BC outlets in financial inclusion as majority (56.5 per cent) of total number of BSBDAs was opened through BCs in 2019-20.

13) CAGR in total amount outstanding in BSBDAs during the period 2009-10 to 2019-20 is 40.8 per cent. 36.1 per cent and 52 per cent respectively are the CAGRs reported relating to amount in BSBDAs through branches and BC outlets. There is an increase of 2961.8 per cent in outstanding amount in BSBDAs in 2019-20 in comparison to the year 2009-10.

14) During the period of eleven years (2009-10 to 2019-20) a remarkable growth was reported both in number of OD facilities availed by the customers (CAGR 40.5 per cent) on their BSBDAs and amount of ODs (47.9 per cent). An increase of one billion rupees is found in amounts of ODs availed in the year 2019-20 in relation to the previous year.

15) In respect of total number of ICT accounts opened through BCs and total amount of transaction during the last eleven years, reported CAGR of 61.4

per cent and 103.9 per cent respectively. In 2019-20 there were 3,232 million ICT accounts with transactions of 8,706 billion rupees. It is observed that an incessant year to year growth in number of ICT accounts and amount of transactions across the period.

16) Overall growth of 34.9 per cent and 49.4 per cent respectively attained in respect of number of GCCs issued and the amount outstanding on it during the period from 2009-10 to 2019-20.

7.7.2 Progress in Level of Financial Inclusion in Kerala

1) Regarding the number of deposit and credit accounts per 1000 adults with scheduled commercial banks in Kerala CAGR of one per cent is reported from 2015-16 to 2018-19. Year-on-year growth shows a negative trend and in the year 2018-19 it was decreased by 6.8 per cent.

2) During the period from 2015-16 to 2018-19 an overall growth rate of 50.3 per cent is observed in number of banking outlets per one lakh people in Kerala. But there was a decrease in year to year growth rate in the year 2018-19.

3) In respect of number of ATMs per one lakh people in Kerala an overall growth rate of 1.6 per cent is reported during the period of four years from 2015-16 to 2018-19. In the year 2018-19, 27.4 ATMs were there for one lakh people while 27.7 in the year 2017-18 (declined by 1.1 per cent).

4) 70.8 per cent bank branches in Kerala locate in semi-urban areas and 77.3 per cent bank branches are functioning in non-urban areas. This indicates the branch penetration among the rural and semi-urban people. Majority (51.8 per cent) of bank branches in Kerala belong to public sector commercial banks. 35 per cent branches are of private sector commercial banks and 9.7 per cent belongs to RRBs (Kerala Gramin Bank). Small finance banks also have a place in Kerala banking sector with 231 branches (3.5 per cent). It is also observed that a very meager number of bank branches (6.5 per cent) are

situated in rural areas and the share of public sector banks is only 4.1 per cent.

5) 37 per cent bank branches of different commercial bank groups in Kerala are located in southern districts, 37.2 per cent in central districts and 25.8 per cent in northern districts. Ernakulam district dominates with 15.4 per cent. The least number of bank branches are located in Wayanad district (2 per cent). Ernakulam and Thiruvananthapuram districts also lead in number of public sector and private sector commercial bank branches. In number of branches of RRBs Kannur (15.1 per cent) and Malappuram (15 per cent) districts have dominance. Palakkad (17.3 per cent) district has leading position in number of branches of small finance banks.

6) In number of co-operative bank branches 84.4 per cent are located in urban areas whereas only 3.8 per cent are in semi-urban locations in Kerala. 80.9 per cent of co-operative bank branches are of district co-operative banks.

7) An overall growth rate of 4.5 per cent is reported in number of commercial bank branches in Kerala during the period from 2009-10 to 2018-19. There were growth in number of bank branches by 5.3 per cent in semi-urban areas and 4.8 per cent in urban areas while a negative growth by 2.7 per cent in rural areas.

8) The number of ATMs of commercial banks in Kerala was increased to 9,011 in the year 2018-19 from 4,874 in 2012-13 (84.9 per cent).

9) An overall growth of 8.2 per cent is reported in amount of KCCs whereas a negative growth (-2.4 per cent) in number of accounts in Kerala

10) 83 per cent BC outlets in Kerala are of public sector commercial banks. 16.1 per cent belong to private sector commercial banks and small finance banks have only one bank mitra outlet in Kerala.

11)   26.5 per cent BC outlets are run by Akshaya Centres and CSCs. 46.8 per cent bank mitra outlets are located in semi-urban areas whereas 12.6 per cent outlets in rural locations and 14 per cent in urban locations.

12)   12.5 per cent of BC outlets in Kerala locate in Thiruvananthapuram district, 10 per cent in Kollam, followed by Malappuram (9.9 per cent) and Palakkad (9.5 per cent). Kasargode district has least number of BC outlets (2.4 per cent).

13)   47.8 per cent of BC outlets in Kerala have been operated under SBI. The second most number of BCs belongs to the private sector bank, HDFC Bank (15.6 per cent) in the state. Canara Bank (9 per cent) and Union Bank of India (8.1 per cent) also have a remarkable share in BC model in Kerala. All other banks' share in BC channel in Kerala in aggregate is 19.5 per cent. Only16 banks provide banking services through their BCs in the state.

