

**ATTITUDINAL PRECEDENTS IN THE ADOPTION
AND USAGE CONTINUANCE OF TECHNOLOGY
ENABLED BANKING SELF-SERVICES: A STUDY
AMONG BANK CUSTOMERS IN KERALA**

Thesis Submitted to
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for the award of the Degree of
Doctor of Philosophy
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by

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**Attitudinal Precedents in the Adoption and Usage
Continuance of Technology Enabled Banking Self-services:
A Study among Bank Customers in Kerala**

Ph. D. Thesis under the Faculty of Social Sciences

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Declaration

I, Rajisha T., hereby declare that the thesis entitled “**Attitudinal Precedents in the Adoption and Usage Continuance of Technology Enabled Banking Self-services: A Study among Bank Customers in Kerala**” is a record of bonafide research work done by me under the supervision and guidance of Dr. S. Rajitha Kumar, Professor, School of Management Studies for the award of the Degree of Doctor of Philosophy under the Faculty of Social Sciences. I further declare that no part of the thesis has been presented before for the award of any Degree, Diploma, Associateship, Fellowship or any other title of any University or Board.

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She is permitted to submit the thesis.

Dr. S. Rajitha Kumar
(Supervising Guide)

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Abbreviations

AGFI	- Aggregate Goodness of Fit Indices
AI	- Artificial Intelligence
AEPS	- Aadhar Enabled Payment Interface
ALPM	- Automatic Ledger Processing Machines
AMOS	- Analysis of Moment Structures
ANOVA	- Analysis of Variance
API	- Aadhaar based Payment Instruments
ASS	- Accessibility
ATMS	- Automatic Teller Machines
ASV	- Average Shared Variance
AVE	- Average Variance Extracted
AWR	- Awareness
BCG	- Boston Consultancy Group
BCT	- Block Chain Technology
BHIM	- Bharat Payment Interface
CBS	- Core Banking System
CBTS	- Core Banking Technology Systems
CFA	- Confirmatory Factor Analysis
CFI	- Comparative Fit Indices
CI	- Continuance Intention
CR	- Composite Reliability
ECS	- Electronic Clearing System
EFTS	- Electronic Fund Transferring System
ECM	- Expectation Confirmation Model
EOU	- Ease of Use
EPS	- Electronic Payment Services
ESQ	- Electronic Service Quality
EUCSS	- End User Computing Satisfaction
EU	- Ease of Use
GFI	- Goodness of Fit Indices
GST	- Goods and Service Tax

HDFC	- Housing Development Finance Corporation
IB	- Internet Banking
ICT	- Information and Communication Technology
IDT	- Innovation Diffusion Theory
IFI	- Incremental Fit Indices
IMPS	- Immediate Payment Services
IS	- Information Systems
IT	- Information Technology
IVR	- Instant Voice Response
KMO	- Kaiser Mayor Olkins
KYC	- Know Your Customer
LAN	- Local Area Network
LLCI	- Lower Limit of Confidence Interval
MB	- Mobile Banking
MIAC	- Model of Intention Adoption and Continuance
MIS	- Management Information System
NFC	- Near Filed Communication
NFI	- Normed Fit indices
NEFT	- National Electronic Fund Transfer System
NNFI	- Non-Normed Fit Indices
NRI	- Non-Resident Indians
OTP	- One Time Password
PC	- Personal Computer
PEOU	- Perceived Ease of Use
PGFI	- Parsimony Goodness of Fit Indices
PIN	- Personal Identification Number
PMJDY	- Pradhan Mantri Jan Dhan Yojana
POS	- Point of Sale
PPI	- Pre-Paid Instruments
RBI	- Reserve Bank of India
RMR	- Root Mean Square Residual
RMSEA	- Root Mean Square of Error Approximation
RP	- Risk Perception

RPA	- Robotic Process Automation
RTGS	- Real Time Gross Settlement
SAT	- Satisfaction
SBT	- State Bank of India
SCT	- Social Cognitive Theory
SEM	- Structural Equation Modelling
SE	- Standard Error
SERVQUAL	- Service Quality
SPSS	- Statistical Package for Social Sciences
SMS	- Short Message Service
SRMR	- Standardized Root Mean Square Residual
SSBT	- Self-Service Banking Technology
SSTS	- Self- Servicing Technologies
TAM	- Technology Acceptance Model
TEBSS	- Technology Enabled Banking Self-Services
TLI	- Tucker Lewis Index
TPB	- Theory of Planned Behavior
TRA	- Theory of Reasoned Action
TRST	- Trust
ULCI	- Upper Level of Confidence Interval
UPI	- Unified Payment Interface
UTAUT	- Unified Theory of Acceptance and Use of Technology
WWW	- World Wide Web

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INTRODUCTION

- 1.1 *Technology Adoption in Banking Sector-An Overview*
- 1.2 *Technology Enabled Banking Self-Services*
- 1.3 *Current Trends in TEBSS*
- 1.4 *Technology Adoption in Indian Banking Sector- Current Scenario*
- 1.5 *Need and Significance of the Present Study*
- 1.6 *Report Presentation*

1.1 Technology Adoption in Banking Sector- An Overview

Banking sector everywhere throughout the world has been witnessing the rapid technological changes over the period of past few decades. Banks around the world are actively pushing for digitalisation of performance after the introduction of Information and Communication Technology (ICT). The gigantic changes in the sector as a way to overcome the out-dated approaches and mismanaged client relationships resulted in true transformation in the performance of banks. This was the fundamental reason for the transfer of technology into global destinations for integration. Apart from the information technology development, diffusion of internet technology by the introduction of World Wide Web (WWW) in the mid-90s has also significantly influenced in the changes of banking sector.

That was another upheaval of information sharing through an interconnected network all over the world. The internet technology had rolled out significant improvement in information sharing by connecting the people and places through the web and also had opened a new virtual platform for information exchange. Banks from all over the world have been spending a huge amount of money and resources for the development of technology and for upgrading the existing technology in order to achieve the operational efficiency, cost reduction, product innovations as well as to compete with the opponents.

Technology adoption in the banking sector resulted in excellent improvements in the operations of banks, customer services, reduction in the cost of operations and the introduction of innovative products and services. Varieties of innovative products and services based on latest technology are available with banks and they are still spending much on research and development works to make use of more sophisticated technologies. Presently banks redefined and re-engineered the products and services to cater the changing needs of the customers and the conventional banking is now replaced as convenient banking. In this information diffusion era, customers are more demanding and they are having high level of expectations. Moreover, people are more techno-savvy than ever before. Hence, to cope up with the changing scenarios, banks are reshaping their business into more customised manner with the support of technology. The role of banking is redefined from a mere financial intermediary to a service provider of various financial services under one roof, acting like a financial supermarket. Innovation due to technology adoption had a positive impact on customer services besides the benefit it had gained in the form of reduced

cost of operations. The financial service industry is now emphasising their focus on the creation of new possibilities by embracing digitalisation and exploring the ways to increase internal efficiencies, provide value-added customer services, minimise risk and become the engine for growth.

Before the advent of technology, banking system followed a structured, systematic way of doing banking. The banking culture of the human beings can be traced back from the history of mankind. It started long ago in the form of its basic nature of lending and borrowing while people started their society-based lifestyle and trading. The information technology evolution affected every sphere of human life gradually. The banking sector, is no exception is one of the prominent sectors of an economy, has also resulted in numerous changes with these technologies. The traditional bricks and mortar system of banking was completely taken out and replaced by the innovative methods of service delivery and improved products and services for the time period.

Information technology developments were the catalyst for revolution in the banking sector. Application of the technology in the banking sector has resulted in hectic changes in the performance of banks and other financial institutions. It enabled banks to do few more functions other than the traditional banking practices. Regardless of those which were out of our thoughts a couple of decades ago, most of them are now a vital part of our daily life. Its wider classifications include Debit/Credit cards, Internet banking, Mobile banking, etc. As a result of all these changes, many new products from banks and other third-party financial service providers are getting popularised among users.

The application of technology in banking was started with the huge electromechanical calculators which were used basically for performing simple arithmetic operations. But the technologies were evolving and updating timely by embracing the new features and advanced possibilities. In the history of banking, customer-based innovations were started from the early stage of introduction of electro-mechanical or electronic machines for data printing and calculations and followed with typewriters, printing machines, electromechanical tabulators, card punching machines, etc. The most important among them was Automatic Ledger Posting Systems (ALPMS). It was considered as the first banking technology used for maintaining the primary ledgers working out profits and interest at periodic intervals. Stand-alone PCs with LAN connectivity was used later in banks. The next set of technology developments in the banking sector was the introduction of the communication software namely BANKNET to provide messages and file transfer between branches of banks and across banks.

Apart from the computerisation of banks, ATMs are the real revolution happened in the banking sector. By the development of ATMs, the conventional method of doing basic banking activities got totally shifted to another platform. By the popularity of networking technology, the infinite possibility of inter connectivity has also opened another perspective of doing banking. Internet facilitated banks to create their own web pages and customers are offered the facility of accessing these web pages through the web browsers even while sitting at home. Internet banking is called as the stepping stone of the all innovative banking technologies like, RTGS, EFTS, etc. (Subrangshu, 2016).

1.2 Technology Enabled Banking Self- Services (TEBSS)

Self-Service Technology (SST) is a common technology that customers are using independently for performing banking transactions without any interaction with or assistance from bank employees. An SST is a service in which, there is no direct assistance from or interaction with a human service agent (Salomann & Dous, 2007). The self-service is conceptualised as the transference of control to the customers, although the extent to which this is realised may be influenced by the design of the self-service (Bradly & Sparks, 2012). Meuter & Robert (2000) defined the Self- Service Technology as “Technology interface that enables customers to access a service independent of direct service employee involvement.” First form of SSBT was ATM. Tele-banking, Internet Banking, Mobile Banking, EFTS, POS, Bank Cards etc. are also included in this category.

The beginning of SST in banking sector was started for the first time in India, when HSBC bank started ATM in the year 1987. Following to ATMs, Internet Banking and Mobile Banking ushered the concept of self-service technologies. The concept was popularised in the period of 1990s, when internet banking became popular. The success of ATMs has prompted banks to start deploying more innovations in products and services in these categories, such as Tele-banking, Internet banking, Mobile banking, etc. The adoption of NEFT, RTGS etc. had introduced basically to strengthen the efficiency of self-service banking technologies.

The most important technology behind the aggressive application of Technology Enabled Banking Self-Services (TEBSS) was the introduction

of Core Banking System (CBS) in 2000. Core Banking System (Centralised Online Real-time Exchange) is a method of networking of branches. This system enabled the customers to perform their banking operations from any branch of the bank on CBS network regardless where the customer is maintaining his or her account. This system has completely taken out the old concept of ‘customer of a particular branch’ and redefined it as ‘customer of the bank’. In general, core banking services include floating new accounts, servicing loans, deposits and withdrawals and customer relationship management. It enabled the banks to launch new products and services targeting specific customer segments after identifying their banking and investment needs. ATMs, internet banking and mobile banking etc. have attained customers’ attraction since they provide banking services at anywhere and anytime. Some of the common types of TEBSS are explained in the following section.

1.2.1 ATM (Automated Teller Machine)

ATM is an electronic banking outlet that provides the basic banking facilities to the customer without the support or the assistance from bank employees. In 1960s, first ATM was introduced in London, which used paper token at first and later used a magnetic code-based card for transactions. ATMs assures convenient, quick and self-service everyday transactions to customers like withdrawals and deposit of cash at any time or anywhere the outlet is available. Present days with internet connectivity ATM counters are spread all across the world which can do many of the banking functionalities. Now it replaced the employees in bank branches for doing the basic banking transaction like withdrawal of cash, checking

balance and account information. The ATM centres are now common in all places, and the customers of banks are blessed with the additional facility of banks that; they can make transactions from anywhere and anytime.

ATMs can be termed as any time money, as it is the first move to overcome the limitation of banking hours for transactions at bank branches. By the introduction of technology-oriented banking followed by the spread of internet and mobile banking, the traditional system of stipulated time period for working of the bank has been taken away from the mind of people. Wide spread use of ATMs by bank customers for different purposes such as cash withdrawals, checking statements, or balance enquiry, etc. lead to the setting up of large number of ATM outlets at nooks and corners. ATMs are now available with the facility of cash deposit and more advanced capabilities. The specialty of ATMs today is that, most of the ATMs are connected to inter-bank network and which enables to withdraw money from any bank's ATM outlets. The primary type of ATM only allowed the customers to withdraw cash and receive information about the updated balances and information of statements of accounts etc. Whereas, the more complex models of ATMs allow the customers to deposit cash as well as line of credit payments, transfers, and report of account information. To avail the features of these complex ATMs, the customer must be the account holder of the concerned bank that operates the machine. Future ATMs are likely to be expected as full-service terminals of banks.

1.2.2 Credit Cards

Credit card is generally a charge card in a sense, in which holder can avail credit from the issuing bank. The bank charges a commission for the provided credit. In order to avail the credit, the holder should have sufficient credit standing and repayment capacity, which is checked by the bank before the issue of such cards. The card holder can avail the credit easily, conveniently, and in flexible terms. The card contains the basic information regarding the holder as well as bank such as name of holder, name of bank, period of validity, place of validity, image of holder, logo on the card and the hologram, magnetic strip and signature etc. The use of credit card first originated in U.S in 1920s, when the oil companies and restaurants began to issue the cards to their customers for purchases. Diners club card was the first type of universal credit card introduced in 1950. Another type of card in this line was the American Express Card issued for travel and entertainment by American express Company in 1958. Now it is being popular and all commercial banks are issuing the credit cards to their customers based on the credit score of the customer.

1.2.3 Electronic Payment System (EPS)

The electronic payment system is a financial exchange system offered by the banks where transactions are taking place online between buyers and sellers. An operational network- governed by laws, rules and standards that link bank accounts and provides the functionality for monetary exchange using bank deposit. It helps the customers to make online payment for their shopping such as online reservation, online bill

payment, online ticket booking, online order processing, etc. E-payment systems can be classified into two, cash payment system as well as credit payment system. In e-cash payment system, the payments are settled through electronic fund transferring mechanism. Whereas in the credit payment system, the settlements are carried out via credit cards or e-wallets or smart cards.

1.2.4 Debit Cards

Debit cards are another important type of plastic cards widely used. It is same as a credit card in appearance and features but only the difference is that, debit card requires an account and balance in that account to use it. The card holder should have a bank account and the card is under a pay now scheme, which means that the holder's account is debited with the payment at the same time itself. The holder is using his own money and the bank need not bother about the credit worthiness and repayment capacity of the holder. Generally, debit cards are used for smaller value payment as compared to credit cards and the banks have connected the card through the ATMs. The first form of a debit card was introduced by Barclays in U.K. In 1978. In the late 70s the card system was introduced in the U.S. and Canada also. It was given to businessmen with big accounts which can be used with ATMs. Debit cards became popular in India, after 1990s by the growth of ATMs. In those days, debit cards were largely used for ATM transactions. During the year 2000, it was reported commendable growth in the usage of debit cards since that was the period when ATM cum debit cards got much attention by the customers. But the exponential growth of such cards is reported after the demonetisation in 2016.

1.2.5 Telephone Banking

Telephone banking is a service provided by the banks or other financial institutions, which enables customers to perform financial transactions over telephone, without the need to visit a bank branch or ATM. The user can perform banking activities through a phone call. Telephone banking services generally include obtaining account balances, list of latest transactions, electronic bill payment and fund transfer between customers account to another account etc. To access the telephone banking services, the customer would call the special number set up by the bank/ financial institution. The service can be provided using an automated system using speech recognition technology or by live customer representatives. Telephone banking was first introduced in 1984 by Girobank in UK. Telephone banking evidenced its growth during the early 1990s, and was heavily used by the first generation direct banks. However, the development of online banking in the early 2000s started a long-term decline in this system.

1.2.6 Internet Banking

Internet Banking refers to the system that enables banks to perform their activities through an online platform. Customers can access to their accounts and information on the products and services of banks through the websites of banks without face to face contact with bank employees. Since this is a non -personal communication channel, it re-shaped the way of carrying out traditional banking activities. Apart from cost reduction, it offers a number of benefits to banks as well as customers like time saving, effortless, convenience, and 24-hour availability of banking

services anywhere. In November 1993, Stanford Federal Credit Union conducted its first four internet transactions. They were the first financial institution to offer online internet banking services to all of its members from October 1994. Reduced transaction costs, easier integration of the services and enhanced time saving are the unique attractions of using internet banking by banks all over the world.

1.2.7 Electronic Clearing Services (ECS)

Electronic Clearing Service is another important type of service that was entirely new system to the existing fund transfer system at the time of its introduction. Under this system, one can transfer funds from one account to another through electronic format that is in paperless way. Generally, it was made utilising by the institutions for distribution of funds, dividend payments, payment of bills, other charges, etc. ECS provides paperless credit/debit transactions directly linked to the account of customers and also provides the faster method of periodic payments. It is generally used in bulk transfers from one account to many accounts or vice versa. Utility service providers such as telephone companies, electricity boards, credit card collection companies, collection of loan instalments by banks or other financial institutions, mutual fund companies and insurance companies etc. are now eligible to participate in the ECS scheme.

1.2.8 EFTS (Electronic Fund Transferring System)

The Electronic Fund Transferring System is another important type of new services generally offered by banks. It is the mechanism, through which clients can transfer their funds electronically from one bank account to another without any paper transactions. Normally the electronic fund

transferring is done through electronic terminals like ATMs, credit cards, fed wires, and point of sale transactions. All banks are now providing this service through their established electronic delivery channels. Today people are more concentrated on the online banking and online transactions. This has highly routed to spread the EFTS among customers. One of the important EFTS tools that is available on the internet is PayPal. By using this site customers can shop, move money to bank accounts, sell, buy, and request money directly from their bank account. Another important feature of EFTS is that, when the customer transfers money from one country to another, it will automatically calculate the currency and exchange rates which is highly cost effective and time saving.

1.2.9 RTGS (Real Time Gross Settlement)

This is specialised fund transferring services system. It enables transfer of money or securities takes place from banks one account to another on a real time and gross basis without any waiting period. The transactions are then processed on a gross basis and settled as soon as possible. Gross settlement simply means that, transactions are settled down on one to one basis not in netting up with any other transactions. Generally, it is used in bulk transactions which need immediate closing. The first system of RTGS was introduced in U.S Fedwire system which was launched in 1970. In 1984 France and U.K implemented RTGS type systems. It was highly useful for the period to transfer bulk amount of fund between banks. Currently banks provide different types of fund transfer services similar to RTGS like National Electronic Fund Transfer System (NEFT) and Immediate Payment Services (IMPS). Each of these

services provides different kinds of functionalities based on the value of services, speed of services, service availability and other factors. EFT types of transactions can offer additional services such as sale, refund, withdrawal, cash advance, deposit, cash back, inter account transfer, payment, inquiry, administrative transactions etc. Also, this includes some personal non-financial services like PIN change.

1.2.10 Mobile Banking

Mobile banking is a financial service, provided by banks or other organisations that allows its customers to conduct financial transactions remotely by using a mobile device such as a smartphone or tablet. By the popularity of mobile phones in the early 1990s, the customer authentication was made more secure by using the One-Time password (OTP) system in which an authentication passcode is sent to the mobile number of the user to authorise the banking transaction. It was started with SMS banking and later developed to internet banking with the entry of internet enabled mobile phones. The privacy and security of mobile phone and development of smart phone resulted in further improvement in mobile banking services. Former the mobile banking was meant SMS banking, that is informing the customers through text messages. The services include some basic services like sending information of accounts by the bank to check the account details such as balance enquiry or anything. Mobile banking reduces the cost of handling transactions but it does not allow the transactions involving cash. Mobile banking before 2010 was largely based on SMS banking. Typical mobile banking services now include mini statements and checking of account history, alerts on account activities, monitoring of

term deposits, access to loan statements, access to card statements, mutual funds or equity statements, insurance policy management, fund transfer between customer linked accounts, paying third parties includes bill payments, check remote deposits, portfolio management services, status of request for credit, cheque book /card request services, and other location based services etc.

1.2.11 E-Wallets

The fast pace of technological change means even the frontiers cannot even afford to stop innovating. Technology players, including Google, Amazon, Facebook and Apple, as well as smaller fintech companies are circling the industry looking for ways to participate and create value without taking on the burden of a regulated balance sheet like banks. E-wallet is their focus. E-wallet is a convenient, easy-to-use, secure global payment system. It is flexible “personal banking system” with a number of pay-out and pay-in options. It is an online portal which uses API based interface which one can add money to it from bank or links the card or internet banking details in it and securely make payment through it with mobile phone-based authentication. It can make transaction without waiting for the bank to authorise the beneficiary and the payment can be made instantly by scanning a graphical code or simply entering an ID or linked mobile number e.g. PayTM, Airtel money, Phone pay, Tez etc.

1.3 Current Trends in TEBSS

Banking sector soon applies the technological changes and a lot of new emerging technologies are evolved in banking and financial service sector. Customers are offered unique banking experiences through these

innovations which was completely out of their thought before. The global banking sector is becoming both more strategically focused and technologically advanced to respond to consumer expectations while trying to defend market share against an increasing array of competitors. A great deal of emphasis is being placed on digitalising core business processes and reassessing organisational structures and internal talent to be better prepared for the future of banking. As a part of these mega-trends, banks will also experiment with new mobile applications and voice-enabled gadgets to enhance both delivery and contextual personalisation. Ultimately, the consumer will be front and centre (Marous, 2018). Some of the important trends that are currently viewing in the banking sector as well as some of the expected transformations are briefly explained below.

1.3.1 Digital Only Systems

Banks are expected to be soon become a digital only system which indicates a complete exchange of products and services through the platform like mobile, internet and tablets. It is characterised as paperless, branchless and signature less way of doing banking that offers 24 hours service to customers. In India, it is expected to make it possible through Aadhaar based infrastructure.

1.3.2 Biometric Technology

Digital identification goes beyond the traditional customer identification methods. It helps the customers to interact with the bank uniquely by evaluating distinguished biological features like eyes, vein, hand, face, retina, voice, etc. It can expect to avoid the security issues and

safety threats in virtual banking. Customers are expected to seamless services across channels without going through the repetitive identification and verification procedures. Biometric technology was first evolved in U.K when the HSBC bank introduced voice recognition and touch services for customer identification.

1.3.3 Artificial Intelligence

Artificial Intelligence provides quick and personalised services by dealing with each customer separately on their specific requirements. It can be used to collect information and automatically build a model based on information, make inferences and communication of the results in a natural way. Large banks in India only have plans to introduce AI now. The process of AI involves machine learning, computer vision, natural language progression and natural language generation. The benefits of AI in banks and credit unions are widespread in reaching back office operations, compliance, customer experiences, delivery of services and risk management etc. As a part of using Artificial Intelligence, robotics has also come into picture as a new technology solution.

1.3.4 Robotic Process Automation (RPA)

It is another technology, that helps to automate the processes which are repetitive in nature. Indian banks have started using robotics to answer the customer queries related to different types of transactions like DEMAT account, locker facilities, loan, deposit etc. Already some robots can sense their environment, recognise objects, and responds to information with useful and safe behaviour. Over time they will be able to do more complex tasks.

1.3.5 Block Chain Technology

Innovative method or record keeping and other bank end function of banks, document management reporting, payments etc. are possible through BCT for banks. It will enhance the efficiency in fraud prevention and increase transparency of processes. Block chain technology was first introduced in 2008. Block chain will do to banks what the internet did to media. Block chain assures high level of safety and security when it comes to exchanging data, information and money. It allows the user to transact in a transparent network infrastructure with low operational cost. The highlighted feature of the adoption of block chain technology in the customer identification is that, independent verification of each customer done by one bank or financial institution that would be accessible to others to use. So that, the KYC process does not have to be restarted again. Block chain technology is set fundamentally to transform banking and financial services. It decentralises the financial management from a central authority to a widespread network of computers. In which, financial transactions are broken down into encrypted pockets, or “blocks” which are then added to “chain” of computer code and encrypted for enhanced cyber security.

1.3.6 Google Glass Technology

Google glass technology in banking is a part of wearable technology. Through this technology, it is possible to locate the nearest bank branch/ATM, check account balance and use video conferencing for technical support etc. Wearable banking may not yet be ready for prime time. It is still important to understand and participate in the development

of new technologies that eventually will bring together people, process, data, and things to make networked connections more relevant and valuable, creating new capabilities and richer experiences for consumers, businesses and financial institutions (Marous, 2014).

1.4 Technology Adoption in Indian Banking Sector-Current Scenario

In India, banking system was developed in the early ages of civilisation as 18th century in its ancient form. Structured and systematic banking was originally developed during British Rule. The British system of banking was followed in India since 18th century. India had a long history of trading with foreign merchants and Britain being the biggest among this, started the British East India Company in Kolkata with the aim of getting trade monopoly. When there was a need for them to have a proper system of banking for trade, they started the first commercial bank in India, Bank of Calcutta in 1806.

The banking sector in India witnessed tremendous changes in the pace and pattern of the way of banking is done in the post-independence period. After the independence, banking network got more established by merging the smaller banks and nationalisation of major banks. During the last 3 decades, banking sector underwent the most phenomenal changes by turning into a technology-based system. The banking system changed its operations from the piles of papers in shelves to the ease and comfort at the fingertip of customers.

India, being the largest democracy and an emerging economic giant, technology enabled banking systems makes it possible to cater the needs

of customer population, which is growing exponentially each year. As a result of the impact of Liberalisation, Privatisation, and Globalisation, Indian economy opened for foreign trade and a number of foreign banks started setting up their branches in India. The economic reforms of early 1990s also widened the scope of the new age banking systems in India with the introduction of new generation private sector banks. The new generation private sector banks paved the way of technology adoption. They started penetrating among the Indian customers by providing world class quality of services with technology-oriented products and services. The requirement of computerisation in Indian banking was felt in 1980s. As a part of the movement, for the client benefit and customer support in reporting etc. RBI set up a committee headed by Dr. C. Rangarajan.

But banks began using Information and Communication Technology in a wide way after the introduction of Core Banking System. The core banking system was the stepping stone of the integrated mechanism in banking sector. It provides the interconnectivity of different branches of a bank as well as different banks itself in a connected network. Now the growth of Indian banking in virtual platform is remarked as one of the prominent spaces of digital banking all over the world.

Moreover, the demonetisation was declared in India in November 2016, and it affected the usage of electronic banking in a big way. The following table and graph are based on the NPCI statistics on the growth of digital payments after the demonetisation. The graph depicts the volume of transactions carried out through different types of digital payment systems for three months periods in the post-demonetisation.

Table 1.1: Growth of Digital Banking Transactions in India

Data for the period		Electronic Payment Systems - Representative Data (Updated as on March 06, 2018)												Volume in million, Value in Rs. billion										
		RTGS	NEFT	CTS*	IMPS*	NACH*	UPI*	USSD**	Debit and Credit Cards at POS &	PPI #	Mobile Banking	Total	value	volume										
Nov-16	7.9	78479.2	123.0	8807.8	87.1	5419.2	36.2	324.8	152.5	606.6	0.3	0.9	7.0	7302.6	205.5	352.4	59.0	13.2	72.3	1244.9	671.5	94004.2	value	volume
Dec-16	8.8	84096.5	166.3	11537.6	130.0	6911.9	52.8	431.9	198.7	626.8	2.0	7.0	102.2	103718.4	311.0	522.2	87.8	21.3	70.2	1365.9	957.5	104055.3	value	volume
Jan-17	9.3	77486.1	164.2	11355.1	118.5	6618.4	62.4	491.2	158.7	541.4	4.2	16.6	314.3	381760.2	265.5	481.2	87.3	21.0	64.9	1206.7	870.4	97011.4	value	volume
Feb-17	9.1	74218.8	148.2	10877.9	100.4	5993.9	59.7	482.2	150.5	592.0	4.2	19.0	224.8	357055.2	212.3	391.5	78.4	18.7	56.2	1080.0	763.0	82594.5	value	volume
Mar-17	12.5	123375.8	186.7	16294.5	119.2	8062.8	67.4	564.7	182.1	829.4	6.2	23.9	211.2	337982.4	229.7	416.2	90.0	21.5	60.8	1499.9	893.9	149589.1	value	volume
Apr-17	9.5	88512.2	143.2	12156.2	95.3	6990.6	65.1	562.1	212.6	905.2	6.9	22.0	188.9	301650.5	231.1	431.4	89.2	22.3	61.0	1443.8	853.1	109602.2	value	volume
May-17	10.4	90170.5	155.8	12410.8	97.1	6745.9	66.7	585.6	194.4	692.4	9.2	27.7	192.6	316723.7	233.4	450.8	91.3	25.3	64.9	1940.7	858.5	111109.3	value	volume
Jun-17	9.8	92812.6	152.3	12694.2	91.9	6409.9	65.8	596.5	197.3	708.6	10.2	30.7	198.9	313277.0	232.4	468.2	84.7	24.1	77.1	1594.7	844.7	113745.2	value	volume
Jul-17	9.4	87149.3	148.1	12011.6	92.2	6342.5	69.1	604.8	204.3	771.7	11.4	33.8	190.7	302097.8	237.6	439.3	88.7	25.1	69.5	1019.2	861.1	107378.4	value	volume
Aug-17	9.5	89163.4	151.6	12500.4	92.1	6224.3	75.7	651.5	205.2	752.4	16.6	41.3	191.8	294239.4	243.0	457.1	89.7	27.2	70.8	1033.0	883.4	109817.9	value	volume
Sep-17	9.6	102348.1	157.7	14182.1	92.2	6271.5	82.9	717.6	176.0	628.4	30.8	52.9	202.7	323578.5	240.3	478.2	87.5	27.6	86.3	1121.6	877.0	124706.8	value	volume
Oct-17	10.0	92056.1	158.8	13851.3	94.4	6340.2	88.1	750.4	187.0	900.5	76.8	70.3	184.6	299071.8	255.7	530.5	96.2	32.7	130.9	1168.7	967.3	114532.2	value	volume
Nov-17	10.8	98410.5	162.0	13884.0	96.3	6633.9	89.5	782.6	197.5	724.1	104.8	96.4	182.4	287309.6	244.6	483.3	92.8	32.0	122.8	848.4	998.5	121047.1	value	volume
Dec-17	10.9	100907.8	169.0	15779.2	94.6	6564.0	98.0	871.1	183.0	714.0	145.5	131.4	179.9	299367.3	263.9	528.7	99.1	35.1	113.3	921.5	1064.2	125531.5	value	volume
Jan-18	11.2	107488.4	170.2	15374.1	96.7	6792.6	99.6	882.1	208.1	727.7	151.7	155.4	172.8	290020.0	271.1	521.9	113.6	36.3	106.3	928.7	1122.3	131980.8	value	volume
Feb 18	0.5	4689.0	12.5	782.7	4.0	319.0	4.4	45.1	14.4	61.9	5.8	9.7	7.0	13220.0	8.6	15.5	4.2	1.5	5.4	52.9	54.4	5924.5	value	volume

2. *: Source NPCI.

Based on the above figures the following graph is generated. The graph shows the growth in the volume of transaction through different types of digital payment systems in India, during the one-year period after demonetisation. Usage of bank cards, NEFT, IMPS, mobile banking are showing the exponential growth. Steady growth in the NEFT transactions are reported during the period, whereas UPI transactions are emerging as trendy after demonetisation. Volume of transactions through bank cards are also showing the high growth rate. Mobile banking and IMPS showed the increased trends following Pre-Paid Instruments.

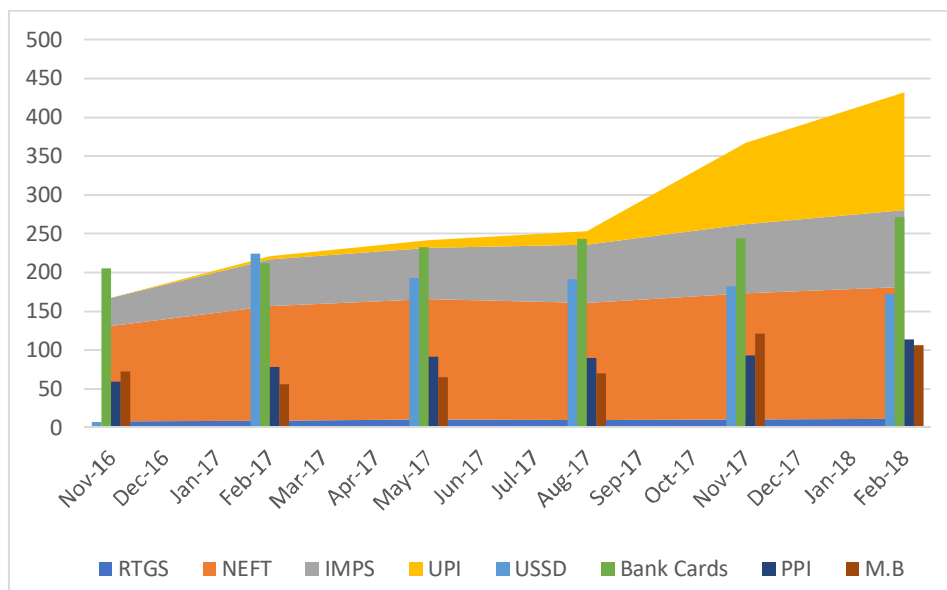


Fig. 1.1: Volume of Transactions through Different Types of Digital Payment Systems in India

1.5 Need and Significance of the Present Study

In terms of digital adoption, financial services are already much larger than any other categories like consumer electronics or travel. In the last few years Indian banking sector also has realised the need of introducing technology-based products and services for meeting the ever-changing needs of customers. The adoption of technology has gained customer acceptance in different technology-based products and services like ATMs, Internet Banking, Mobile Banking, different types of bank cards like debit cards, credit cards and digital wallets etc. Over the last decade, the adoption of these products and services are increasingly high among bank customers. Apart from reduced cost of operations, these products and services are offering a number of distinguished features to their users. Since the customers are more demanding and having high expectations being techno savvy in this information diffusion era, banks are reshaping their business into more sophisticated manner. Thus, the role of banking is redefined as a financial supervisor rather than a financial intermediary to an individual customer.

As discussed earlier, India is in the midst of a digital revolution, with internet users are going beyond just search and social networking and moving to more mature activities like online shopping and banking. Cashless economy is emerging as a global trend and the government following demonetisation, is trying its best to create a cashless society. Digital India program of the Indian government for setting up an open architecture layers such as Aadhar, India Stack, Bharat Bill Payment System and GST, etc. are actively developing the entire digital ecosystem.

Virtual banking/ direct banking is also an important step forward. In addition to the push for digitisation, new policies favour financial inclusion and promote competition ultimately point to the emergence of a digital, inclusive, and interoperable financial-service market in India.

Now the technology adoption has reached in its nascent stage. Already 70 percent urban internet users are digitally influenced during financial product purchase. That is, they use at least one digital channel during their financial transactions. But still India is in the 54th position out of 84 countries in the digital money Index (BCG 2019). Four pillars for digital money index are; Government support, Financial and technology infrastructure, Presence of digital banking solutions, and Propensity of customers/businesses to use digital banking innovations. India has better rating on technology and financial infrastructure; but fares poorly on propensity to use digital innovations. Availability of low-cost smart phones, localised contents, and low level of digital literacy in terms of simple user experience are only needed for the simple adoption of such products or services. But for success, sustained use of such services in long run is essential.

When government of India, declared demonetisation on November 8, 2016, the objectives of the authority was to dispose of fake currency notes, reveal the black money, and eradicate the drugs and terrorism financing. In addition to that, one main objective which was not expressly stated was to encourage the cashless transactions. The sudden declaration of the demonetisation of currencies made a deep dip in Indian economy and the immediate policy change created the crisis. It forced customers to

use cashless system for a period. This incident has given a sudden momentum on the internet-based banking technology. Though in the initial days of demonetisation, there was a substantial increase in the digital transactions and they seem to be declining later on. Users of the technology-based banking at the time of demonetisation tend to go back to the currency-based system after the release of new currencies. Nearly after two years of the demonetisation, currency in the circulation has crossed the pre-note ban level. This is the case and clear example to state that, continued usage of TEBS will not get a push by mere policy compulsion. Hence, it can be concluded that, the rate of adoption is not at all determines the success of these technologies, instead the active usage of the same is to be considered.

A customer centric study of technology in banking was felt very important for the situation in order to analyse the customer behaviour in the post-adoption phase of such technologies. Investigation of the long-term user behaviour with technology has been given important concern in the technology-based studies across innovation adoption disciplines. Similarly, academic research attention on technology adoption in banking has to be focused towards the assessment of user experiences on technologies in long run, rather than investigating the initial intention and attitude towards the innovations. Since the application of innovations and technology developments necessitate the success in long run, post-adoption usage analysis become more important to the situation. It is clear that technology advancement in banking sector would offer a complete transformation of traditional banking to virtual platforms once the continuance intention of users can be ensured.

The current study is being conducted in a period when the country was going through the biggest revolution in the banking sector, the demonetisation. On 8th November 2016 the Prime Minister of India declared an unexpected demonetisation of two higher denominations of Indian currency notes. This resulted in crisis of shortage of currency notes in the country. As an alternative solution for the crisis, people were forced to go for the extensive use of cashless transactions through internet and mobile based banking products and services. This was resulted in a tremendous hike in the usage of technology-based banking products and services by a vast population within a shorter period of time. Before demonetisation, most of the technology-based banking products and services were less popular or underutilised by customers. Hence the adoption-based studies were extensively done during that period. As a part of Digital India campaign, government of India promoted IT infrastructure development and promoted some initiatives for technology based financial inclusion programmes like PMJDY, Kisan Credit Card, BHIM (UPI), Payment banking, E-wallets, etc. As there are many advantages in going digital, it is indeed to track the usage behaviour of early adopters in order to encourage credit/debit card payments and online banking transactions through mobile or internet. Hence, the present study becomes more relevant in the scenario of post-demonetisation in India.

This study is carried out in the state of Kerala. While looking into the banking sector of Kerala, it is one of the total banked states in India in the sense that, the majority of the population has a single bank account in their name. Performance of banks in Kerala is now remarked as highly competitive and efficient as the banks and bank branches are large in

numbers in the state. It is important to note that Kerala is the destination where high amounts of NRI deposit is recorded. While dealing with increased foreign remittances and large volume of deposits, banks in Kerala had set up a large network of branches and their outlets all over the state. Most of the banks in Kerala are now characterised with the adoption of innovative methods of banking, and self-service digital technologies.