7.7.3 Role of SBI in Financial Inclusion

1)   In the year 2019-20 there were 61,089 BC outlets against 58,274 in 2017-18 and 57,467 in 2018-19. 12.05 Crore accounts have been opened under PMJDY and there were deposits of 29,604 Crore Rupees in 2019-20, which shows a growth rate of 28.7 per cent in relation the year 2018-19. There were 15.52 Crore financial inclusion accounts in the year 2019-20 with deposits of 38,033 Crore Rupees. The number of transactions through BCs also shows a positive growth of 24 per cent in 2019-20 (49.29 Crore) over 2018-19 (39.75 Crore), and the amount of BC transactions reported at 2,27,469 Crore Rupees in 2019-20. In 2019-20, 341 FLCs conducted 136,725 outdoor financial literacy activities with the participation of 89,36,568 persons. 8,03,407 youths got trained through 29,444 training programmes conducted by 152 RSETIs in the year 2019-20.

2)   SBI, being the largest public sector bank in the country, has a total number 62,731 BC kiosk banking outlets in India (as on 30th September 2020). 59.7 per cent of BC outlets (37,435) of SBI are located in seven states (Uttar

Pradesh, Bihar, Maharashtra, Madhya Pradesh, Rajasthan, West Bengal and Odisha). Only one BC exists each in Andaman and Nicobar Islands and Lakshadweep.

3) The highest number of BCs of SBI (13.2 per cent) is functioning in Malappuram district with 111 BCs, followed by Thiruvananthapuram with 109 BCs (12.9 per cent) and Alappuzha with 77 BCs (9.1 per cent) as on 30th September 2020. 335 BC outlets (39.6 per cent) are located in South Kerala, 265 BC outlets (31.5 per cent) in North Kerala and 244 BC outlets (28.9 per cent) in Central districts of Kerala. The number of SBI kiosk banking outlets is very less in Kasargode (16) and Wayanad (19) districts.

4) Among the three sample districts Neyyattinkara taluk (Thiruvananthapuram) has highest number of SBI BC outlets (33), followed by Eranad (27) and Tirurangadi (26) taluks of Malappuram district. Ponnani and Kondotty taluks of Malappuram district have least number of SBI kiosk banking points (5 each) in Kerala.

7.7.4 Role of Kiosk Banking in Financial Inclusion – Reflections from Supply Side

1) Majority (54.7 per cent) of entrepreneurs are running their CSPs as primary business. The remaining 45.3 per cent are considering it as secondary one for earning an additional income.

2) 74 per cent CSPs have kiosk banking experience of more than two years. The average kiosk banking experience of CSPs across the districts is 3.60 years.

3) Majority (54 per cent) of the CSPs are located within two kilometer radius of their link bank branches whereas 22.7 per cent have 6 to 10 kilometer distance to their link bank branches.

4) 58.7 per cent of CSPs are allotted with one village as their service area for kiosk banking.

5) Most of the CSPs (82.7 per cent) have an exclusive counter for kiosk banking at their outlets.

6) 70 per cent of CSPs are working 8 to 10 hours a day for delivering kiosk banking services to their clients. Average working hours of CSPs per day is 9.24 hours.

7) Most of the CSPs (80 per cent) didn't appoint any additional staff for kiosk banking in their outlets, and CSP entrepreneurs themselves do it.

8) 62.7 per cent of CSP entrepreneurs are formally trained in kiosk banking related matters.

9) 42 per cent of CSPs had invested an amount up to ₹50,000 in fixed assets whereas 13.3 per cent CSPs invested more than ₹2,00,000. Average amount of initial investment in fixed assets by CSPs is reported as ₹1,36,017.

10) 53.4 per cent CSPs incur a monthly recurring expense up to ₹5,000 and 29.3 per cent spend more than ₹10,000 per month for operating kiosk banking. The average amount spent by the CSPs amounting to ₹10,425.67 per month.

11) Majority of CSPs (58.7 per cent) could earn monthly income of only ₹5,000 or less from the operation of CSP and only 6.6 per cent CSPs could earn a monthly income of more than ₹10,000. Average revenue from CSPs amounted to ₹5,215 per month. Among the CSPs who had expended up to ₹5,000 per month, 70 per cent could reach the equilibrium.

12) 17.3 per cent of CSPs have opened more than 1,000 savings bank deposit accounts for their clients whereas 26 per cent of them helped the clients to open up to 100 accounts. The average number of SB accounts opened through CSP is reported as 958.46.

13) On an average, active number of deposit accounts per CSP is 460.28. Only 47.18 per cent of deposit accounts are active and the remaining 52.82 per cent accounts remain dormant or inactive due to various reasons.

14) 50.7 per cent CSPs carry out 10 or less banking transactions per day while 12.7 per cent are dealing more than 50 transactions per day. Average number of transactions per CSP per day is reported as 29.23.

15) Client accountholders of 43.3 per cent CSPs have 3 to 4 banking transactions per month on their account and 18 per cent have 5 and more transactions. 3.49 is the average number of transactions per account per month.

16) Accountholders of only 10.7 per cent CSPs keep an account balance of more than ₹5,000 while the balance amount kept by 20 per cent clients is not more than ₹500. The average balance per account kept with CSPs amounted to ₹2,219.

17) All the CSPs offer common kiosk banking services including BSBD account opening, cash deposits, cash withdrawals, money transfer, balance enquiry, IMPS transactions and AEPS facility. The least offered kiosk banking services through CSPs are passbook printing services (5.3 per cent), FD account opening (18 per cent) and RD account opening (34 per cent).

18) All CSPs adopt personal contact with the clients as a promotion method. Advertising in media, display boards at bank branches and pamphlets and brochures are also preferred promotion techniques by most of the CSPs. Only 34.6 per cent CSPs follow financial awareness campaign as a model for promotion.

19) All CSPs issue printed or handwritten receipts to clients for each transaction and maintain an empathic attitude with their clients. More than 80 per cent of CSPs keep a complaint register, maintain cordial relationship with bank officials, and conduct financial literacy programme for the public.

20) CSPs possess reasonable operational knowledge and skills, especially in using biometric devices, knowledge about basic banking principles and practices, and ability to build trust and confidence among clients.

21) Majority (69.3 per cent) of CSP entrepreneurs are male. 59.3 per cent CSP entrepreneurs belong to the age group of 26 to 40 years, and the average age of CSP entrepreneurs is reported at 38.66 years. 66 per cent entrepreneurs are either graduates or post graduates. Regarding occupational status 62.7 per cent of CSP entrepreneurs operate either Common Services Centres (CSC) or Akshaya e Centres. The average monthly income of CSP entrepreneurs from other sources is reported as ₹15,172.

22) 64 per cent CSPs are satisfied with support from banks and BC Companies. 28.7 per cent each of CSPs are dissatisfied and satisfied with availability of financial services to the clients through kiosk banking. 35.3 per cent CSPs are satisfied with affordability and accessibility of people to banking products. 36 per cent of CSPs are satisfied with attitude of people towards banking products, and 46 per cent CSPs are satisfied with bank staff's attitude towards CSPs.

23) 43.3 per cent CSPs are satisfied with availability of technical supports. 92.7 per cent CSPs are either dissatisfied or highly dissatisfied with remuneration granted for BC transactions and only 6.7 per cent CSPs have satisfaction with remuneration. 49.3 per cent are dissatisfied or highly dissatisfied with training given to CSPs, and 37.3 per cent sample CSPs are dissatisfied with rules and regulations of bank for delivering kiosk banking services through CSPs.

24) It is found that the level of service delivery satisfaction of CSPs from different districts is different. At the same time satisfaction level of primary and secondary types of CSP businesses and CSPs with different years of experience are not significantly different.

25) Inadequate commission, difficulty in financing working capital requirements, lack of insurance coverage for risks, high operating cost, and cash management and liquidity are the major financial problems faced by CSPs.

26) It is observed that there is no significant difference in severity of financial problems among CSPs from different districts, primary and secondary types of CSP businesses, and CSPs with different years of experience.

27) Lack of initial investment support from bank, limited number of financial services, frequent policy changes by banks, inadequate training to CSP staff, delay and irregularity in payment of commission, , difficulty in daily settlement, and delay in issuing passbook to customers are the major link bank/BC company related problems confronted by CSPs.

28) It is found that the severity of link bank/BC company related problems are not different among CSPs from different districts, primary and secondary types of CSP businesses, and CSPs with different years of experience.

29) Large number of dormant basic savings bank deposit accounts, lack of enough marketing support, and low level of financial literacy of clients are the main marketing/ client related problems faced by CSPs in kiosk banking.

30) The severity of marketing/ clients related problems in delivering kiosk banking services is significantly different among the CSPs with different years of experience. But there are no significant differences in marketing/ clients related problems among CSPs from different districts, and primary and secondary types of CSPs.

31) Non-availability of passbook printing machine, errors in capturing fingerprints, time out issue while opening accounts, lack of technical support from technology service providers, and internet connectivity problem are the most affected operational and technological problems to CSPs.

32) It is found that there are significant differences in operational and technological problems in delivering kiosk banking services among the CSPs from different districts, and primary and secondary types of CSP businesses. But, there is no significant difference in operational and technological problems among CSPs with different years of experience.

33)   Among the problems encountered by CSPs in delivering kiosk banking services financial problems are most severe, followed by operational and technological problems, link branch/BC Company related problems, and marketing/ client related problems.

34)   It is observed that there are no significant differences in magnitude of problems in delivering kiosk banking services among the CSPs from different districts, primary and secondary types of CSP businesses, and CSPs with different years of experience.

35)   Majority of CSPs (58.7 per cent) agreed that kiosk banking could improve the level of financial inclusion of rural people. However, 5.3 per cent CSPs don't believe that kiosk banking have a role in financial inclusion.

7.7.5 Role of Kiosk Banking in Financial Inclusion – Reflections from Demand Side

Regarding demographic profile of CSP clients 54.3 per cent are female and 45.7 per cent are male, and the average age of sample respondents is reported at 39 years. 55.6 per cent of respondents belong to the age group of 31 to 50, and 19.2 per cent are aged 51 years and more. 44.4 per cent respondents are having the education up to tenth standard, and 4.7 per cent respondents are post graduates. 63.1 per cent of respondents belong to farmers, daily workers, housewives, students and self-employed categories. 43.6 per cent respondents are having the monthly income up to ₹10,000 and only 6 per cent of them have monthly income of more than ₹20,000. Average monthly income of clients is reported as ₹12,192.73.