The state had already achieved the status of cent percent literacy. Apart from this, it had achieved the status of the first digital states of India through the implementation of two far reaching projects IT@school and Akshaya in 2002. In addition to that, government of Kerala has started the different initiatives of e- governance. Hence, the people in Kerala are becoming more e-literates. As of now, it had achieved 100 percent e-literacy in 8 districts out of 14 districts. Internet availability and e-literacy was the essential pre-requisites for the adoption of technology-based banking services. All these unique features resulted in the increased use of electronic banking by customers in the state.

In this background, it is the auspicious time to conduct a customer centric study on the behaviour of the people those who are already practiced using the technology enabled banking self-services. The literature review revealed that, plenty of studies have been conducted in India and abroad on the topic of adoption and related issues in e-banking. However, a comprehensive research investigating the post-adoption behaviour by considering the important factors of post use experience like satisfaction, trust, risk perception and ultimately the continuance intention have not been carried out yet in India. Hence, the present study is truly

relevant and opportune to perform at the point of view of both the academic and banking perspectives.

1.6 Report Presentation

The present study explains the post-adoptive use and continuance intention of bank customers in Technology Enabled Banking Self-Services (TEBSS), by checking the impact of some factors on the continuance intention. Integrated model linking customers' perception on adoptability of TEBSS to continuance intention by checking the influence of some user experiences was proposed and empirically tested. The report of the research work is presented in seven chapters.

Chapter 1: Introduction of the Study - Detailed introduction to the study is given in the chapter about the overview of technology adoption in banking sector. Technology adoption in Indian banking sector, most common technology enabled banking products and services and the future prospects of the trends are discussed in detail. The significance of the present study is also included in this chapter.

Chapter 2: Review of Literature - Earlier studies in the field of technology adoption in banking sector, post-adoption studies, both customer centric studies and others are considered for review.

Chapter 3: Conceptual Formulation of the Study - The chapter explains the conceptual formulation of the study by explaining the hypothesised relationship between variables in the study.

- Chapter 4: Research Methodology - This chapter explains the various aspects of research methodology adopted for the current study.
- Chapter 5: Analysis of Purpose and Extent of Usage of TEBSS by Customers - Discussed about the purpose and extent of usage analysis of TEBSS. The first part of the chapter included the basic demographic analysis of sample. Usage analysis of TEBSS by customers is given in the following section which includes the analysis of purpose and extent of usage of TEBSS. Usage analysis was further explained on the basis of different demographic characteristics of respondents.
- Chapter 6: Relationship Between Customers' Perception on Adoptability, Post-use Experiences and Continuance Intention - The first section of this chapter holds the analysis of customers' perception on adoptability of TEBSS. Second section of the chapter covers the analysis of post-use experiences of customers and continuance intention. The third section of the chapter holds the testing of hypotheses, mediation and moderation analysis and assessment of conceptual model proposed in chapter 3.
- Chapter 7: Discussion, Findings, Suggestions and Conclusion - This chapter presents the discussions, findings and suggestions. It also includes the theoretical and practical implications of the study followed by conclusion and scope for further research.

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REVIEW OF LITERATURE

- 2.1 *Introduction*
- 2.2 *Technology Adoption Research in Banking Sector*
- 2.3 *User Perceptions on Technology Adoption Decisions*
- 2.4 *Research on Post-Adoption Behaviour of Customers on TEBSS*
- 2.5 *Risk Perception of Customers in TEBSS Adoption*
- 2.6 *Studies on Continuance Intention in TEBSS*
- 2.7 *Research Gap*
- 2.8 *Chapter Summary*

This chapter provides the detailed review of literature covering the variables under the study. Chapter discusses the details of findings of previous studies on technology adoption in banking sector in India as well as abroad. Gaps in the literature are also described at the last section of this chapter.

2.1 Introduction

The banking sector had changed dramatically through the whole period of its ancient form of bricks and mortar banking to the new form of virtual banking. Studies on banking had taken place in all over the world. The major studies conducted in the area of banking can be broadly classified into studies on two perspectives banks' perspectives and customers' perspectives. The sub categories of all the other literature were routed from the main categories of the above two. Sub-divisions of the available academic literature on banking can be further divided into retail banking services, studies on distribution channels, technology adoption, customers' trust and customers' satisfaction. The structure of e-banking literature is depicted in the following picture for better understanding.

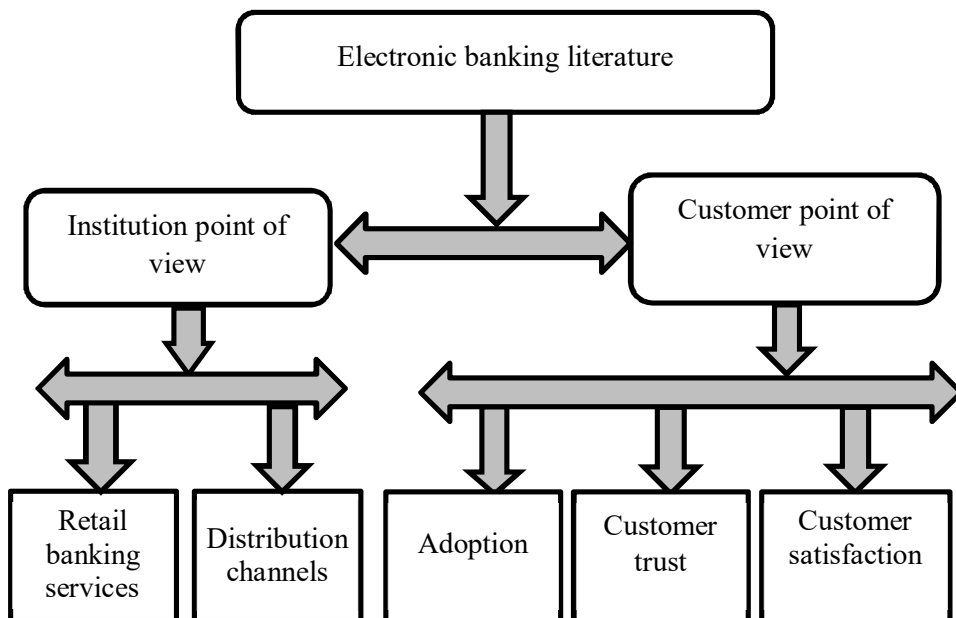


Fig. 2.1: Classification of E-banking Literature

The literature reviews divided into three sections for the present study. The first section of the literature is related to the adoption of technology enabled banking self-services. Since it is the primary thing to be taken for consideration, the adoption and related issues were largely studied in earlier literature. The first section of literature mainly focused on the of adoption behaviour of the customers, to analyse the factors behind the adoption of banking innovations irrespective of the technology like internet banking, mobile banking, or bank cards. The Second section of the literature review discussed is the studies in post-adoption behaviour of customers relating to the technology. In this section of literature, most of the post-adoption studies of technology adoption in general as well as in banking sector were reviewed. From the detailed review of the literature, it is evidenced that, customer satisfaction and customer trust are the important issues once a customer started using the innovative banking products and services. Customer satisfaction is crucial for retaining the customers with existing technology for long term. When it comes to usage of technology, customer trust is also important in addition to satisfaction. Unlike other factors, satisfaction and post-use trust are interrelated in the case of technology usage especially when it comes to financial dealings. Trust is found significant in long term relationship with any technology. Hence, the previous studies which have addressed the satisfaction and trust in technology adoption had reviewed in this section in detail. The last section of the literature review dealt with the studies on continuance intention in using the technology. This section of literature review presents the concept of intention to continue the usage of technology and the related studies which explained continuance intention

so far. These studies were originally reviewed mostly from information system research. Since the focus of the present study is to identify the role of different factors in explaining the continuance intention in using the technology enabled banking self-services, the earlier studies took place in the continuance intention with technology in banking sector were also revised in depth.

2.2 Technology Adoption Research in Banking Sector

Adoption of technology in the banking sector was started in early 90's with the introduction of the new banks as a part of deregulating the economies for globalisation, privatisation, and liberalisation. Technology adoption had great influences in the performance of banking activities and the overall growth in the financial service sector itself. Technology enabled products and services had changed the way of banking is done. Adoption of information and communication technology and introduction of information sharing system through interconnected networks, i.e.; World Wide Web, made it possible to introduce the changes in the financial service sector, as it was already implemented in many other sectors. Literature on technology adoption in the banking sector was concentrated mainly on the issues and impacts of technology adoption as well as the factors that insist towards the adoption of technology. It was the trend for many years earlier that, to identify the factors which contributed towards the adoption of technology for delivering the services to the customers in different forms. Most important changes happened in the banking sector due to technology adoption were traced back from the introduction of ATMs, Internet banking, Mobile banking and card

technologies, self-service banking kiosks, NFC enabled cards and up to robotics. Now the form of banking highly depends on technology. Research on technology adoption in banking has gained rapid scholarly attention in developing countries since the year 2000 when internet banking became a popular phenomenon. The studies were mostly focused in the area of adoption issues and prospects of internet banking, mobile banking and satisfaction of the customers in the technology-oriented products and services (Sabi, 2014).

Studies on adoption and use of technology in banking had routed in the early 90s at the time of computerisations of branches. Wide use of mobile and internet-based technologies changed the scenario later. After 2000, the internet technology emphasised in routing of delivery of banking services to people. The first among the studies on technology adoption in banking had discussed the issue of adoption in academic research by (Sathye, 1999). His research revealed some factors like security issues, lack of awareness, un-reasonable prices are the main reasons for non-adoption of online banking. The most important factors reported in their study for the non-adoption of technology were ‘lack of awareness, and security issues’. Following to him, (Howcraft 2002) added a list of factors leading to adoption of the banking technology such as lower fees, recommendations by family/friends, 24-hours access to services, time efficiency, better service quality and coverage in the popular media etc. Other factors like accuracy, user-friendliness, transaction speed, convenience, experience, involvement of consumers was added by (Cheung & Michael, 2002) as influencing factors of adoption. Further they had found that, individual expectations regarding accuracy, security,

transactions speed, user friendliness, user involvement, and convenience are the most important quality attributes in the perceived usefulness of internet-based e-retail banking. Quality attributes like accuracy, security, network speed, user-friendliness and convenience are highly contributed to perceived usefulness and willingness to use it in different degrees. By focusing on these factors, in the order of significance, financial institutions would be able to effectively enhance the customer value of internet/ e-retail banking.

According to the study (Serkan & Safak, 2004) reliability of the bank and privacy, along with convenient aspects were the most important elements of accepting the internet banking. Study demonstrated that, information seeking activities and money transfers are most common among the customers who adopted the technology enabled banking services. The study examined the behaviour of the adopters and non-adopters of internet banking. The result further revealed that, in both the groups, there is no homogeneity in demographics. After the wide popularity of the technology-based banking all over the world, banking on technology has gained special academic attention. Journals in this discipline have devoted special issues to the topic (Nath & Mukherjee, 2003). The research mostly done in the area of adoption related topics and concentration was given in the identification of different factors behind the adoption and non-adoption since the non-adoption was the real issue during that time. Factors that influenced the adoption intention and attitude of people towards the banking technology were frequently analysed with different theories. Those factors are commonly appeared to be consistent with different cultures across different countries.

As stated earlier, the technology adoption in banking research was originally started from the central issue of non- adoption of technology for a long time. Customers' perceptions were measured in those studies as influential factors of adoption. A bunch of factors were identified like lack of awareness and technology related issues which are limiting the adoption intention. Laforet & Li (2005) identified perception of risk, technological and computer skills are the main barriers to the adoption of e-banking among customers. In their study, they had found that, security reasons and lack of awareness caused the risk perception of customers in adopting the technology in banking. A study on adoption of internet banking was done by William & Kristy (2006) found that, accessibility as the most important factor which contributes towards the adoption of internet banking. Apart from accessibility, study found self-efficacy and convenience impacted on consumer adoption of internet banking. This study was conducted in the year 2006, which was the period when usage of internet banking was very limited. The study also found that perceived risk has some negative effect on adoption intention and they had further stated that, customers during that period became more curious about the trust and security concerns in the internet banking. In the same year (Gerrard & Cunningham, 2006) identified eight major factors that inhibits the adoption of e-banking. Risk, lack of perceived need, lack of knowledge about the services, inertia, inaccessibility, lack of human touch, pricing concerns and technology fatigue etc. are included in those factors.

Only after 2010, mobile banking and internet banking had penetrated among common people. In India also, internet banking and mobile banking gained popularity only after 2010. Several studies had

conducted in this area related to adoption intention, safety, security issues and other important factors. Studies in that period were mainly concentrated on identifying the factors that lead to the acceptance of internet banking and mobile banking. Both the customer perspective studies as well as bank's perspective studies were carried out to analyse the critical factors. Major factors like security & privacy, trust, innovativeness, familiarity, awareness level was identified by different researchers as the reasons for acceptance of e-banking services among Indian customers. In a study of internet banking acceptance (Dixit & Datta, 2010) shared their view that, in spite of their security and privacy concern, adult customers are willing to adopt online banking if banks provide them necessary guidance. In another study (Thulani & Kosmas, 2011) indicated that people use mobile and internet banking only for checking the account balances and payment of bills and to transfer funds. He added that, cost reduction being the only influencing factor behind their adoption.

After the spread of e- banking technology all over the world, adoption issue became vital. During this period, behavioural theories of technology adoption has been applied to explain the behaviour of customers in acceptance of technology-oriented banking products and services. In information system research, these theories were well connected with the prediction of acceptance behaviour and use of technology. Later, the technology adoption studies in banking sector turned to apply these theories in order to find the best predictor to adoption, underlying factors of satisfaction, trust and related issues in technology. The theories most widely used in banking studies were

include; Technology Acceptance Model, Innovation, Diffusion theory, Theory of Planned Behaviour, Theory of Reasoned Action, Social Cognitive Theory, Expectation Confirmation Theory, and Unified Theory of Acceptance and Use of Technology (UTAUT) etc. But for predicting the adoption and acceptance of technology, TAM, TPB, IDT etc. were frequently used. Apart from explaining the behaviour with a theory alone, researchers combined the constructs of one or more theories together to better explain user behaviour. These theories are well discussed in the conceptual formulation part of this study.

One of the most used theories of technology adoption was the Technology Acceptance Model put forward (Davis F. , 1989). The model was well accepted and most discussed one among the information system researches. Moreover, it was accepted and applied by many other social science theories to explain the technology acceptance behaviour of people. The core of Technology Acceptance Model was the explanation of behavioural intention in adopting a new technology. The theory explained that ease of use and usefulness lead to attitudes and thereby behavioural intention in using the technology. Theory of Planned Behaviour (TPB) and the Theory of Reasoned Action (TRA) were already proved as capable of explaining the innovation adoption behaviour, but Technology Acceptance Model was much more relevant in the online context or in internet-based technologies. Many researchers in the field of banking and financial services had identified the influence of TAM constructs in the adoption decision of internet and mobile banking for the past few years.

2.3 Users' Perceptions on Technology Adoption Decisions

For measuring user attitudes in MIS research, Swason (1982) used some perception related constructs. He found that the usage of information report was based on the trade-off between perceived information quality and associated cost of access. In his work, the perceived information quality was demonstrated like usefulness and associated cost of access was like ease of use. Both constructs were measured the perceptions of the potential users in the usage of information report. After this study, perception measures had been widely used to predict the user behaviour. After the initial TAM model, Davis (1983) further analysed the constructs and found that, perceived usefulness had direct influence on actual system usage. Later, studies on TAM mainly focused on these two important constructs of ease of use and usefulness and the predictive capability of the constructs on behaviour was found as high at any context.

The term perceived ease of use was defined their study (Davis 1989) as “the degree to which a person believes that using a particular system would be free from effort” and perceived usefulness as “the degree to which a person believes that using a particular system would enhance their job performance”. The constructs perceived ease of use and usefulness had originally developed prior to the TAM theory. Prior researchers were already found the importance of the two beliefs, which has prime importance in adoption and use of a technology or any innovation. In the information system research, similar constructs were used in behaviour prediction. Bandura (1982) identified two constructs self-efficacy and outcome judgment as influencing factors in predicting

the behaviour on innovation adoption in any given instance. Self-efficacy is how well one can execute a course of action required for a prospective situation that was “ease of use” and the outcome judgment is the extent to which a behaviour once successfully executed is believed to be linked to valued outcomes that was “usefulness”.

Based on these constructs a study then carried out by Gefen & Straub (1997) found that, males were given high importance on usefulness whereas females had more importance in ease of use when tested the adoption behaviour. Moreover, analysing the effect of TAM models in technology adoption, many researchers tried to extend the TAM model with situational specific variables and integrated the TAM model with other models for analysing the influences. One of such comparative analyses of TAM with other competing models i.e.; Theory of Planned Behaviour, Decomposed Theory of Planned Behaviour, identified that TPB theory has more explaining power than TAM because of the variables attitudinal, social influence and subjective norms (Taylor & Todd, 1995).

In 1995 Taylor & Todd explained the concept with integrating the TAM model with TPB by integrating social influences and behavioural control as added variables. The experienced groups and inexperienced groups were compared in the study to analyse the behaviour by adding the variables like subjective norms, voluntariness, image (social influence process) and cognitive instrumental process (job relevance, output quality, result demonstrability, and perceived ease of use). The usage intention was measured in information system research by Venkatesh & Davis

(2000) as an extension to the existing model of technology acceptance. This modified model later known as TAM 2 model. In their study, they had found that perceived usefulness as the most important antecedent of usage intention and the ease of use as the second important predictor of usage intention. Also, they identified that when usage becomes mandatory, the subjective norms had a direct effect on the usage intention. In the case of usage becoming voluntary, the subjective norms have no direct effect on it. They advocated that, as much as individuals experienced direct experience with a system over time, user relied less on social information on the formation of the perceived usefulness and intention whereas continued to judge the system's usefulness based on potential status of benefits resulting from the use.

Later, the UTAUT model explained the adoption of technology from a completely new dimension. By integrating different models of technology adoption (Viswanath & Morris, 2003) formed this model to explain the technology acceptance. This model was proposed by integrating eight models of adoption namely Theory of Reasoned Action, Theory of Planned Behaviour, Technology Acceptance Model, Innovation Diffusion Theory, the Motivational Model, models of combined TAM and TPB, the model of PC utilisation and Social Cognitive Theory. A longitudinal study was conducted with the proposed model in four different organisations to analyse the adoption. The study found that performance expectancy, effort expectancy, social influence and facilitating conditions directly influenced the usage intention. Based on the UTAUT model several technology adoption studies in banking had also been reported. A study by Carolina & Oliveiraa (2014) used the UTAUT model to explain

the user adoption behaviour of internet banking. In their study performance expectancy, effort expectancy and social influence and risk perception were found as significant predictors of adoption of internet banking. Perceived risk has been found as strong predictor of adoption intention.

In supporting the view of extended models, (Kent & Kerem, 2005) opined that, Model of Technology Acceptance should be reformulated to focus more on the key construct usefulness in service systems. In his study, it was found that the usefulness as the most important predictor of usage intention. The study suggested that integrating trust with TAM will give more emphasis on social exchange processes that are central to adoption. Later, (Lee & Chi, 2009) combined the constructs in TAM and TPB for an integrated model with perceived risks and perceived benefits for explaining internet banking adoption among customers. The study indicated that the perceived risk factors, especially security and privacy risk and financial risks are adversely affecting the intention of customers to adopt online banking and the positive factors which influence the decision had perceived benefits and perceived usefulness.

Technology Acceptance Model with Theory of Planned Behaviour was combined to add more factors and recognise their influence in customer adoption by Bhmani & Yaghoubi (2010). Study found that, perceived usefulness strongly predicts the behavioural intention in online banking technologies. Ease of use, subjective norms and attitude were also appeared as significant in determining the usage intention in the same study. In another study (Wu & Lin, 2010) identified perceived ease of use and trust are two important factors in the decision-making process to

adopt online banking. When TAM theoretical model was extended with convenience and computer self-efficacy, it was found that, computer self-efficacy and convenience also had significant influence in predicting the ease of use (Florentina & Shen, 2011). Analysis of the effect of ease of use and usefulness along with attitude, perceived behavioural control, subjective norm and perceived risk (constructs of theory of planned behaviour) on adoption intention was found as positive in another study (Al-Smadi & Mohammad, 2012). He identified that; adoption intention is influenced by the attitude of persons. According to the opinion of (Cyril Eze & Yaw, 2011) attitude of persons towards the technology was the main predictor of adoption intention. The ease of use and usefulness are helping the users to form the attitude. Hence, he concluded that the two variables, ease of use and usefulness together can predict the adoption behaviour.

The study of antecedents and consequences of technology adoption in the banking sector (Joshua & Koshy, 2011) revealed that, usefulness has significant impact on adoption intention whereas ease of use has only less significance in adoption of such products and services. Study identified that, level of adoption of ATMS seems high and all other services like internet banking and mobile banking etc. were less concentrated. The study analysed the individual adoption behaviour of the technology-based banking self-services including ATMs, internet banking and mobile banking. The level of adoption was checked with each of the products among the users and reasons of non-adoption was also checked.

The reason for reluctance of using the e-banking in the period because of the expectation of risk and lack of pre- use trust (Kesharwani & Singh Bisht, 2011). In the study, they had identified factors like ease of use, usefulness, website quality and perceived risk are affecting the internet banking adoption. Website quality had found a negative effect on perceived risk. Thus, they recommended that, designing the website for internet banking as more important to ensure the secure presentation in order to enhance the security and thereby reduce the perceived risk. Among the users of internet banking across China, India and Malaysia, (Ernovianti & Matr, 2012) conducted a study and it was revealed that, apart from ease of use and usefulness, self- efficacy also had a significant effect in using the services.

TAM constructs with compatibility and perceived security and privacy risk was again analysed in the study of (Giovanis & Apostolos, 2012). They had found that, compatibility was the key factor followed by TAM factors and risk elements. One of the main attractions of this study was that perceived usefulness had found a partial mediation between the relationship of ease of use and behaviour intention to use internet banking. They analysed the role of perceived risk factors on intention to adopt the online banking technologies. It was like the findings of Geetha & Vaithiyanathan (2012) that, ease of use and usefulness had a positive influence whereas perceived risk had negative significant influence on adoption intention. In the same way (Gamal & Gebba, 2013) found an insignificant effect of usefulness on behavioural control when the extended TAM model used with the Theory of Planned Behaviour constructs to explain mobile banking adoption. Surprisingly, in his study

another interesting finding was found that, perceived ease of use had an insignificant effect on attitude towards mobile banking at the same time perceived usefulness had significant effect. Another replication of the model with the construct ‘government support and security analysis found that, it had a positive association in determining the adoption intention of online banking (Yee & Chong, 2013).

Influence of perceived ease of use, perceived usefulness, attitude, subjective norm and perceived behavioural control on intention to use internet banking were tested together by combining the two models (TAM & TPB) by Safeena & Date et al. (2013), and had observed that perceived ease of use, perceived usefulness, attitude, subjective norm and perceived behavioural control are the influencing factors for adoption of online banking. In the same year, another study (Madininos & Chatzoudes, 2013) analysed the TAM model with risk factors to analyse the effects of the adoption of online banking. The result of the study revealed that, usefulness, security risk and performance risk had direct significant impact on adoption intention. Whereas, ease of use and quality of internet connection had only an indirect influence on adoption intention. Followed by this study, another study (Muneesh & Sareen, 2013) also applied an integrated model of TAM with web trust. The analysis of the effect of web trust and TAM variables on internet banking adoption disclosed the finding that, perceived ease of use alone as being less capable to promote the adoption. Instead, accessibility and appeal play a far greater role in encouraging the usage.

Taking the perspective of users and non-users, (Jeong & Yoon, 2013) identified that, consumers' perceptions are different between mobile banking users and non-users. For users, perceived ease of use is the most important factor while perceived self-efficacy significantly influence non-user's adoption intention. Since the internet banking penetration appeared as low and the impact of ease of use and usefulness together with internet security traced as the reason for the same (Al-Rfou & Nahar, 2013). Additionally, (Nasri & Zarai, 2014) brought an argument that, the role of ease of use and usefulness in determining the intention to use was proved by several studies but, what contributing to perceived usefulness and ease of use to become the strong predictors was still unsearched. Further analysis on these constructs indicated that, customers' perceived usefulness was determined by perceived ease of use, awareness of services and its benefits and social influence, while their perceived ease of use was affected by security and privacy and self-computer efficacy.

Repeatedly, adoption intention of e-banking in the study (Rahman & Kaushik, 2014) extended the TAM model with the 'need for interaction and perceived risk'. The findings of this study indicated that the usefulness of the service was the most important factor which lead to adoption. But perceived risk was a vital issue in the adoption intention with strong negative influence on adoption intention. In another study, by integrating quality and experience to the five dimensions of TAM, ease of use and experience (Alsamydai & Mahamood, 2014) were found as prominent. Some other factors such as perceived cost and perceived risk were examined in the study of Alsoufi & Ali (2014) and they failed to prove the significant effect of these factors on the users' intention to use

mobile banking. But adding the constructs compatibility, personalisation and alliance services with the constructs ease of use and usefulness for examining the influencing factors of usage and the result revealed that, compatibility and personalisation had most significant influence than ease of use and usefulness on usage (Daneshgadeh & Yildirim, 2014). Adding to his findings, Dash & Bhushan (2014) found that, trialability too had the significant effect with compatibility on attitude in using the mobile banking technology. Whereas, the relative advantage has no significant impact in Indian context. Risk and need for interaction with bank employees had evidenced to have significant influence on the adoption decision of the customers across different types of technology-oriented products and services. Among all these studies, the effect of ease of use and usefulness had been examined with other related constructs and majority of them showed that both the constructs had significant impact than any other related constructs.

Apart from ease of use and usefulness, several other factors were also identified in the literature as the influencing factors of adoption. Since the ATMS were widely used and common service it rendered had a strong influence of all factors in adoption (Kaushik & Zillur, 2014). In other studies, majority of the factors were identified as same. Accessibility, quality and security, user awareness, risk perceptions are established as the important determinants of the extensive usage of internet-based banking technologies (Shin Ho & Yahya, 2015). When it was tested with six specific risk facets; security, privacy, social, time, performance and financial risk synthesised with the construct perceived web site features including perceived system quality and perceived information quality

found that, perceived usefulness, perceived security, perceived social facet, and perceived system quality are the most influential factors explaining the adoption of internet banking services (Jayasiri & Gunawaradana, 2016).

Many studies were carried out based on TAM constructs with other constructs in the field of banking research; Santouridis & Kyritsi (2013); Candra & Sevenperi (2013); Tavishi & Kumar (2013); Maduku & Daniel (2014); Sharma & Madhumohan (2015); Alwan & Abdelhailm (2016). All these studies implied that TAM variables ‘perceived ease of use’ and ‘perceived usefulness’ in predicting the adoption intention and attitude towards using the technology-oriented products and services. Contrasting the view of all the researches in the field of internet banking with TAM, Gounaris & Koritos (2013) had found out that, perceived characteristics of the innovation are much more important in predicting the adoption intention. The study also considered the demographic and psychometric features of the respondents and identified the influence of the same on adoption intention. Eight major factors had been identified in the decision of adoption of mobile banking in the study (Sankar & Kumari, 2016) such as awareness, ease of use, usefulness, social influence, security and privacy risk, self -efficacy, financial cost, compatibility. Among these identified factors, the study found usefulness has the most powerful impact on the adoption behaviour and the social influence had the least importance in the adoption of mobile banking. From the earlier period itself the importance of the model TAM was proved in technology adoption. The recent literature confirms that even if the TAM is an old theory of adoption, it is not outdated in predicting the adoption behaviour. Studies on TAM still implies that role of perceived ease of use and

perceived usefulness are vital in technology acceptance/ intention of adoption or innovation.

Decision to adopt a new technology is exactly the decision to use the same. Making use of the technology enabled products and services in the day to day banking transactions reached its growth stage after 2010. Studies after 2010 in electronic banking research were mainly focused on the usage and post-adoption issues.

2.4 Research on Post-adoption Behaviour of Customers on TEBSS

Studies on the post-adoption behavior of customers related with technology enabled banking self- services were addressed two types of issues viz; customer satisfaction and customer trust. Once the services are adopted by the customers, their experience after the usage shall determine the usage and continuity in using the services later. For analysing the experience of customers, three important factors like customer satisfaction, customer trust and risk were under consideration for evaluating the future user behavior. Satisfaction is the major determinant of future use by customers after the use of any products or services. It has much relevance in the case of invisible and intangible services. Banking services are highly sensitive since it is related with the financial dealings of customers, and one would always be conscious while utilising the same. Customer satisfaction was treated as a crucial issue more or equal to the adoption intention. Once a customer starts using the technology-oriented products and services, he simply becomes the adopter, when he starts using the same for his day to day activities, then only he become an active user, an

active or extensive usage only can create a virtual banking system instead of the traditional bricks and mortar system of banking. Post- adoption behavior of technology hence is more relevant than that of adoption behavior such that, it includes satisfaction, post-use trust, risk perception and continuance intention.

2.4.1 Customer Satisfaction Studies in TEBSS

The study of satisfaction dates back to research of Cardozo (1965); Howard & Sheth (1969). These studies are considered as the starting point of scientific interest in satisfaction, its origin and consequences (Firdous & Farooqi, 2015). Later the period, customer satisfaction had got much attention from the academic researchers, now it is one of the most researched areas of marketing dynamics. Based on the findings of earlier researchers, satisfaction can be explained from two perspectives; conceptual criterion and referential criterion. Conceptual criterion defines the customer satisfaction through process/ types of responses of consumers. But the referential criterion defines the customer satisfaction through the reflections of the aspects of the situation in which the process or types of responses occur. According to the referential criterion satisfaction is identified from the point of view of a specific transaction as a post-choice evaluative judgement or an emotional response of the customer in relation with the adoption and use.

From the literature, it was understood that the satisfaction is the general attitude manifested by consumers as a result of experience accumulated through the buying behavior (Liebana-Cabanillas & Munoz-Leiva, 2013). Apart from the satisfaction from goods and services,

e-service satisfaction had also gained special importance after the introduction of e-commerce and internet-based transactions. Richard (1997) defined customer satisfaction as a judgment that a product or service feature, or the products or service itself provides (or providing) a pleasurable level of consumption related fulfillment, including levels of under or over fulfillment.

Studies on satisfaction of internet-based technology-oriented banking services gained much attention of scholars after 2010. Before that, only few studies on satisfaction came in to popularity in online banking context. End User Computing Satisfaction model was the model to measure the satisfaction with technology related products and services in information system research during that period. Constructs of EUCS model content, ease of use and accuracy supported the satisfaction of the customers. Hereafter the studies on satisfaction popularised and quality of service satisfaction was adapted into online context. Researchers then concentrated on the issue of satisfaction of the customers in the online context, especially in the banking context. Different theories and models had then emerged to explain the satisfaction. However, recently in marketing research, studies were concentrated on online service satisfaction in financial sector, as a part of consumer decision making.

Center of attention then broadly changed to satisfaction in online banking rather than the adoption. Several studies were carried out to measure the satisfaction in online banking context. Service quality was the proximal measure of satisfaction in the service sector. In online services also the customer satisfaction was measured in service quality

scale. Studies on satisfaction in online banking was mainly focused towards measuring the satisfaction by applying this scale. Satisfaction depends on the quality of the services in terms of convenience, accessibility, accuracy, security, usefulness, bank's image and website design in the online platform (Sadhegi & Hanzae, 2010). Same finding in one or other way was put forwarded in the study (Yoon & Cheolho, 2010) which described that; design, speed, security information, content and customer support significantly influence the satisfaction. Whereas, ease of use has no significant effect on the high experienced group and low experienced group. The study also postulated that, the effect of design, security, speed and information content on satisfaction were significantly higher in the high experienced group, whereas in the low experienced group, effect of customer support service on customer satisfaction is significantly higher.

In addition to this, some important factors, which were expected to affect the satisfaction were identified as security, authenticity and reliability of the technology in the study (Rashid & Zohra, 2011). In another study (Ahmad & Hasan, 2011) observed that, accessibility, convenience, security, privacy content, design, fees & charges and speed had significant impact on the customer satisfaction. The study confirmed that the e-banking functionality had significant impact in customer satisfaction, loyalty and thereby positive word of mouth. Adding to this (Musiime & Ramadhan, 2011) noticed awareness as a principal factor which influenced the satisfaction of customers in internet banking context.

Factors significantly influencing the satisfaction are identified by (Kumbhar, 2011) in his study on customer satisfaction in e-banking. The factors include, perceived value, brand perception, cost effectiveness, easy to use, convenience, problem handling, security/assurance and responsiveness etc. Some other factors like contact facilities, system availability, fulfilment, efficiency and compensation were also found significant in determining the satisfaction. In connection with this, another five quality dimensions are studied by (Yashasvi & Mistry, 2012) and observed that reliability, efficiency, privacy of information and easiness to use the services significantly impacting satisfaction. Apart from these factors, ease of service use, website design, speed of connectivity and transactions, information security; information, content and support services had found significant effect on user's satisfaction in the study (Mandan & Kheiry, 2013). But (Pratap & Bhattacharya, 2013) stated that service delivery as the most important in customer satisfaction in online context.

Former studies of measuring customer satisfaction in mobile banking identified the factors like information quality and system quality as influencing factors on satisfaction and moderating effect of trust on information presentation and satisfaction relationship (Chung & Kwon, 2009). All the service quality scale items, reliability, responsiveness, empathy and tangibility and assurance were tested to analyse the effect on customer satisfaction in another study and found all the four factors except assurance had significant impact on customer satisfaction. Among the factors, empathy had a stronger impact on customer satisfaction (Aghdaie & Faghani, 2012). Besides these findings Kapoor (2015) also

identified that service quality dimensions like tangibility, reliability, responsiveness, assurance and empathy have more or less a great impact on customer satisfaction with internet banking services. Together with service quality, system quality and information quality also influenced customer satisfaction in electronic banking.

Customer evaluates the utility of the services after the initial usage for assessing the satisfaction. Supporting this view, a study (Chulmo & Yulia, 2013) found reliability, convenience, ease of use and range of functionality of the e- banking technology as critical factors in the customer evaluation of the utility. In the case of internet banking information quality was important since they are already experienced with it, but for mobile banking, usefulness had significant impact on utility and customer satisfaction. Analysis of the e-service quality factors further, (Vijay, 2013) further identified system availability, e-fulfilment, accuracy, efficiency, security, responsiveness, ease of use, convenience, cost effectiveness, problem handling, compensation, contact and perceived value are reliable dimensions of e- service quality scale and it had good predictive ability in determination of customers' satisfaction. In addition to these factors, two additional factors, aesthetic value and proper guidance of the website were also found as crucial for e-service quality and e-satisfaction ultimately to e-loyalty in the study (Mohd & Md Ariff, 2013). In accordance with the findings of earlier studies, (Asadollah & Askaripoor, 2013) found significant impact of accessibility, easiness, trust, security, website designing, website content and speed as explaining the satisfaction. Agreeing with this Mohamad & Salwani (2013) stated

that technology trust is one of the important factors, which influences customer satisfaction in internet banking.

In a study with 708 e -banking customers in Tehran City Nasrin & Akram (2014) identified five factors after exploratory factor analysis that, usability, efficiency, security and website image influencing customer satisfaction. Security, privacy, accountability and designing website further identified as factors which are significant in predicting customer satisfaction in internet banking context in the work (Naser & Mohamad, 2014). Whereas user friendliness and safety among the four factors like speed and trust worthiness found as most important in satisfaction in another study (Islam & Umme, 2014). A supporting inference was made by George & Kumar (2014) while examining the quality dimensions of service influencing satisfaction. They have identified the same factors in the previous studies i.e.; reliability, responsiveness, security, privacy and fulfillment, except efficiency and website attributes as largely influencing customer satisfaction. In their study, they found that privacy has strong influence on satisfaction. Following their study, a nine dimension scale of e-service quality for measuring the satisfaction was identified in the study (Agrawal & Tripathi, 2014) which includes reliability, responsiveness, ease of use, personalisation, security and trust, website aesthetic, efficiency, fulfillment and contact.

Since the four factors, ease of use, customer support, privacy, transaction and payment have observed as significant in predicting customer satisfaction (Abdullah & Som, 2015), (Firdous & Farooqi, 2015), continuous transformation of the service features of the internet

banking transactions necessitated banks for consistent updates. It was recognised that, problem with satisfaction arise when there was mismatch of the expectations met by customers in any of these quality dimensions (Munir, 2015). Again, in another study (Amin, 2016), four dimensions of the service quality had noted as having substantial role in explaining satisfaction of the customers and the efficiency of banking website had found as stronger. The study also stated that customer e- service quality, e- satisfaction and e-loyalty, are positively interconnected. Apart from these, two additional factors namely convenience and speed were also found as significant in the study (Goh & Yeo, 2016). Ease of use, security and speed of transactions were also found significant in the study of (Naser & Majid, 2016) in the same year.

Researchers turned their attention from explaining the service quality for satisfaction, to trust, privacy and security issues as those became crucial when information and technology related frauds reported while transacting with online banking. The trustworthiness of the banking products and services with the speed of delivery bring into being considerable changes in internet banking satisfaction (Sanjeevan & Ragel, 2007). They confirm that the gap of customer awareness about internet-based products and services was existed in the period of study. Awareness about the use, benefits, risk, safety and privacy issues are not well shared among the customers from the respective authorities. In another study (Saeedeh & Abolfazl, 2017) proved that personalisation of services has no effect on customer satisfaction.

The mobile banking products and systems have proved their pivotal role in the financial deepening, especially in rural India. It has ensured customers to perform banking operations by making use of mobile phones. In most of the developing countries, especially in India, the number of mobile connections exceeds the number of people with bank accounts. The rural India was facing the problem of lack of access to most of the financial and banking products. This was because of the fact that 74 per cent of the Indian population lives in rural India and only 18 percent of the total banking exists in rural area. The spreading of mobile banking products and systems hence can contribute to erase the rural-urban divide and integrate rural economy with the global economy(John, 2013).