1)   39.2 per cent of clients were informed about CSPs through their friends and relatives, 23.6 per cent through bank officials and 16.6 per cent respondents started kiosk banking by the information through pamphlets and brochures distributed by CSPs. It is revealed that satisfaction and dissatisfaction towards kiosk banking are widely communicated among the clients through informal contacts.

2)   81.8 per cent of clients have a distance of not more than 2 kilometers from their place of residence to CSP. 18.2 per cent clients have to travel more than 2 kilometers for availing kiosk banking services.

3)   While the clients have high level of awareness on deposit accounts, fund transfer and social security schemes they are not much aware about insurance products.

4)   It is found that there are significant differences in level of awareness on kiosk banking services among the clients belong to different age groups, education groups, occupational groups, and income groups. But, no significant differences in level of awareness are observed among clients belong to different districts and gender categories.

5)   All the sample clients avail four kiosk banking services, namely BSBD account, cash deposits, cash withdrawals and balance enquiry as these are the basic banking services. Rupay ATM card (69.9 per cent) and money transfer (57.4 per cent) are other popular services among the clients. FD accounts, RD accounts, and tatkal money transfer are the least preferred kiosk banking services by the clients.

6)   Most of the clients (81.8 per cent) are moderate users of kiosk banking services while 10.1 per cent are high level users and 8.1 per cent are low level users.

7)   Though there exists relationship between districts of clients and their level of usage of kiosk banking services no association is seen between gender of respondents and their level of usage.

8)   Majority (54.5 per cent) of clients have experience in kiosk banking for a period of more than one year.

9)   While 45.7 per cent respondents opened their bank account with an initial deposit ranging from ₹501 to ₹1000, 6 per cent had opened their accounts

without any initial deposit. There is relationship between gender of clients and the amount of initial deposits for opening a bank account.

10) 40.5 per cent clients visited CSPs twice whereas 3.4 per cent clients didn't visit the CSP in last month. There is relationship between gender of clients and frequency of their visit to CSPs for availing kiosk banking services.

11) No need of keeping minimum balance, friendly and approachable CSP staff, and easy account opening are the most attracted factors for selection of kiosk banking services by clients. Availability of all basic banking services is opined as the least attracted factor by clients.

12) There are significant differences in priority of convenient banking factors in selection of kiosk banking among clients belong to different age groups, education groups, and income groups. But, there are no significant differences in convenient banking factors among clients from different districts, gender groups, and occupational groups.

13) It is found that there is significant difference in priority of access and availability factors in selection of kiosk banking services among male and female clients, clients with different educational qualifications, occupational groups, and clients having different income. But, no such significant difference exists in influence of access and availability factors among clients from different districts, and age groups.

14) There are significant differences in influence of trust, safety and awareness factors in selection of kiosk banking services among the clients belong to different education groups, occupational groups and income groups. But, there are no significant differences in trust, safety and awareness factors in selection of kiosk banking services among clients from different districts, gender groups and age groups.

15) It is observed that there exist significant differences in overall effect of motivation factors in selection of kiosk banking services among the clients from different age groups, occupational groups, and income groups. But, no

significant differences are found in overall influence of motivating factors in selection of kiosk banking services among the clients from different districts, gender groups, and education groups.

16) Availability of only limited number of banking services, maximum limit of amount set for transactions, and non-availability of passbook printing machine are the major difficulties faced by clients in availing kiosk banking services.

17) There are significant differences in banking related difficulties among the clients belong to different districts, education groups, and occupational groups. However, there are no significant differences in banking related difficulties among the clients from different gender groups, age groups and income groups.

18) It is found that there are significant differences in technology related difficulties in using kiosk banking services among the clients belong to different districts, age groups, education groups, occupational groups, and income groups.

19) There are significant differences in CSP operations related difficulties in using kiosk banking services among the clients belong to different districts, occupational groups, and income groups. But, there do not exist differences in CSP operations related difficulties among different gender, age, and education groups of clients.

20) It is observed that there are significant differences in intensity of difficulties in using kiosk banking services among the clients from different districts, education groups, occupational groups, and income groups. However, there are no significant differences in difficulties in using kiosk banking services among the clients belong to different gender groups, and age groups.

21) There are significant differences in opinion on adequacy dimension of financial inclusion among the clients from different districts, age groups, occupational groups, and income groups. But, there are no significant

differences in opinion on adequacy dimension among clients belong to different gender groups and education groups.

22) It is found that there are significant differences in opinion on awareness dimension of financial inclusion among the clients belong to age groups, educational groups, occupational groups and income groups. However, the differences are not significant among clients from different districts, and gender groups.

23) There exist significant differences in opinion on availability dimension of financial inclusion among the clients from different districts, age groups, education groups, occupational groups, and income groups. But there is no significant difference among male and female clients.

24) It is observed that there are significant differences in opinion on accessibility dimension in respect of role of kiosk banking in financial inclusion among different occupational groups, and income groups. However, the differences are not significant among clients from different districts, gender groups, age groups, and education groups.

25) There are significant differences in opinion on affordability dimension in respect of role of kiosk banking in financial inclusion among the clients belong to different districts, gender categories, age groups, occupation groups, and income groups. But, the difference among clients from different education groups is not significant.

26) It is found that there exist significant differences in opinion on role of kiosk banking in financial inclusion among the clients belonging to different districts, age groups, education groups, occupational groups, and income groups. However, the difference among male and female clients in respect of opinion on role of kiosk banking in financial inclusion is not significant.