With the objective of changing the focus to the behavior of early adopters of mobile banking to evaluate the aspects of their satisfaction, many studies were taken forward. Number of elements are identified by researchers leading to satisfaction in mobile banking was similar to other electronic banking technologies. Ease of use, usefulness, relative advantage, perception of risk had significant influence on customer satisfaction (Kumari & Janaka 2014). Satisfaction in mobile banking was measured with the service quality scale by Ataur et al. (2017) also found that, all the four factors had significant influence on satisfaction. The findings were repeated in the study (Mousa & Luvai, 2017). Adding points to this, a study in the following year proved that, perceived ease of use, perceived usefulness, security and consumer awareness had influence in adoption and satisfaction in mobile banking(Hada & Singh, 2018). To be more specific, (Kodithuwakku, 2018) identified three type of factors; technology related factors which include, website quality, user friendliness,

responsiveness, speed and availability, transactions based factors, which include security, cost, assurance, reliability, availability of transactions, types and usefulness and demographic factors like age, income, education and gender as having significant influence on customer satisfaction in internet based banking.

In electronic banking research, it was vital to analyse the satisfaction of the customers who are using the technology-oriented banking products and services. Since the lack of direct interference and guidance from banks and the financial dealings are carried out in online platforms, the bonding between banks and customers depends on the quality of the services offered. Satisfaction in service-oriented sectors like, job satisfaction, satisfaction on the systems and institutions, etc. are measured in research using service quality scale called SERVQUAL developed by (Parasuraman & Leonard, 1985). Studies on satisfaction of electronic banking users gained the academic attention of researchers after the extensive usage of ATMS and other related services by customers after 2000. Apart from satisfaction studies of ATMS and phone banking, attention of researchers was turned towards internet and mobile based banking service satisfaction. When the internet came into practice, satisfaction of internet-based products and services became a necessity. For the purpose of the same (Parasuraman, Zeithaml, & Malhotra, 2005) developed a scale E-S-Q as a measure of electronic service quality. Most of the studies in online context adapted the scale of e-service quality to measure the e- service satisfaction. E-services are characterised as self -services, lack of direct interactions between service providers and users are absent and it will ultimately result in need of customer satisfaction for existence.

Since the way of banking was shifted from the traditional system to e- channels, the way of delivering services to customers were completely taken to online platforms. Customers interactions with banks were routed to this channel, hence the measurement of satisfaction was based on these channels. Website of the banks to perform the banking operations was assessed to measure the satisfaction and trust in e-banking since the surface of banking activities directed from the websites. For measuring the quality of services, website quality had evidenced as having commendable influence. For measuring the website quality different types of measurement scales were used by researchers, like WebQual (Watson & Goodhue, 2002), SITEQUAL (Zeithaml & Parasuraman, 2002), later an e-service quality scale named as E –SQ scale with five dimensions like : information availability, ease of use, privacy/security, graphic style, reliability (Zeithaml & Parasuraman, 2002). The scale was refined later by (Parasuraman, Zeithaml, & Malhotra, 2005) and confirmed as four which includes efficiency, fulfillment, availability, privacy. Later they added additional items to the existing scale and named it as re-recovery of service quality scale, consisting of 11 items. Scales of service quality and e- service quality is interchangeably used by researchers and academicians for measuring the satisfaction in online context.

2.4.2 Studies on Customers’ Trust in TEBSS

The role of trust in technology and related products and services was not a necessity but mandatory. To build and maintain long term relationship between the customer and online service provider, especially in the era of interconnected networked globe, trust has an imperative role.

Mainly there exist three types of trust relationship in conceptualisation: People with people, people with institution and people with technology. The critical antecedents of the trust with technology were characteristics of the technology itself, the person using it, or the functions performed with technology. People initially might be having a perception regarding trust in technology, it develops through experience and once they got a satisfactory experience then the trust bonding deepens. Role of trust was fundamentally analysed in mobile and internet banking context mainly in adoption intention studies.

In information system research as well as related areas of research, where technology adoption and related issues discussed, the pre-adoption trust mainly the perception about trust was analysed. Perceptual factors are tested for identifying the perceived trust. Three perceptual factors, including perceived credibility, perceived ease of use and perceived risk had found significant in determining the trust (Cynthia L. & Beverly, 2003). Trust concept got research attention when it was evidenced as essential for satisfied and expected outcome as a result of transactions (David & Elena, 2003). Findings of the study (Pin & Hsin, 2005) noticed that expensive mobile banking and e-commerce system remains unutilised because of the existence of trust related issues. Most of the trust-based studies pointed out the relationship between risk perception and trust perception. Trust is the “willingness to take risk,” and the level of trust is an indication of the amount of risk that one is willing to take (Schoorman & Mayer, 2007). Lii (2009) empirically tested and found the mediating role of customer trust and satisfaction to customer loyalty. In the online context, trust was a much more important factor since the parties

engaged in the transactions are not keeping a personal contact. In the spirit of trust and distrust customer accepts and uses the technology-based products and service (Benamati, 2010). Irrespective of the transactions, whether M-Commerce, online banking or online service, privacy and trust have received much attention in the literature. But today's privacy and trust issues are not limited to only activities relating to online transactions, but many activities on the internet (Liao & Liu, 2011).

Trust in the online banking context were studied by different researchers across the world. They examined the factors antecedent to trust in electronic banking to explain the usage and behavioural intention. Two important antecedents of trust in electronic banking were identified (Yousafzai & Foxall, 2003) as perceived security and perceived privacy. For potential customer and repeat customer trust appeared as different. Service quality dimensions of reliability, assurance, responsiveness have significant impact on repeated customers' trust. Whereas, for empathy did not find significant impact on the same. Apart from the service quality factors, the study found that satisfaction of the customers of technology had significant impact on trust in repeated customers (Hee-Woong & Xu, 2004). Structural assurance had the strongest influence for creating trusting belief in transacting online. Apart from this, familiarity and situational normality also had significant impact on trust (Man, 2006). The important thing with post-use trust in specific technology was grounded with the awareness of the user about the technology as well as their ability to anticipate the result under different conditions. So, the construct of awareness was found positively related with the post-adoption usage and trust.

Trust was identified as an important antecedent of the user behaviour intention by (Yousafzai & Foxall, 2009) and stated it as a multi-dimensional construct with three antecedents namely perceived trustworthiness, perceived privacy and perceived security. Also, another relation between trust and perceived risk was identified (Kyung & Bipin, 2009) as risk perception mediates the relationship between trust and trusting behaviour. Since the studies on trust in post-adoption especially in relation with loyalty and continuance intention was fragmented. Studies were mainly concentrated on pre-adoption stage issues connecting with trust. After the analysis of post-adoption use and trust in IT (Jason & Harrison, 2009) identified specific characteristics of IT; functionality, support, helpfulness, predictability and dependability to be addressed by the trust. Inter-relationship and interactions among customer's online trust and other relevant factors such as satisfaction and loyalty in e-banking found significant (Kmaran & Mohammed, 2010).

Several studies proved that, for user continuance intention with the technology needed trusting intention as fundamental. Online purchase and services involved a great deal of risk, once the service provider can assure trust in the service and the customer experienced it, then the future intentions to use will be generated (Syed & Qureshi, 2011). In addition to that, another study (Soheila Ghaane, 2011) found mediating role of e-trust and e-satisfaction to e-loyalty in e-banking context. The e-loyalty was nothing but the customer being loyal or having a positive intimacy with the service provider. The role of trust was analysed with channel technologies in their work (Dimitriadis & Nickolaos, 2011). In their study, they had identified that mediating role of trust in technology

acceptance and trusting belief. Furthermore, trusting intention also had evidenced as strongly mediating on the trusting belief and technology acceptance. The study was made on two channels simultaneously internet banking as well as phone banking. The behavioural intention was identified as pattern of adoption as like each channel but differ across transactions.

Trust was found as a very relevant factor in customers' pre-use and post-use phase of information system usage. It was also found as vital in creating a positive attitude in adoption decision in pre-adoption stage. Then trust develops and changes according to time with the user interactions with the technology. Pre-use trust had significant influence on satisfaction as well as on post use-trust (Venkatesh & Thong, 2011). In pre-use trust (initial trust) potential users have not yet experienced the new technology and thus build the initial trust based on their assumptions. Existing users of technology have already experienced its characteristics and built post-use trust based on their own perceptions, which may confirm or contradict their initial trust (Ortega, 2011). In order to be loyal, identified trust is important. To be specific, trust in the sense of security was found as the important factor leading to trusting belief and customer satisfaction to continuance intention in online banking context (Susanto & Chang, 2012). Trust is built from factors such as guarantee, safety net, etc. in the online context and it is improved through ease of use and accessibility of information (Mahmoud & Alsheyyab, 2012).

Trust was tested as a mediating factor for measuring the effective commitment-trust relationship with online banking (Abdollahi & Saideenia, 2012) and proved that, there existed a mediating effect of trust

in the relationship. Also, another study indicated that, security, privacy and usability had significant association with trust in online banking context. In the opinion of (Zhou, 2012), for continued usage of technology, especially in internet technology, trust is affected by the perceived usefulness and flow of experience. Different views exist on customer-based trust in virtual platform. In a study, institution-based trust was identified as the most important type of trust in online banking (Naimat & Poloola, 2013).

Pre-use trust in electronic banking was well discussed among researchers. Factors influencing the pre-use trust were identified in e-banking context (Yi-Luen & Shyong Ong, 2015) and found perceived security and perceived risk are closely associated with the trust in technology. Among the identified factors, perceived security is one of the main antecedents of trust and risk. This finding was a supporting evidence of many other earlier researchers. Once, the customer has full confidence on the service provider, then the trusting intentions and usage intention will be high. Same view was shared in another study as lack of privacy from imprudent website that caused the leakage of user personal information, which further leads to distrust of the system. This distrust of the system then would generate a negative effect to the intention to reuse internet business transactions and in sharing these bad experiences with others. Hence, if there were no strict rules and regulations in this business transaction would yield a negative effect toward reuse intention (Piriyakul & Raepepan, 2015).

Trust leads the user to adopt and commit to use technology and although there are many degrees of trust, commitment was more clearly defined. Though a user may look, lurk and otherwise test a system, a point comes when the choice must be made to trust it enough to utilise it or decline to commit (Patricia, 2016). In explaining post-adoptive user trust in technology-based products and services, majority of the studies followed the ideas of post- adoption behaviour studies in information system research. Plenty of evidences supporting the views that post-adoption behaviour as more relevant to explain the trust and repeat usage (Jason & Thatcher, 2017).

Satisfaction studies in mobile banking mainly analysed the effect of trust. It was found in the previous literatures that; trust is vital in explaining customer satisfaction in online context. Supporting the view of the succeeding studies on mobile banking customer satisfaction proved the positive association between trust and satisfaction. To the existing literature on trust and satisfaction (Hong, 2015) added two important findings that, trust has not only the direct effect but also has indirect effect through perceived ease of use, perceived usefulness and structural assurance in online payment context. Supporting to the findings, (Hossain & Md Yahin, 2015) also found that trust as essential for satisfaction and loyalty in mobile banking context. When satisfaction in mobile banking services becomes a point of discussion, trust plays an important role in explaining satisfaction with loyalty and positive word of mouth. These factors had been tested with perceived justice as a moderator and revealed variance in customer satisfaction according to high and low justice group. Some researchers further discussed the mediating role of trust in mobile

banking satisfaction, but the role of trust in shaping customer satisfaction in mobile banking was rare (Wahab & Yousuf, 2017).

2.5 Risk Perception of Customers in TEBSS Adoption

Risk perception is one of the vital elements in studying the consumer behaviour, especially in the case of online background. Customer behaviour was predicted with a strong effect on perception of risk. It is more powerful to explain the customer behaviour, since the customer will always try to avoid mistakes rather than trying to maximise the utility. Customer perspective risk is evident in-service context since it is intangible, un-standardised and un-guaranteed. Research on risk perception in the online context, especially in M-Commerce and technology usage has got more attention after the advent of internet and wide use of wireless technology by the common man like mobile phone and other related items.

Risk perception of customers regarding the technology itself as well as online transactions goes way back to information system research. At the time of the adoption of technology by human beings happened for the first time, most of the prospective users had not used it. The main reason of the technology aversion was the perception of different type of risks by users regarding the technology. The research on risk perception in online banking also was an important issue for the period of its introduction till now. Cunningham (1967) identified two categories of perceived risk, performance risk and psychosocial risk. He describes performance risk in three subgroups as temporal, economic and effort and psychosocial into two as psychological and social risk. He again classified it under six

dimensions as performance, financial, opportunity/time, safety, social and psychological loss. Perceived risk in e- banking was the potential for loss, in the pursuit of desired outcome of using e- banking services. In e- service context, performance related risk was more important including time risk and financial risk (Featherman & Pavlou, 2002). Very rich of consumer behaviour literature identified and used the risk concept as such as he identified. The indirect effect of perceived risk identified on adoption intention demonstrated that, it influences only through trust (Lee, Kim, & Ki, 2007).

The moderating effect of risk perception on trust and trusting intention was checked by (Kyung & Bipin, 2009). But the result implied that, interaction effect is significant for trusting intention, by perceived risk. Another study demonstrated that perceived risk and trust in online banking contexts as closely associated and both have a significant effect in determining the usage of online banking services (Lifen & Koenig-Lewis, 2010). Consumers may have different orientations towards perceived risk underlying in the technology they are using. Consumers may be risk averse or innovative with respect to the type of orientation, the level of impact of different types of risk to them may vary (Klaus-Peter & Seegebarth, 2010).

The trust could not be separated from risk, need of trust arises in an online context, because it involves a certain amount of risk (Ankit Kesharwani, 2012). In another study of e- banking usage, (Gholamreza & Eiz, 2012) stated psychological risk, uncertainty about result and operational risk were more relevant to the context. In another study

among the different dimensions of perceived risk in online banking context, (Farzianpour & Mahsa, 2014) identified performance risk, privacy and security risk dimensions had significant effect on adoption intention. Among these types of risks, privacy risk was more crucial. In another study of risk management in the online banking context identified security risk as most threatening issue among online banking users as well as the greatest challenge to the service providers (Abdou, John, & Adewunmi, 2014). Supporting the earlier studies, performance risk, social risk and time risk, financial risk and the security risk were identified as mostly influencing the usage of technology-based banking services (Fadare, 2016).

In e-banking context, risk was treated as a multi-dimensional construct. Several authors identified the different dimensions of risk associated with e-banking. The similarity of the fact was that, most of the studies used different dimensions of risk to measure risk perception in online banking adoption (Kassim & T.Ramayah, 2015). For identifying the continuance intention in using electronic banking, a study in Malaysia was conducted by (Normalini & Ramayah, 2015) who identified social risk, time loss risk, opportunity cost risk are having considerable effect on continuity in using the e-banking services.

Moderating role of risk perception was tested in the study of (Kim & Hyo-Joo, 2008) in the adoption of technology. Prior to his study, most of the information system researchers were identified and analysed the risk perception as the important antecedent of the adoption intention. In their study, they had tested the role of risk perception as the moderator in

the adoption intention. The moderating effect was tested in the relationship of ease of use and usefulness to the adoption. The study found that, users who perceive higher risk about technology will be affected by how easy it can be used. The study advocated that when users perceive low risk, managers must focus on communicating usefulness of the technology.

2.6 Studies on Continuance Intention in Technology Adoption Context

Continuance intention was discussed as a research topic in early information system research, then it was applied in Productions and Operations, Marketing, Financial services, Human Resource Management and all other allied disciplines. The topic got academic interests and enriched with plenty of studies later throughout the period, especially in behavioural studies in social science. The mass of the continuance intention literature sheds light towards the future of the adapted technology, whether it is an information system, mobile app, internet banking or any other technology-based system or service or process. Studies backed with great emphasis on the theories of continuance intention was, theories of technology adoption and user behaviour in information system research. The main theory of continuance intention was the expectation and confirmation theory by a series of studies by Oliver (1977). Most of the studies based this theory to explain the continuance intention behaviour, extensions and modifications were made to this theory by researchers over the period. Initial acceptance of the information system was an important first step towards realising information system success, long term viability and its eventual success depend on continued use rather than first time use (Bhattacharjee, 2001).

Studies on continuance intention were largely reviewed from information system research, marketing research and other related disciplines. For current study, online technology continuance studies are fundamentally examined and the brief summary of the earlier findings regarding the factors affecting continuance intention in such technologies are discussed.

Most of the studies done earlier on service quality and continuance intention together depicted that, perceived usefulness has significant influence on continuance intention. In an examination of extended use of complex information system, a study put forwarded another important and quite different conclusion that, perceived ease of use has strong impact on predicting extended usage of such systems rather than perceived usefulness. Another interesting finding of this study was satisfaction has no relevance in the presence of ease of use and usefulness for determining the extent of usage of information system (Hsieh & Wei Wang, 2007). Similarly, past usage and usage habit had proved as also significant in the user continuance decisions (Wu & Kuo, 2008). Contradictorily, (Jen-Hwa Hu & Brown, 2009) found that, service quality dimensions had significant impact on customer's continuance intention in e-service context. In their study on e- learning system (Chen & Chang, 2013) observed that, perceived value and satisfaction are the two major determinants together explains the continuance intention. For perceived value, information quality was essential. Supporting to this in mobile commerce context, a study identified that, quality of service factors perceived usefulness and satisfaction highly influenced the customer continuance intention in dealing with mobile commerce (Lee & Chen, 2014).

In social networking site usage, continuance intention has been tested with an integrated model of post acceptance of information system with perceived ease of use (Chen & Huei-Huang, 2011). Utility aspect was found as more important in the post acceptance stage than hedonic factors. Hence, the continuance intention in online services mainly depended on these utilitarian factors (Prybutok & Xu, 2011). So, the UTAUT2 model with service quality was integrated by (Albugami & Bellaj, 2014) and found that, performance expectancy, website design, habit and security as the significant factors which affected continuance intention in online technologies.

Again, continuance intention with social networking sites usage (Praveena & Thomas, 2014) also disclosed the effect of some factors perceived ease of use, perceived usefulness with perceived enjoyment. Since the social networking sites were used for pleasurable level of experience, perceived enjoyment, (additional factor, which is context specific) showed much influence than the original TAM variable on attitude. Adding personality variables to the integrative model of information system continuance intention, (Kim & Lee, 2016) found that, information system quality in terms of system congruence and expectation congruence had a direct effect on the satisfaction and satisfaction had a direct significant effect on continuance intention. Additionally, by extending the original Information System Continuance Model and Expectation Confirmation Model with the construct ease of use (Cicic & Semina, 2015) found it had significant impact on satisfaction and continuance use intention.

Another study of mobile money transfer technology, continuance use intention was analysed and indicated that, perceived usefulness, trust, subjective norms and satisfaction had significant effects on continuance intention (Yousuf & Ali, 2017). The latest study on continuance use intention in information system research indicated that, a combined model of TAM with the theory of interpersonal behaviour has better explaining capacity of continuance intention. It can be used as a supplementary model to explain continuance use intention (Cheung & Huang, 2017).

Very few studies had concentrated on customer's continuance intention in e- banking context. A study by (Kasheir & Ashour, 2009) demonstrated that ease of use has the bearing in predicting the continuance intention in internet banking. Whereas, novice customers or those considering first time adoption of internet banking may be influenced by perceived usefulness, perceived ease of use and subjective norms. Once the customer uses the services, the effect of these variables may diminish and ease of use may become salient. Supporting these findings,(Gupta, Rakhi, & Shiv, 2013) argued that, value dimensions had a significant impact over other dimensions like social dimensions, technology dimensions and channel dimensions, on continuance use intention in internet banking.

Compatibility and satisfaction were added with TAM model in another study (Tsai, Jui-Lin, & Ming-Tien, 2014) to predict the continuance intention of internet banking, it had found that, all the antecedents, ease of use, usefulness compatibility and satisfaction had significant effect on user continuance intention. But in contrary to the findings of the other

studies, they found ease of use has less impact on continuance intention when compared with other constructs.

Continued use of internet banking was discussed by some earlier researchers in the academic field. But mobile banking continued use studies were less in numbers, since it was much more sophisticated technology in banking. Service quality factors of mobile banking with customer satisfaction and perceived risk had been analysed in the study (Kumar & Ravindran, 2012) and found that, the quality features like information quality, network quality and satisfaction has strong influence in explaining continuance intention. Post-use trust in mobile banking has been analysed in another study (Al-Ghazali, Rasli, & Yusoff, 2015) to explain the continuance use behaviour. It was indicated that, information quality and system quality defined the post-use trust in mobile banking context. It supported the model of satisfaction attitudinal loyalty along with quality measures for continuance use intentions.

In a concurrent channel usage context, bank client's beliefs about internet banking as well as cross channel evaluative synergies and dis-synergies were found as impacting the continued use of mobile banking (Boshoff & Jacques Nel, 2014). Convenience and time saving benefits experience of concurrent user in internet banking strongly influenced their mobile banking usefulness perceptions. On the other hand, mobile banking continued use intention was pertaining with mobile banking risk perceptions, trust and self-efficacy.

When the smartphone based banking services using smart phone app became popular, a study (Chang & Young, 2016) on smartphone

banking evidenced that, users did not consider security and privacy for satisfaction, even though they are considerably influencing the user trust. Continuity intention on smartphone banking services with expectation and confirmation theory in another study showed that, confirmation after the usage was affected by security, trust, privacy, satisfaction and usefulness. Meanwhile, the usefulness considerably impacted satisfaction and continuance intention additionally trust was affected by security and privacy (Chang, 2016). Perceived risk, service quality and technology readiness of the customers were identified together in order to measure the continuity intention on e-banking. It demonstrated an indirect impact of technology readiness and perceived risk through service quality on continuance intention. Integrating the construct trust with expectation confirmation model (Shahimi & Rani, 2018) developed a conceptual model for explaining continuance intention in mobile banking services. The proposed model was tested and proved its validity.

From the detailed review of the available literature summarised above, it is observed that a comprehensive study on post-adoption behaviour of customers is yet to be done, specifically focusing on continuance intention in using TEBSS. Based on this observation, the following literature gap has been identified. The proposed study is aiming to fill this research gap.

2.7 Research Gap

The present review of literature on technology adoption in banking sector confirmed that, throughout the previous three decades, the volume of research under adoption of technology is vigorous. The researchers in

this field had been eager to know the adoption intention of such technology enabled banking products and services. It began with ATMs and evolved through internet banking, mobile banking, bank cards and now reached in smartphone mobile banking apps and digital payments. While looking at these studies on technology adoption in the banking sector, either from customers' perspective or from the banks' perspective, most of the studies were found addressing the issues of acceptance of technology.

The banking sector developed and shaped as it is in the present form simply because of the technology adoption. It had started years back when the bank offices were computerised and developed through automation of the services. The current e-banking researches are highly attributed to adoption behaviour and those studies focused on various factors that favour and limiting adoption of technology. Now the technology adoption has reached at its peak and there is no relevancy in re-analysing the same factors which were contributing to the adoption of such technologies in today's context. Additionally, lion's share of such studies in banking are emphasised in ascertaining the intention of adoption or intention to use such technologies. Post-adoption studies are rare and very less in numbers in the banking context. Also, in the available post-adoption studies, analysis of post-use behaviour after their initial usage of TEBSS are missing. The earlier studies already stated that the intention and actual use are not same in the technology/innovation adoption context. Even though, the studies in e-banking considered the term intention to use the TEBSS as actual use of TEBSS, but there exists intention and actual behaviour gap. Only when the usage analysis of

TEBSS is conducted after the initial adoption, this gap is getting identified. Present studies in post-adoption behaviour of customers in banking technologies are missing this actual usage analysis of TEBSS. Hence the literature review basically highlights the need for carrying out an empirical study on post-use behaviour of customers of TEBSS with special attention to the usage analysis.

As stated earlier, researchers and practitioners emphasised their attention towards analysing the post-adoption behaviour of customers of these technology-enabled banking services after a decade of adoption of these technologies. But most of the studies on post-adoption behaviour ended-up in measuring customer satisfaction rather than analysing the post-use experiences of customers. Information system research itself supports the fact that users' satisfaction is not an adequate measure of success of an innovation/new technology, but it is the extended and continued use of a system or an innovation. Hence, the focus should be given to analyse the future intention of customers in using such innovations. Existing studies in e-banking context were hardly given the priority towards this domain.

Moreover, the literature review strongly highlights the need for analysing the post-use experience, since the long-term success of any technology/innovation is attributed to the favourable experience in the use of such technologies and which further determines the future intention and extended use of such innovations. Due to the increasing competition, banks are trying hard to attain uniqueness in service delivery to retain the customers as loyal. In a system which follows same technology, methods

and procedures, just co-existing without being unique will gradually make the banks lose the competition. Retaining the existing customers is more crucial and challenging than attracting a new customer. This is the reason for the continuous updating of technology, which focus on innovations to improve customer experiences. Thus, for banks and financial service providers, it was highly needed to understand the post-use experiences of customers to provide unique customer experiences to stand ahead of competition. Hence, it is utmost important to focus the research interest towards ascertaining the post-use experiences covering post-use trust and risk perception of customers in using TEBSS in addition to satisfaction. A comprehensive study covering post-use experience and future intention of TEBSS is still lacking in the present scenario.

While looking at the previous studies on continuance intention with technologies, it was identified that, customer satisfaction as the main antecedent of continuance intention. But in information system research especially in new technology adoption context, trust is taken as one of the prominent factors that explains the user behaviour in the post-adoption stage. No major studies in e-banking literature were found as analysing the post-use trust as an antecedent to continuance intention. Moreover, lack of perceived trust was found as one of the important factors that limiting the customers' adoption to TEBSS due to the reason that the financial dealings of the customers are highly sensitive, hence they are given prime focus to safety and security issues. Since no previous studies explained how the customer satisfaction and post-use trust influence the continuance intention of customers in using TEBSS, it is indeed to

analyse the influence of post-use trust and satisfaction in determining the future intention to use the TEBSS.

Furthermore, the previous studies in information system research identified that, customers are having certain adoptability perceptions which are evidenced to have significant influence both in the adoption and post-adoption stage of a new technology. These common perceptions include user awareness, ease of use, usefulness and accessibility of the technology. These perceptions are largely used in the technology adoption studies in banking sector to explain the adoption intention. Since the TEBSS use of customers depend on the adoptability features of TEBSS, it is truly relevant to analyse the influence of customers' perceptions on adoptability of TEBSS in the post-use experiences as well in the future intention to use the TEBSS. An integrated study covering the three phases of technology adoption such as intention, adoption and continuance should ascertain the user perceptions in the intention stage, user experiences in the adoption stage and future intention in the continuance stage. Considerable shortage of studies was noticed covering all these elements together in e-banking context.

Apart from all these, Kerala is one of the banking states in India where, people are more techno-savvy, high literates and having high quality of life index compared to other states in India. A study on continuance intention in TEBSS is more relevant as far as Kerala is concerned since most of the people in Kerala have already started using the same.

2.8 Chapter Summary

The present chapter of literature review discusses the insights of the earlier studies done in technology adoption in the banking sector. Studies related to technology adoption, post-adoption studies related to customer satisfaction, trust, risk and security issues and continuance intention were reviewed and presented in detail. Apart from the studies in banking, studies mostly reviewed from information system research and marketing research to support the theoretical model depicted in the study. The review has shown that, there are still un-explored areas of research interests in the technology adoption behaviour of people especially in banking context. The last section of the chapter includes the research gap of the study.

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CONCEPTUAL FORMULATION OF THE STUDY

Contents

- 3.1 *Introduction*
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- 3.3 *Theories of Post-Adoption Behaviour*
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This chapter reviews the existing fundamental theories of technology adoption behaviour and post-adoption behaviour in information system research and other related disciplines. It also covers the theoretical basis for the formulation of the conceptual model and hypothesised relationship between variables used in the study.

3.1 Introduction

The conceptual framework for the present study is formulated after the detailed review of the existing technology adoption and post-adoption theories. Most of the earlier literature on adoption behaviour was based on the technology adoption theories of information system research. Technology adoption theories basically explain the individual adoption intention and usage of a new technology. Whereas, the post-adoption theories mainly explain user satisfaction and continuance intention of users of a specific technology. These theories were originally evolved from adoption theories. Since the current study postulates the post-adoption behaviour of customers in using TEBSS, the technology adoption theories as well as post-adoption theories are equally important in explaining the user behaviour. Hence, both these theories are considered for formulating the conceptual framework.

3.2 Theories of Technology Adoption

Individual behaviour towards the acceptance of a new technology is assessed based on various technology adoption theories developed by former researchers in the field of information system research. Technology adoption is one of the important areas of research and it was originated with the work of (Rogers, 1962) 'Diffusion of Innovations'. Following this theory, several modifications and new theories were evolved and discussed in different literature. The theories in this area considered the technological elements and the users' psychological attributes to predict the user behaviour. The psychological attributes include attitude and intention towards the technology / innovation.

Although there are several theories on technology adoption, Taylor & Todd (1995) differentiated the IT adoption theories into two broad categories such as intention-based models and diffusion of innovation perspectives. The first category of the theories employed behavioural intention of the people to predict the technology adoption and usage. Also, these theories focused on the elements of intention such as attitudes, subjective norms, factor influences, facilitating conditions, etc. The theories in this category include the Theory of Reasoned Action, Theory of Planned Behaviour, Technology Acceptance Model and Triandis Model of Choice Behaviour etc. The second approach examines the adoption and usage of IT in diffusion of innovation perspectives.

Models from social psychology such as TRA, TPB, TAM and Triandis are widely used in adoption studies. Among these, the first three theories are predominantly used. Whereas, the Triandis theory is seldom used in information system research as well as in other disciplines. Diffusion of Innovation Theory, Theory of Reasoned Action, Theory of Planned Behaviour, Technology Acceptance Model, TAM2 and TAM3 revised, and UTAUT etc. are fundamentally reviewed as background theories for this study.

3.2.1 Diffusion of Innovation Theory

Diffusion of innovation theory is considered as the oldest theory of innovation adoption and was put forward by Rogers (1962). Diffusion is the process by which an innovation is communicated through certain channels over the time among the members of a social system. According to this theory, there are four elements which influence the spread of a new

idea, which includes innovation, communication channel, time, and social system. Apart from these, five other important factors that affect the adoption of innovation viz. relative advantage of innovation, compatibility of innovation, complexity of innovation, trialability of innovation, and observability of innovation. According to this theory, innovation diffusion and adoption happens after several steps of understanding like, persuasion, decision, implementation and confirmation. This led to the identification of adopters as innovators, early adopters, early majority, late majority and laggards. Studies were widely carried out in behavioural science to explain the adoption behaviour by adding several factors to the DOI theory Waleed & Louis (2010); Combs et al. (2009); Hernan & Requielme (2010); Ibrahim Al-Jabri (2012); Dzogbenuku (2013); Manoranjan (2014).

This theory is widely accepted in institutional framework but it failed to explain the innovation adoption behaviour of individuals. Moreover, the main concern of Diffusion of Innovation Theory was the technical factors that affect the adoption of innovation. The other factors like social, economic and political factors are not included in the theory, and the theory was more deterministic in nature. As the theory ignores the social context, it was criticised generally in the information system research. Thereafter the theories explaining the individual's adoption of technology have emerged in the information system context like TRA, TPB, TAM, UTAUT etc.

3.2.2 Theory of Reasoned Action (TRA)

Theory of Reasoned Action is another important theory predicting the user behaviour in uncertainties. This theory was mainly applied to

study the behaviour of people in online context and widely used in predicting the adoption intention of individuals on technology. It was put forward by Icek & Fishbein in 1975. Much of the technology adoption literature widely used Technology Acceptance Model (TAM) which is actually based on TRA. According to this theory, behavioural intention is determined by two important factors; personal factors (attitude towards behaviour) and a person's perception of social pressures termed as subjective norms. It conceptualises the relationship between variables in such a way that, subjective norms and attitude towards behaviour positively influences the behaviour intention and intention leads to the actual behaviour. It is one of the common theories in innovation acceptance. Also, it explains the impact of some external factors like behavioural belief, outcome evaluation, normative belief, motivation to comply etc. in the formation of attitude and subjective norms. Studies widely applied TRA in e- banking adoption context includes the studies of AL- Majali (2011); Juwaheer & Pudaruth (2012); Nor & Shanab (2008) and Fang (2006).

Theory of Reasoned Action ignores the situational factors which have practically strong influence in determining the intention and behaviour. The major limitation of this theory was that, it basically focused on the attitude of persons and their psychological elements. Since the individual's attitude and beliefs depends on their personal characteristics, the predictive power of the theory was found to be low. Moreover, the theory is based on perception facts as well as self-reported facts, which has been reported as a limitation by several experts in this field. Thus, in research on technology adoption, the Theory of Reasoned Action is rarely

used. As an extended model, Theory of Planned Behaviour is formulated to overcome the limitation of the predictive capacity of this theory.

3.2.3 Theory of Planned Behaviour (TPB)

Theory of Planned behaviour was developed by Ajzen (1985; 1991). Perceived behavioural control concept was added to the Theory of Reasoned Action as a predictor of behavioural intention to improve the predictive power of the theory. As per the theory, human behaviour follows whatever information he or she happens to have available logically and systematically. Thus, the Theory of Reasoned Action is successful only when the behaviour is under person's volitional control. A person may not actually perform the behaviour unless behaviours are fully under his/her volitional control. Even though he/she is highly motivated by his/her own attitudes and subjective norm, they may not actually perform the behaviour due to intervening environmental conditions. The Theory of Planned Behaviour (TPB) was originally developed to predict behaviours in this context where, individuals have incomplete volitional control. In planned behaviour theory, it is found that, behaviour is affected by perceived behavioural control. As per the theory, the behavioural intention is not only affected by attitude and subjective norm, but it is also affected by perceived behavioural control significantly.

According to (Ajzen, 1991), perceived behavioural control is a person's perception of the ease or difficulty of performing the behaviour of interest. It is assumed to reflect the past experience as well as anticipated impediments and obstacles. It is usually used in technology

adoption studies in information system research along with the Theory of Reasoned Action. Hence the constructs used in the Theory of Planned Behaviour are same as the constructs of the Theory of Reasoned Action, with the added construct perceived behavioural control. Some other related constructs are also added to the theory to predict the perceived behavioural control. Those include behavioural belief (belief about behaviour), normative belief (belief about what others think about behaviour), control belief (belief about level of control over behaviour), self-efficacy (individual's perception that, he or she will be able to perform a certain behaviour successfully), volitional control (actual wilful control over behaviour) and actual control (an individual's control over behavioural factors such as readily available resources such as money, time, skill, co-operation of others etc.).

Taylor & Todd (1995) modified the Theory of Planned Behaviour with the constructs like relative advantages, compatibility, and complexity from the Diffusion of Innovation Theory and developed a new theory. This theory is known as Decomposed Theory of Planned Behaviour (DTPB). DTPB has the benefit of adding the TRA core constructs and in addition to it, it broadens the attitudinal belief, normative belief and control belief. So, the theory has better explanatory power than that of pure Theory of Planned Behaviour and Theory of Reasoned Action (Shih & Fang, 2004). TPB has been applied in the studies of different disciplines including task performance, consumer behaviour, ethical behaviour, dishonest behaviour, investment decisions, acceptance of different types of innovations, etc. by many researchers such as Shaoyi (1999); Kesharwani & Bisht (2012); Bhatt (2012) and Margaret (2000).

The limitation of Theory of Planned Behaviour is with regard to its complexity. It is difficult to apply across diverse user contexts. Since the constructs used in TPB are more specific, it requires a pilot study to identify the relevant outcomes, reference groups and control variables in every context in which it is used (Mathieson, 1991). Technology Acceptance Model also used the same measures for intention and attitude, but Davis (1989) had developed standard instruments for other constructs. While the measures of TPB beliefs need to be modified for each context, it is more complex to use than TAM. The empirical studies proved that, both models provide good predictions of intention of individuals to use an innovation, but TAM is slightly outperforming TPB.

3.2.4 Technology Acceptance Model

TAM is one of the first research models to explain how a person's perception about ease of use, usefulness and attitude towards the use of a specific technology can influence the adoption intention and behaviour. This model was put forward by Fred Davis in 1986. TAM attempted to explain the reason why people accept or reject certain innovations and it was basically tailored for modelling user's acceptance of information systems or technologies. The basic model of TAM included and tested two beliefs Perceived Ease of Use and Perceived Usefulness. The earlier theories proved the effect of innovation characteristics on user behaviour. Hence, the perceived characteristics of the system usage (Perceived ease of Use and Perceived Usefulness) have been taken to predict the adoption intention in TAM. The first modified version of TAM was developed to explain the general determinants of computer acceptance that leads to

explain the user behaviour across the broadest range of end using computer technologies and user populations (Davis, 1989). In the first modified version of TAM, Davis (1989) proposed that the system use depends upon the user's motivation which in turn is directly linked by external stimulus including system capabilities and features. According to him, user's motivation is determined by three factors; Perceived Ease of Use, Perceived Usefulness and attitude towards using. The model is considered as one of the solid models of technology adoption. The model was first used in information system research and both the constructs ease of use and usefulness were proven to have strong influence on the attitude of a person towards the system usage intention. Later the lion's share of technology acceptance studies was modelled on the TAM constructs and the model is now known for being one of the most cited models in the technology acceptance behaviour.

During the period 1986-1990, studies widely used the TAM model. This was the period of introduction stage of TAM. During the period 1990-1995, studies mainly focused on confirming the model as the best predictor of the behaviour of technology acceptance. A number of studies conducted during this time period proved the model as an ideal one to explain the behaviour. This is termed as the confirmation stage of TAM. Thereafter, during the period of 1995-2000, the studies with TAM focused on model extension. In this stage, researchers added new variables to the basic TAM model for better explaining the context as well as behaviour. After 2000, the studies using TAM ideally changed the fundamental model to improve the prediction of the model in varying contexts by keeping the basic constructs as ease of use and usefulness.

Technology Acceptance Model is more parsimonious and more robust in various information system applications, also it is specific to information system usage for applying the concepts of ease of use and usefulness. It connects the variables as ease of use and usefulness lead to attitude towards using, attitude towards using predicts the behavioural intention and the behavioural intention finally determines the actual system usage.