27) 86 per cent growth (from ₹2,975.84 to ₹5,537.14) is reported in amount of average monthly savings by the clients after they started to avail the kiosk

banking services. 99.49 per cent increase in savings among female category is reported against 76.05 per cent increase among male clients.

28) It is found that there is significant difference in average amount of monthly savings by the clients before and after availing kiosk banking services.

29) A growth of 164.5 per cent (from ₹1,308.57 to ₹3,461.17) is reported in average amount of monthly deposits of clients after availing kiosk banking services. Increase in amount of monthly deposits by female clients (181.19 per cent) is higher in relation to the male clients (152.01 per cent).

30) It is observed that there is significant difference in average amount of monthly deposits by the clients before and after availing kiosk banking services.

31) Most of the clients (84.4 per cent) either agreed or strongly agreed that their financial literacy has been improved due to kiosk banking while 15.6 per cent have neutral opinion in this respect.

32) 49.9 per cent of clients agreed that kiosk banking could inculcate a saving habit among them whereas 39.7 per cent of them strongly agreed and 10.4 per cent neither agreed nor disagreed to this statement.

33) Majority (52.5 per cent) of clients either agreed or strongly agreed that their frequency of financial transactions has been increased due to kiosk banking whereas 5.2 per cent have disagreement with this statement.

34) It is found that the level of awareness and motivating factors have significant impact on level of financial literacy and banking habits of the clients.

35) 47.5 per cent of clients are satisfied and 31.4 per cent are highly satisfied whereas 21.0 per cent of them are neither satisfied nor dissatisfied with kiosk banking.

36) It is found that there does not exist relationship between clients' level of usage of kiosk banking services and their level of satisfaction towards kiosk banking.

7.8 Conclusion

The initiatives of RBI and GoI enhanced the level of financial inclusion in the country at a larger extend. The committees of financial inclusion recommended many innovative measures to overcome the issues of financial exclusion. Major one among them was BC/BF model meant to make sure easy and convenient access of all sections of the society to the formal banking services. Progress in financial inclusion level can be confirmed with the growth in number of commercial bank branches, ATMs and BC outlets. Such a progress can be apparently visible in the state of Kerala with 4.5 per cent growth in number of commercial bank branches during the period from 2010 to 2019 and growth of 10.8 per cent in number of ATMs during the period from 2013 to 2019. The level of financial inclusion in Kerala is considerably leveraged by 1,764 BC outlets (as on 30th September 2020) across the state. The study could expose the role of CSPs in improvement of financial inclusion level in Kerala. Majority of CSPs carry on their kiosk banking business as primary occupation, and they possess several years of experience.

CSP entrepreneurs invest an average amount of ₹1,36,017 in fixed assets and they incur an average monthly recurring expense of ₹10,426 for running kiosk banking business. But, their average monthly revenue from CSPs is just half of the monthly recurring expenses (only ₹5,215), which is not sufficient to meet the equilibrium. While CSPs are satisfied with overall support from banks/BC company they are not at all satisfied with the remuneration for BC transactions. CSPs opined that lack of passbook printing machine and inadequate commission are the major problems faced by them in delivering kiosk banking services. As a part of PMJDY large number of BSBD accounts (financial inclusion accounts) was opened through CSPs. But, unfortunately it is reported that 52 per cent deposit accounts opened through CSPs remain dormant due to varying reasons. Nonetheless CSPs believe that kiosk banking helped much for improvement of financial inclusion level of people up to a greater extent.

The demand side analysis from the perspectives of clients gives a clear picture on role of kiosk banking services on their level of financial inclusion. CSPs

near to their residence ensure basic banking services at their convenience in an affordable manner. People in rural areas could open and operate basic savings bank deposit accounts without maintaining minimum balance in their accounts. They are very much aware about various deposit accounts and fund transfer facilities. Majority of the respondents from sample districts are moderate users of kiosk banking services. Although kiosk banking provides a number of benefits to clients they are confronted with certain difficulties. Limited number of banking services, maximum limit set for amount of transactions, and non-availability of passbook printing machine are the major difficulties faced by the clients in kiosk banking.

Rural clients of CSPs believe that kiosk banking services could heighten their level of financial inclusion, and kiosk banking helped them much to access basic banking services. They are of the opinion that CSPs could also enhance their level of awareness on banking services. This study is also witnessed for a greater hike in amount of their average monthly savings (86 per cent) and average monthly deposits (164.5 per cent) of the clients after they started to avail kiosk banking services. Kiosk banking also helped its beneficiaries for increasing their level of financial literacy and for inculcating a savings habit among them. 79 per cent of clients from the sample districts are either satisfied or highly satisfied with kiosk banking services. The beneficiaries of kiosk banking services in sample districts believe that kiosk banking has a major role in financial inclusion in respect of awareness, availability, accessibility, and affordability dimensions. However, the clients have not a positive opinion on role of kiosk banking in financial inclusion in respect of adequacy of financial services available in kiosk banking. In aggregate, the study itself is concluded that among the innumerable measures undertaken by GoI and RBI for achieving financial inclusion objectives in India BC model is the most effective one which has a remarkable role in financial inclusion. It is hoped that successful running of this model, after resolving all the issues in demand and supply side, will accelerate the growth of financial system at national as well as state level.