The main limitation of TAM as pointed by Bagozzi (2007) was about the intention and actual behaviour link. According to him, intention may not represent the actual use, because of the time gap. Uncertainties due to the changes in behaviour of a person according to the time and situations may have influence on the attitude. As per the TAM model, user's behaviour is completely determined by the underlying factors of the model and hence it is a deterministic model. But the fact is that the intention is subjected to evaluations and reflections which may direct the person to reformulate the intention and thereby behaviour. Hence, the TAM model has been extended multiple times for studying the innovation acceptance behaviour of people in different disciplines.

3.2.5 Extended Technology Adoption Models

In the first modified version of TAM Davis et al. (1989) included the concept of behavioural intention as mediator of actual behaviour and attitude. Venkatesh & Davis (1996), extended TAM by eliminating the attitude construct from the main model after finding that perceived ease of use and perceived usefulness have significant influence on behaviour intention. TAM 2 model was later developed by Venkatesh & Davis (2000)

with additional constructs of subjective norm, experience, voluntariness, image, job relevance, output quality, and result demonstrability. It was found that, in mandatory use settings, subjective norm had a strong impact in predicting the behaviour intention than that of perceived ease of use and usefulness, but not in voluntary systems.

The final version of the TAM model was developed by Venkatesh & Davis (2003). Several studies proved that; the usefulness better explains the intention and behaviour than the perception of ease of use. Venkatesh & Bala (2008) modified the TAM2 model with determinants of usefulness and ease of use namely individual differences, system characteristics, social influences, and facilitating conditions and later named it as TAM3 Model. In TAM3 model, relationships between constructs are established as perceived ease of use to perceived usefulness, computer anxiety to perceived ease of use, perceived ease of use to behavioural intention and which were moderated by experiences.

3.2.6 Unified Theory of Acceptance and Use of Technology (UTAUT) Model

This theory was developed and popularised by Venkatesh et al. (2003). UTAUT model has four important constructs consisting of performance expectancy, effort expectancy, social influence and facilitating conditions. Five similar constructs including perceived usefulness, extrinsic motivation, job fit, relative advantage and outcome expectation forms the performance expectancy in this model while effort expectancy captures the notions of ease of use and complexity. There are seven constructs and the above four found as significant in the prediction of

adoption behaviour. The other three constructs which are excluded are attitude towards using, self-efficacy and anxiety. This theory is considered as more superior than that of other theories, with a 70 percentage or more variance explained. The theory proposed that the performance expectancy, effort expectancy, social factors and facilitating conditions are determining the behavioural intention and behavioural intention predicts the actual behaviour. Apart from these constructs, the theory tested the moderating effect of age, gender, experience and voluntariness of use.

The UTAUT 2 model is the modified form of the UTAUT base model. According to the situations and the technology under study, the model is replicated and modified. The main limitation of the theory is the absence of the individual characteristics and it is criticised due to its complexity.

The above-mentioned theories are established in the studies of information system research. Therefore, the applicability of these theories is situation specific. Hence, the theories are extended to incorporate the contextual specific variables and thereby ensured the accuracy of the theories in behaviour prediction. One important thing to be noted is that, all these theories are similar in one or other way. Hussain (2014) analysed the similarities of the theories and according to him, the theories are similar in following perspectives; Firstly, the theory of TPB and TAM are both developed from the TRA theory. Secondly, all models that employ any of the theories assume a consequence path of actions initiated by an attitude toward innovation, followed by intention formation, and completed with actual behaviour. Thirdly, the consequent relationship

occurs mainly among four constructs assuming that, cognitive, normative, or affective beliefs form attitudes, which in turn influence behavioural intention and the actual adoption.

By the development of technology in advanced form risk factors, security and trust factors become vital in adoption decisions. Thus, the TAM model was modified in a number of studies by giving the focus to variables like risk factors, Pikkarainen & Kari (2004); Drennan (2010); Ankit& Bisht (2012); Mansour & Ben (2016) and Kumar & Balaji (2017). Perceived security and trust Nadim & Noorjahan (2007); Giovanis & Binioris (2012); Abdou& Thomas (2015); Alalwan &Dwidi (2015); Lallmahamood & Muniruddeen (2007); Aklaq & Ejaz (2013); Lee (2008); Lacramiora & Cosmin (2013); Bashir &Madhavaiah (2015) and Jean-Pierre &Normad (2011). Personal factors; like awareness, computer self-efficacy, perceived credibility Wang & Yu-min (2003); Fawzy & Esawai (2017); Kumar &Madhumohan (2014) and Bijith & Yajnik (2017) etc.

Since the TAM and its extended models are proven as the most used framework for explaining the user behaviour in the innovation acceptance studies. These studies focused on the effect of perceptions of technology characteristics specifically usefulness and convenience to adoption intention. In this point of fact, the constructs ‘Ease of Use’ and ‘Usefulness’ have been adopted for the purpose of the present study.

3.3 Theories of Post-Adoption Behaviour

In prior studies of information system research, behavioural intention, actual use and user satisfaction were the major dependent variables (Choudhury & Karahanna, 2008). In the first stage of research, behavioural intention was most important. The focus changed once the prospective user started to use the particular system. Extensive usage and satisfaction became more important thereafter. Comparatively limited studies have taken place in post-adoption behaviour of technology acceptance. In information system research, it is impossible to predict the user behaviour in the post-acceptance stage with the adoption theories. Thus, for explaining the continuance use intention of a system/ innovation, the theories of post-adoption behaviour were applied in research.

These theories assume the behaviour as a cognitive procedure, as people examine the technology during the usage stage. Analysis of post-adoption behaviour become vital in order to address the changes in the perceptions of people on technology usage and to understanding about the continued use and their future intentions like re- purchase or use intentions. Expectation and Confirmation Theory, IS success Model, Theory of IS success continuance and MIAC are the main theories in predicting the post-adoption behaviour. The important theories of post-adoption behaviour are summarised below.

3.3.1 Expectation and Confirmation Theory

Expectation and Confirmation Theory was originally developed by Oliver (1980). The theory assumed that, the consumer's post purchase satisfaction is jointly determined by the pre-purchase expectation,

perceived performance of technology and confirmation of expectation. Expectation and Confirmation Theory is one of the oldest theories in post-adoption behaviour studies. The theory focused on both pre-adoption and post-adoption variables. The predictive ability of this theory has been demonstrated over a wide range of product repurchase and service continuance contexts (Bhattacharjee, 2001). According to this theory, customers form an initial expectation of a specific product or service prior to purchase and then, they accept and use that product or service. After the period of initial consumption, they form perceptions about the performance. Finally, they assess its perceived performance with their original expectation and determine the extent to which their expectations are confirmed. Based on the confirmation, satisfaction/ affection is formed according to their confirmation level and satisfied customers form a repurchase intention while dissatisfied customers discontinue its subsequent use (Oliver, 2008).

Expectation and confirmation theory states that the confirmation as an additional determinant of satisfaction. Since the basis of satisfaction is their expectation, it may vary from the pre- use to post- use. The changes in the expectation may route from the difference of experiences of the customers after the first-time use. The pre-acceptance expectation may be influenced by the information and opinions, whereas the post- acceptance expectation is formed after the experience and hence it is practical. Main constructs used in ECT include expectation, perceived performance, confirmation, satisfaction and repurchase intention. This is the basic theory of consumer satisfaction. According to this theory, satisfaction is

the antecedent of the repurchase intention. The pre-purchase expectation and post-purchase performance determines the satisfaction. The relationships are modelled in the way that, pre-purchase expectation and confirmation of expectation determines the customer satisfaction which later leads to repurchase intention.

3.3.2 Information System (IS) Success Model

IS success Model is considered as one of the outstanding models among the post-adoption behavioural models. This model was proposed by (Delone & McLean, 1992). IS success model explained the satisfaction as the main criteria for success. According to them, system quality and information quality determine the satisfaction. Post-use trust was added to IS success model and it was proved that; information quality and system quality decide the post-use trust. IS success model was tested in different areas with modifications. This model was widely used to predict the success in social networking site usage, mobile service usage, etc. User satisfaction and continuance intention were added to IS success model by (Lingling & Xuesong, 2014) as a success factor of innovation. According to this extended model, customer satisfaction and customer trust after the initial use become the criterion for assessing success. Gradually the concept of continuance intention was also termed as the key indicator of the success.

3.3.3 Information System Continuance Model

Based on the Expectation Confirmation Theory, (Bhattacharjee, 2001) developed a model for information system usage continuance. The expectation construct is replaced by perceived usefulness and the model is

considered as information system continuance intention model. ECM treats IT users' continuance decisions as consumer's repurchase decisions in marketing. According to Battacherjee (2001), satisfaction, confirmation, and perceived usefulness determine users' intention to continue to use an information system. Thus, the ECM differentiates from ECT toward three directions; first, ECM claims that pre-acceptance variables are included in the confirmation and satisfaction constructs. Second, perceived usefulness is measured by post-acceptance expectations (perceived usefulness was the only construct consistently influencing user intention in both adoption and post-adoption phases). Third, ECM includes perceived performance into confirmation construct (Vasileios & Moridis, 2013). Expectation Confirmation Model has been applied to a number of studies including psychology, organisational behaviour, information system research, work environment etc. The choice of the constructs namely, experience, expectation and outcome vary according to the context. The major constructs used in the model include perceived usefulness, confirmation, satisfaction, and continuance intention. Satisfaction is measured by analysing the gap between the expectation and confirmation after experiencing the products or services. It is defined as the pleasurable level of experience over their expectation after the consumption of a product or service.

Apart from repurchase intention, the service and technology continuance was also measured using this theory. The model is extended with the added variables like Perceived playfulness (Lin & Wu, 2005), Perceived enjoyment (Xu, 2007), information system commitment (Wang & Carol, 2008), technology readiness (Shish, 2013), habit (Lai & Chen, 2016), ease of use and usefulness (Brown & Venkadesh, 2008) etc.

3.3.4 MIAC (Model of Intention Adoption and Continuance)

Model of Intention Adoption and Continuance (MIAC) was developed by (Cheung & Zhu, 2003). It connects the three constructs of information system literatures namely, intention, adoption and the continuance intention together. This model was first proposed in the online context by integrating the Expectation Confirmation Model and the attitudinal model. The attitudinal model discussed the factors affecting the adoption behavior whereas the ECM model explained the post-adoption intention and behavior. By integrating these two models into a common framework, MIAC model was first tested in online consumer behavior and as a result the different factors that influences the online consumer behavior was identified.

According to this model, different types of factors influence the customer online behavior. Those factors include; individual/consumer characteristics, product/service characteristics, environmental influences, medium characteristics, and online merchant and intermediary characteristics. Among these factors, characteristics of consumers like demographics, personality, value, lifestyle, consumer resources, and knowledge have not been explored. Similarly, the factors related to the medium characteristics (network availability, reliability, stability, speed, externalities, information quality, shopping aids medium richness and convenience), and environmental influences (culture and reference groups) have not been fully investigated in prior studies of online consumer behaviour (Cheung, 2003). The comprehensive model was also not empirically tested in the study. But the framework of intention

adoption and continuance were widely accepted and tested by adding relevant constructs in later studies.

Several studies have then been carried out based on the MIAC model and the extended models of MIAC framework. In online consumer continuance intention behaviour (Cheung et al., 2003) proposed an integrated model based on this base model. That integrated model included consumer characteristics like lifestyle, motivation, innovativeness, involvement, demographics, flow, satisfaction, experience, trust, attitude, and values; product/service characteristics include; product knowledge, type, layout, frequency of purchase, tangibility, differentiation, and price, merchant/ intermediary characteristics like service quality, privacy and security, control, brand reputation, and after sale service; medium characteristics consists of web design, navigation, ease of use, usefulness, interface, reliability, security etc. and environmental characteristics like culture, subjective norms, exposure, attention, image etc. All these factors are assumed to have influence on intention, adoption and continuance intention but the model was not empirically tested during that time.

3.3.5 Integration of Pre-Adoption Models and Post-Adoption Models for Continuance Intention

Since the studies in the continuance intention of information system research has been evolved a decade ago only, a unified framework for the behaviour prediction is still absent. Based on the base model of MIAC and the model of expectation and confirmation, several modified models with relevant variables has been used to explain the continuance intention behaviour. The TAM model is extended for predicting the continuance

intention behaviour in the studies of Hamid & Abdullah (2016); Mei-Chun Wu (2008) and Stacie Peter (2008). Some other studies extended the TAM to predict the user's continuance intention in the same way by adding different factors like, structural assurance, subjective norm, convenience and firm reputation, trust, perceived enjoyment Chao Wen (2011) and Mohtar (2011); interpersonal behaviour and habit (Huang, 2017), with ECT (Mohamed & Hussein, 2014), continued trust and satisfaction (Sikdar & Kumar, 2014).

Expectation and Confirmation Model was also modified widely for predicting continuance intention. Expectation and Confirmation Model was integrated with Technology Acceptance Model constructs (ease of use and usefulness) in a study by Piriyaikul et al. (2015) has proved that, trust and satisfaction are the antecedents to continuance intention in internet-based transactions. ECM again integrated with important constructs like, perceived quality (Hsiang-Ming Lee, 2014); (Hartmut & Huff, 2012), trust, self-efficacy and perceived security (Susanto & Chang, 2016), TAM, TTF, and perceived risk (Shunbo Yuan, 2016) for analysing the continuance intention in innovation adoption studies.

All these studies have accepted the limitation of the absence of an integrated model explaining the pre-adoption and post-adoption behaviour in technology adoption context. Since the online technologies being the part of the daily life of the individuals, it is essential to have an integrated framework to explain the continuance intention. Consideration should be given for maintaining the long-term sustainable relationship rather than creating adoption intention. Still most of the research on technology

continuance is done in the absence of the integrated framework. Model of Intention Adoption and Continuance is the best available model to predict the basic sequence of behaviour from the adoption stage to the stage of continuance. Hence for the current study TAM has been extended by adding the construct accessibility, and user awareness for predicting the customer satisfaction and post-use trust of ECM model to ultimately explain the continuance intention. The flow of linkage between variables was portrayed as depicted in base model of MIAC.

3.4 Conceptual Model and Relationship between Variables

In the present study, for analysing the continuance intention of customers on technology enabled banking self-services, certain perceptions of customers on adoptability of TEBSS are taken as independent variables. As stated earlier, conceptual model was based on the base model of MIAC (Model of Intention Adoption and Continuance) and the modified version of Expectation and Confirmation Model with trust. In addition to these, the context specific variables are also identified from the detailed review of literature and added in the proposed model for better prediction of the continuance intention of customers to use the TEBSS.

3.4.1 Awareness of Technology Enabled Banking Self-Services (TEBSS) and Customer Satisfaction.

The decision-making process of innovation adoption starts from the awareness about the innovation. Awareness is a process of gathering information. The consumers go through a series of steps such as knowledge, conviction, decision, and confirmation before they are ready

to adopt a new product or service. This process is simply termed as awareness. In the prior studies on adoption intention, the role of awareness was tested and it was found that awareness had a positive impact on predicting adoption intention. In the post-adoption stage of technology, awareness has its influence in predicting user satisfaction as well as trust. Awareness is the knowledge about the product/service and it was found as the main predictor of user satisfaction. When the customers are completely aware about the products and services, or the benefits and risk of using the services, the level of their satisfaction will be high (Sathye, 1999).

According to Rogers (1991) the adoption or rejection decision begins when the customers become aware of the innovation. In the case of electronic banking, customer's awareness about all aspects of the services and products will have significant positive influence on adoption intention as well as satisfaction (Chaturvedi, 2010). Sankar & Kumari(2016) confirmed the positive relationship of the variable awareness along with many other factors like ease of use, usefulness, compatibility, social influence, security and privacy risk, self -efficacy, financial cost etc. on the usage of technology. Awareness originally measures the extent to which a target population is conscious about the innovation and formulates a general perception of what it entails. At the stage of awareness, a person is exposed to the existence of the innovations and is provided with information on how it functions and what its benefits are (Dinev, 2007). Hence, it can be stated that technology adoption literature has adequate support for the significant positive relationship between user awareness and their satisfaction. The amount of information available to

customers regarding the advantages and disadvantages, scope and limitations of the innovation or new technology will improve their satisfaction. Use of new banking services may be an unfamiliar experience for many customers, thus the low awareness about the different aspects may result in dissatisfaction of the performance (Safeena & Date, 2012). Being aware about the technology can motivate the customers to utilise the technology and it causes the users to look forward to the different aspects of technology. This will improve customer satisfaction (Taherdoost & Shamsul, 2012).

The empirical evidences stated above support the positive association between user awareness and satisfaction in technology adoption context. In the banking context, only very few studies were reported that analysed the influence of user awareness on customer satisfaction. According to Noreen (2015) satisfaction with electronic banking is the determinant of how much the customer knows about electronic banking and how much they are applying their knowledge for performing banking transactions. But not many studies were reported in e-banking context which analysed the influence of user awareness on their satisfaction.

3.4.2 Awareness of Technology Enabled Banking Self-Services (TEBSS) and Customers' Post-use Trust

According to Gefen (2000) trust can be described as the belief that the other party will behave in a socially responsible manner and by so doing the trusting party will fulfill the expectations without taking advantage of its vulnerabilities. It is considered as the central aspect of

every economic activity. Online banking transaction contains very sensitive information about customers (Gefen, 2000; Morgan & Hunt, 1994) and they fear providing such confidential financial details over a network where the direct contact with service provider is absent. Moreover, lack of understanding/ awareness creates unfamiliarity with the tasks in online environment and it will negatively affect the trusting belief (Luhman, 1979). The extent of understanding about the value-added technology usage after the adoption will enhance the trust and confidence in technology (Jaspersen, 2005). Trust in specific technology refers to the willingness to depend on the technology in each situation in which negative consequences are possible (McKnight & Carter, 2009). Trust in technology relates to a technology's specific attributes such as its functionality, helpfulness and reliability (Micknight & Carter, 2011).

Other than the initial trust, knowledge-based trust is more important in post- adoption studies. It is developed at the stage of post-adoption by experiencing the new technology/ innovations. Apart from assessing the cost and benefit in using the technology in the initial stage of adoption, post-use trust is developed through the belief regarding specific attributes of the technology or from the experienced functionalities of the technology. Many researchers identified that, awareness has significant positive influence in the technology acceptance decision as well as it has impact on trust after adoption for extensive usage behaviour (Straub, 1991); (Krishna & Ramana, 2016); (Cherubin & Maria, 2017); (Rao, 2015). Hence, earlier researchers confirmed that the post-adoptive trusting behaviour is based on how the individual understand specific technology's attributes (Tams & Bennet, 2018).

Many studies supported the positive associations of awareness on post-use trust in technology usage context, but not many studies were found in the e-banking context that analysed the role of awareness on the post-use trust of customers.

3.4.3 Influence of Accessibility of TEBSS on Customer Satisfaction

The importance of accessibility was confirmed in the technology adoption literature over the period by many researchers Haroun & Khater (2014); Sathye (1999); Jason (1999); Luiz (2000); Lichtenstein & Williamson (2006). Accessibility is a multi-dimensional construct encompassing both physical, terminal access and system usage ability (Karahanna & Straub, 1999). Accessibility of information is understood as ease of access to technology applications as well as accessibility to the transactions that can be carried out in them (Cabanillas & Leiva, 2013). In a study of electronic banking usage by Daniel (1999), it was found that lack of accessibility of the system was the main reason of non-adoption of e-banking. In the same context (Poon, 2008) found that accessibility has highest influence in the adoption decision.

Furthermore, in the post-adoption phase satisfaction is high when the product and services are easily accessible (El-Qirem, 2013). Many researchers have confirmed the significant effect of convenience on user satisfaction and continuance intention in post-adoption studies conducted in e-commerce sector, Lele & Maheshkar (2017); Murali & Mallikarjuna (2014); Ganapathi (2015); Selvakumar (2014); Kinker & Shukla (2016); Raghunath & Sahay (2015); Jadhav & Khanna (2016); Shalini & HemaMalini (2015); Lin et al. (2011); Guo et al. (2012). In service

satisfaction literature, accessibility of service was found to have a positive influence on satisfaction (AbdulKadir & Jamaludin, 2012); (Barona & Blaschke, 2016). In e-banking research, it is evidenced that accessibility has a decisive power on satisfaction by improving the usage intention (Poon, 2008); (Casalo' et al., 2008); (Sadeghi & Hanzae, 2010); (Ahmad & Al-Zu'bi, 2011). Studies quoted above shows that, there exists positive relationship between accessibility of technology and user satisfaction. But in electronic banking context, over emphasise was given in testing the influence of accessibility on user adoption intention.

The post-adoption studies in e-banking have not considered the influence of accessibility of TEBSS on customer satisfaction. Since accessibility is one of the unique characteristics of TEBSS, it is necessary to analyse the influence of the same on user satisfaction.

3.4.4 Influence of Accessibility of TEBSS on Customers' Post-use Trust

It is seen from the literature on technology and trust that the construct 'accessibility' has been interchangeably used as the construct 'convenience' or 'technological convenience in usage'. Also, in those cases, it was having a positive relationship with trust. In the online banking scenario, trust is the degree of confidence customers have in online transactions or in the online exchange channels. If the failure of internet or connection problem happens, customer lost the trust in the services or in the electronic channel (Reichheld & Shefter, 2000). Roy et al. (2001) opined that the construct usability as a broader concept of accessibility determines the trust in e-banking services. Anytime,

anywhere accessibility hence has a significant impact on customer trust building (Ghane & Fathian, 2011). The positive relationship of accessibility with trusting intention in technology-adoption decisions has also been supported by earlier studies Collier & Kimes, (2013); Hosein (2009); Muneesh & Abbo, (2013); (Shin Ho & Yahya, 2015).

In the online banking context, accessibility is termed as one of the technologies based critical success factors for customer trust as well as satisfaction. But very few studies looked into the analysis of the association between accessibility of TEBSS and post-use trust of customers.

3.4.5 Technology Acceptance Model in Post-Acceptance of Technology

For information system acceptance and use, the Technology Acceptance Model has proved as a valid and reliable model (Mathieson 1991), (Davis 1996). According to Davis & Bagozzi (1989), TAM is expected to explain and predict the future user behaviour based on a sample measure taken after a very brief interaction with a system in a pre-adoption trial. Detailed explanations of the impact of TAM in adoption studies have been given in the earlier part of this chapter. The Technology Acceptance Model was applied later in the post-adoption studies of consumer behaviour research and found that, the twin constructs of TAM; Perceived ease of use and perceived usefulness have significant influence on post-adoption behaviour especially in customer satisfaction and continued usage (Hong, & Tum, 2006), (Taylor & Todd, 2000).

Empirical studies on post-adoption behaviour largely used a hybrid model, Expectation and Confirmation Model. It has been validated with the enhanced predictive power such that the theory incorporated different aspects of perceptions in the original framework. It allows a comparison of users' pre-adoption and post-adoption perceptions and their satisfaction with the current technology usage. However, it omits the important characteristics of the technology such as users' enjoyment, ease of use and other attributes which are commonly found in technology usage. In this background, previous studies have attempted to integrate the ECM theory with TAM (Lee et al., 2010). Even though ECM and TAM are designed to explain user perceptions in different aspects, there are some similarities between the constructs of ECM and TAM (Hong & Thong, 2006). Both theories have a common construct called perceived usefulness as the belief component. In TAM, perceived usefulness is posited to be an antecedent to users' intention to utilise the technology. Whereas in ECM, the post-adoption expectation of perceived usefulness is posited as an antecedent to satisfaction and continuance intention. Hence, it can be concluded that, both intentions to use and intention to continue the use of technology are equivalent constructs but measured at different points of time (Thong et al, 2016). The hybrid model (ECM-IT & TAM) postulates the constructs, perceived ease of use and perceived usefulness as post-adoption perceptions and also as the antecedents of satisfaction, and continuance intention. There have been a number of studies that examined the influence of TAM constructs (Perceived ease of use and perceived usefulness) in behaviour prediction in the post-acceptance of technology (Taylor & Strutton, 2010), (Leonard, 2007). Thus, for the purpose of the

present study, the twin constructs of TAM, perceived ease of use and perceived usefulness have been adopted for predicting the user experiences in the post-adoption stage.

3.4.5.1 Relationship between Ease of Use of TEBSS and Customer Satisfaction

Countless studies on technology adoption have proved the impact of the ease of use on adoption intention. In the post-adoption studies on innovation, many studies focussed on the impact of the ideal constructs ease of use and usefulness together on post-adoption behaviour. In the post-adoption studies of technology, ease of use was largely regarded as a factor that influences users' satisfaction (McHaney & Cronan, 1998). Concretely, Abdinnour-Helm et al. (2005) found that ease of use has a direct and positive effect on satisfaction. Liao & Cheung (2008); Yoon (2010) and Lee, & Wang (2012) proposed and empirically tested ease of use as a measurement of consumer satisfaction in the online service context.

The fact is that, even if the system is perceived to be useful, it will be continuously used only when it becomes easy to use. Ease of use basically measures the users' perception on the easiness in usage, more sophisticated technology increases the convenience in conducting banking transactions and it enhances the customer satisfaction, thus they are expected to continue using online banking (Kaur & Kiran², 2014). Thus, customer satisfaction in e-banking solely depends upon the characteristics and features offered by the technology. In which, ease of use is more relevant (Dondolo & Madinga, 2016). Some other researchers, Jham

(2016) and George & Kumar (2013) have analysed the influence of ease of use on customer satisfaction in internet banking context and they confirmed the positive association of ease of use in determining customer satisfaction.

3.4.5.2 Relationship between Ease of Use of TEBSS and Post-use Trust

Many of the internet-based literature on electronic commerce (WWW, internet banking, mobile apps) suggested that, post-use trust is one of the important factors which can be considered as the key predictor in measuring the successful acceptance and use. Studies have shown that trust is positively determined by perceived ease of use. If the transaction is easier to perform then the customer will feel that they understand more and there is less need to control the situation (Munoz-Leiva, 2008). Moreover, the applications that are easy to use are less threatening (Moon & Kim, 2001) and are perceived to be more useful to the customers. Fogg et al. (2002) found that perceived ease of use is one of the factors that most increases perceived credibility, thus making a product/ service reliable.

In another study Featherman & Pavlou (2003), verified that; the ease of use reduced perceived risk and thereby the customer trust in electronic services became high. Another study, substantiated that a user-friendly technology is perceived by the user as more reliable and hence the trusting intention will be high (Lie bana-Cabanillas & Mun oz-Leiva, 2013); (Richard 2013), (Daud & Farida, 2018). Behavioural studies in social science as well as information system research, have therefore demonstrated the direct positive effect of ease of use on customer post-

use trust. But the post-adoption studies in e-banking context have rarely analysed the influence of ease of use on post-use trust in banking technologies.

Even though the empirical evidences in the technology adoption literature strongly support the direct positive effect of ease of use on post-use trust, it is not much explored in e-banking discipline. Hence it is important to analyse the influence of ease of use of TEBSS on post-use trust of customers in using TEBSS

3.4.5.3 Relationship between Usefulness of TEBSS and Customer Satisfaction

Usefulness is one of the main constructs used in TAM by Davis (1989) to explain the adoption intention in information system research. In the literature on post-adoption of technology, the researchers identified the significant influence of usefulness in predicting user behaviour. Perceived usefulness shows the consistent results in explaining behaviour during both the phases of initial adoption and continuance Bhattacharjee (2001); Davis & Bagozzi (1989); Karahanna & Straub (1999); Yue-Yang, Hsu (2010). A large number of studies have been found that explored the role of usefulness on post-adoption behaviour. Venkatesh and Morris (2000) found perceived usefulness as an important factor that influences satisfaction towards the use of information technologies. Multiple studies have suggested that, perceived usefulness has a decisive influence on satisfaction Zhou and Lu (2011); Saleem and Rashid (2011); Lee, & Wang (2012); Wu (2013); Al Hawani & Mouket (2010). They have analysed the TAM factors on user satisfaction and retention. The effect of

TAM factors on customer satisfaction in internet banking context was tested and found that, perceived usefulness and ease of use has significant positive effect on customer satisfaction (George & Kumar 2013), (Sharma & Shatya, 2014).

The research studies on information system, as well as on other technology adoption context revealed that, there exists significant influence of usefulness of technology on user satisfaction. Handful of literature evidenced it as positive, but only limited studies in banking have attempted to test the influence of usefulness on customer satisfaction in TEBSS.

3.4.5.4 Relationship between Usefulness of TEBSS and Post-use Trust

According to Davis (1989), perceived usefulness means the extent to which a person believes that the use of a system will improve his or her work performance. It is measured through the perception of an individual that he can win when using technology. The degree of performance improvement is assessed through the expected benefits like; improved speed in performing tasks, increase in work performance, increase in productivity, increase in efficiency etc. (Khayati, 2013). Once the user experiences the technology after the initial adoption, the user confirms the perceptions of usefulness or disconfirms the expectations. The positive experiences about the usefulness forms the trusting belief to the customer. Gefen et al. (2003) revealed the effect of dual constructs perceived ease of use and perceived usefulness on customer trust by developing an integrated framework of trust and TAM. The positive association of perceived usefulness with trust is seen in online service continuance

studies (Errikson & Kerem, 2005). In the earlier period of research, it is evidenced that the perception of customers about the usefulness of technology can create trust in technology. The cost-benefit analysis of new technology in terms of performance of tasks directed the users to trust the technology. Later it is recognised that usefulness can be in many forms rather than the cost-benefit analysis. The positive association of ease of use and usefulness to trust are also evidenced in the e-commerce context by Dennis (2006); Sharma & Shatya (2014) and Celik & Yilmaz (2011).

It is well discussed in the previous literature that the usefulness of technology really matters for long term trust. Many studies have also substantiated the positive effect of usefulness on post-use trust in technology adoption behaviour (Bhatcherjee, 2002); (Loong, 2013). However, not many studies were found in the post-adoption stage of e-banking as analysing the influence of usefulness on post-use trust. Customers' actual usage experiences will modify their perceptions of usage and influences the confirmation of their initial expectation hence impacting the trusting belief in any new technology for long term period (Jian, & Cohen, 2017). So, the analysis of the impact of customers' perception about usefulness of TEBS on post-use trust of customers is understood as essential in the post-adoption stage of TEBS.

3.4.6 Impact of Customer Satisfaction on Continuance Intention

Satisfaction is termed as one of the important antecedents of repurchase intention in marketing literature. In consumer behaviour studies of information system research, satisfaction is considered as one

of the important predictors of continuance intention with technology usage. Plenty of studies have already been done in the academic literature on satisfaction and continuance intention which supported the positive correlation of these two variables. According to the Expectation Confirmation Model, user satisfaction is determined by expectations and confirmation of that expectation. After this model, Bhattecherjee (2000) proposed a model based on the Expectation and Confirmation Theory, which is already discussed in detail in the previous part of this chapter. This model has been tested with user satisfaction as the main antecedent of the continuance intention. Subsequent studies also confirmed the positive association of satisfaction with continuance intention (Limayem et al., 2007).

When users feel satisfied with new technology in its different aspects, they will continue using the same in the future. Several studies carried out afterwards to predict the satisfaction and continuance intention on innovation adoption based on this theory Chen & Mei-fang (2009); Hadji & Degoulet, (2016); Bhatacherjee & Lin (2015); Guinea & Markus (2009); Woong, Xu (2004); Yuan, Liu, & Yao (2014); Almahamid & Abu (2011). In the online service usage continuance context, studies have provided evidence for the direct positive relationship between satisfaction and continuance intention relationship (La & Cui, 2014). Hence in the light of literature evidences, it is more relevant in the case of TEBSS to analyse the influence of customer satisfaction on continuance intention in using TEBSS.

3.4.7 Influence of Post-use Trust on Continuance Intention

The importance of trust in technology is evidenced as one of the foremost factors that should be focused on. The role of trust in deciding the behavioural intention has been discussed in the literature. It is essential in the mobile and electronic service delivery context. Direct personal contact is absent in the service delivery and financial dealings of the customer when it is carried online. The role of trust is hence vital in the electronic banking context, where the personal information and the confidential details of the customer are exchanged through an online platform. The pre-adoption trust is largely studied by earlier researchers in the technology adoption literature; whereas post-use trust studies are limited.

Post-use trust is mandatory in long term sustained relationship with technology (Jason et al., 2009). The post-use trust has been found to have significant positive association with the continuance intention in the studies of Syed et al. (2011); Ghaane (2011); Dimitriadis & Nickolaos, (2011); Susanto et al. (2012); Hossain & Md Yahin (2015). Once the user started using technology, trusting belief is formed based on the experiential knowledge of the technology, and the same is more important in the long-term usage of a technology/innovation. Trusting belief includes three concepts; helpfulness, functionality, and reliability of the new technology. Trusting belief is stronger construct than perceived trust as it exists at the deeper level, the user will experiment more with different features or use more features of the technology with an intention to continue the usage in future (Mcknight & Carter 2016). Apart from this, in the marketing

research, post-purchase trust is found to have a significant positive relationship with loyalty and long-term relationship with customers. Continuance intention can be treated as a close construct of loyalty.

The positive impact of post-use trust on the users' continuance intention has been proved in post-adoption studies of technology. Still, the studies in e-banking are lacking the analysis of the influence of post-use trust on continuance intention of customers in using TEBSS.

3.4.8 Customers' Perceptions on Adoptability of TEBSS and Continuance Intention

Studies have demonstrated that, users may be initially attracted towards a new technology based on their expectations about the features of technology. After their initial adoption, users continue their usage only if there is satisfactory match between users' expectations and the specific task requirements of the technology. The key factors in the adoption process of the technology are discussed widely in innovation adoption studies earlier. Those factors include users' perception on technology characteristics/ innovation attributes and individuals' attitude towards the technology. Influences of some common factors are also well evidenced in the earlier studies of technology adoption in banking sector. But the question this study seeks to answer is, whether these factors are having significant influence in the post-adoption stage of TEBSS especially in determining the continuance intention of customers in using the same. Identification of some important factors in the adoption of TEBSS and their impact on continuance intention in using the TEBSS remains as an unanswered question in the previous research.

While analysing the technology adoption intention, one of the most influencing factors identified in the earlier studies is user awareness about technology/innovation. The studies quoted in the previous part of this chapter also evidenced that, customer awareness had significant impact in the post-adoption stage of technology. It has significant influence on customer satisfaction and post-use trust in using the technology. Since the TEBSS is highly information sensitive and more financial dealings are involved in the process of carrying out transactions through TEBSS, the influence of customer awareness about different aspects of technology is more relevant than any other factors. Users' consciousness and interest in knowing about technology issues and strategies to deal with them are more essential for the sustained use of technology in their day to day life (Dinev & Hu 2007). Impact of awareness is over emphasised in the previous studies on adoption intention of TEBSS. But those studies have hardly given preference in testing the influence of customer awareness on continuance intention in using TEBSS. Since the technology is continuously getting updated, the user should be aware of the technological changes and extended uses of the technology in order to cope up with these changes. Hence for the long-term use of any technology, it is more essential to have the user awareness about the timely changes of the technology. No studies were found, that explores the effect of user awareness on continuance intention in TEBSS.

Hence, in this study, it is proposed to test the influence of customers' awareness about TEBSS and their continuance intention in using TEBSS.

The unique characteristics of TEBSS were identified from the earlier studies of adoption which includes: accessibility, convenience, relative advantage, compatibility, complexity, trialability etc. Some of these factors also proved its significance in the post-adoption phase of technology. Among these, most common characteristics largely studied in post-adoption stage of technology is accessibility of technology/innovation. Impact of accessibility of technology on customer satisfaction and post-use trust are previously analysed by many researchers in the information system literature, which are explained in the earlier part of this chapter. Accessibility is defined in terms of time, place and use dimensions in the previous studies of technology adoption. Easy access of the TEBSS is identified as one of the major factors that led to the adoption intention. The findings of Rice and Shook (1998) revealed that; access to equipment, access to information, system reliability, ease in learning the language of use are significantly influencing the long-term sustained use of any technology. From this finding, it can be inferred that the accessibility should have significant influence on the continuance intention in using TEBSS. But the studies quoted earlier did not test the relationship between accessibility and continuance intention.

Hence, for the present study it is proposed to test the influence of customers' perception on accessibility of TEBSS on their continuance intention in using TEBSS.

In the studies done earlier it is evidenced that, perception of ease of use and usefulness have significant impact in the adoption decision as well as in the post-adoption phase of technology/ innovation. Detail

explanation is already given in the previous part of this chapter. In those studies, the role of ease of use and usefulness on customers' satisfaction as well as post-use trust are evidenced as positive. In information system research, only after 2000, the TAM constructs are tested in the post-adoption stage largely. According to Dondolo & Madinga (2016) "even if the system is perceived to be useful, it will be continuously used only when it becomes easy to use". Hence there is a hint in the literature that, ease of use has significant influence in the continuance intention of users in technology usage context. Similarly, some of the studies in technology adoption context had mentioned about the influence of usefulness on continuance intention. Khyati (2013) found that once the user experiences the technology with improved usefulness, they confirm it for making decisions for long-term use. Since no major studies in banking context have tested the influence of these factors on continuance intention of users in using TEBSS, the influence of the twin constructs of TAM, ease of use and usefulness on customer's continuance intention in using TEBSS is proposed as follows.

Customers' perception on ease of use of TEBSS has significant influence on continuance intention in using the TEBSS.

Customers' perception on usefulness of TEBSS has significant influence on continuance intention in using the TEBSS.

3.4.9 Mediating Role of Satisfaction and Post-use Trust on Continuance Intention

Satisfaction and trust are interrelated constructs in behavioural studies. Multiple relationships are tested in the previous studies between

satisfaction and trust particularly in online service delivery context. According to Kotler (1997), customer satisfaction is the difference between the level of perceived performance and customers' expectations. Generally, customer satisfaction has been treated as an outcome behaviour in post-adoption studies. But a group of studies already established the intervening effect of satisfaction in continuance intention-behaviour as well as in customer loyalty. As mentioned earlier in this chapter the post-adoption studies are basically modelled on the ECM and the intervening effect of customer satisfaction was supported in all these studies of Chen, & Fang (2009); Kumar & Ravindran (2012); Al symadayi & Yusuf (2012); Ting & Tien (2014); Chih-Chen & Chen (2009); Luqman, & Ismail (2014); Susanto & Chang, (2016); Hossain & Jahan (2018); Ranjan & Malik (2018) and Trong & Minh (2019).

Certain studies in marketing research, as well as researches in other streams well depicted the mediating role of trust in customer relationships. Customer who trusts the online bank are likely to continue using the services offered through it (Vatanasombuta & Igbari 2008), (Al-Sharafi, & Herzallah, 2017), (Daud & Farida, 2018). As stated earlier, there are differences of opinion among researchers on the relationship between trust and satisfaction in the post-adoption phase. One group of researchers stated that trust is an antecedent of customer satisfaction whereas another group hypothesised a positive direction from satisfaction to trust. In the post-adoption studies on technology, researchers have analysed the impact of these two constructs in both the perspectives. Relationship of trust on satisfaction has been tested and proved in many of the studies in the online services, online technology usage context, social media usage

studies etc. (Woong, & Koh, 2004), (Wahab & Yousuf, 2017), (Gefen & Straub, 2000). Satisfaction and trust together considered as mediators in the study (Baig & Saud, 2015). In the background of electronic commerce, (Kim 2012) integrated a framework of Expectation and Confirmation Theory and post-adoption model of Information System continuance. Similarly (Cao & Gong, 2016) tested satisfaction and online trust in the continuance intention of customers on mobile payment also proved the indirect effect of satisfaction and trust in users' continuance decisions.

Marketing researches have extensively checked the mediating effect of satisfaction and trust on loyalty. In online marketing and e-satisfaction studies, customer retention, repurchase intention, and loyalty are assessed broadly based upon analysing the effect of satisfaction and trust Valvi & West (2013); Kundu & Kumar (2014); Mohammed, Al-Ghazali (2015); Ofori & Boateng, (2017). In e-finance continuance intention decision moderating role of post-use trust was also tested and confirmed the relationship between satisfaction and continuance intention (Zhou & Li, 2017), (Sheik & Ali, 2017). Recently, in the social media usage continuance intention study (Praveena, 2018) identified the role of trust and satisfaction in continuance intention. In another study, mediation effect of satisfaction post-use trust in the online brand community continuance intention was tested and established it as a significant (Han, Wu, Wang, & Hong, 2018).

Therefore, in this background, an attempt is made to test the mediating roles of customer satisfaction and their post-use trust in the relationship between customers' perceptions on adoptability of TEBSS

(Awareness, Accessibility, Ease of use, Usefulness) and their continuance intention in using the TEBSS.

3.4.10 Impact of Risk Perception on the Relationship of Post-use Trust and Continuance Intention

Perception of risk has been generally studied in technology adoption literature. It is found as one of the critical factors in technology adoption decision when it comes to innovative technologies. The impact of risk in adoption intention is studied by many researchers Yong-Hui Li (2009); Gupta (2010); Zhang, 2012); Tanakinjal (2012); Thakur (2012); Khedmatgozar (2012); Maditinos (2013); Ricardo (2016); Fadare (2016); Quan (2017); Rahman (2017); Hung Kit Lui (2003). In the adoption studies of technology, the perceived risk is classified into six dimensions which are performance, financial, time, safety, social, and psychological risk (Cunningham, 1967), (Vasileiadis, 2014). Earlier literature proved that; all these dimensions of risk has significant influence on customer behaviour in the online context. In the electronic banking context, the perceived risk; especially financial, time, privacy and security risk have significant influence in users' behaviour.

When it comes to the post-adoption phase, risk perception of customers depends on their prior experience with the technology. Increased feeling of psychological discomfort and anxiety caused by increased risk perception causes the adopters to devalue the usefulness and downstream the continuance intention (Featherman,2003). Once the usage of technology/ innovation occurs, risk should be analysed from different perspectives. Thus, while analysing the post-adoptive use of

individuals on technology-enabled banking self-services, assessing the impact of risk perception is more important. Post-use perceived risk is conceptualised as the potential for loss in the pursuit of a desired outcome of using e-services (Featherman, 2002).

In the virtual banking context, perceived risk is highly connected with trust. Previous studies have proven the inter-relationship of trust and risk in online banking. The relationship is stated as negative in many of these studies Teo (2004); Ahmed (2013), Cocosila (2009); Kyung & Sung (2009). Moreover, the impact of perceived risk can be traced as moderating the satisfaction, trust, and continuance intention in different disciplines in online consumer behaviour studies (Chen & Chang, 2010). In e-service user studies, it is claimed that, the level of risk perception and level of trust are varying in opposite directions. If significant level of trust exists, the perception of risk is reduced, which in turn increases the willingness to continue the services (Joubert & Belle, 2013). The Moderating effect of perceived risk is found in the relationship of customer trust and continuance intention in the studies of Shunbo (2014); Santhanamery (2016); Ebru & Yagmur, (2014); Marzieh (2016).

In light of the reviews quoted, it is felt necessary to analyse the moderating effect of risk perception of users on the relationship between customers' post-use trust and continuance intention to use the TEBSS.

From the blend of combined literature related to the research constructs, a conceptual framework is developed for the present study in order to test empirically and to explain the continuance intention of

customer to use the TEBSS. The conceptual model proposed for the study is presented below.

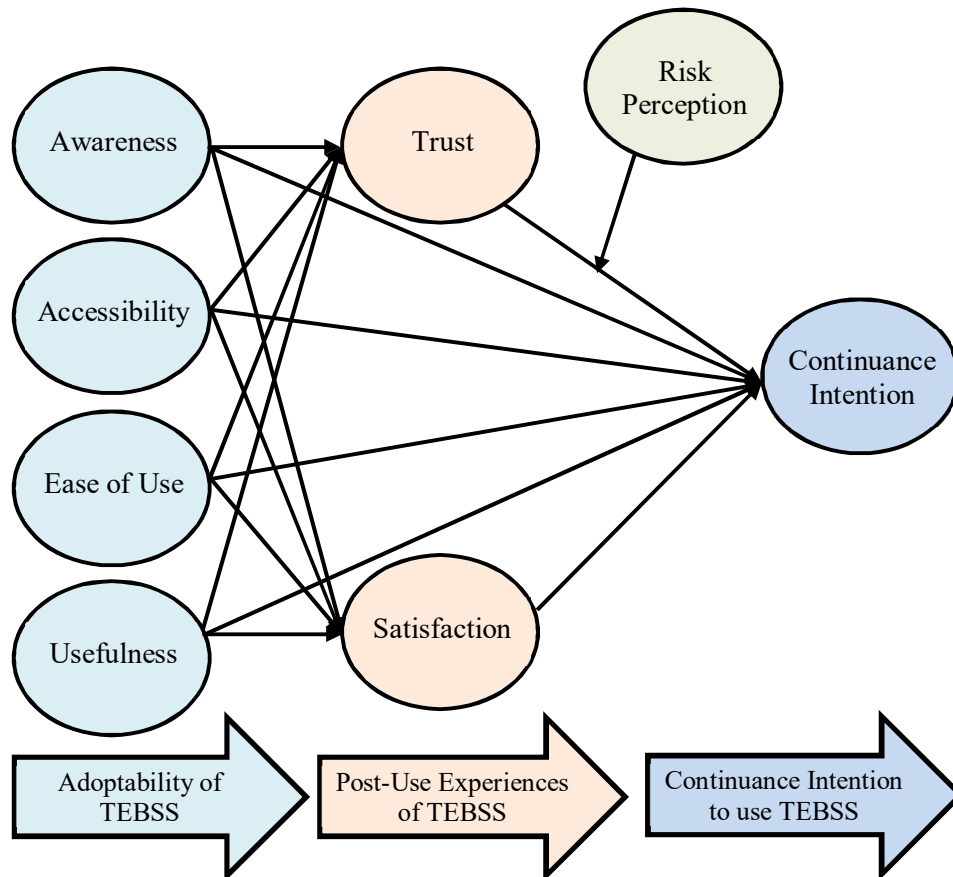


Fig. 3.1: Conceptual Model of the Study

The study tries to integrate a model for explaining the continuance intention of the customers' in the context of technology enabled banking self-services by accommodating the customer' perception on adoptability of TEBSS, post-use experiences and continuance intention. The model proposes that, ease of use, usefulness, accessibility and awareness are the

independent variables, while satisfaction and post-use trust are the mediating variables. Similarly, continuance intention depicted as the dependent variable and the risk perception conceptualised as the moderating variable in the relationship of trust and continuance intention. The conceptual model propounding the association of the underlying variables in predicting the behaviour and the model tries to explain the hypothesised relationships between variables.

3.5 Chapter Summary

This chapter deals with the conceptual formulation of the study. The proposed relationships between the variables under the study is discussed with the support of literature. The theoretical background of the study is also discussed in detail. Model development and process of conceptualisation of variables and establishing the relations are also made with the support of the earlier studies. The conceptual model is shown in Figure 3.1. In the conceptual model, perceptions of customers on the adoptability of TEBSS (Awareness, Accessibility, Ease of Use, and Usefulness,) are considered as independent variables, satisfaction and trust are intervening variables in between independent variables and continuance intention. Risk perception is portrayed as the moderating variable in the relationship of customer post-use trust and continuance intention.

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RESEARCH METHODOLOGY

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This chapter laying out the research methodology followed in this study. The research problem, objectives, hypotheses, variables under the study, research design, scope of the study, sampling design, details of data collection, statistical techniques used in the study and limitation of the study are explained in this chapter.

4.1 Research Problem

The evolution of technology is advancing from information age to experience age which focuses on innovations to improve the customer experiences. Banking technologies with no exception, are getting more popular and cheaper for the time period. Extensive use of technology in the banking sector has redefined the role of a modern banker from mere purveyor of credit to the service provider of various financial services at the finger touch of customers anytime. Since the technology enabled banking services are more popular among the bank customers, the industry is witnessing rapid competition in adopting and updating these technologies.

Detailed review of earlier studies revealed that, intention of adoption of banking technologies by customers was the main focus of research in the earlier period. Over the past two decades, considerable amount of studies had been published in this category. Since the customers are realising the comfort of accessing banking services through electronic channels, many of the bank customers are started using such technologies. A mass adoption of such technology enabled banking services are reported in India after the demonetisation on November 2016. However, serious discussion has yet to be made on the post-adoptive use of TEBS by the customers regarding to what extent the adopters are using these services, to what extent they are satisfied with, to what extent they trust these services and to what extent they are willing to continue the use of such services in future. These are the real questions that are unanswered and more relevant to be addressed for the time being.

Since India is in the pathway of digitalising the economy, Government has initiated several policies and programmes to boost the e-banking transactions among the people in the country. Instead of initial adoption, extended and continued use of such services should be promoted for the long-term success of these technologies. Hence, the relevance of this study is in the underlying fact that, analysis of the post-adoptive use and continuance intention is more critical than that of analysing their initial adoption intention. Moreover, a few studies that have looked the post-adoption behaviour of customers in banking technology are ended up in analysing customer satisfaction without touching any of the fundamental factors that have influence on post-use experiences.

Customers may have certain perceptions regarding the adoptability of technology when they are ready to adopt a new technology. Some of these unique perceptions on adoptability have evidenced as having equal importance in the post-adoption stage also. This includes user awareness in technology and their perceptions regarding the specific characteristics of that technology. In the banking context, technology characteristics like ease of use, usefulness, are over emphasised in the adoption stage. But the importance of these factors in the post-adoption stage are not explored yet. Additionally, one of the unique features of TEBSS is its accessibility, but previous studies did not explain its influence in the post-use experiences of customers. Therefore, there is a need for understanding the customers' perception on adoptability of TEBSS in terms of their awareness, accessibility, ease of use and usefulness of TEBSS in the post-adoption stage to analyse their post-use experiences.

Analysis of post-use experiences is more important once the user started using any new technology. The previous studies are not explained how the post-use experiences influence the future use intentions of customers in banking technologies. Hence, it is indeed to study the influence of post-use experiences such as post-use trust and risk perception of customers in addition to satisfaction to spot their influence on customers' future intention to use the technology enabled banking self-services. The degree of usage and their continuance intention to use the TEBSS are highly depend on their satisfaction, trust and risk perception. These are further influenced by several factors mainly including user awareness and their perceptions about the adoptability of these technologies. If any disconfirmation occurs in their perceptions, that will hinder their satisfaction, trust and badly affect their risk perception.

Several researchers have agreed that, consumers are reluctant to perform online banking transactions due to lack of trust. Since the direct personal contact is absent in the service delivery as well as highly confidential financial information are exchanged through an online platform, post-use trust has substantial role in determining the usage continuance intention of customers in these technologies. Similarly, satisfied customers are more likely to make the extensive use of TEBSS and they might have the strong intention to continue the use in future. This also predicting future use behaviour of customers in using TEBSS. So far however, there has been studies pointing out the customer satisfaction and trust in using these services, have not looked how the post-use trust and satisfaction influence continuance intention in using the TEBSS. So, there is a possibility that, post-use trust and customer

satisfaction have mediating role in the relationship between user perceptions and continuance intention. That's why it is more important to study the intervening roles of post-use trust and satisfaction in the post-adoption stage of TEBSS.

Even though there are studies on post-adoptive use of these technologies, such studies have not attempted to check the role of risk perception of customers in the post-use stage instead of analysing perceived risk in the adoption intention. Users' perception about risk after they started using a new technology may also have significant impact on their future use of that technology. Previous studies on adoption intention had already proved that, the perception of risk negatively influencing user intentions in a new technology adoption context. Similarly, the earlier studies portrayed a bi-directional relationship between trust and risk perception Jubert Belle (2013); Shunbo Yuan (2014); Santhanmery (2016); Ebru & Yagmur (2014); Marzieh Zendehdel (2016). Hence there is a possibility that, users' trust and their continuance intention in using TEBSS might have dependence on the level of risk perception of customers. Therefore, it is indeed to study the moderating role of risk perception of customers in the relationship between post-use trust and continuance intention.

Technology adoption in banking sector had positive influence on the performance of banks in terms of increased efficiency in service delivery and reduced cost operations. The service providers are investing huge amount of money in technology updates and for implementing most modern technologies. India government also striving to achieve the vision

‘digital economy’ by promoting the use of digital banking technologies. Since there are many challenges ahead for the complete transformation of financial activities into virtual platforms, it is fundamental to analyse the factors that have influence on the post-adoptive use of TEBSS to ensure the long-term success of these technologies. Thus, a comprehensive study incorporating customer perceptions on adoptability of TEBSS, post-use experiences and continuance intention may provide valuable insights about the customer behaviour in the use of TEBSS.

4.2 Objectives of the Study

The present study entitled “Attitudinal Precedents in the Adoption and Usage Continuance of Technology Enabled Banking Self-Services: A Study among Bank Customers in Kerala” is undertaken with a view to analysing the continuance intention to use the TEBSS, based on the customers’ perception on adoptability of TEBSS and their post-adoption experiences. The following specific objectives are formulated for the study.

- To analyse the purpose and extent of usage of TEBSS by customers.
- To measure the level of customers’ perception on the adoptability of TEBSS in terms of their awareness, accessibility, ease of use, and usefulness of TEBSS.
- To ascertain the level of customers’ post-use experiences of TEBSS in terms of their satisfaction, post-use trust, and risk perception.

- To examine the influence of the customers' perception on the adoptability of TEBSS on their continuance intention to use the TEBSS.
- To test the mediating role of customers' post-use experiences of TEBSS, such as customer satisfaction and customer trust on the relationship between customers' perception on adoptability of TEBSS and their continuance intention to use the TEBSS.
- To examine the moderating role of risk perception of customers on the relationship between their post-use trust and continuance intention to use the TEBSS.
- To develop and empirically test a model establishing the relationship between customers' perception on adoptability of TEBSS on their continuance intention to use the TEBSS with the mediating role of their post-use experiences and the moderating effect of their risk perception.

4.3 Research Hypotheses

Based on the conceptual formulation and objectives of the study, the following hypotheses are formulated.

- H1 Customers' awareness of TEBSS has a significant influence on their continuance intention to use the TEBSS.
- H2 Customers' perception on accessibility of TEBSS has significant influence on their continuance intention to use the TEBSS.

- H3 Customers' perception on ease of use of TEBSS has significant influence on continuance intention to use the TEBSS.
- H4 Customers' perception on usefulness of TEBSS has significant influence on continuance intention to use the TEBSS.
- H5 There exists a significant mediating effect of customers' satisfaction on the relationship between customers' awareness and their continuance intention to use the TEBSS.
- H6 There exists a mediating effect of post-use trust of customers on the relationship between their awareness and continuance intention to use the TEBSS.
- H7 There exists a mediating effect of customers' satisfaction on the relationship between customers' perception on accessibility of TEBSS and their continuance intention to use the TEBSS.
- H8 There exists a mediating effect of post-use trust of customers on the relationship between their perception on accessibility and continuance intention to use the TEBSS.
- H9 There exists a mediating effect of customers' satisfaction on the relationship between customers' perception on ease of use of TEBSS and their continuance intention to use the TEBSS.
- H10 There exists a mediating effect of post-use trust of customers on the relationship between their perception on ease of use of TEBSS and continuance intention to use the TEBSS.

- H11 There exists a mediating effect of customers' satisfaction on the relationship between customers' perception on usefulness of TEBSS and their continuance intention to use the TEBSS.
- H12 There exists a mediating effect of post-use trust of customers on the relationship between their perception on usefulness of TEBSS and their continuance intention to use the TEBSS.
- H13 The risk perception of customers has a moderating effect on the relationship between post-use trust and their continuance intention to use the TEBSS.

4.4 Conceptual and Operational Definitions of Variables

This study consisting of eight variables. The variables under the study are identified as important from the previous studies. All the variables in this study are measured empirically and tested statistically. For the purpose of measuring the variables, constructs are defined operationally based on the earlier conceptual definitions. Conceptual and operational definitions of the variables used in this study are given below.

4.4.1 Continuance Intention (Dependent Variable)

Users' continuance decisions are similar to consumers repurchase decisions, as both types of decisions (1) follow an initial decision; (2) are influenced by the usage experience; and (3) can potentially lead to ex-post reversal of the initial decision (Bhattacharjee, 2001). Continuance intention is defined in information system research, as the individual's intention to continue using an information system (in contrast to initial acceptance)". According to him, the eventual success of a new technology

is more dependent on the user's continued usage rather than the initial adoption. Hence, continuance intention can be conceptualised as resulting from three determinants: (1) experiential outcome, (2) forward- looking expectation, and (3) habit. Experiential outcome is represented using satisfaction, which is also an emotive construct, while expected utility embodies the forward-looking expectation (Bhattacharjee & Barfar (2011). The continuance intention is influenced by the usage, satisfaction and perceived usefulness (Bhatterchjee, 2001).

The construct is operationally defined for the purpose of this study is based on the theoretical definition given above. The continuance intention is operationally defined as the intention or decision of the individual customers, to continue the usage of technology enabled banking self-services in future. Five- point Likert type adapted scale (Bhatterchjee, 2001) starting from strongly agree to strongly disagree is used for measuring the construct. It contains three measurement items like 'I intend to continue using the technology enabled banking self- services for performing my banking transactions in future', 'I intend to continue using the technology enabled banking self- services to the extent of services offered through it', ' I will strongly recommend the technology enabled banking self-services to others'.

4.4.2 Awareness (Independent Variable)

Awareness is another construct used in the study. Awareness is defined as the extent to which a target population is conscious of an innovation and formulates a general perception of what it entails. During the awareness stage, an organisation or individual is exposed to the

existence of the innovation and is provided information on how the innovation functions and what its benefits are (Goodhue & Straub, 1991). The concept awareness was defined in the innovation diffusion theory (IDT) and was used as the initial stage of an innovation diffusion process model. Later it was defined by Sathye (1999), as “Knowledge has an important role on customers adoption of innovation, here knowledge refers to the awareness of innovation and the benefits associated with, knowledge associated with how to use the basic technology. Dinev & Hart (2006) defined it as an antecedent for the attitude formation stage of innovation diffusion and it was viewed as one of the key components of consciousness raising and brings about an appreciation of the needs, impetus, and specificity of issues, events, and processes. Technology awareness was again defined by Dinev & Hu (2007) as a user’s raised consciousness of and interest in knowing about technological issues and strategies to deal with them.

The concept was operationalised for the purpose of this study based on the conceptual definitions as; the customer knowledge about the technology enabled banking self-services, cost, benefits and risks associated with using of such products and services, additions and updates, and the knowledge about how to use such products and services. The construct is measured through a modified scale of (Dinev & Hu, 2007), Rogers (1995). The modified scale consists of four items which is measured in five-point Likert scale. The scale item contains the statements like ‘I am aware of how to use technology enabled banking self-services’, ‘I am aware of the risk and how to handle those risk in using the technology enabled banking self-services’, ‘I am aware of the

benefits of using technology enabled banking self-services’, ‘I am frequently getting updated with TEBSS technology. Thus, I can extend my usage of TEBSS and manage if any transaction failure happens’.

4.4.3 Accessibility (Independent Variable)

Accessibility construct is used in the study as independent variable based on the literature. The earlier studies show that the perceived features about a technology has an important role in usage of the technology. Accessibility is the unique feature of the technology enabled banking self- services. Hence, the variable accessibility has taken for consideration to analyse its effect on the satisfaction and post-use trust. Accessibility is conceptually defined as, a multi-dimensional construct encompassing both physical, terminal access and system usage ability (Karahanna & Straub, 2003). According to Brown (1990), accessibility can be measured as a multi-dimensional construct, and the concept is proposed to have five phases; time, place, acquisition, use and execution. For (Rice & Shook, 1988), accessibility consists of four aspects: accessibility of computer equipment, access to information, system reliability and ease in learning the language of use. However, in electronic banking context, accessibility was understood as the ease of access to electronic banking applications as well as accessibility to the transactions that can be carried out in them (Liébana-Cabanilla & Muñoz-Leiva, 2015).

The construct is operationally defined as; the perception of the customers about the features of technology enabled banking self-services being suited to their comfort, need or purpose, in terms of time, place and use dimensions. Variable was measured using modified six items five-

point Likert scale (Rice & Shook; Zeithmal (2002)) including the items like ‘technology enabled banking self-services are available at 24 hours of the day’, ‘technology enabled banking self-services avoids the irritation of standing on long queues in the bank branches’, ‘banking transactions can be performed at everywhere’, ‘technology enabled banking self-services helps to save the time’, ‘technology enabled banking self-services helps to perform multiple banking purposes’, ‘instant access of the websites of the banks helps me to do what I want to do’ all items are measured in five point scale ranging from strongly agree to strongly disagree.

4.4.4 Ease of Use (Independent Variable)

Technology Acceptance Model is most widely discussed in the technology adoption studies of information system research. Ease of use is one of the important constructs used in Technology Acceptance Model (Davis 1989). The construct is defined conceptually as “the degree to which a person believes that using a particular system would be free from effort. The construct is operationally defined in this study based on the same definitions as ‘the degree to which a customer believes that, using the technology enabled banking self-services will reduce his mental and physical efforts in carrying out banking transactions’. The construct was measured through the four items scale developed by Davis (1989). The scale consists of the items like ‘it is easy for me to learn how to use technology enabled banking self-services’, ‘it is easy for me to become skilful at using the technology enabled banking self-services’, ‘I think interacting with technology enabled banking self-services do not require a lot of mental efforts’, ‘I don’t make any errors while using the TEBSS’.

4.4.5 Usefulness (Independent Variable)

Usefulness is another important construct used in TAM by Davis (1989) to explain the adoption intention in information system research. He defined perceived usefulness as the “degree to which person believes that, using a particular system would enhance his or her job performance”. In information system research, the two constructs are well discussed and accepted. For the purpose of the present study, this construct is operationalised in the same way that “the degree to which a customer believes that, using the technology enabled banking self-services would enhance their efficiency in carrying out banking transactions”. It was measured through the four items scale developed by Davis 1989. The scale includes four items five-point Likert type questions, like ‘TEBSS make me easier to do my banking transactions’, ‘TEBSS enables me to perform my banking needs more quickly than traditional way of doing banking’, ‘TEBSS allows me to manage my banking activities efficiently’, ‘TEBSS are more useful to me in conducting banking transactions’.

4.4.6 Customer Satisfaction (Mediating Variable)

Customer satisfaction is a key construct, many researchers have been examined the satisfaction for long years back in marketing research. Customer satisfaction is an important construct and one of the most researched areas as it is an essential pre-condition to the existence of any business or service. Satisfaction with products and services are explained in different ways. Satisfaction is a feeling developed from an evaluation of the user’s experience during the consumption time, or it is the impression after the evaluation of the use of the product or service

(Cudotte & woodruff, 1987). The satisfaction of customers in service is explained by the concept of service quality in most of the earlier researchers. E- service quality concept is another dimension of the customer satisfaction in online context. Definition of customer satisfaction in online context is better to explain with the concept of e-service quality. Hence, for the purpose of this study customer satisfaction is defined in e-service satisfaction as the study measures the satisfaction of customers in technology- based banking products.

Service satisfaction is defined as the summary of the cognitive and affective reactions to a service incident and it is resulting from experiencing e-service quality (Oliver 2008). E-service quality is defined as e- fulfilment, accuracy, efficiency, security, easiness, convenience, cost effectiveness, and compensation (Zeithmal & Parasuram, 2000). E-fulfilment as scope of services offered, availability of global network, digitalisation of business information, and variety of services (Zeithaml, Parasuram, 2000). Customer satisfaction is “Customer’s fulfilment response, it is a judgment that a product or service features or the product or service itself, provided (or is providing) a pleasurable level of consumption related fulfilment, including levels of under or over fulfilment.

The construct customer satisfaction is operationally defined in this study based on Bhattacharjee’s (2001) post-adoptive IS use model. For this study, the satisfaction is operationally defined as to the extent to which, a customer is pleased or contented with the service of TEBSS after having direct experiences with it. It measures the experiences with

regards to the scope of services offered, digitalisation of personal information, speed of transactions, privacy and security, language and support and overall satisfaction in using TEBSS. The modified scale (Zeithmal & Parasuram, 2000); (Bhtacherjee, 2001) consists of seven items Likert type questions (Strongly agree to strongly disagree) including ‘I am satisfied with the different types of services offered through TEBSS’, ‘I am satisfied with the digitalisation of personal information and account information’, ‘I am satisfied with the speed of services such as clearing, deposits, and transfers and response to enquiries’, ‘I am satisfied with procedures and formalities for using TEBSS’, ‘I am satisfied with the security and privacy measures against password and pin theft, hacking etc.’, ‘I am satisfied with the language and information support in using TEBSS’, ‘over all I am satisfied with the technology enabled banking self-services.’

4.4.7 Post-use Trust (Mediating Variable)

Trust is generally defined as the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other party will perform a particular action important to the trustor irrespective of the ability to monitor or control that other party (Mayer & Davis, 1995). When applying the trust in technology, propensity to trust suggests that one is willing to depend on a technology across situations and technologies (Mcknight & Tatcher, 1998). The trust in technology adoption is generally identified as pre-use trust and post-use trust. Pre-use trust is based on beliefs and expectations while post-use trust is based on users’ perceptions derived from their own experiences with the technology

(Hernandez-Ortega, 2011). Trust in technology is reflective, because it is grounded in the users' knowing the technology sufficiently well that they can anticipate how it will respond under different conditions, and it is positively related to post-adoption use, such that users will be more willing to experiment with different features, or to use more features, of a technology because they understand it well enough that it has the attributes necessary to support extended use behaviour (Mcknight & Tatcher, 1998); (Gefen, 2000).

The concept is operationally defined as the trust/ post-use belief of the customers based on their experience on TEBSS with respect to the different aspects of the performance of TEBSS namely safety and security, functionality, reliability, and correctness of the functioning of TEBSS. Customers are directed to record whether TEBSS adequately fulfilled their expectations with these safety and security features. The scale ranging from strongly agree to strongly disagree with five items. This scale was a modified scale of (Gefen, 2000; McKnight et al., 1998). The measurement items include the statements like ' I feel that, TEBSS had enough safe guards (such as encryption of passwords and PIN) to make me feel comfortable in using', 'I feel that, security system of TEBSS were suitable against un authorised access of my accounts', 'I feel that technology enabled banking self-services are reliable and trust worthy', 'I feel that, TEBSS had all the functionalities I needed', 'I feel that TEBSS provided error free transactions in each time I am using it'.

4.4.8 Risk Perception (Moderating Variable)

Customer perceived certain element of risk in every activity. These perceptions have significant influence on adoption intention. Risk perception in post-adoption stage might have influenced by the user experience in the technology. Dowling (1986) defined risk as “the situation where the decision maker has a priori knowledge of both the consequences of alternatives and their probabilities of occurrence.” According to Stikin and Pablo (1992), “Decision makers who have a risk-seeking propensity will perceive risks to be lower than decisions makers who have risk-averse propensity risk perception is together with risk.

Risk perception involves beliefs about a product or service’s potential damages to the customer, acceptance of risk involves the interpretation of such beliefs. Eckel & Grossman (2002) stated that risk has several meanings and interpretations that vary for every human being, but it has a negative effect on several behaviours or intentions. The various types of perceived risks identified in the existing literature relate to security, privacy, time, social, financial and performance-oriented dimensions (Lee, 2009). Individual’s current tendency to take or avoid risks and considered as an individual trait which can change over time (Wang, Zhao, & Zhang, 2015). Risk perception involves beliefs about a product or service’s potential damages to the customer (Marafon & Basso, 2018).

According to (Roselious, 1971), (Jacoby & Kaplan, 1972), perceived risk consists of different types of risk namely performance risk, social risk, time risk, monetary risk, and security risk. In the same line (Featherman

& Pavlou, 2003) identified in technology adoption context risk has seven facets namely, performance, financial, time, psychological, social, privacy and overall risk.

Based on the conceptual definitions, the construct was operationally defined as perceptions of the user about the different types of risks/uncertainties involved in the use of technology enabled banking self-services includes financial risk, security and privacy risk, performance risk, and psychological risk associated with the use of such products and services. This is measured with the modified scale of (Roselious, 1971) Jacoby & Kaplan (1972), later modified by (Featherman & Pavlou, 2003) . Perceptions of users on different dimensions of risk are framed in the questionnaire in the form that seems to be answered by respondents based on their experience. Scale consists of six five-point Likert type questions like ‘I think using TEBSS for performing financial activities is risky’, ‘there is possibility of harm resulting from mis-use of my personal information while using TEBSS’, ‘there are chances for losing money due to fraud practices when carrying out financial transactions through TEBSS’, ‘ there are chances for losing control over privacy of account information when transactions take place over TEBSS’, ‘there are chances for failure performance of transactions when using TEBSS’, ‘there is a scope for feeling of frustration/ psychological discomfort when something goes wrong in the use of the TEBSS’.

4.5 Research Design

The present study is descriptive and explanatory in nature. The study describes how the customers’ perceptions on adoptability of TEBSS

influence the post-use experiences and thereby continuance intention in using TEBSS. Hence it is descriptive in nature. This study is explanatory in the sense that; it explains how the outcome behaviour continuance intention is linked by post-use experiences and customers' perceptions on adoptability by analysing the relationship through Structural Equation Modelling. In order to better predict the appropriate fit of the hypothesised relationship of the factors, these relationships are tested accordingly.

4.6 Scope of the Study

The scope of the present study is finalised after conducting a pilot study and it is defined in terms of the population and sources of data collection.

4.6.1 Pilot Study

A pilot study was conducted in order to determine the scope of the study. Since there are many types of TEBSS introduced and popularised by commercial banks, it was very important to know about which types of TEBSS are using by majority of bank customers to get an idea about the TEBSS usage by bank customers. From the discussions with experts in the banking field, it was identified that, the most common services largely penetrated among customers are internet banking, mobile banking as well as bank cards like credit and debit cards. So that, it is decided to include these three types of TEBSS within the ambit of this study. Moreover, these three types of TEBSS are interchangeably used by customers under the common facilities.

Since there is no formal list available about the customers who are using the TEBSS, it was intended to approach the individual bank customers directly by seeking whether they are using these TEBSS. The interactions with bank managers and experts in the field was conducted to analyse the feasibility of this study, and to assess whether there is any problem with the study design and the instrument developed for data collection.

4.6.2 Population of the Study

Population of the study consist of bank customers who are using any of the Technology Enabled Banking Self-Services namely, internet banking, mobile banking, or bank cards or combinations of any of these services in the state of Kerala. It is further clarified here that the elements of the population cover the customers using at least two of these services. Customers who are using only ATM cards are excluded from the defined population of the study.

4.6.3 Sources of Data

Data were collected for present study mainly from primary source. The primary data required for the study were collected from customers of banks using TEBSS on the variables in the conceptual model formulated for the study. The information regarding technology developments in banking sector are gathered from secondary sources like journals and magazines, periodic reports and books relating with banking sector and technology adoption.

4.7 Sampling Design

Population of the study is finite but the exact number of customers who are using the technology enabled banking self-services were not available from the banks or any other concerned authorities as well as they were not willing to disclose the details of their customers. This reason made it impossible to go for the sampling techniques based on probability. As the sample frame cannot be prepared due to non-availability of source list of population, non-probability sampling method, judgmental sampling, was applied to identify the sample respondents. The bank customers, who are using any of the two technology enabled banking self-services, were considered and included in the sample.

When the population is large, but exact size of population is unknown, the formula developed by Coheran (1963) is largely used in social science research for determining sample size. It was based on the confidence level, sampling error, and variability of proportion of sample. If the confidence interval is 95 per cent, and margin of error estimated is 5 per cent, the required sample size can be calculated as given below:

$$N = Z^2 \times P(1 - P) / (\text{Margin of error})^2$$

$$Z \text{ score for 95\% confidence level} = 1.96$$

$$\text{Hence sample size} = (1.96)^2 \times 0.5(1 - 0.5) / (0.05)^2$$

$$\text{Sample size} = 3.8416 \times 0.25 / .0025 = 384$$

While analysing the required sample size for the population based on the formula, 384 sample is required for this study. According to Hair et al. (2010) if the number of constructs is more than 7, there should be a

minimum sample of 500. But in the present study, eight variables are considered for analysis and survey method was used to collect data from respondents. Hence, it is decided to cover sufficiently large sample for the study and fixed 900 respondents as sample size.

From the literature, it was evident that, geographical location of the respondents may have impact on adoption of the technology-based banking products and services. Therefore, while identifying the sample respondents, it was attempted to include the equal proportion of three major locations of people, as rural, urban and semi-urban.

4.8 Data Collection Method

Primary data were collected from the bank customers who are using TEBSS through survey method. In this study, both offline and online modes were used for collecting data. In offline method of survey, questionnaire was distributed to respondents directly. The customers are identified by asking the criterion question that whether they are using any of the TEBSS. If their answer to this question is yes, then the questionnaire is distributed to them directly. Study covered all districts in Kerala. For avoiding the sampling bias, study included bank customers from all spheres of life without pointing their job, status, education and age. For the collection of data, focus was given to include the respondents from universities, colleges, government offices, private organisations, banks, shopping malls, and all possible centres where customers are using the TEBSS. In online method, questionnaire was distributed through Google form. The link of the questionnaire was shared with nears and dears through e-mail, different online groups such as WhatsApp, Facebook and

LinkedIn with a request for circulating the same to bank customers in Kerala who are using TEBSS. Details of data collection is given in the following table.

Table 4.1: Data Collection Details

	No. of Questionnaire Distributed	No. of Responses	No. of Usable Responses	Response Rate
Offline	845	664	600	78%
Online	400	322	300	80%
Total	1245	986	900	79%

Out of 1245 questionnaires distributed, 986 questionnaires were collected back. After the initial screening, 48 incomplete questionnaires were rejected. The data set was entered in SPSS for further processing. The data set was tested for outliers through bootstrapping which showed that there were 38 responses that cannot be used for the study. Thus, the usable responses finally available for analysis came to 900 responses. Finally, the sample size for the study is fixed as 900.

4.9 Instrument Used for Data Collection

A specifically designed questionnaire was used as the instrument for data collection. The questionnaire consists of standardised and modified scales for collecting responses for variables. In the questionnaire, five points Likert type questions were used for each variable measurement and the multiple option questions were used for gathering other section of information. The validity and reliability of questionnaire were confirmed through expert review and pre-testing of the instrument.

Expert review was conducted in order to ensure the validity of the instrument. It was done with the experts in the field of banking as well as with the academicians. Based on their advice some of the questionnaire items were restructured and modified. So as to check the problems and limitations of the instrument, pre-test is conducted among small sample of 100 bank customers of Ernakulam and Kozhikode districts. The collected data was analysed using SPSS 23 to check the reliability of scales. Cronbach's alpha was used to test the reliability of variables under the study. It was found that all variables in the questionnaire have good internal consistency.

Some of the items in the questionnaire were re-structured after the pre-testing due to the report of respondents that they felt some difficulties in understanding some terms in the questionnaire. Such items are simplified with suitable words and sentences.

Table 4.2: Instrument Used for Data Collection

Variables	Reference	Number of items
Continuance Intention	Bhattacherjee (2001)	3
Post-use Trust	Gifen (2000), Mcknight et.al (2002), modified by Wakefield et.al (2004)	5
Satisfaction	Zeithmal Parasuram & Malhotra et.al (2000), modified by Bhattcherjee (2001)	7
Accessibility	Zeithmal (2002) Modified by Behjati (2012)	6
Ease of Use	Davis (1989)	4
Usefulness	Davis (1989)	4
Awareness	Rogers (1995) Modified by Dinev & Quing (2007)	4
Risk Perception	(Roselious, 1971) Jacoby J and Kaplan L.B (1972), modified by (Featherman & Pavlou, 2003)	6

4.10 Statistical Techniques Used for Analysis

Statistical package for data analysis SPSS 23 was used for basic data editing, coding and for basic analysis. The percentage analysis was used to spot the profiles of respondents. Descriptive statistical techniques include mean and standard deviation were applied to describe the variables in the study. Additionally, cross tabulation of demographic variables like age, education, occupation and income, years of using TEBSS, type of TEBSS use and purpose of using TEBSS were carried out. ANOVA test is used to analyse the association between selected demographic factors and adoptability of TEBSS, post-use experiences and continuance intention. Exploratory Factor Analysis (EFA) was carried out in order to identify the factor structure of the construct which is measured with modified scales. The identified factor structure is verified and confirmed using the Confirmatory Factor Analysis (CFA). The basic model linking customer awareness, ease of use, usefulness and accessibility of TEBSS, post-use trust, satisfaction, risk perception and continuance intention was tested by way of regression analysis. The integrated model was tested and validated in Structural Equation Modelling (SEM) using AMOS version 23. Moderation and mediation analysis were performed in the software PROCESS MACRO version 3 developed by Hays (2013).