Chapter 8
Recommendations

In the light of findings on the basis of analysis of primary data collected from the 150 SBI CSPs and 385 clients this study proposes the following recommendations.

8.1 Major Recommendations

- Maximum limit set by the bank for the amount of daily transactions is not adequate to meet the banking requirements of the people. It is recommended to enhance the transaction limit for deposit and withdrawal transactions to a maximum of ₹100,000.

- At present, CSPs are not allowed to charge any service charges from their clients for kiosk banking transactions. In order to meet the equilibrium CSPs may be permitted to charge a certain amount of charges for banking transactions.

- Daily financial settlement at the link bank branch creates inconvenience to the CSPs. Weekly settlement may be considered for reducing the inconvenience of the kiosk operators.

- Although CSPs feel their business as "owned bank", running of CSPs is not a profitable one as only a meager amount of remuneration or commission is paid for their services, which is not sufficient to meet their operating expenses. There should be a deliberate effort from the part of the bank and BC companies to reward the services of CSPs reasonably.

- CSPs indicate that there is no timely rectification of their complaints from the part of BCs. There should have a help desk for addressing the complaints of CSPs and a regular follow up on the matters concerned.

- Frequent changes in policies by the bank creates confusion among the CSPs. Bank should issue a kiosk banking policy statement for a fixed period of time and stick on the same until the period expires. CSPs should be properly informed in advance the changes in policy, if any.

- BC company should ensure the timely settlement of commission due to CSPs as most of the CSPs are of the opinion that undue delay is occurring in distribution of commission.

- Some of the CSPs feel unsupportive behaviour from bank managers and staff. There must be a joint effort of CSPs, bank managers, and staff in ensuring the successful running of BC model so as to achieve desired level of financial inclusion in rural areas.

- BC company should make provisions for imparting proper training to CSP staff so as to equip them to update the operations of CSPs in desired manner.

- Server problems and frequent errors occurring while opening bank accounts and making other transactions pull back the people from CSPs. BC company should provide technical support to resolve the server problems for ensuring the uninterrupted kiosk banking services in CSPs.

- Banks should extend initial capital support to the CSPs for meeting the expenditures for acquiring fixed assets and other basic requirements for the conduct of kiosk banking.

- Cash management is a major concern in kiosk banking, and it has the risk of theft and misappropriation. Proper insurance coverage should be provided to CSPs to meet those contingencies.

- Passbook printing gives sense of security to the customers. But most of the CSPs do not have passbook printing machines. Banks or BC company should provide passbook printing machines to their CSPs at free of cost.

- Only a limited number of banking services have been offered through CSPs. Banks should come forward to offer extensive number innovative banking services through CSPs for ensuring easy accessibility of all the banking services to the rural people more comfortably and affordably.

- More than half of the accounts opened through CSPs remains dormant. CSPs should aware the people about the kiosk banking services and induce them to have regular banking transactions not to make the accounts inactive.

- Rural people have lack of trust in CSPs due to their unawareness on its functioning. CSPs, with the support of BC company and bank, should conduct financial literacy and awareness programmes in an intensive manner to make trust in BC model.

- More number of kiosk banking outlets should be opened in rural areas to inculcate a savings and deposits habit among the people.

8.2 Scope for Further Research

This study opens the way for further research studies in the following topics relating to financial inclusion and kiosk banking:

- A study on Service Quality of Customer Service Points of selected banks

- A Comparative study on kiosk banking services of CSPs of SBI and other banks

- Role of other initiatives like KCC, GCC etc. in financial inclusion

- Role of tab banking (tablet banking) in financial inclusion

- A study on financial and marketing issues in kiosk banking

- Comparative analysis of performance of CSPs in Kerala and other states

- Cost benefit analysis of BC model in Kerala

8.3 Conclusion

This study revealed that kiosk banking through CSPs have made a revolutionary change in banking habits of the marginalized people in rural areas and thereby a considerable increase in the level of financial inclusion in Kerala. Although CSPs offer basic banking services at affordable cost to the rural people in Kerala the authorities concerned have not given much attention on the pitfalls of this model. This study may be an eye opener to the banks, BC companies and regulatory bodies to ensure the successful functioning of BC model by resolving the issues on both supply and demand sides.

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Appendices

Appendix I

QUESTIONNAIRE FOR CSP ENTREPRENEURS

Please fill up the blanks and put tick mark (√) in appropriate places.

1. District :   Malappuram ☐   Palakkad   ☐ Thiruvananthapuram ☐

2. Gender: Male   ☐   Female   ☐

3. Age:

4. Occupation : Local Shop Keeper ☐   Retired   ☐   Akshaya   ☐
    Centre

    Self-employed   ☐   CSC   ☐   Others ☐

5. Type of business of BC/CSP: Primary   ☐   Secondary   ☐

6. Educational Qualification: XII   ☐ UG ☐   PG   ☐   ☐
            Others

7. Distance to link bank branch (in KM):   ☐ Below 2 ☐   2 – 5 ☐6-10 ☐
            Above 10   ☐

8. Number of villages allotted for Kiosk Banking: One   ☐ Two ☐
    Three & More

9. Average Monthly Income from CSP (In Rs.):   ☐

10. Monthly Income from other sources (In Rs.):

11. How long you have been working as BC/CSP (in years):

12. Do you have a separate counter for Kiosk Banking: Yes ☐   No   ☐

13. Do you get any training from BC Co. /Banks?   Yes   ☐
        No

14. Number of working hours per day:

15. Number of staff in your BC/CSP: Nil   ☐   1   ☐   2 & more

16. Investments in fixed assets (in Rs.):

17. Average monthly recurring expenses (in Rs.):

18. Number of clients you are serving:

Account opened: ……   Active Account ………..