4.11 Measurement of Testing of Variables

4.11.1 Test of Normality of Data

Normality assumption is conventional assumption in the estimation process. In order to check whether the random sample came from a normal distribution or not, skewness and kurtosis measures are taken for

consideration. The descriptive analysis has been done on all the variables under study and kurtosis values are found to have the values less than three, which indicates that data distribution is normal. The values of skewness and kurtosis are given in the following table.

Table 4.3: Test of Normality

Variables	Values	
	Skewness	Kurtosis
Satisfaction	-1.086	1.441
Risk Perception	-0.072	-.479
Continuance Intention	-0.860	1.006
Awareness	-0.933	0.781
Accessibility	-1.294	1.716
Ease of Use	-0.797	0.201
Usefulness	-1.390	2.351
Post-use Trust	0.493	0.377

Source: Result of Primary Data Analysis Using SPSS

It was suggested by (Cline, 2011; citing Curran et al., 1997) that; kurtosis value ranging from 8-20 may be taken as indicating more extreme level of kurtosis and the skewness value greater than three (in absolute value) indicating the more extreme level of skewness. Byrne (citing Decarlo, 1997) suggested that since the kurtosis impacts tests the covariances and variances it is more important than skewness (which impacts on means) in Structural Equation Modelling.

4.11.2 Test for Common Method Variance

Common method bias is one of the important sources of measurement error in constructs used in behavioural research. Common method biases arise from having a common ratter, a common measurement context, a common item context, or from the characteristics of the items themselves (Podsakoff, MacKenzie, & Lee, 2003). For assessing the common method bias, Harman's one factor test is generally used. In this test, all the measurement items of the constructs are grouped to perform an exploratory factor (EFA) and get it extracted as a single factor. The following table 4.4 shows the Harman's one factor test result for checking the common method bias in the study.

Table 4.4: Harman's Common Method Variance Bias Test

Total Variance Explained			
Component	Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	12.670	32.487	32.487

Source: Result of Primary Data Analysis Using SPSS

It is evident from the Table 4.4 that; the single component contributes 32.5% of variance and which is below the cut of rate of 50 per cent. Hence, it can be concluded that, there is no issue of common method bias in the present study.

4.12 Reliability and Exploratory Factor Analysis of Variables

Reliability analysis is performed to ensure the internal consistency of the measurement items to the latent construct. It was performed on

each variable by using Cronbach's Alpha in SPSS. In addition to the check for reliability, the factor structure of the constructs which are measured in the modified scale are ascertained using Exploratory Factor Analysis. The following section deals with the reliability analysis and EFA of the constructs in the study.

4.12.1 Awareness (Independent Variable)

Awareness is the knowledge of the customers about the use, benefits and disadvantage of using a product or services. When the awareness conceptualises in a technological context, it includes the awareness about the technology related factors, how to use it, when to use it, as well as how to control and overcome the difficulties, knowledge about updates and improvements etc. It was measured in four items modified scale in the study. Reliability test results are given in the following section.

Awareness is measured by using a modified scale and the modified scale consists of four items five- point Likert type questions in which respondents are requested to record their level of agreeableness ranging from strongly agree to strongly disagree. The following table shows the result of reliability analysis.

Table 4.5: Reliability Analysis- Awareness

Scale	Cronbach's Alpha	Number of Items
Awareness	0.893	4

Source: Result of Primary Data Analysis Using SPSS

The result of reliability analysis indicates that the construct awareness has good internal consistency, with the Cronbach's Alpha value of 0.893. The value of Cronbach's Alpha is higher than the acceptable limit, which indicates that good internal consistency of the items to the measurement construct.

Exploratory Factor Analysis is performed for the construct awareness as the construct is measured with a modified scale. KMO test is applied to check the sampling adequacy for the exploratory factor analysis, it is reasonable if the KMO value is above 0.75.

Table 4.6: KMO and Bartlett's Test of Sphericity –Awareness

		Awareness
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.793
Bartlett's Test of Sphericity	Approx. Chi-Square	1395..068
	Df.	6
	Sig.	0.00

Source: Result of Primary Data Analysis Using SPSS

KMO test results shows that, sampling adequacy is sufficient to move ahead with exploratory factor analysis. Bartlett's test of sphericity is 0.000, which is significant at ($p < 0.01$). Exploratory factor analysis is performed based on principal component analysis and the varimax rotation resulted in the extraction of one component with Eigen value greater than 1. The factor loadings 4 or higher were taken as significant. All the factor loadings were above 4 (Appendix.2.1) and the proportion of the variance explained by components was 65 per cent of awareness.

4.12.2 Accessibility (Independent Variable)

Accessibility is the next independent variable under the study, which is identified as influencing the post-adoptive use of TEBSS by customers. Accessibility is measured in this study using 6 items modified five-point Likert scale. Reliability analysis as well as exploratory factor analysis are performed for the construct. The results are shown below.

Accessibility construct is measured with six item scale. Reliability of the construct accessibility is ascertained through the method of Cronbach's Alpha. The following table shows the test of reliability.

Table 4.7: Reliability Analysis- Accessibility

Scale	Cronbach's Alpha	Number of Items
Accessibility	0.909	6

Source: Result of Primary Data Analysis Using SPSS

The value of Cronbach's Alpha is 0.909, which indicates that the measurement has good internal consistency. The value of Cronbach's Alpha is much higher than the criterion value of 0.5.

Accessibility was measured using a modified scale. Hence the exploratory factor analysis is performed in order to identify the factor structure of the construct. The Following table represents the factor analysis result of the variable accessibility.

Table 4.8: KMO and Bartlett's Test of Sphericity –Accessibility

			Accessibility
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			0.906
Bartlett's Test of Sphericity	Approx. Chi-Square		3399.862
	Df.		15
	Sig.		0.00

Source: Result of Primary Data Analysis Using SPSS

The result of KMO test of sampling adequacy is satisfactory and the Bartlett's test of sphericity is significant at 0.01. The exploratory factor analysis was performed with principal component analysis with varimax rotation. The result extracted as one component with Eigen value greater than 1. The total variance explained by the items to the construct accessibility was 69 per cent (Appendix 2.2).

4.12.3 Ease of Use (Independent Variable)

The same construct of the original TAM model perceived ease of use is taken for the present study. The measurement of scale was adapted from the TAM model with context specific wordings as modification. Since the scale is an adapted scale, the exploratory factor analysis need not be carried out. Thus, the reliability of the scale is tested using Cronbach's Alpha. The result of Cronbach's Alpha is presented in the table given below.

Table 4.9: Reliability Analysis - Ease of Use

Scale	Cronbach's Alpha	Number of Items
Ease of Use	0.824	4

Source: Result of Primary Data Analysis Using SPSS

The Cronbach's Alpha value shows 0.824, which is satisfactory in the confidence level of 95 per cent, indicating the better reliability of the construct.

4.12.4 Usefulness (Independent Variable)

Usefulness is also adapted from the prominent model of technology adoption TAM. The perception of the customers on technology/innovation that the usage of the system would improve his or her job performance is termed as usefulness. The scale consists of four items five- point Likert type questions and the modifications of original scale is slightly done with the replacing of context specific words. So, the exploratory factor analysis did not perform. The reliability analysis of the scale is tested using Cronbach's Alpha.

Table 4.10: Reliability Analysis - Usefulness

Scale	Cronbach's Alpha	Number of Items
Usefulness	0.893	4

Source: Result of Primary Data Analysis Using SPSS

The result of reliability analysis indicates that the construct has good internal consistency between its items and there are no reliability issues with the construct. The value of Cronbach's Alpha is 0.893, which is above the criterion value of 0.5.

4.12.5 Continuance Intention (Dependent Variable)

Continuance intention is the outcome variable of this study. Continuance intention in the study is defined as the intention of the

customers to continue using the TEBSS in future, and it is measured in an adapted scale with three items five-point Likert type questions. Reliability of the scale was tested using the Cronbach Alpha. The value of Cronbach Alpha of the variable is given in the following Table.

Table 4.11: Reliability Analysis - Continuance Intention

Name of the Variable	Cronbach's Alpha	Number of Items
Continuance Intention	0.797	3

Source: Result of Primary Data Analysis Using SPSS

It is evidenced from the table that, the value of Cronbach's Alpha is 0.797, which is greater than the criterion value of 0.5. Thus, the scale is considered as reliable. Internal consistency of the scale is assured through Cronbach's Alpha.

4.12.6 Satisfaction (Mediating Variable)

Satisfaction is defined in the study as an overall evaluation of the TEBSS, in terms of their experience after the use of the same. Seven items modified scale was used to measure the satisfaction. Hence the exploratory factor analysis is also performed for the construct. Reliability of the construct is checked with Cronbach's Alpha. The table below shows the result of reliability analysis.

Table 4.12: Reliability Analysis - Satisfaction

Scale	Cronbach's Alpha	Number of Items
Satisfaction	0.886	7

Source: Result of Primary Data Analysis Using SPSS

The result of reliability analysis shows that the scale is reliable. Since the value of Cronbach’s Alpha is 0.886 which is above the criterion value of 0.5, the scale is treated as reliable and internal consistency between items is ensured.

Satisfaction is measured in a modified scale, as the scale is modified it was indeed to check whether the items of the scale contributing to one factor or not. Hence the exploratory factor analysis is performed. Value of KMO measure of sampling adequacy shows greater than criterion value, which indicates that factor analysis can be taken forward, and the Bartlett’s test of sphericity shows significant.

Table 4.13: KMO and Bartlett’s Test of Sphericity – Satisfaction

			Satisfaction
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			0.914
Bartlett's Test of Sphericity	Approx. Chi-Square		2944.131
	Df.		21
	Sig.		0.00

Source: Result of Primary Data Analysis Using SPSS

Exploratory factor analysis is done with principal component analysis using varimax rotation and extracted as one component with Eigen value greater than 1, also the identified factors explaining 59 per cent of total variance in predicting satisfaction (Appendix 2.3).

4.12.7 Post- Use Trust (Mediating Variable)

The variable, post-use trust is measured in a modified scale consisting of 5 items. Internal consistency of the scale is ensured through

reliability analysis using Cronbach's Alpha. Since the scale is modified scale, the exploratory factor analysis is also performed. The results of reliability analysis and exploratory factor analysis are given in the following.

Table 4.14: Reliability Analysis - Post-Use Trust

Name of variable	Cronbach's Alpha	Number of Items
Trust	0.834	5

Source: Result of Primary Data Analysis Using SPSS

The reliability analysis result is showing the Cronbach's Alpha value 0.834, the value is above criterion value of 0.5, the values above 0.75 is indicating the better internal consistency with the items. The scale is considered as reliable and consistent.

For performing the exploratory factor analysis, Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity were analysed for trust. The result shows that the KMO test supports the sampling adequacy for carrying out the factor analysis and the Bartlett's test of Sphericity is significant at 0.01 $p < 0.01$ indicating the inter correlations for factor analysis.

Table 4.15: KMO and Bartlett's Test of Sphericity – Post-Use Trust

		Trust
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.827
Bartlett's Test of Sphericity	Approx. Chi-Square	163.479
	Df.	10
	Sig.	0.000

Source: Result of Primary Data Analysis Using SPSS

Exploratory Factor Analysis was done with principal component analysis and it extracted as one component; the Eigen value was shown as greater than 1. The total variance explained by the indicators of trust is traced as 60 percentage (Appendix 2.4).

4.12.8 Risk Perception (Moderating Variable)

Risk perception is the moderating variable of this study. The effect of risk perception is tested in the post-adoption stage and a modified scale with six items was used for measuring the construct. So that, exploratory factor analysis and reliability analysis were done on risk perception. The analysis results are tagged below.

Table 4.16: Reliability Analysis - Risk Perception

Scale	Cronbach's Alpha	Number of Items
Risk Perception	0.857	6

Source: Result of Primary Data Analysis Using SPSS

The result of the reliability analysis shows that the Cronbach's Alpha value of the construct is 0.857, which is greater than that of the acceptance criteria ($p > 0.5$). The value indicates that the reliability of the measure is good, and the consistency is ensured.

Kaiser Meyer Olkin (KMO) test of sampling adequacy is performed and found that the sampling adequacy is satisfactory in order to perform the factor analysis on the variable risk perception. The Bartlett test of sphericity is significant at $p < 0.01$ indicating the inter correlations for factor analysis.

Table 4.17: KMO and Bartlett's Test of Sphericity –Risk Perception

		Risk Perception
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.837
Bartlett's Test of Sphericity	Approx. Chi-Square	2362.058
	Df.	15
	Sig.	0.00

Source: Result of Primary Data Analysis Using SPSS

The result of exploratory factor analysis on risk perception through principal component analysis was extracted as one component. The Eigen value shows greater than 1, which results in 58.6 per cent of total variance of the risk perception scale (Appendix 2.5).

4.13 Limitations of the Study

The commercial banks and other financial institutions are providing number of technology-enabled banking services as well as new types of fin-tech services in the present scenario. However, the present study has taken the three commonly using technology enabled banking self-services namely internet banking, mobile banking and bank cards. So, the result of the study is possible to generalise only to these types of TEBSS. Moreover, the general behaviour of customers who are using the three types or combination of these TEBSS was studied but the product wise comparison of the behaviour was not done.

Population of the study included the customers of all commercial banks in the state. The commercial banks specially, public sector banks and private sector banks are differentiating their technology enabled

banking services in order to make them more efficient and to attract the customers. Hence, analysis of bank wise difference in the usage and continuance intention of customers in using TEBSS would provide further explanation about the customer behaviour. But the bank wise difference was not checked in the post-adoptive use and continuance intention of customers of TEBSS in this study.

4.14 Chapter Summary

This chapter dealt with the methodology adopted for conducting this study. Research problem, objectives, hypotheses, variables and the scope of the study are included in this chapter. Research design, sampling design, instrument used for data collection as well as method of data collection were also discussed. At the end of this chapter, limitation of the study is mentioned.

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ANALYSIS OF PURPOSE AND EXTENT OF USAGE OF TEBSS BY CUSTOMERS

Contents

- 5.1 *Demographic Profile of Respondents*
- 5.2 *Analysis of Purpose and Extent of Usage of TEBSS*
- 5.3 *Analysis of Usage Intensity of TEBSS by Respondents*
- 5.4 *Chapter Summary*

This chapter begins with demographic profile of respondents. The first objective of the study was the analysis of purpose and extent of usage of TEBSS by customers. The detailed analysis of TEBSS usage and usage analysis based on different demographic characteristics are also included in this chapter.

5.1 Demographic Profile of the Respondents

The demographic profile of the respondents covered under the study are presented with regard to their gender, age, education, place of residence, occupation, and monthly income.

5.1.1 Gender -wise Classification of Respondents

Gender-wise classification of the respondents are given in the following graph. The figure (5.1) given below indicates the proportion of males and females included in the study.

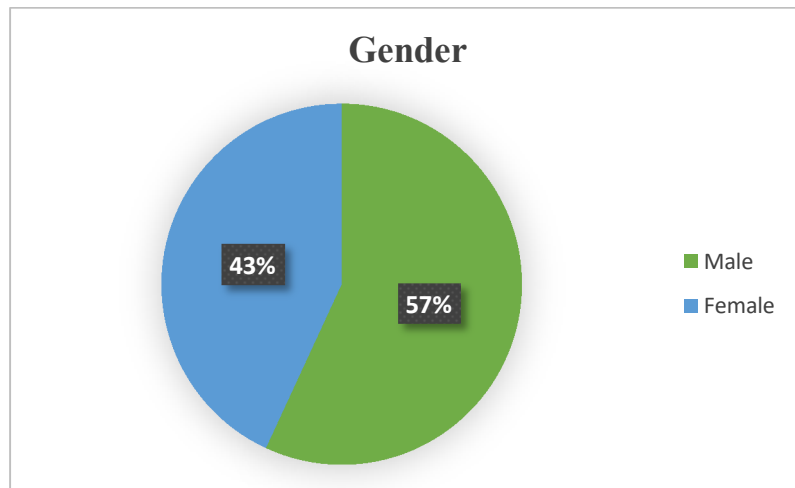


Fig. 5.1: Gender -wise Classification of Respondents

The gender wise classification of respondents shows that, majority of the respondents (513) included in the study are males (57%) and 43 per cent (387) are females.

5.1.2 Age-wise Classification of Respondents

Age of respondents was classified into five categories. The first category was below 25 age group, following 26-30, 31-40, 41-50 and above 50. Following figure (5.2) shows the age-wise classification of respondents in the study.

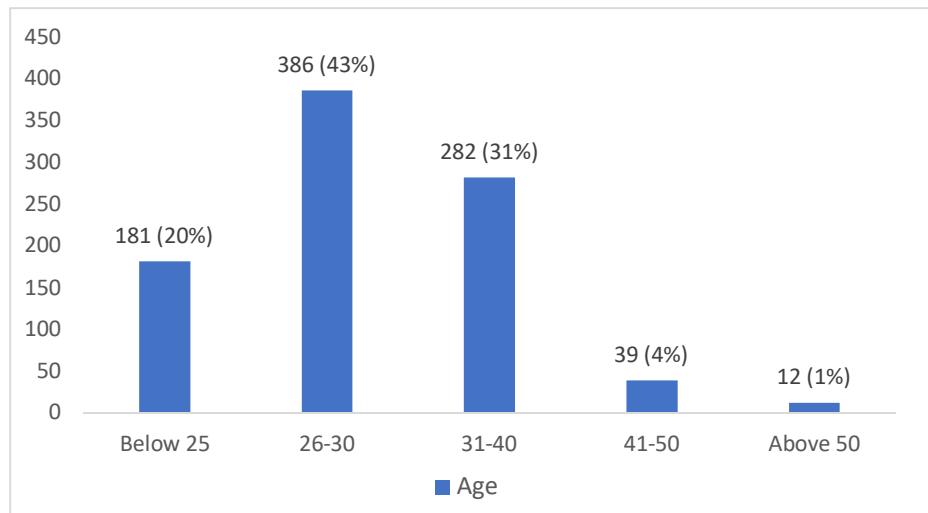


Fig. 5.2: Age wise Classification of Respondents

The age wise classification of respondents shows that, majority of respondents are at the age group of 26-30, followed by 31-40, and below 25. Frequency of age group of respondents indicates that, nearly 4 per cent of respondents included in the category of age group of 26-30, following 31 per cent of respondents under 31- 40 age group. Approximately half of the total respondents are included in this age category, and nearly 5 per cent of respondents are included in the age group above 40.

5.1.3 Location-wise Classification of Respondents

Place of residence / location of the respondent was classified into three regions namely urban, semi-urban and rural. Following figure (5.3) shows the spread of respondents across these three sectors.

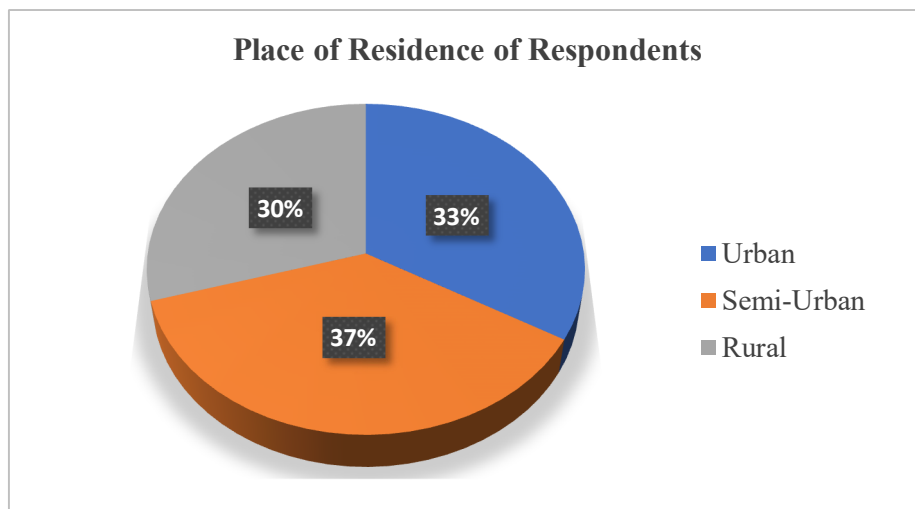


Fig. 5.3: Location wise Classification of Respondents

Percentage analysis of respondents shows that majority (37 per cent) of the respondents are residing in semi-urban area, 33 per cent of respondents are from urban area and 30 per cent of respondents are from rural area. It further indicates that, relatively equal proportion of respondents are selected for the study in each area.

5.1.4 Education-wise Classification of Respondents

Educational qualification of respondents was identified for the study. It is evident from the literature on technology adoption that, education is an important factor which influences the adoption and use of new technology. In the current study, education qualifications are divided into six categories namely up to tenth, plus two, graduation, post-graduation, professional and others.

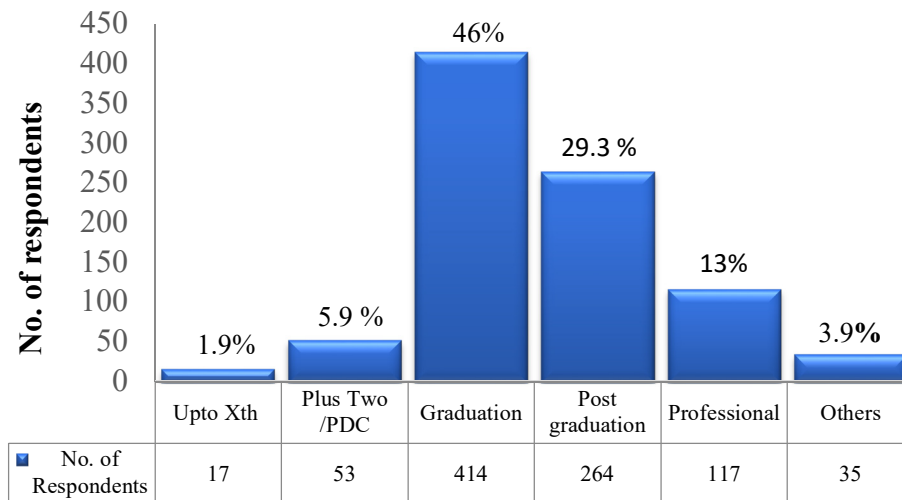


Fig. 5.4: Education-wise Classification of Respondents

It is evident that, majority of the respondents are having graduation as their highest educational qualification. Nearly 46 per cent of the respondents belong to this category. Customers having post-graduation as their educational qualification occupied 29.3 per cent. Among the respondents 13 per cent come under the category of professional education, 5.9 per cent belongs to the plus two and 3.9 per cent are having other qualifications like diploma and other specialised courses.

5.1.5 Occupation-wise Classification of Respondents

The respondents in this study are classified into seven categories of occupation including government employee, private employee, agriculture, business, professional/self-employed, students and others. Following figure shows the information regarding the occupation wise classification of respondents.

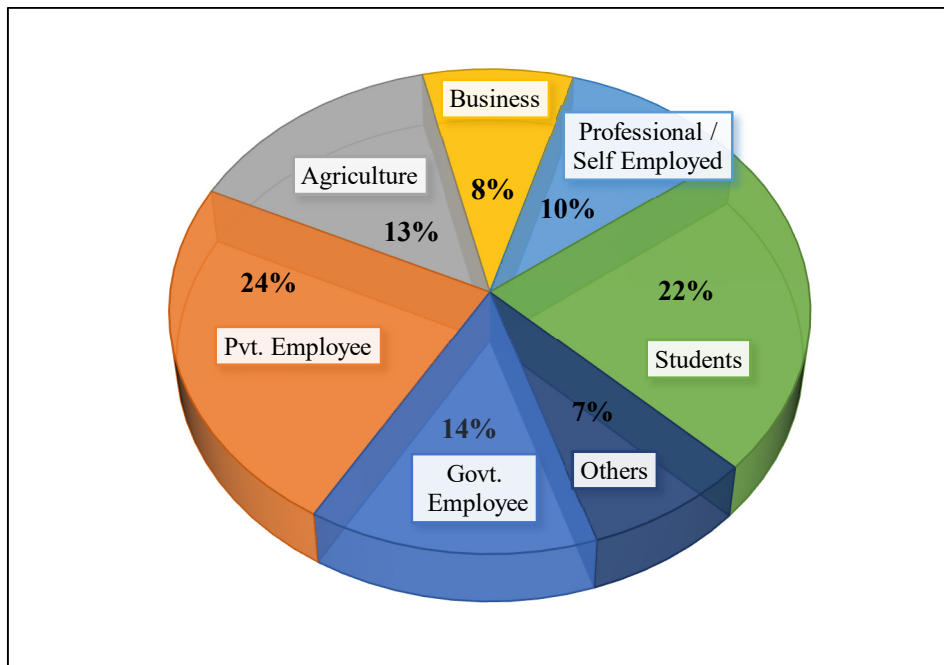


Fig. 5.5: Occupation-wise Classification of Respondents

The Figure (5.5) shows that, 24 per cent of the respondents are private employees, 22 per cent respondents are students, 13 per cent are working in agricultural sector, 14 per cent are government employees, 10 per cent respondents are professionals/ self- employed, 8 per cent of respondents are doing business and remaining 7 per cent respondents are doing other

categories of jobs including daily wages, people working in un-organised sectors, retirees, and people doing skilled or vocational type jobs etc.

5.1.6 Monthly Income-wise Classification of Respondents

Economic status of the respondents differs based on their income. Therefore, it is one among the important demographic factors to be considered for analysis of usage of Technology Enabled Banking Services. Income of the respondents was grouped into six categories. The following figure (5.6) shows the income wise classification of respondents.

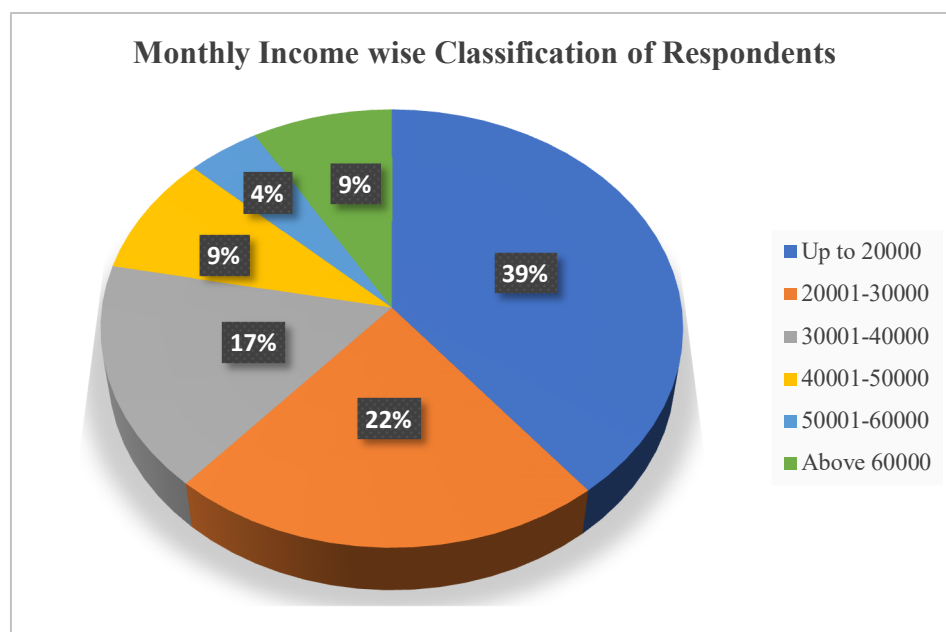


Fig. 5.6: Monthly Income wise Classification of Respondents

It is evidenced that 39 per cent of the respondents belonging to the income category below ₹ 20000, 22 per cent respondents are under ₹ 20001-30000 income group, 17 per cent of the respondents belongs to

₹ 30001-40000 category of monthly income group, 9 per cent respondents are under ₹ 40001-50000 and above ₹ 60000 monthly income group, and finally 4 per cent of respondents included in ₹ 50000-60000 monthly income group category.

5.1.7 Analysis of Respondents' Age and Occupation

Respondents' age and occupation are analysed using cross tabulation in SPSS. In order to identify the frequency of respondents in different category of age groups and their occupation, cross tabulation analysis is performed. It also reveals which age categories of respondents are included in each type of occupation. The table 5.1 represents the results of the analysis.

Table 5.1 Analysis of Respondents' Age and Occupation

Age of Respondents	Occupation of Respondents							
	Govt. Employee	Pvt. Employee	Agriculture	Business	Professional/ Self-Employed	Students	Others	Total
Below 25	5 (3%)	32 (18%)	25 (14%)	10 (6%)	13 (7%)	75 (41%)	21 (11%)	181
26-30	39 (10%)	115 (30%)	43 (11%)	24 (6%)	47 (12%)	87 (23%)	31 (8%)	386
31-40	57 (20%)	54 (19%)	53 (19%)	33 (12%)	28 (10%)	39 (14%)	18 (6%)	282
41-50	18 (46%)	8 (20.5%)	4 (10%)	6 (15%)	1 (2.5)	1 (2.5)	1 (2.5)	39
Above 50	3 (25%)	3 (25%)	3 (25%)	1 (8.3%)	2 (16.6%)	0	0	12
Total	122	212	128	74	91	86	187	900

Source: Result of Primary Data Analysis Using SPSS

The cross-tabulation analysis result reveals that, majority of respondents in this study are belongs to the age group of 26-30 and most of respondents in this age category are private employees (30 per cent), following to students (23 per cent) and agriculture (11 per cent). The 20 per cent of users of TEBSS in 31-40 age groups are government employees whereas the age group below 25 largely consists of students.

5.2 Analysis of Purpose and Extent of Usage of Technology Enabled Banking Self-Services (TEBSS)

The first objective of this study was to analyse the purpose and extent of usage of TEBSS by customers. Acceptance/adoption and usage are different terms in technology usage context. Earlier technology adoption studies used the word ‘adoption’ in the real sense of usage. Later the technology acceptance studies itself cleared it as an intention-based construct. Intention leads to actual usage, but not in all the cases the intention predicts the usage. So, there were arguments in defining the constructs usage and adoption. Usage has been largely measured with the frequency and duration of the usage of a specific technology. Later, studies considered the two constructs as different. In the technology/innovation acceptance studies, user’s exposure to technology can be evaluated according to duration of use, intensity of use, diversity of use (Hurtienne & Horn 2013; Langdon & Lewis, 2007) and adoption of advanced functions (Fisk & Rogers, 2009), (Li & Luximon, 2018). Users may initially attract to the features of an innovation, which enable them to improve their task performance. After their initial use, they continue the

use once they feel that the efficiency is enhanced in the performance. Hence, for the purpose of analysing the post- use behaviour, it is important to understand the usage behaviour of customers who already adopted the Technology Enabled Banking Self-Services. Therefore, in the present study, the usage of TEBSS is analysed as it is essential for the analysis of post-adoption behaviour. Simple descriptive analysis is applied to achieve this objective. That includes ascertainment of the combination of TEBSS, analysis of purpose of using TEBSS, duration and period of using the specified services through TEBSS as well as intensity of the usage.

Before moving to the advanced usage analysis, respondents were asked to disclose some basic information regarding their banking activities like, the name of their most frequent bank with which they are performing maximum number of transactions and type of account they are maintaining with the bank etc.

5.2.1 Bank and Type of Account Using by Respondents

Respondents are asked to name their bank with which they are maintaining their accounts. The following table shows the list of banks with which the respondents are performing banking transactions.

Table 5.2: Bank wise Classification of Respondents

Name of Bank	Frequency	Percentage
SBI	368	41
ICICI	182	20
HDFC	75	8
FEDERAL	62	7
CANARA	61	7
AXIS	30	3
PNB	16	2
SIB	43	5
INDUS	4	0.4
SYNDICATE	24	3
UBI	15	1.6
IOB	8	0.8
CSB	5	0.5
CORP	4	0.4
URBAN	3	0.3
Total	900	100

Source: Result of Primary Data Analysis Using SPSS

(SBI- State Bank of India, ICICI- Industrial Credit and Investment Corporation of India, HDFC- Housing Development Finance Corporation, PNB- Punjab National Bank, SIB- South Indian Bank, INDUS- Indus Ind Bank, UBI- Union Bank of India, IOB- Indian Overseas Bank, CSB- Catholic Syrian Bank, CORP- Corporation Bank)

Table 5.2 reveals that, most of the respondents are customers of State Bank of India (41 per cent) following ICICI bank (20 per cent), and HDFC bank (8 per cent). It also reveals that majority of the respondents are the customers of any of the public sector banks in India.

Type of accounts used by respondents with their banks are analysed using frequency analysis. The following table depicts the details of the analysis.

Table 5.3: Type of Account Using by Respondents

Type of Account Using	Frequency	Percentage
Savings Account	747	83
Current Account	153	17
Total	900	100

Source: Result of Primary Data Analysis Using SPSS

From the table it is clear that, 83 per cent of respondents use savings account and 17 per cent of respondents operate their current account for transactions.

5.2.2 Type of TEBSS Use by Respondents

The respondents were classified into seven categories according to their combination of TEBSS use. Respondents were asked to identify the different combinations of the TEBSS they are currently using for meeting different purposes.

Table 5.4: Classification of the Respondents based on Type of TEBSS Using

Type of TEBSS	Frequency	Percentage
Debit cum Debit cum ATM Cards and Credit Card	33	3.7
Debit cum ATM Cards Card and IB	145	16.1
Debit cum ATM Cards and MB	139	15.4
Debit cum ATM Cards, Credit Card and IB	50	0.05
Debit cum ATM Cards, Credit Card and MB	46	5.1
Debit cum ATM Cards, IB and MB	261	29
Debit cum ATM Cards, Credit Card, IB and MB	226	25.1
Total	900	100

Source: Result of Primary Data Analysis Using SPSS

(ATM- Automatic Teller Machine, IB- Internet Banking, MB- Mobile Banking)

The majority of respondents (29 per cent) use the combination; debit cum ATM cards, Internet banking and Mobile banking. The combination of debit cum ATM cards, Internet banking, Mobile banking and Credit cards are used by 25 per cent respondents. Another 16 per cent of the respondents stated that they are using debit cum ATM cards and Internet banking for their banking needs. Around 15 per cent of the respondents use Mobile banking with ATM cards, 5 per cent of respondents use a combination of debit cum ATM cards, Credit cards and Internet banking and another 5 per cent use the combination of debit cum ATM cards, Credit card and Mobile banking. Nearly 4 per cent of the respondents are using debit cum ATM cards and Credit cards. From the table it is evident that most of the respondents are using any three of the basic TEBSS for their banking needs.

5.2.2.1 Respondents' Age-wise Analysis of Type of TEBSS Use

Age-wise analysis of respondents on their type of TEBSS usage is done to understand the combination of TEBSS usage by respondents in different age groups. Cross tabulation analysis is performed on age and type of TEBSS usage and the result is presented below.

Table 5.5: Respondents' Age-wise Analysis on Type of TEBSS Use

Type of TEBSS Using	Age of Respondents					Total
	Below 25	26-30	31-40	41-50	Above 50	
Debit cum ATM Cards and Credit Card	7 (4%)	15 (4%)	10 (4%)	1 (2%)	0	33
Debit cum ATM Cards and IB	30 (17%)	62 (16%)	47 (17%)	5 (13%)	1 (8.33%)	145
Debit cum ATM Cards and MB	40 (22%)	56 (15%)	34 (12%)	7 (18%)	2 (17%)	139
Debit cum ATM Cards, Credit Card and IB	8 (4%)	24 (6%)	12 (4%)	5 (13%)	1 (8.33%)	50
Debit cum ATM Cards, IB and MB	57 (31%)	108 (28%)	86 (30%)	9 (23%)	1 (8.33%)	261
Debit cum ATM Cards, Credit card and MB	5 (3%)	17 (4%)	21 (7%)	3 (8%)	0	46
Debit cum ATM Cards, Credit Card, IB and MB	34 (19%)	104 (27%)	72 (26%)	9 (23%)	7 (58%)	226
Total	181	386	282	39	12	900

Source: Result of Primary Data Analysis Using SPSS

Many of the respondents in this study are (28 Per cent) under the age category of 26-30 and they are using the combination of TEBSS such as debit cum ATM cards, IB and MB. It is already evidenced that,

respondents in this age group are the major users of TEBSS. The cross-tabulation analysis further states that, these respondents are mostly using debit cum ATM cards, IB and MB combination of TEBSS. The analysis further indicates that, the highly preferred combination of TEBSS is debit cum ATM cards, IB and MB irrespective of all age groups, following to the combination of debit cum ATM cards, credit card, IB and MB.

5.2.2.2 Respondents' Gender-wise Analysis on Type of TEBSS Use

Gender-wise analysis of type of TEBSS use is done to find out the frequency of males and females in using different types of TEBSS. The following table displays the result of cross tabulation analysis.

Table 5.6: Respondents' Gender-wise Analysis on Type of TEBSS Use

Type of TEBSS	Gender				
	Male	Percentage	Female	Percentage	Total
Debit cum ATM cards and Credit Card	15%	3%	18%	5%	33
		44%		56%	100
Debit cum ATM cards and IB	65	13%	80	21%	145
		45%		55%	100
Debit cum ATM cards and MB	75	15%	64	16%	139
		54%		46%	100
Debit cum ATM cards, Credit card and IB	26	5%	24	6%	50
		52%		48%	100
Debit cum ATM cards, IB and MB	160	31%	101	26%	261
		61%		39%	100
Debit cum ATM cards, Credit card and MB	31	6%	15	4%	46
		67%		33%	100
Debit cum ATM cards, Credit Card, IB and MB	141	27%	85	22%	226
		62%		38%	100
Total	513	100	387	100	900

Source: Result of Primary Data Analysis Using SPSS

It is clear that, the male respondents (31 per cent) as well as female respondents (26 per cent) are mainly preferring to use the combination of debit cum ATM cards, IB and MB for their banking transactions, following the combination of debit cum ATM cards, credit cards, IB and MB by 27 per cent males and 22 per cent females. It is also understood from the analysis that; only 3 per cent males are using the combination of debit cum ATM cards and credit cards. This combination is least using by males, whereas females are less using the combination of ATM cards, credit cards and MB (4 per cent).

5.2.2.3 Respondents' Place of Residence -wise Analysis on Type of TEBSS Use

Type of TEBSS use with place of residence of respondents are analysed to gather the information regarding combination of TEBSS use based on the place of residence of respondents. The following table represents the cross-tabulation analysis of place of residence and type of TEBSS use of respondents.

Table 5.7: Respondents' Place of Residence-wise Analysis on Type of TEBSS Use

Type of TEBSS Using	Place of Residence						Total
	Urban	Percentage	Semi-Urban	Percentage	Rural	Percentage	
Debit cum ATM Cards and Credit Card	6	2%	15	4%	12	5%	33
	18 %		46%		36%		100
Debit cum ATM Cards and IB	43	14%	54	16%	48	18%	145
	30%		37%		33%		100
Debit cum ATM Cards and MB	48	16%	49	15%	42	16%	139
	35%		35%		30%		100
Debit cum ATM Cards, Credit card and IB	16	5.33%	18	5%	16	6%	50
	32%		36%		32%		100
Debit cum ATM Cards, IB and MB	81	27%	93	28%	87	33%	261
	31%		36%		33%		100
Debit cum ATM Cards, Credit card and MB	16	5.33%	20	6%	10	3%	46
	35%		43%		22%		100
Debit cum ATM Cards, Credit Card, IB and MB	90	30%	87	26%	49	19%	226
	40%		38%		22%		100
Total	300	100	336	100	264	100	900

Source: Result of Primary Data Analysis Using SPSS

Table given above (5.7) reveals that, debit cum ATM cards, IB and MB is the combination of TEBSS largely using by respondents irrespective of their region of residence such as rural (33 per cent) semi-urban (28 per cent) and urban (27 per cent). Following debit cum ATM cards, Credit card, IB and MB (urban 30 per cent, semi-urban 26 per cent and rural 19 per cent). Very few respondents are using the combination of debit cum ATM cards and credit cards in rural, urban and semi-urban area. In urban area, most of the respondents using the combination of debit cum ATM cards, credit cards, IB and MB (30 per cent). In semi urban area, and in rural area, most of the respondents are using the combination of debit cum ATM cards, IB and MB combination of TEBSS.

5.2.2.4 Respondents' Occupation-wise Analysis on Type of TEBSS Use

Occupation wise analysis is done on the use of different types of TEBSS by respondents. In order to know the combination of TEBSS used by respondents doing different kind of jobs are analysed through cross tabulation analysis. The following table shows result of analysis.

Table 5.8: Occupation wise Analysis of Type of TEBSS Use

Type of TEBSS Using	Occupation of Respondents							Total
	Govt.	Pvt.	Agri.	Business	Self-Employed	Students	Others	
Debit cum ATM cards and Credit Card	7 (6%)	7 (3.3%)	6 (5%)	1 (1%)	4 (4%)	4 (2%)	4 (5%)	33
Debit cum ATM Cards and IB	25 (20%)	22 (10%)	16 (12%)	13 (18%)	7 (8%)	46 (22%)	16 (23%)	145
Debit cum ATM Cards and MB	11 (9%)	26 (12%)	28 (22%)	12 (16%)	16 (18%)	32 (16%)	14 (20%)	139
Debit cum ATM Cards, Credit card and IB	10 (8%)	7 (3.3%)	6 (5%)	3 (4%)	3 (3%)	16 (8%)	5 (7%)	50
Debit cum ATM Cards, IB and MB	43 (35%)	57 (27%)	33 (26%)	24 (32%)	20 (22%)	68 (34%)	16 (23%)	261
Debit cum ATM Cards, Credit card and MB	8 (7%)	10 (5%)	7 (5%)	10 (14%)	6 (7%)	4 (2%)	1 (1%)	46
Debit cum ATM Cards, Credit Card, IB and MB	18 (15%)	83 (39.2%)	32 (25%)	11 (15%)	35 (38%)	32 (16%)	15 (21%)	226
Total	122	212	128	74	91	202	71	900

Source: Result of Primary Data Analysis Using SPSS

Occupation wise analysis of type of TEBSS usage by respondents evidenced that, government employees are largely using the combination of debit cum ATM cards, IB and MB 43 per cent of government employees are using this combination. Whereas, majority of the private employees (39 per cent) largely use the combination of TEBSS including debit cum ATM cards, IB, MB and credit cards. It is to be noted that, professionals/ self-employed persons are the next category of respondents who uses all types of common TEBSS. Many of them (38 per cent) stated that they use the combination of debit cum ATM cards, IB, MB and Credit cards.

5.2.2.5 Respondents' Monthly Income-wise Analysis on Type of TEBSS Use

Type of TEBSS usage by the respondents in the study is analysed according to their monthly income to see which combination of TEBSS being preferred by the respondents in each income category. The following table gives the details of analysis results.

Table 5.9: Respondents' Monthly Income-wise Analysis on Type of TEBSS Use

Type of TEBSS Using	Monthly Income of Respondents						Total
	Up-to ₹. 20000	₹. 20001-30000	₹. 30001-40000	₹. 40001-50000	₹. 50001-60000	Above ₹. 60000	
Debit cum ATM Cards and Credit Card	18 (5%)	5 (2%)	4 (3%)	1 (1%)	2 (5%)	3 (4%)	33
Debit cum ATM cards and IB	66 (19%)	33 (17%)	13 (9%)	16 (20%)	5 (12%)	12 (16%)	145
Debit cum ATM Cards and MB	69 (20%)	36 (18%)	13 (9%)	10 (13%)	4 (10%)	7 (9%)	139
Debit cum ATM Cards, Credit card and IB	20 (6%)	7 (3%)	9 (6%)	5 (6%)	2 (5%)	7 (9%)	50
Debit cum ATM cards, IB and MB	110 (31%)	60 (30%)	37 (24%)	14 (17%)	12 (30%)	28 (36%)	261
Debit cum ATM Cards, Credit card and MB	8 (2%)	12 (6%)	12 (8%)	7 (9%)	3 (8%)	4 (5%)	46
Debit cum ATM Cards, Credit Card, IB and MB	62 (17%)	47 (24)	62 (41%)	27 (34%)	12 (30%)	16 (21%)	226
Total	353	200	150	80	40	77	900

Source: Result of Primary Data Analysis Using SPSS

Monthly income wise cross tabulation analysis with type of TEBSS use of respondents discloses that, debit cum ATM Cards, IB and MB is the combination of TEBSS largely used by major share of respondents belongs to the income group of up to ₹ 20000 (31 Per cent). Majority of the respondents under the income category of 20001-30000 (30 Per cent) also use the same combination. But, majority of the respondents in the group of 30001-40000 (41 Per cent), 40001-50000 (34 Per cent) and 50001-60000 (30 Per cent) use the combination of debit cum ATM Cards, Credit card, IB and MB. Whereas, many respondents under the highest category of income that is above 60000 are using the combination of debit cum ATM Cards, IB and MB. It can be concluded that, the high-income group largely preferring to use all common types of TEBSS.

5.2.3 Analysis of Years of Use of TEBSS by Respondents

Number of years of use of TEBSS has been classified into five categories starting from below 2 years to above 10 years. The respondents were asked to record their years of use of TEBSS. Following table shows the details of the responses.

Table 5.10: Years of Use of TEBSS by Respondents

Years of use of TEBSS	Frequency	Percentage
Below 2 years	163	18
2-4 Years	337	37
4-6 years	275	31
6-10 years	91	10
Above 10 years	34	4
Total	900	100

Source: Result of Primary Data Analysis Using SPSS

The Table (5.10) showing that the 37 per cent of the respondents are using the TEBSS for a period of 2-4 years, followed by 31 per cent using the services for 4-6 years. Around 18 per cent of respondents use the TEBSS for less than 2 years. Respondents who use TEBSS for 6-10 years are 10 per cent. Out of the total respondents, only 4 per cent of respondents are using the TEBSS for a period above 10 years.

5.2.3.1 Age-wise Analysis of Years of Use of TEBSS

Cross tabulation analysis is performed on years of use of TEBSS by respondents and their age group in order to identify how long the respondents in each category of age group are using the TEBSS. The following table represents the result of the analysis.

Table 5.11: Years of Use of TEBSS and Age of Respondents

Years of using TEBSS	Age of Respondents					Total
	Below 25	26-30	31-40	41-50	Above 50	
Less than 2 Years	65 (36%)	71 (18%)	25 (9%)	2 (5%)	0	163
2-4 Years	89 (49%)	149 (39%)	86 (31%)	10 (26%)	3 (25%)	337
4-6 Years	21 (11%)	128 (33%)	110 (39%)	14 (36%)	2 (17%)	275
6-10 Years	5 (3%)	26 (7%)	46 (16%)	10 (26%)	4 (33%)	91
Above 10 Years	1 (1%)	12 (3%)	15 (5%)	3 (7%)	3 (25%)	34
Total	181	386	282	39	12	900

Source: Result of Primary Data Analysis Using SPSS

Respondents' age wise analysis of years of use of TEBSS denotes that, majority of respondents (39 per cent) in the age category of 26-30 (who are the major users of TEBSS) are using the TEBSS for a period of 2-4 years, 33 per cent of respondents belongs to the same age category are using the TEBSS for a period of 4-6 years. Much of the respondents (39 per cent) in the age group of 31-40 are stated their years of use of TEBSS as 4-6 years. Most of the respondents (49 per cent) below 25 years are using the TEBSS for 2-4 years.

5.2.3.2 Gender-wise Analysis of Years of Use of TEBSS

Gender wise analysis is performed on the years of use of TEBSS, through cross tabulation in order to know that, how long the males and females are using TEBSS. Further the analysis indicates the frequency of males and females in each category of years of use.

Table 5.12: Years of use of TEBSS and Gender

Years of using TEBSS	Gender of Respondents		
	Males	Females	Total
Less than 2 Years	93 (18%)	70 (18%)	163
2-4 Years	172 (34%)	165 (43%)	337
4-6 Years	169 (33%)	106 (27%)	275
6-10 Years	54 (10%)	37 (10%)	91
Above 10 Years	25 (5%)	9 (2%)	34
Total	513	387	900

Source: Result of Primary Data Analysis Using SPSS

Most of the males (34%) and females (43%) are in the category of using TEBSS for 2-4 years. Adding to it, 33 per cent of males and 27 per

cent of females are using TEBSS for 4-6 years. Supporting the earlier analyses, very few males (5 per cent) as well as females (2 per cent) are using the TEBSS for more than 10 years.

5.2.3.3 Place of Residence-wise Analysis of Years of Use of TEBSS

Place of residence wise analysis is performed on years of use of TEBSS by respondents so as to get the information regarding how long the respondents in each area are using TEBSS. The following table conveys the results of cross tabulation analysis.

Table 5.13: Years of Use of TEBSS and Place of Residence of Respondents

Years of use of TEBSS	Place of Residence of Respondents			
	Urban	Semi-Urban	Rural	Total
Less than 2 Years	59 (20%)	64 (19%)	40 (15%)	163
2-4 Years	101 (34%)	127 (38%)	109 (41%)	337
4-6 Years	93 (31%)	101 (30%)	81 (31%)	275
6-10 Years	31 (10%)	33 (10%)	27 (10%)	91
Above 10 Years	16 (5%)	11 (3%)	7 (3%)	34
Total	300	336	264	900

Source: Result of Primary Data Analysis Using SPSS

The result discloses that, most of the respondents in each areas of residence such as urban (34%), semi-urban (38%) and rural area (41%) are using the TEBSS for 2-4 years. Out of 300 urban respondents, only 5 per cent are using the TEBSS for more than 10 years. Likewise, out of 336 semi-urban respondents, 3 per cent respondents are using TEBSS for more than 10 years.

5.2.3.4 Occupation-wise Analysis of Years of Use of TEBSS

Occupation wise analysis is done on the years of use of TEBSS by respondents to make out the inferences on the frequency of respondents in different occupational status and their years of use of TEBSS. The table below shows the result of cross tabulation between occupation and years of use of TEBSS

Table 5.14: Years of Use of TEBSS and Occupation

Years of using TEBSS	Occupation of Respondents							
	Govt.	Pvt.	Agri.	Business	Self-Employed	Students	Others	Total
Less than 2 Years	12 (10%)	24 (11%)	30 (23%)	15 (20%)	14 (15.3%)	53 (26%)	15 (21%)	163
2-4 Years	30 (24%)	85 (40%)	49 (38%)	17 (23%)	34 (37%)	92 (46%)	30 (42%)	337
4-6 Years	44 (36%)	78 (37%)	30 (23%)	26 (35%)	35 (39%)	43 (21%)	19 (27%)	275
6-10 Years	26 (21%)	24 (11%)	15 (12%)	9 (12%)	4 (4.3%)	9 (5%)	4 (6%)	91
Above 10 Years	10 (8%)	1 (1%)	4 (3%)	7 (9%)	4 (4.3%)	5 (2%)	3 (4%)	34
Total	122	212	128	74	91	202	71	900

Source: Result of Primary Data Analysis Using SPSS

The cross- tabulation analysis indicates that, majority of private employees (40 per cent) are using the TEBSS for 2-4 years. Whereas, much of the government employees (36 per cent) as well as business respondents (35 per cent) and self-employed persons (39 per cent) are

using the TEBSS for 4-6 years. It is also clear that, large majority of students use the TEBSS for 2-4 years.

5.2.3.5 Monthly Income-wise Analysis of Years of Use of TEBSS

Years of use of TEBSS is analysed based on the monthly income of respondents to gather the information regarding how long the TEBSS are using by respondents in each category of income group. Table provided below represents the result of analysis.

Table 5.15: Years of Use of TEBSS and Monthly Income

Years of using TEBSS	Monthly Income of Respondents						Total
	Up to ₹20000	₹ 20001-30000	₹ 30001-40000	₹ 40001-50000	₹ 50001-60000	Above ₹ 60000	
Less than 2 Years	93 (26%)	31 (16%)	14 (9%)	10 (13%)	7 (17%)	8 (10%)	163
2-4 Years	155 (44%)	83 (42%)	33 (22%)	23 (29%)	14 (35%)	29 (38%)	337
4-6 Years	82 (23%)	65 (32%)	55 (37%)	31 (39%)	11 (28%)	31 (40%)	275
6-10 Years	14 (4%)	17 (8%)	41 (27%)	9 (11%)	6 (15%)	4 (5%)	91
Above 10 Years	9 (3%)	4 (2%)	7 (5%)	7 (8%)	2 (5%)	5 (7%)	34
Total	353	200	150	80	40	77	900

Source: Result of Primary Data Analysis Using SPSS

Majority of respondents in the income group are below ₹ 20000 (44 per cent) and ₹ 20001-30000 (32 per cent) are using the TEBSS for

2-4 years. But large number of respondents in the income category of ₹ 30001-40000 (37 per cent) and ₹ 40001- 50000 (39 per cent) are using the TEBSS for 4-6 years. Around 40 per cent of respondents in the highest income category i.e. above ₹ 60000 are also using TEBSS for 4-6 years.

5.2.4 Analysis of Purpose of Usage of TEBSS

Different purposes of TEBSS use was given to respondents to mark the most common services for which they are using TEBSS. The purposes include common type of services like payment services, online shopping, online booking services, and other services which respondents are performed through TEBSS. The descriptive analysis is done to identify the most common purposes for which TEBSS are generally used by respondents.

Table 5.16: Descriptive Analysis on Purpose of Usage of TEBSS

Purposes	Mean	Std. Dev
Information of Statement of Accounts	3.63	1.097
Payment Services	3.94	1.023
Booking Services	3.22	1.352
Transferring Funds	3.38	1.306
Point of Sale (POS)	3.07	1.316
Investment Activities	2.23	1.299
Electronic Clearing Services	2.38	1.289
E-commerce/Online shopping	3.16	1.438
Loan application	1.84	1.160

Source: Result of Primary Data Analysis Using SPSS

The payment services are highly attributable services to respondents since the mean score of is highest (3.94) among all others. Checking of information of statement of account and ordering cheque book comes in the second-place since the mean score is (3.63). Fund transfer service shows the mean score (3.38) which indicates that it is then next preferable service followed by booking services; mean score (3.22), and online shopping or e-commerce activities; mean score (3.16), and point of sale transactions mean score (3.07).

5.2.5 Analysis of Frequency of Using TEBSS for Various Purposes

Frequency of use of TEBSS for different purposes is also analysed. The common services are given as purpose of usage, and respondents were asked to record their frequency of performing such transactions. On the basis of the data collected, following table (5.17) is generated, and the detailed percentage analysis is given in the table.

Table 5.17: Classification of the Respondents based on TEBSS Usage Frequency (Values in Percentage)

Frequency	Purpose of using TEBSS								
	PURP1	PURP2	PURP3	PURP4	PURP5	PURP6	PURP7	PURP8	PURP9
Always	26	35.3	21.7	23.8	16.8	6.8	8	23.3	3.6
Often	28	34.9	23	26.4	23.1	11.7	13	22	5.4
Sometimes	32	20.8	25.6	24.1	25.6	19.1	20	20	15.1
Rare	10	6.4	14.1	13.7	18.6	20.6	25	14	19.7
Never	4	2.6	15.4	11.7	15.9	41.6	34	19	55.4

Source: Result of Primary Data Analysis Using SPSS (PURP-Purpose)

As far as the above Table (5.17) is concerned, responses regarding the usage and usage frequency is combined for the analysis. As stated earlier, purpose of usage is listed in a table for marking their performance frequency. Here, PURP1 stands for 'Information of statement of accounts/ ordering check book', PURP2- 'Payment services', PURP3- 'Booking services like booking of hotels/ air or rail tickets', PURP4- 'Transferring funds', PURP5- 'Point of Sale (POS)', PURP6- 'Investment Activities', PURP7- 'Electronic Clearing Services', PURP8- 'E-commerce/ Online shopping', PURP9- 'Loan application'. From the table it is known that, 26 per cent of respondents stated they are always using the TEBSS for Information purposes like statement of accounts, balance enquiry etc., 28 per cent of respondents stated that they are often using it. Whereas, 32 per cent of respondents stated that they are sometime using that service and 10 per cent respondents recorded that they are rarely using it and the rest 4 per cent respondents agreed that they never used the TEBSS for such a purpose.

While looking at the second purpose 'Payment services', nearly 35 per cent of respondents are always using TEBSS for it. Whereas, 34 per cent of respondents revealed that they are often using the services. The respondents who marked it as sometimes using are 20.8 per cent. The rest 6.4 per cent agreed that they are using it rarely however 2.6 per cent are confirmed that they never used it. Booking different services was another option for which the TEBSS is applying, that include booking hotels, air / bus rail tickets etc. Among the respondents, 21 per cent respondents recorded that they always use the TEBSS for booking hotels,

air / bus rail tickets. It is often using by 23 per cent of respondents, sometimes using by 25 per cent, rarely using by 14 per cent and 15 per cent of respondents are never used it. Checking the another purpose, transfer of funds through TEBSS, 23.8 per cent of respondents stated that, they are using it always, 26 per cent stated that they are using it often, 24 per cent of respondents marked it as sometimes, 13 per cent reported that they rarely using the same, the rest 11 per cent respondents disclosed that they never using it.

Considering the Point of Sale transactions through TEBSS, majority of respondents (25.6) revealed that they are sometime using it. Nearly 16.8 per cent stated that they are always using it and 23 per cent of respondents also claimed that they are often using it. The remaining respondents, 18.6 per cent respondents marked as they are rarely using it but 15.6 per cent of respondents recorded that they never used it. Regarding the next purpose given, online investment activities through TEBSS customer responses shows that majority (41 percent) are never used it and 20 per cent users of TEBSS agreed that they are rarely using that services. However only 6.8 per cent respondents are utilising TEBSS always for investment activities. Remaining 19 per cent of users who are utilising it for sometimes and 11.7 per cent marked as often using this service.

Considering the other service Electronic Clearing Services, majority of respondents are not using the same (34 per cent), 25 per cent of respondents recorded that they are rarely using it. Almost 20 per cent of respondents are using it for sometimes, and 13 per cent using it often.

Only 8 per cent of respondents are using the services actively. While observing the purpose of online purchase or E-commerce transactions, it indicates that 23 per cent of respondents are always using TEBSS for this purpose. Following by 22 per cent of respondents often using it, 20 per cent of respondents sometimes using it, 14 per cent opined that they are rarely using it and 19 per cent stated that they never used it. For the purpose of loan application, only 3.6 per cent are always using TEBSS. Many respondents (55 per cent) are never done it through TEBSS. Even if the large majority are not utilised it, 15 per cent confirmed that they are using it for sometimes and 5.6 per cent also stated that they are often using the same.

5.2.6 Analysis of Purpose of Usage of TEBSS Based on Selected Demographic Factors

The following section includes the analysis of some selected demographic factors of respondents and their use of TEBSS for different purposes. From the above furnished data, it is clear that, respondents use TEBSS most commonly for payment services. Following to payment services, the informational service, transfer of funds, booking service and online shopping and POS transactions are the frequent services. On the basis of this order, these services are analysed with different socio-demographic factors in order to spot detail information on these services' usage.

5.2.6.1 Respondents' Age-wise Analysis of TEBSS Usage for Payment Services

Payment service use is the most common largely using services through TEBSS. It includes payment of bills, taxes, other fees, rent etc. by using TEBSS. It is analysed based on the age group to know respondents in which age groups are largely using payment services. The following table shows the analysis results.

Table 5.18: Age-wise Analysis of TEBSS Usage for Payment Services

Age of Respondents	Mean	Number	Std. Dev
Below 25	3.97	181	1.054
26-30	4	386	1.010
31-40	3.88	282	1.024
41-50	3.72	39	1.050
Above 50	3.92	12	0.753
Total	3.94	900	1.023

Source: Result of Primary Data Analysis Using SPSS

It is evident from the above furnished table (5.18) that; respondents in the age category of 26-30 are largely carrying out payment services through TEBSS, since their mean score is high following to the age group below 25.

5.2.6.2 Respondents' Occupation-wise Analysis of TEBSS Usage for Payment Services

Occupation wise analysis is carried out on payment service usage through TEBSS by respondents. Usage of TEBSS for payment service among the respondents who are doing different types of occupation are analysed in the following section.

Table 5.19: Occupation-wise Analysis of TEBSS Usage for Payment Services

Occupation	Mean	Number	Std. Dev
Govt. Employees	3.91	122	1.098
Pvt. Employees	4.06	212	0.923
Agriculture	3.95	128	1.103
Business	3.96	74	1.013
Professionals	3.85	91	0.954
Students	3.87	202	1.064
Others	4.02	71	1.013
Total	3.94	900	1.023

Source: Result of Primary Data Analysis Using SPSS

The occupation wise analysis of payment services provides the information that, private employees are largely using TEBSS for payment services. Following the group others which includes all respondents who are doing all other types of jobs like, skilled labours, daily wage workers etc. which are not included in the basic classifications. People doing business are also using payment services very much.

5.2.6.3 Respondents' Income wise Analysis of TEBSS Usage for Payment Services

Income-wise analysis is done on purpose of usage of TEBSS by respondents for performing different type of services. Payment service usage by means of TEBSS is analysed against the monthly income of respondents, to identify which income groups are majorly using payment services

Table 5.20: Income wise Analysis of TEBSS Usage for Payment Services

Income	Mean	Number	Std. Dev
Up to ₹ 20000	3.93	353	1.016
₹ 20001- 30000	3.95	200	1.028
₹ 30001-40000	3.85	150	0.925
₹ 40001-50000	3.94	80	1.095
₹ 50001-60000	4.08	40	1.185
Above 60000	4.09	77	1.066
Total	3.94	900	1.023

Source: Result of Primary Data Analysis Using SPSS

It is revealed from the Table (5.20) that, respondents who have high income are greatly using TEBSS. It is known that, respondents who belong to the monthly income of above ₹ 40000 are substantially using the TEBSS for payment services. The use of payment service is highest among the respondents who have monthly income more than ₹ 60000.

5.2.6.4 Respondents' Education-wise Analysis of TEBSS Usage for Payment Services

Education wise analysis of usage of TEBSS for payment services is performed to gather the information about the usage of TEBSS for payment services by respondents having various education qualifications.

Table 5.21: Education-wise Analysis of TEBSS Usage for Payment Services

Education	Mean	Number	Std. Dev
Up to Tenth	3.71	17	0.985
Plus- Two/ PDC	3.74	53	1.077
Graduation	3.88	264	1.078
Post-Graduation	3.97	414	1.025
Professional	4.11	117	0.919
Others	4.03	35	0.796
Total	3.94	900	1.023

Source: Result of Primary Data Analysis Using SPSS

The respondents who are professionally qualified are highly using TEBSS for payment services. When comparing with other educational qualification, respondents who have low education i.e. up to tenth are using TEBSS less likely for payment service. Also, respondents who are having plus two level of education also not much using TEBSS for payment services compared to other groups.

5.2.6.5 Respondents' Age-wise Analysis of TEBSS Usage for Informational Services

The most commonly using type of services through TEBSS is informational services, which includes information of statement of account, balance enquiry, pin change etc. Age wise analysis is done on this service specifically to know which age group respondents are mostly using these types of services. Following table gives the output of the analysis.

Table 5.22: Age-wise Analysis of TEBSS Usage for Informational Services

Age	Mean	Number	Std. Dev
Below 25	3.62	181	1.185
26-30	3.62	386	1.108
31-40	3.67	282	1.040
41-50	3.36	39	1.112
Above 50	3.58	12	0.515
Total	3.63	900	1.097

Source: Result of Primary Data Analysis Using SPSS

The Table (5.22) represents the age wise analysis of informational service usage through TEBSS. It is clear from the table that, the respondents in the age category of 31-40 are intensive users of informational service through TEBSS (Mean score 3.67). In the earlier analysis it was revealed that; the respondents in the age category below 30 are largely using TEBSS for payment services. But this analysis shows that, respondents having age below 30 are not much use informational services through TEBSS.

5.2.6.6 Respondents' Occupation-wise Analysis of TEBSS Usage for Informational Services

Occupation-wise analysis is done on usage of informational service through TEBSS, to know the superior users of informational services among respondents doing different occupations. The following section includes the analysis of occupation wise classification.

Table 5.23: Occupation-wise Analysis of TEBSS Usage for Informational Services

Occupation	Mean	Number	Std. Dev
Govt. Employees	3.70	122	1.050
Pvt. Employees	3.66	212	1.048
Agriculture	3.55	128	1.241
Business	3.57	74	1.124
Professionals	3.74	91	0.941
Students	3.52	202	1.112
Others	3.76	71	1.165
Total	3.63	900	1.097

Source: Result of Primary Data Analysis Using SPSS

Information service usage analysis on the basis of occupation shows that, respondents performing different types of jobs like skilled labours, daily wagers, workers of non-organised sectors, retirees etc. are largely using information service through TEBSS. Since the information service like checking of account balance and retrieving of account statements are the very basic activities and are comparatively less risky, more

respondents used to do this. Next to this group, professionals are highly using TEBSS for informational services.

5.2.6.7 Respondents' Income-wise Analysis of TEBSS Usage for Informational Services

Income wise analysis is again applied on 'getting the information' services by using TEBSS. Information service usage by respondents in different income groups are presented in the table given below.

Table 5.24: Income-wise Analysis of TEBSS Usage for Informational Services

Income	Mean	Number	Std. Dev
Up to ₹ 20000	3.55	353	1.132
₹ 20001- 30000	3.72	200	1.090
₹ 30001-40000	3.50	150	0.939
₹ 40001-50000	3.80	80	1.184
₹ 50001-60000	3.80	40	1.224
Above 60000	3.71	77	1.050
Total	3.63	900	1.097

Source: Result of Primary Data Analysis Using SPSS

It is observed from the analysis that, respondents who have monthly income of ₹ 40000 to ₹ 60000 are extensively using the TEBSS for information purpose, followed by the respondents under the income group of ₹ 20000- ₹ 30000, and above ₹ 60000 respectively.

5.2.6.8 Respondents' Education-wise Analysis of TEBSS Usage for Informational Services

Education wise analysis is carried out on the usage of TEBSS for meeting the informational service requirements. The table below shows the result of analysis.

Table 5.25: Education-wise Analysis of TEBSS Usage for Informational Services

Education	Mean	Number	Std. Dev
Up to Tenth	3.26	17	1.176
Plus- Two/ PDC	3.59	53	1.059
Graduation	3.59	264	1.089
Post-Graduation	3.66	414	1.127
Professional	3.80	117	1.069
Others	3.70	35	0.833
Total	3.63	900	1.097

Source: Result of Primary Data Analysis Using SPSS

It is surprised to see that, respondents having professional education qualification are highly using TEBSS for informational service. Respondents in the category of education other than common education streams like diploma, or technical education, vocational education etc. are included in the category of others. Respondents having these educational backgrounds are the next popular users of informational services through TEBSS. Respondents having educational qualification up to tenth are oddly using TEBSS for information services.

5.2.6.9 Respondents' Age-wise Analysis of TEBSS Usage for Fund Transfer Services

Age-wise analysis of respondents is carried out on usage of TEBSS for fund transfer services. It is the common service used by large number of respondents after informational services. The following table represents the result of analysis.

Table 5.26: Age-wise Analysis of TEBSS Usage for Fund Transfer Services

Age	Mean	Number	Std. Dev
Below 25	2.98	181	1.368
26-30	3.34	386	1.310
31-40	3.66	282	1.231
41-50	3.38	39	1.115
Above 50	4.25	12	0.622
Total	3.38	900	1.306

Source: Result of Primary Data Analysis Using SPSS

Age-wise analysis of fund transfer services using TEBSS shows that, respondents in the age group of above 30 are largely using the fund transfer services. Among them, respondents in the age group of 31-40 and above 50 group are highly using this service.

5.2.6.10 Respondents' Occupation-wise Analysis of Usage of TEBSS for Fund Transfer Services

Fund transfer service by using TEBSS is also analysed based on occupation type of respondents. Following table shows the analysis results.

Table 5.27: Occupation-wise Analysis of Usage of TEBSS for Fund Transfer Services

Occupation	Mean	Number	Std. Dev
Govt. Employees	3.64	122	1.179
Pvt. Employees	3.61	212	1.248
Agriculture	3.25	128	1.369
Business	3.42	74	1.303
Professionals	3.21	91	1.418
Students	3.19	202	1.284
Others	3.20	71	1.359
Total	3.38	900	1.306

Source: Result of Primary Data Analysis Using SPSS

It is evident from the analysis that government employees are extremely using TEBSS for fund transfers followed by private employees and business man. Since the government employees and private employees having regular income compared to other occupational categories, they are using TEBSS largely for transferring funds. It is least used by students and it might be because of they lack regular income as their own.

5.2.6.11 Respondents' Income-wise Analysis of TEBSS Usage for Fund Transfer Services

Usage of TEBSS for fund transfer is also examined with monthly income of respondents. Fund transfer is one of the common services largely used by the respondents in this study. It was intended to know which category of respondents are greatly using this service by analysing their monthly income.

Table 5.28: Income-wise Analysis of TEBSS Usage Fund Transfer Services

Income	Mean	Number	Std. Dev
Up to ₹ 20000	3.12	353	1.337
₹ 20001- 30000	3.42	200	1.281
₹ 30001-40000	3.51	150	1.157
₹ 40001-50000	3.75	80	1.207
₹ 50001-60000	3.50	40	1.320
Above 60000	3.78	77	1.382
Total	3.38	900	1.306

Source: Result of Primary Data Analysis Using SPSS

It is understood from the table that, respondents under the income group more than ₹ 60000 and income group ₹ 40000- ₹ 50000 are more frequent to use the TEBSS for fund transfers. Respondents under the income group of ₹ 30000 - ₹ 40000 are also highly using the TEBSS for fund transfer services.

5.2.6.12 Respondents' Education-wise Analysis of TEBSS Usage for Fund Transfer Services

Usage of TEBSS for fund transfer services is examined on the basis of educational qualifications of the respondents to see the use of TEBSS for fund transfer services by respondents having different educational qualifications. Analysis results are presented below.

Table 5.29: Education wise Analysis of TEBSS Usage for Fund Transfer Services

Education	Mean	Number	Std. Dev
Up to Tenth	2.94	17	1.144
Plus- Two/ PDC	3.19	53	1.316
Graduation	3.40	264	1.281
Post-Graduation	3.34	414	1.326
Professional	3.71	117	1.246
Others	3.14	35	1.375
Total	3.38	900	1.306

Source: Result of Primary Data Analysis Using SPSS

The education wise analysis result of usage of TEBSS for fund transfer services evidenced that, respondents who are professionally qualified are highly using TEBSS for transferring funds from one account to other accounts. Respondents who belong to low educational qualification (up to tenth) are least using TEBSS for fund transfers.

5.2.6.13 Respondents' Age-wise Analysis of TEBSS Use for Booking Services

Booking services including booking of air, rail, or bus tickets, online ticket booking for movies and plays, hotel booking, and all other booking services are included in this category. From the analysis results presented earlier, it is one among the common services of which TEBSS are largely using by respondents. Following table shows the age-wise analysis of respondents on their use of TEBSS for the purpose of booking different services.

Table 5.30: Age wise Analysis of TEBSS Usage for Booking Services

Age	Mean	Number	Std. Dev
Below 25	2.90	181	1.450
26-30	3.20	386	1.331
31-40	3.58	282	1.305
41-50	3.33	39	1.264
Above 50	3.42	12	1.084
Total	3.22	900	1.352

Source: Result of Primary Data Analysis Using SPSS

The age-wise analysis of usage of TEBSS for booking service revealed that, booking services are high among the group of respondents who are at the above 30 age. Specifically, booking services are highly used by respondents in the age group of 31-40.

5.2.6.14 Respondents' Occupation-wise Analysis of Usage of TEBSS for Booking Services

Booking service by using TEBSS is also analysed against occupation of respondents to recognise which group of respondents are regularly using booking services through TEBSS. The analysis result is presented in the table given below.

Table 5.31: Occupation-wise Analysis of Usage of TEBSS for Booking Services

Occupation	Mean	Number	Std. Dev
Govt. Employees	3.35	122	1.253
Pvt. Employees	3.34	212	1.331
Agriculture	3.28	128	1.458
Business	3.26	74	1.250
Professionals	3.16	91	1.385
Students	3.03	202	1.360
Others	3.08	71	1.401
Total	3.22	900	1.352

Source: Result of Primary Data Analysis Using SPSS

It is seen from the Table (5.31) that, government employees and private employees are using booking services greatly when comparing with other groups. It is also least used by the students as well as respondents in the category of other occupation group. Here also, the respondents who belong to the occupation group which offered a regular income are greatly using the TEBSS for booking services.

5.2.6.15 Respondents' Income-wise Analysis of TEBSS Usage for Booking Services

Income wise analysis of TEBSS for booking service is also performed to identify which income groups are largely using the TEBSS for booking bus, air or rail tickets, hotels etc. The following table shows the analysis result.

Table 5.32: Income-wise Analysis of TEBSS Usage for Booking Services

Income	Mean	Number	Std. Dev
Up to ₹ 20000	2.96	353	1.375
₹ 20001- 30000	3.43	200	1.328
₹ 30001-40000	3.34	150	1.209
₹ 40001-50000	3.48	80	1.331
₹ 50001-60000	3.28	40	1.339
Above 60000	3.35	77	1.449
Total	3.22	900	1.352

Source: Result of Primary Data Analysis Using SPSS

It is observed that, respondents in the income group of ₹ 40000 to ₹ 50000 are using TEBSS for booking various services, following to the group ₹ 20000 to ₹ 30000. It is hardly found using by low income group that is up to ₹ 20000.

5.2.6.16 Respondents' Education-wise Analysis of TEBSS Usage for Booking Services

Use of TEBSS for booking services also assessed with the level of education of respondents to understand education wise difference in the use of TEBSS for booking various services. The following table depicts the analysis results.

Table 5.33: Education-wise Analysis of TEBSS Usage for Booking Services

Education	Mean	Number	Std. Dev
Up to Tenth	3.22	17	1.213
Plus- Two/ PDC	2.98	53	1.380
Graduation	3.23	264	1.370
Post-Graduation	3.29	414	1.365
Professional	3.37	117	1.310
Others	2.94	35	1.235
Total	3.22	900	1.352

Source: Result of Primary Data Analysis Using SPSS

From the Table (5.33), it is viewed that respondents with high educational qualification are highly using TEBSS for booking various services. In the table, it is clear that, usage of TEBSS for booking service is high among professionals, post-graduates and graduates respectively. It is less used by the respondents who are in the other education background including diploma, vocational, or technical and other short-term courses etc.

5.2.6.17 Respondents' Age-wise Analysis of TEBSS Usage for Online Shopping / E-Commerce Transactions

TEBSS usage for online shopping/ e-commerce transactions are also analysed in the study and it was found as one of the commonly using service. The age wise analysis is hence performed to identify respondents in which age groups are more using the TEBSS for online shopping. Analysis result is given in the following table.

Table 5.34: Age-wise Analysis of TEBSS Usage for Online Shopping / E-Commerce Transactions

Age	Mean	Number	Std. Dev
Below 25	2.76	181	1.554
26-30	3.67	386	1.454
31-40	3.28	282	1.334
41-50	3.05	39	1.234
Above 50	3.26	12	1.073
Total	3.16	900	1.438

Source: Result of Primary Data Analysis Using SPSS

The Table (5.34) given above shows the TEBSS usage for online shopping by different age group of respondents. It discloses that, the respondents who are at the age group of 26-30 are more using the TEBSS for online shopping. The study supports the general trend that the youths are more engaged with online shopping/ e-commerce transactions.

5.2.6.18 Respondents' Occupation-wise Analysis of Usage of TEBSS for Online Shopping/ E-Commerce Transactions

Occupation wise analysis is performed on respondents' online shopping/ e - commerce activities using TEBSS. This analysis provides the answer to the question that; which group of respondents based on their occupation are mostly using these services. The table given under denotes the analysis results.

Table 5.35: Occupation-wise Analysis of Usage of TEBSS for Online Shopping/ E- Commerce Transactions

Occupation	Mean	Number	Std. Dev
Govt. Employees	3.25	122	1.255
Pvt. Employees	3.27	212	1.367
Agriculture	3.23	128	1.507
Business	3.18	74	1.412
Professionals	3.14	91	1.419
Students	3.03	202	1.553
Others	2.92	71	1.524
Total	3.16	900	1.438

Source: Result of Primary Data Analysis Using SPSS

The Table (5.35) indicates that, private employees are mostly utilising the TEBSS for online shopping/ e-commerce activities. Government employees and agriculture people are next to private employees in using TEBSS for online shopping/ e- commerce activities.