19.   Average number of transactions per day :

20.   Average number of transactions per account per month:

21.   Average amount of balance kept per BSBD Account:

22.   Please tick the Kiosk banking services offered through your BC/CSP:

Sl. No	Kiosk Banking Services	Yes (1)	No (0)
1	Opening BSBD Account (PMJDY/FI Account)		
2	Opening FD Account		
3	Opening RD Account		
4	Deposit of Cash		
5	Withdrawal of Cash		
6	Money Transfer		
7	Balance Enquiry		
8	Tatkal Money Transfer		
9	IMPS Transactions		
10	Passbook Printing		
11	Rupay ATM Card		
12	Loan Account Deposit		
13	Social Security Schemes (PMJJY/PMSBY/APY)		
14	AEPS Facility		

23. Please tick the promotion methods you applied among the villagers (Multiple responses).

Sl. No.	Promotion Methods	Yes	No
1	Media (Incl. social media)		
2	Pamphlets & Brochures		
3	Personal contact with clients		
4	Financial awareness campaign		
5	Display BC/CSP name & details at bank branches		

24. Please mention your level of agreement with the following statements regarding practices in Kiosk banking.

Sl. No	Statements	Yes	No
1	I am maintaining records of clients		
2	I am maintaining cordial relationship with bank manager & staff		
3	I am conducting financial literacy programme		
4	I am extending non-financial services		
5	I am keeping a complaint register		
6	I am giving printed or handwritten receipts to clients for every transactions		
7	I am maintaining an empathic attitude with clients		

25. Please rate the below statements regarding your operational skills

Sl. No	Operational Skills	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1	I know about basic banking principles and practices					
2	I know about the required documents for availing banking products/services					
3	I am aware about KYC norms					
4	I can use biometric device provided by bank					
5	I can do minor trouble shooting of biometric device					
6	I am able to provide financial					

	counselling to the villagers in my service area					
7	I can build trust and confidence among my clients					
8	I can persuade villagers to avail basic banking services					

26. Please rate your level of service delivery satisfaction towards Kiosk banking services.

Sl. No	Perceptions	Highly Dissatisfied	Dissatisfied	Neutral	Satisfied	Highly Satisfied
1	Support from Banks/BC Co.					
2	Financial awareness & literacy of customers					
3	Availability of financial products/services					
4	Affordability & accessibility of people to financial products/services					
5	Attitude of people towards banking products/services					
6	Attitude of bank staff					
7	Technical support					
8	Remuneration for BC					

	transactions					
9	Training programmes					
10	Rules & regulations of bank for delivery of services					

27. Please mention the problems faced by you in delivery of kiosk banking services:

Sl. No	Problems	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
A. Financial Problems						
1	I incur high operating cost					
2	I am getting inadequate commission					
3	I am feeling difficulty in financing my working capital requirements					
4	Cash management & liquidity is a major issue					
5	There is risk in running BC business and no insurance coverage for risks.					
B. Link branch/BC Co. related Problems						
1	It is difficult to settle transacted accounts on the same day					

2	There is delay and no regularity in payment of commission					
3	Bank manager and staff are not supportive					
4	There is much delay in issuing passbook to customers					
5	CSP staff are not getting adequate training					
6	Number of products offered through BCs are very limited					
7	Banks are not giving initial investment support					
8	Frequent policy changes by banks create much inconvenience					

C. Marketing/Client related Problems

1	Clients' financial literacy level is very low					
2	There are large number of dormant BSBD Accounts					
3	People do not have much trust in BC channel					
4	We are not getting enough marketing support					

5	Clients do not provide complete information					
6	We are facing competition from bank, CSPs of other banks etc.					

D. Operational & Technological Problems

1	Frequent power shortage creates difficulty in delivery of services					
2	Error in capturing fingerprints results delay in delivering services					
3	We are facing time out issue while opening accounts					
4	Many of the time we suffer the problem of internet connectivity					
5	There is no sufficient technical support from TSPs					
6	We don't have a passbook printing machine					

28. To what extent you agree kiosk banking has helped to increase the level of financial inclusion in your service area?

Strongly Disagree ☐   Disagree ☐   Neutral ☐

Agree ☐   Strongly Agree ☐

29. Suggestions, if any:

Appendix II

Questionnaire for CSP Clients

Please fill up the blanks and put tick mark (√) in appropriate places.

1. Name:

2. District: Malappuram ☐   Palakkad ☐   Thiruvananthapuram ☐

3. Gender: Male ☐   Female ☐

4. Age:

5. Occupation: Agriculture ☐   Self-employed ☐   Business ☐
   Daily worker ☐   Salaried ☐   Housewife ☐
   Student ☐

6. Educational Qualification: Up to X   XII ☐   UG ☐   PG ☐
   Others ☐

7. Monthly Income (in ₹):

8. How long you have been the client of this CSP?   Below 6 months ☐
   6 months – 1year ☐   More than 1 year ☐

9. How did you know about your BC?

   Through Medias (incl. social media) ☐   Pamphlets & Brochure of CSP ☐
   Friends & Relatives ☐

   Financial awareness campaign/workshop ☐

   Personal contact with CSP staff ☐   Bank officials ☐

10. Distance from your residence to BC outlet/CSP:

   Less than 1 Km ☐   1 to 2 Km ☐   More than 2 Km ☐

11. Please rate the following factors attracted you to Kiosk banking services (Scale of 1 to 5)

[1 – Strongly Disagree, 2 – Disagree, 3 – Neither Agree Nor Disagree, 4 – Agree, 5 – Strongly Agree]

Sl. No.	Factors attracting to Kiosk Banking	Rating
1	Transaction timings of CSP are very convenient for me	
2	Account opening formalities in BC/CSP are very easier	
3	KYC norms for opening account are relaxed in BC points	
4	I don't want to keep minimum balance in my account	
5	I can withdraw any amount from my account	
6	Kiosk banking services are more easier and convenient than that of branch banking	
7	My CSP is located very near to me within a walking distance	
8	BC/CSP services are available to me entire day	
9	I can avail all the banking services at BC points/CSPs	
10	My CSP is personally known to me	
11	CSP staff are very friendly and approachable	
12	My savings through CSP are very safe	
13	I have much trust and confidence with my CSP	
14	My friends and relatives encouraged me for using kiosk banking services	
15	CSP conducts financial awareness programme	

12.   How many times did you visit your CSP in last month?

Never ☐   Once ☐   Twice ☐   3 – 4 times ☐
       More than 4 times ☐

13.   With how much initial deposit you opened a bank account through BC/CSP?

No frill ☐   ₹1 - ₹500 ☐   ₹501 - ₹1000 ☐   More than ₹1000 ☐

14. Please indicate your level of awareness about the following Kiosk banking services.

Sl. No	Kiosk banking services	Not Aware	Poorly Aware	Fairly Aware	Aware	Highly Aware
1	Deposit Accounts					
2	Remittance /Fund Transfers					
3	AEPS Facility					
4	Saving Plans					
5	Social Security Schemes					
6	Insurance Products					

15. Please tick the Kiosk banking services you are availing through your CSP (Multiple responses allowed).

Sl. No	Banking Services	Yes (1)	No (0)
1	BSBD Account (PMJDY/FI Account)		
2	FD Account		
3	RD Account		
4	Cash Deposits		
5	Cash Withdrawals		
6	Money Transfer		
7	Balance Enquiry		
8	Tatkal Money Transfer		
9	IMPS Transactions		
10	Passbook Printing		
11	Rupay ATM Card		
12	Loan Account Deposit		
13	Social Security Schemes (PMJJY/PMSBY/APY)		
14	AEPS Facility		

16. Please rate the difficulties faced by you while using Kiosk banking services:

Sl. No	Difficulties in using Kiosk banking services	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1	Maximum limit set for transactions cause problems in enjoying banking facilities					
2	Passbook is not issued					
3	There is delay for issuing passbook					
4	ATM card is not issued					
5	Passbook printing machine is not available at CSP					
6	Very often there are network issues					
7	Fingerprint device is not working properly					
8	Finger print mismatch creates much difficulty					
9	Cumbersome procedures for kiosk banking					
10	Number of banking services is very limited					
11	BCs levy unauthorised charges for services					
12	Kiosk banking takes more time					

| 13 | BC services are not available for whole day | | | | | |
| 14 | Nonchalant attitude of BC/CSP staff | | | | | |

17. Please mention your level of agreement with the following statements regarding role of Kiosk banking services in financial inclusion

Sl. No	Statements	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1	CSP helps to open various deposit accounts					
2	CSP provides cash withdrawal facilities					
3	CSP provides remittance /fund transfer facilities					
4	CSP provides loan facilities and credit counselling					
5	CSP is providing various insurance products					
6	CSP provides non-financial services also					
7	CSP makes me aware about basic financial services					
8	CSP helped me to create an awareness about modern banking services					
9	CSP creates an awareness about various government schemes and programme					
10	CSP encourages me for					

	opening a bank account					
11	CSP is very near to me within a walking distance					
12	CSPs are always available for meeting my financial needs					
13	CSP staff are easily approachable to me					
14	Financial services through CSPs are more cost effective					
15	I can easily open a BSBD account					
16	I need not pay any service charges for BC services					
17	I need not keep minimum balance in my bank account					
18	The services provided through BC are adequate for fulfilling my financial needs					
19	CSPs help to avail all banking services at my door-step					
20	I need not approach a bank branch for further financial transactions					
21	The amount restricted by banks for transactions is adequate					

18. Please mention your level of agreement with the following statements regarding changes due to financial inclusion initiatives by BCs/CSPs.

Sl. No.	Statements	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1	My financial literacy has been improved					
2	I could inculcate savings habit					
3	I am frequently doing financial transactions					

19. Please mention your average amount of savings and deposits before and after opening an account through CSP:

Sl. No.	Average Amount	Before	After
1	Average amount of monthly savings (in ₹)		
2	Average amount of monthly deposits (in ₹)		

20. What is your overall level of satisfaction towards Kiosk banking services offered through CSPs?

Highly Dissatisfied ☐   Dissatisfied ☐   Neutral ☐

Satisfied ☐   Highly Satisfied ☐