5.2.6.19 Respondents' Income-wise Analysis of TEBSS Usage for Online Shopping/ E-Commerce Transactions

Income wise analysis is made on the usage of TEBSS for shopping online/ e-commerce activities, to know which income group respondents are highly attracted and which income group respondents are less used TEBSS for such purposes.

Table 5.36: Income-wise Analysis of TEBSS Usage for Online Shopping/ E-Commerce Transactions

Income	Mean	Number	Std. Dev
Up to ₹ 20000	3.02	353	1.481
₹ 20001- 30000	3.25	200	1.451
₹ 30001-40000	3.35	150	1.290
₹ 40001-50000	3.41	80	1.366
₹ 50001-60000	3.27	40	1.502
Above 60000	2.88	77	1.451
Total	3.16	900	1.438

Source: Result of Primary Data Analysis Using SPSS

It is observed that, online shopping/ e-commerce activities are high among the respondents under the income group of ₹ 40000- ₹ 50000, following the income group ₹ 30000- ₹ 40000. It is least used by the respondents who have income above ₹ 60000, and up to ₹ 20000.

5.2.6.20 Respondents' Education-wise Analysis of TEBSS Usage for Online Shopping/ E-Commerce Transactions

Use of TEBSS for online shopping/ e-commerce activities is analysed on the ground of educational qualifications of the respondents. It was intended to know respondents with which educational background are highly using TEBSS for online shopping/ e-commerce activities.

Table 5.37: Education-wise Analysis of TEBSS Usage for Online Shopping/ E-Commerce Transactions

Education	Mean	Number	Std. Dev
Up to Tenth	2.41	17	1.417
Plus- Two/ PDC	2.72	53	1.350
Graduation	2.97	264	1.376
Post-Graduation	3.24	414	1.434
Professional	3.53	117	1.489
Others	3.43	35	1.501
Total	3.16	900	1.438

Source: Result of Primary Data Analysis Using SPSS

Table (5.37) reveals that, respondents having professional educational qualification highly using TEBSS for online shopping/ e-commerce activities. Respondents who are having low educational qualification (up to tenth) are less likely in using TEBSS for online shopping/ e-commerce related activities.

5.2.6.21 Respondents' Age-wise Analysis of TEBSS Usage for POS Transactions

TEBSS usage for POS transactions is then analysed in the study. The age wise analysis is carried out to understand the TEBSS usage for POS transactions by respondents in different category of age groups.

Table 5.38: Age-wise Analysis of TEBSS Usage for POS Transactions

Age	Mean	Number	Std. Dev
Below 25	2.64	181	1.361
26-30	3.16	386	1.271
31-40	3.18	282	1.328
41-50	3.05	39	1.191
Above 50	3.83	12	0.577
Total	3.07	900	1.316

Source: Result of Primary Data Analysis Using SPSS

The Table (5.38) given above shows the TEBSS usage for POS transactions by respondents at different age groups. It reveals that, the respondents who are at the age group of above 50 are more using the TEBSS for POS transactions unlike they do any other transactions through TEBSS. It is clear that the respondents who are above 50 are generally reluctant to perform mature banking activities through TEBSS. Point of Sale transaction is one of the common types of transactions that generally carried out through TEBSS. No further precautions are required while performing POS transactions, hence the old age people are more attracted to these services. Following to them, customers in the age group of 31-40 are largely using TEBSS for POS transactions.

5.2.6.22 Respondents' Occupation-wise Analysis of Usage of TEBSS for POS Transactions

Occupation wise analysis is performed on usage of TEBSS for POS transactions. This analysis provides the information regarding the usage of TEBSS for POS transactions by customers who are doing different type of occupation. The table given under represents the analysis results.

Table 5.39: Occupation-wise Analysis of Usage of TEBSS for POS Transactions

Occupation	Mean	Number	Std. Dev
Govt. Employees	3.15	122	1.211
Pvt. Employees	3.30	212	1.232
Agriculture	2.99	128	1.400
Business	3.14	74	1.437
Professionals	2.93	91	1.191
Students	2.96	202	1.371
Others	2.77	71	1.365
Total	3.07	900	1.316

Source: Result of Primary Data Analysis Using SPSS

It is seen that; private employees are mostly utilising the TEBSS for POS transactions. Government employees and business people are next to private employees in using TEBSS for POS transactions. It indicates that customers who are having regular income are more likely using TEBSS at POS transactions.

5.2.6.23 Respondents' Income-wise Analysis of TEBSS Usage for POS Transactions

Respondents' income wise analysis is performed on the usage of TEBSS for POS transactions. The information regarding TEBSS usage for POS transactions by different income group of respondents is given in the table presented below.

Table 5.40: Income-wise Analysis of TEBSS Usage for POS Transactions

Income	Mean	Number	Std. Dev
Up to ₹ 20000	2.84	353	1.340
₹ 20001- 30000	3.24	200	1.317
₹ 30001-40000	3.15	150	1.157
₹ 40001-50000	3.31	80	1.356
₹ 50001-60000	3.13	40	1.399
Above 60000	3.21	77	1.281
Total	3.07	900	1.316

Source: Result of Primary Data Analysis Using SPSS

It is evidenced from the above Table (5.40) that, TEBSS usage for POS transactions are high among the respondents under the income group of ₹ 40000- ₹ 50000, following the income group ₹ 20000- ₹ 30000. It is least used by the respondents who have income below ₹ 20000. It further supports notion that, the customers who are having fairly good amount of monthly income are highly using TEBSS at POS.

5.2.6.24 Respondents' Education-wise Analysis of TEBSS Usage for POS Transactions

TEBSS application in POS transactions are analysed based on the educational qualifications of the respondents. In order to identify the POS transactions through TEBSS by respondents with different educational qualification, the following analysis is performed.

Table 5.41: Education-wise Analysis of TEBSS Usage for POS Transactions

Education	Mean	Number	Std. Dev
Up to Tenth	2.53	17	0.943
Plus- Two/ PDC	2.60	53	1.276
Graduation	2.89	264	1.265
Post-Graduation	3.22	414	1.331
Professional	3.32	117	1.292
Others	2.66	35	1.349
Total	3.07	900	1.316

Source: Result of Primary Data Analysis Using SPSS

Table (5.41) given above discloses that, customers who are professionals are highly using TEBSS for POS transactions. Following them, the post graduates are largely using TEBSS for POS transactions. Respondents who are having low educational qualification (up to tenth) are less using TEBSS at POS transactions. The professionals are technically qualified and will be having the knowledge about the use of TEBSS. In the same way the post-graduates as well as graduates may also proficient in the use of TEBSS. But the customers who are having low education, may need assistance from others or they might have the fear of

using TEBSS at POS transactions due to their lack of knowledge about the operations.

5.2.7 Analysis of the Association between Selected Demographic Factors and Purpose of Usage

Use of TEBSS for different purpose was analysed in the study based on different demographic factors. Relationship analysis is performed in order to test whether the demographic characteristics of respondents has any association with their use of TEBSS for different purposes. Previous studies evidenced that, occupation and monthly income of the respondents are the two major demographic factors which are expected to have significant influence on banking decisions. In the current study also, it is seen that occupation and monthly income are largely influencing the use of TEBSS. Hence, it is decided to check the significance of association of these factors on the use of TEBSS for varying purposes.

5.2.7.1 Analysis of Relationship of Occupation and TEBSS Usage for Payment Services

Occupation wise analysis is performed on the use of TEBSS for payment services by using one-way ANOVA.

Table 5.42: Occupation of Respondents and TEBSS Usage for Payment Services

Payment Services	Sum Squares	Df	Mean Square	F	Sig
Between Groups	4.320	6	0.720	0.687	0.661
Within Groups	936.440	893	1.049		
Total	940.760	899			

Source: Result of Primary Data Analysis Using SPSS

It is observed that, there is no significant difference between respondents in using TEBSS for payment services on the basis of their occupation (p value 0.661 which is higher than criterion value $p < 0.05$). It indicates that, once the customers started using the TEBSS for payment services, their occupation status does not significantly affect their TEBSS usage later. Still they are the adopters of TEBSS, and practiced using the TEBSS for payment services they will be comfortable in using TEBSSs for payment services. Also, the customers only need to have a smart phone with internet connection in order to perform the payment services through TEBSS. Thus, their occupation status does not make any considerable change in their use of TEBSS for payment services.

5.2.7.2 Analysis of Relationship between Monthly Income of Respondents and Use of TEBSS for Payment Service

Analysis of the relationship between monthly income of respondents and their use of TEBSS for payment services is carried out. One-way ANOVA test is applied to test if any significant differences exist among respondents in using payment services according to their monthly income.

Table 5.43: Monthly Income of Respondents and Use of TEBSS for Payment Services

Payment Services	Sum Squares	Df	Mean Square	F	Sig
Between Groups	3.836	5	0.767	0.732	0.599
Within Groups	936.924	894	1.048		
Total	940.760	899			

Source: Result of Primary Data Analysis Using SPSS

It is found that, there is no significant differences exists among respondents in using TEBSS for payment services based on their monthly income since the p value is greater than the acceptance limit ($p < 0.05$). This further indicates that, monthly income of respondents does not make any significant differences in their use of TEBSS for payment services. It means, there is no significant difference in the use of TEBSS for payment services between the customers who are having high income or low income. Even if the frequency of using TEBSS for payment services may vary between these groups, it does not make any significant differences in the usage.

5.2.7.3 Analysis of Relationship between Occupation and Informational Service Usage

Occupation wise analysis is done on the use of TEBSS for informational needs to check whether the use of TEBSS for informational purposes is significantly varying with their occupation status. One-way ANOVA test is applied, and the table given below shows the details.

Table 5.44: Occupation of Respondents and Informational Service Usage

Informational Service	Sum Squares	Df	Mean Square	F	Sig
Between Groups	6.520	6	1.087	0.902	0.493
Within Groups	1076.040	893	1.205		
Total	1082.560	899			

Source: Result of Primary Data Analysis Using SPSS

The informational service usage through TEBSS is not varying significantly according to the type of occupation of respondents since the

p value is higher than criterion value ($p < 0.05$). It can be interpreted that; informational services are used by customers through TEBSS irrespective of their occupation. Any customer who are using TEBSS can use it for information of statement of account, balance enquiry, ordering cheque book etc. at any time. The occupation wise difference does not make any influence on their use of TEBSS for such purposes. Respondents can perform it by sitting in their office, home or at anywhere with the basic facilities of internet and a smart phone. Hence the occupation wise difference does not make any difference in using TEBSS for informational purposes. Thus, it does not anyway depend on whether they are govt. employee, daily wage worker or private employee.

5.2.7.4 Analysis of Relationship between Monthly Income of Respondents and Use of TEBSS for Informational Services

Monthly income and use of TEBSS for informational service use is examined in order to see whether there is any income wise difference exists among respondents' usage of TEBSS for information services. One- way ANOVA test is employed for testing the difference in income groups on their use of TEBSS for informational services.

Table 5.45: Monthly Income and Use of TEBSS for Informational Services

Informational Service	Sum Squares	Df	Mean Square	F	Sig
Between Groups	10.443	5	2.089	1.742	0.122
Within Groups	1072.117	894	1.199		
Total	1082.560	899			

Source: Result of Primary Data Analysis Using SPSS

The analysis result discloses that, there is no significant difference in using TEBSS for informational services by users on the basis of their monthly income ($p > 0.05$). Anyone using the TEBSS can perform the informational services irrespective of their account balance. So, the income of customers does not make any difference in the use of TEBSS for information services. When the customer feels to check their account balances or need to know about of the information of statement of accounts, he can perform it any time without bothering about the balance or dues in his account. This might be the reason for the insignificant association between income of respondents and their use of TEBSS for informational services.

5.2.7.5 Analysis of Relationship between Occupation and Use of TEBSS for Fund Transfer Services

One-way ANOVA test is applied to analyse the relationship between occupation and usage of TEBSS for fund transfer services in order to check whether there is any significant association between respondents' occupation and their usage of TEBSS for fund transfer services.

Table 5.46: Occupation of Respondents and Use of TEBSS for Fund Transfer Services

Fund Transfer Services	Sum Squares	Df	Mean Square	F	Sig
Between Groups	33.648	6	5.608	3.338	0.003
Within Groups	1500.392	893	1.680		
Total	1534.040	899			

Source: Result of Primary Data Analysis Using SPSS

It is understood that, use of TEBSS for fund transfer service is significantly varying according to the type of occupation of respondents since the $p < 0.05$. Post hoc analysis (Appendix 3.1) is further applied to understand which occupation wise the difference is significant. It is revealed that government employees and students are significantly varying in the use of TEBSS for fund transfer services ($p < 0.05$) and it is significantly varying among private employees and students also ($p < 0.05$). It can be further justified that govt. employees and private employees may need to perform more fund transfers compared to students, since they are having a permanent income, as well as regular banking operations as a part of their official and personal life. Students lack a regular income and their use of TEBSS must be based on the availability of funds in the form of stipend, scholarships etc. Hence, customers having a steady income are most probably use fund transfer services through TEBSS.

5.2.7.6 Analysis of the Relationship between Monthly Income of Respondents and Use of TEBSS for Fund Transfer Services

One-way ANOVA test is used to test the significance of the relationship between monthly income and use of TEBSS for fund transfer services. The following table presents the ANOVA test result.

Table 5.47: Monthly Income of Respondents and Use of TEBSS for Fund Transfer Services

Fund Transfer Services	Sum Squares	df	Mean Square	F	Sig
Between Groups	50.577	5	10.115	6.096	0.000
Within Groups	1483.463	894	1.659		
Total	1534.040	899			

Source: Result of Primary Data Analysis Using SPSS

The association between monthly income of respondents and their use of TEBSS for fund transfer services is significant. The result further states that, there is significant differences in the usage of fund transfer services by the respondents who are having high and low income. Post-hoc analysis is further checked to identify which groups are significantly differ in use of TEBSS for fund transfer services (Appendix.3.2). It was observed that; the group who are having income up to ₹ 20000 and ₹ 30000- ₹ 40000 ($p < 0.05$), respondents who are having income up to ₹ 20000 and ₹ 40000 - ₹ 50000 ($p < 0.05$), up to ₹ 20000 and above ₹ 60000 ($p < 0.05$) are significantly differ in their use of TEBSS for fund transfer services. The result supports that the income is one of the important predictors of the use of TEBSS for fund transfer services. Customers perform the fund transfer services in accordance with their monthly income. The significant difference in the use of TEBSS for fund transfer services is exists among the low-income group with high income group. It is certain that size of income of respondents should reflect in their fund transfer services. Only those who have high income usually do frequent fund transfer services compared to low income groups.

5.2.7.8 Analysis of Relationship between Occupation of Respondents and Use of TEBSS for Booking Services

Relationship analysis of occupation and use of TEBSS for booking services are performed to analyse the significance of the relationship between occupation of respondents and their use of TEBSS for booking various services. The following table shows the one-way ANOVA result.

Table 5.48: Occupation of Respondents and Use of TEBSS for Booking Services

Booking Services	Sum Squares	Df	Mean Square	F	Sig
Between Groups	14.894	6	2.482	1.360	0.228
Within Groups	1629.546	893	1.825		
Total	1644.440	899			

Source: Result of Primary Data Analysis Using SPSS

It is revealed that; occupation wise difference is not significant in the use of TEBSS for booking services by respondents since the $p > 0.05$. It is evident that, there is no significant difference in TEBSS usage for booking services based on their occupation. Customers in all categories of job prefer to use TEBSS for booking services. Job type of customers does not make any difference in their use of TEBSS for booking services since the people in all categories of job are now having the basic infrastructure or facilities for accessing the TEBSS. If the customers are frequent users of TEBSS, their nature of occupation will not reflect in their use of TEBSS for booking related purposes.

5.2.7.9 Analysis of Relationship between Monthly Income of Respondents and Use of TEBSS for Booking Services

Monthly income and use of TEBSS for booking services is also analysed for testing the association between monthly income and use of TEBSS for booking services. One-way ANOVA test is used to test the significance of association.

Table 5.49: Monthly Income of Respondents and Use of TEBSS for Booking Services

Booking Services	Sum Squares	Df	Mean Square	F	Sig
Between Groups	41.003	5	8.201	4.572	0.000
Within Groups	1603.437	894	1.794		
Total	1644.440	899			

Source: Result of Primary Data Analysis Using SPSS

It is inferred from the analysis that; there exists significant difference in the use of TEBSS for booking services by respondents having different monthly income. The post-hoc analysis is further performed to identify respondents belongs to which income groups are significantly differ in their usage of TEBSS for booking services (Appendix.3.3). It is identified that, respondents in the income group up to ₹ 20000 and ₹ 20000 to ₹ 30000 ($p < 0.05$), up to ₹ 20000 and ₹ 30000- ₹ 40000 ($p < 0.05$), up to ₹ 20000 and ₹ 40000- ₹ 50000 ($p < 0.05$) are significantly differing in their usage of TEBSS for booking services. It is inferred from the analysis that, use of TEBSS for booking related services is significantly associated with the monthly income of respondents. Since the monthly income of respondents vary from low level to higher level, their usage of TEBSS for booking services also varies. The respondents who are having high income are frequently using the TEBSS for booking services when compared to low income groups. The post hoc analysis result supports this view that, the use of TEBSS for booking services of low-income group are vary against all other income groups.

5.2.7.10 Analysis of Relationship between Occupation of Respondents and Use of TEBSS for Online Shopping/ E-Commerce

Online shopping/ e- commerce activities are analysed on the basis of occupation of respondents to check if any significant association exists among users in using TEBSS for e-commerce activities corresponding to their occupation.

Table 5.50: Occupation of Respondents and Online Shopping/ E-Commerce through TEBSS

Online Shopping/ E-Commerce	Sum Squares	Df	Mean Square	F	Sig
Between Groups	11.742	6	1.957	0.946	0.461
Within Groups	1847.218	893	2.069		
Total	1858.960	899			

Source: Result of Primary Data Analysis Using SPSS

Online shopping/ e-commerce activities through TEBSS are not significantly differing between the respondents who are doing different kind of jobs. The p value is 0.461, implies that the difference is not significant. It further indicates that, the use of TEBSS for online shopping/ e-commerce activities are not based on their nature of occupation. Irrespective of the occupation status of respondents, they use TEBSS for online shopping/ e-commerce activities. Since the respondents are the users of TEBSS, once they experience the comfort of using the TEBSS for online shopping or e- commerce activities they will have the tendency to use it again. Hence the job status or occupation wise differences among respondents does not make any significant variation in their use of TEBSS for online e-commerce activities.

5.2.7.11 Analysis of Relationship between Monthly Income of Respondents and Use of TEBSS for Online Shopping/ E-Commerce

Analysis of use of TEBSS by respondents for online shopping/ e-commerce activities based on their monthly income is analysed using one-way ANOVA. It checks the significance of association between income and online shopping/ e-commerce activities.

Table 5.51: Monthly Income and Online Shopping/ E-commerce through TEBSS

Online Shopping/ E- Commerce	Sum Squares	Df	Mean Square	F	Sig
Between Groups	24.862	5	4.972	2.424	0.34
Within Groups	1834.098	894	2.052		
Total	1858.960	899			

Source: Result of Primary Data Analysis Using SPSS

Analysis of monthly income and use of TEBSS for online shopping or e-commerce activities shows that, there is no significant differences in the use of TEBSS for online shopping/ e-commerce activities among the respondents who belongs to different level of monthly income since the p value > 0.05 . It means that, use of TEBSS for online shopping/ e-commerce activities are not associated with the monthly income of respondents.

5.2.7.12 Analysis of Relationship between Occupation of Respondents and Use of TEBSS for POS Transactions

The TEBSS use for POS transactions by respondents are analysed using one-way ANOVA based on their occupation in order to identify the association of occupation and their use of TEBSS at POS transactions. The following table depicts the analysis results

Table 5.52: Occupation and TEBSS Use for POS Transactions

POS Transactions	Sum Squares	Df	Mean Square	F	Sig
Between Groups	23.055	6	3.842	2.238	0.038
Within Groups	1532.945	893	1.717		
Total	1556.000	899			

Source: Result of Primary Data Analysis Using SPSS

It is evident that, there is significant association between respondents' occupation and their use of TEBSS at POS transactions since the $p < 0.05$. It means that, use of TEBSS for POS transactions are varying according to the type of occupation of respondents. The post-hoc analysis is further done to identify which groups of respondents are significantly varying in their TEBSS use for POS transactions. The post-hoc analysis revealed that private employees and customers doing other categories of job including daily wages, skilled workers etc. ($p < 0.05$) are significantly varying in their use of TEBSS at POS transactions (Appendix 3.4). Private employees are usually more techno-savvy, doing job under dynamic conditions of work culture compared to other categories of jobs. So, their use of TEBSS at POS transactions may not be same as other customers.

5.2.7.13 Analysis of Relationship between Income of Respondents and Use of TEBSS for POS Transactions

In order to identify the association between respondents' monthly income and their use of TEBSS for POS transactions, one-way ANOVA test is employed. The following table shows the analysis result.

Table 5.53: Monthly Income and TEBSS Use for POS Transactions

POS Transactions	Sum Squares	Df	Mean Square	F	Sig
Between Groups	32.824	5	6.565	3.853	0.002
Within Groups	1523.176	894	1.704		
Total	1556.000	899			

Analysis of the association between monthly income of respondents and their use of TEBSS at POS transactions evidenced that, the use of TEBSS at POS transactions are varying among respondents who are having different level of monthly income since the $p < 0.05$. Post-hoc analysis is later performed in order to identify respondents in which group of income are significantly differing in their use of TEBSS at POS transactions (Appendix. 3.5). The post-hoc analysis revealed that, significant difference exists among the respondents who belongs to the income group up to ₹ 20000 and ₹ 20001- ₹ 30000 ($p < 0.05$), up to ₹ 20000 and ₹ 40001 - ₹ 50000 ($p < 0.05$). It can be interpreted that, usage of TEBSS at POS transactions are largely varying according to respondents having low income and high income.

It is revealed from the analysis that, there is significant difference in the use of TEBSS for some purposes according to their occupation and income. The fund transfer service is significantly varying among the respondents who are doing different types of jobs. It mainly varies among government employees and students as well as private employees and students. Likewise, use of TEBSS for fund transfer service is significantly different for the respondents who are having different amount of monthly income. Similarly, the booking services which includes booking of air, rail or bus tickets, movies, plays and hotels etc. by using TEBSS is also varying significantly between respondents who are having different monthly income. Use of TEBSS at POS transactions is significantly associated with the occupation status as well as the monthly income of respondents. But payment service usage and information service usage are not based on their occupation status of respondents and their monthly income.

5.3 Analysis of Usage Intensity of TEBSS by Respondents

Intensity of usage is analysed with the scale of usage intensity which was originally developed by Ellison et.al (2007). Intensity scale is used along with the frequency and duration of use of internet-based technologies, when the user uses multiple technologies for different purposes together (Li, Lau, Mo, & Su, 2016). Apart from measuring the usage frequency and duration of use and purpose of use of TEBSS, it is essential to measure the intensity of use since the TEBSS use becomes more popular among the adopters. The six items scale measured the usage intensity of TEBSS of respondents and the mean score was obtained. In

addition to descriptive analysis on the scale usage intensity, the difference in usage intensity among respondents having different demographic characteristics are also analysed in the following section.

Table 5.54: Analysis of Usage Intensity of TEBSS

Variable	N	Mean	Std. Dev
Intensity of Usage	900	3.74	0.780

Source: Result of Primary Data Analysis Using SPSS

Descriptive analysis on usage intensity reveals that, the mean score of usage intensity is 3.74 with a standard deviation of 0.80, which indicates that, the respondents are moderately intensive users of TEBSS (Ellison et.al 2007), (Sigerson & Cheng, 2018). Usage intensity means that the degree of usage of TEBSS by respondents in their day to day banking activities. So, the intensive use of TEBSS depicts that the majority of the respondents in this study are active users of TEBSS. The result further explains that, customers are regularly using the TEBSS and the use of TEBSS became a routine banking activity for them.

The difference in intensity of use of TEBSS among different groups of respondents based on their socio-demographic factors using one-way ANOVA is ascertained and results are discussed in the following section.

5.3.1 Analysis of Age of Respondents and Usage Intensity of TEBSS

Intensity of usage of TEBSS is analysed against the age of respondents to identify whether the intensity of usage of TEBSS is significantly differ among respondents of different age groups. One-way ANOVA test is

applied to test the significance of difference and the result is given in the table attached below.

Table 5.55: Age of Respondents and Usage Intensity of TEBSS

Usage Intensity	Sum Squares	Df	Mean Square	F	Sig
Between Groups	7.771	4	1.943	3.166	0.013
Within Groups	549.186	895	0.614		
Total	556.957	899			

Source: Result of Primary Data Analysis Using SPSS

It is observed from the table that; significant difference exists in the intensity of usage of TEBSS by respondents according to their age groups. The p value at less than 0.05 supports the significance of the difference. It indicates that, respondents in different age groups are varying in their intensity of use of TEBSS. Post-hoc analysis is then carried out for checking which age groups are significantly differing in their TEBSS usage intensity (Appendix.3.6). It is revealed from the post-hoc analysis that, significant difference in intensity of usage of TEBSS exists between respondents at the age group below 25 and 31-40 ($p < 0.05$). This further indicates that, youths and middle-aged respondents are not same in their intensity of use of TEBSS. It might be because of their technical skills, or size of their income etc.

5.3.2 Analysis of Occupation of Respondents and Usage Intensity of TEBSS

Occupation status of respondents and intensity of usage of TEBSS by respondents is also analysed by one-way ANOVA to identify if any significant difference exists among respondents in their intensity of usage of TEBSS according to the different types of occupations they are doing. The following table shows the analysis result.

Table 5.56: Occupation of Respondents and Usage Intensity of TEBSS

Usage Intensity	Sum Squares	Df	Mean Square	F	Sig
Between Groups	11.427	6	1.905	3.118	0.005
Within Groups	545.530	893	0.611		
Total	556.957	899			

Source: Result of Primary Data Analysis Using SPSS

The analysis reveals that, intensity of usage of TEBSS significantly varies among respondents in the study according to the nature of their jobs. Since the difference is significant, the post-hoc analysis is further done to identify which groups are significantly differing in their intensity of usage. The result of post-hoc analysis pointed out that, the significant difference exists between government employees and students ($p < 0.05$) in their usage intensity of TEBSS (Appendix 3.7). Since the govt. employees are having a permanent job and regular income, they are more favourable to use banking related activities as routine in their day to day life. Whereas students might not have such regular monthly income even if they have income in the form of stipends or scholarships etc. Hence, they

are not doing much banking related activities compared to govt. employees. Also, the government employees need to perform more banking transactions since they are availing their salaries, subsidies, bonus, pension, and all other payment and transfer services through banks. It might be resulted in the increased use of TEBSS and hence their intensity is high when compared to students.

5.3.3 Analysis of Monthly Income of Respondents and Usage Intensity of TEBSS

Monthly income of respondents and their usage intensity of TEBSS was analysed to check whether there is any significant difference in the usage intensity of TEBSS among respondents having different monthly income. The one-way ANOVA test is applied and the result of analysis is given below.

Table 5.57: Monthly Income of Respondents and Intensity of Usage of TEBSS

Usage Intensity	Sum Squares	Df	Mean Square	F	Sig
Between Groups	19.509	5	3.902	6.490	0.000
Within Groups	537.448	894	0.601		
Total	556.957	899			

Source: Result of Primary Data Analysis Using SPSS

From the one-way ANOVA test, it is clear that respondents belong to different income groups are significantly varying in their intensity of use of TEBSS, since the p value is 0.000 ($p < 0.05$). Result further indicates that, there is significant association between the intensity of use

and the income of respondents. It is obvious that respondents having fairly high amount of income groups and low-income groups tend to vary in the use of TEBSS. Post-hoc analysis results are checked for further information regarding respondents in which groups of income are significantly different in intensity of use of TEBSS (Appendix.3.8). It showed that respondents in the first category of income (Up to ₹ 20000) and third category (₹ 30001- ₹ 40000) of income are significantly differ in their usage intensity ($p < 0.05$). Also, the usage intensity is different for the first category (Up to ₹ 20000) and fourth category (₹ 40001- ₹ 50000) of income group ($p < 0.05$), as well as third category (30001-40000) and fifth category (Above ₹ 60000) of income group ($p < 0.05$). It can be summarised that, the intensity of use of TEBSS by respondents is highly depending on their income since the respondents in all group of income are varying with each other in their usage intensity.

It is identified from the analyses that, the usage intensity of TEBSS significantly vary among respondents who are at various age groups. It is also varying across respondents who are doing different kind of jobs like government jobs and students. Additionally, usage intensity of TEBSS is significantly different for the respondents who are having different scale of monthly income. Hence it can be concluded that the intensity of usage of TEBSS is significantly associated with respondents, age, job and income. Change in their any of these factors may change their usage intensity of TEBSS also.

5.4 Chapter Summary

This chapter discussed the basic usage analysis of TEBSS under four sections. The first section of the chapter discussed the analysis of demographic profile of respondents. Second section of this chapter dealt with the usage analysis of TEBSS. Analysis of purpose and extent of usage of TEBSS was concentrated in this section. Analysis of demographical characteristics and purpose of usage are explained in detail in the following section. In the last section of this chapter discussed the intensity of usage analysis of TEBSS.

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RELATIONSHIP BETWEEN CUSTOMERS' PERCEPTION ON ADOPTABILITY, POST-USE EXPERIENCES AND CONTINUANCE INTENTION

- 6.1 *Introduction*
- 6.2 *Customers' Perception on Adoptability of TEBSS*
- 6.3 *Demographic Characteristics and Customers' Perception on Adoptability of TEBSS*
- 6.4 *Analysis of Post-use Experience of Customers on TEBSS*
- 6.5 *Analysis of Continuance Intention of Customers in Using TEBSS*
- 6.6 *Confirmatory Factor Analysis*
- 6.7 *Measurement Model Analysis*
- 6.8 *Influence of Customers' Perception on Adoptability of TEBSS on Continuance Intention to use the TEBSS*
- 6.9 *Influence of Customer Satisfaction and Post-Use Trust on Adoptability and Continuance Intention to Use the TEBSS*
- 6.10 *Influence of Risk Perception in the Relationship between Post-use Trust and Continuance Intention*
- 6.11 *Validation of Proposed Model of the Study*
- 6.12 *Chapter Summary*

This chapter discusses about the relationship between customers' perception on adoptability, post-use experiences and continuance intention of customers to use the TEBSS. It covers the reliability and validity analysis of the constructs under study using measurement model analysis. Analysis of all objectives except first objective are discussed in this chapter.

6.1 Introduction

The decision to continue the use of any technology may be an extension of acceptance behaviour that co-varies with acceptance behaviour (Al-Maghrabi & Dennis, 2011). Since the post-adoptive use is the continuation of pre-adoption behaviour, certain user perceptions about the adoptability of TEBSS are identified from the earlier studies that influences the post-use behaviour of customers in banking technologies. These perceptions are commonly named in the current study as perceptions on adoptability of TEBSS. These include user perceptions about accessibility of TEBSS, ease of use of TEBSS, usefulness of TEBSS and awareness about TEBSS.

Moreover, post-use experience with the use of technology is an important predictor of users' continuance decision to use that technology. Apart from satisfaction, some of the previous studies suggested that, post-use trust and risk perception also have significant impact in predicting the user continuance intention in using a new technology. This study hence includes the analysis of post-use experience of customers namely satisfaction, post-use trust and risk perception in using TEBSS.

6.2 Customers' Perception on Adoptability of TEBSS

The second objective of the study is to understand the customers' perception on adoptability of TEBSS in terms of their awareness, accessibility, ease of use and usefulness. Descriptive analysis is performed on the adoptability of TEBSS to get an insight about the assessment of customers on varying perceptions about the adoptability of

TEBSS. Descriptive statistics recommended for Likert scale include mean for central tendency and standard deviations for variability (Boone & Boone, 2012), (Prasad, 2016) (Likert, 1932). Based on the on the mean score and standard deviations, the level of perception is ascertained in this study. Following table shows the descriptive analysis on customers' perceptions on adoptability of TEBSS.

Table 6.1: Customers' Perceptions on Adoptability of TEBSS

Variables	N	Mean	Std. Dev.
Awareness	900	3.62	0.846
Accessibility	900	3.88	0.821
Ease of Use	900	3.65	0.819
Usefulness	900	3.98	0.796

Source: Result of Primary Data Analysis Using SPSS

It can be observed that, the mean score of customers' perceptions on usefulness of TEBSS is (3.98) with a standard deviation 0.796. It indicates that, customer perception about the usefulness of TEBSS is favourable. Customers may have experienced the reduced effort in carrying out banking transactions once they started using the TEBSS. Reduced waiting time in long queues as well as increased efficiency of services might have influenced their higher level of usefulness perception on TEBSS. Moreover, multiple banking activities can be performed using TEBSS also may have resulted in the reduced effort in carrying out banking transactions this might be also resulted in their favourable perception towards usefulness of TEBSS.

Customers perceive higher level of accessibility (mean score 3.88, standard deviation 0.821). It indicates that, the TEBSS are easily available as and when customers need it. It is one of the most important characteristics of TEBSS and once the customers experienced it, their perception level of accessibility would be high. Since the TEBSS are easily available through a smart phone or bank website for carrying out banking transactions, customers need not to be physically being present at the banks or banking kiosks for some routine transactions. They can access their bank account while sitting at their home, office or at anywhere and anytime. Hence the increased availability without any limitation of time, domain and place might have resulted in their higher-level perception of accessibility of TEBSS.

Customers also perceive a higher level of easiness in use of TEBSS mean score 3.65 with a standard deviation 0.819. It indicates that the customers are experienced the easiness in learning how to use the TEBSS, as well as they have the recognition that it is easy to become skilful at using TEBSS and the interactions with TEBSS are not required a lot of mental effort. Hence, they will be easily become proficient enough in using TEBSS. Once the customers become familiar with TEBSS it will not be any more a hectic task to them to carry out the transactions through TEBSS. The higher level of ease of use perception might be due to these reasons.

Awareness of customers about TEBSS is also high. It is understood that, customers are aware about how to use the TEBSS, the benefits and risk of using TEBSS as they started using the TEBSS. Since they are

already having the basic level knowledge about how to use TEBSS, they become familiar with it and use it. The mean score of awareness is 3.62. it is not as much high. This might be because the advanced level of awareness might be low related with technology updates, or improved features for avoiding transaction failures etc. This might be the reason that limiting a very high level of awareness. This is consistent with the findings of Dinev et al. (2007). The result shows that, the customers are having the basic level of knowledge regarding the use and related issue of TEBSS.

6.3 Demographic Characteristics and Customers' Perception on Adoptability of TEBSS

Demographic characteristics wise difference is analysed against customers' perception on adoptability of TEBSS in this section. It was important to know that whether the customers' perceptions on adoptability of TEBSS is varying across some of the basic demographic factors like age, education, occupation and monthly income of respondents. One-way ANOVA test is applied in all the cases to check the differences in perceptions.

6.3.1 Demographic Characteristics and User Awareness on TEBSS

Awareness is tested according to the basic demographic features of the respondents in order to check if the awareness level of respondents is varying according to their demographic characteristics like, age, education, occupation, and monthly income.

6.3.1.1 Age of Respondents and Awareness on TEBSS

Age of respondents and their awareness about TEBSS is analysed with the intention of understanding the significance of variance in their awareness about TEBSS between the respondents of different age groups. Age of respondents is classified into five groups in this study, starting from below 25, 26-30, 31-40, 41-50 and above 50. Difference in the awareness of customers about TEBSS based on these age groups is ascertained.

Table 6.2: Age of Respondents and Awareness about TEBSS

Awareness	Sum Squares	Df	Mean Square	F	Sig
Between Groups	6.380	4	1.595	2.240	0.063
Within Groups	637.296	895	0.712		
Total	643.676	899			

Source: Result of Primary Data Analysis Using SPSS

It is noticed from the Table (6.2) that the p value of 0.063, which denotes there is no significant difference in the awareness about TEBSS between different age groups. Age of respondents does not make any significant difference in the user awareness about TEBSS. Since the respondents are already started using the TEBSS with a minimum level of knowledge about how to use the TEBSS, benefits and risks of using TEBSS, security issues and threats in using TEBSS etc., their awareness about TEBSS not significantly associated with their age.

6.3.1.2 Education of Respondents and Awareness on TEBSS

One-way ANOVA test is carried out to check whether there is any difference in the awareness about TEBSS based on the educational qualification of respondents. The educational qualifications of respondents in the study are categorised as, Up to tenth, Plus two, Graduation, Post-Graduation, Professionals and Others. The test result of one-way ANOVA shows the difference in awareness perception of respondents according to the level of education of customers.

Table 6.3: Education of Respondents and Awareness on TEBSS

Awareness	Sum Squares	Df	Mean Square	F	Sig
Between Groups	12.107	5	2.421	3.428	0.004
Within Groups	631.569	894	0.706		
Total	643.676	899			

Source: Result of Primary Data Analysis Using SPSS

The One-way ANOVA test shows that, there is significant difference in the awareness level of respondents according to their educational qualification. This means that, awareness of respondents about TEBSS is not alike for all respondents. It is varying across respondents who are having different educational qualifications. Since the p value is less than 0.05, it supports the significance of the difference in awareness exists between different educational qualifications. Unlike the age, respondents' education is closely associated with the awareness about TEBSS. It is certain that the awareness may depend upon the education of customers. Every customer may have the basic knowledge regarding the use of TEBSS in their post-use

stage, but the advance level of awareness about technical problems, performance failures, new updates and recent changes in the TEBSS etc. might be depending on their education. Post-hoc test (Appendix 3.9) is further carried out to identify which groups are significantly different in their awareness. It is revealed that, awareness about TEBSS is significantly different among graduates and post-graduates ($p < 0.05$).

6.3.1.3 Occupation of Respondents and Awareness on TEBSS

Occupation wise analysis is performed on user awareness to know if any significant difference exists in the awareness about TEBSS among the respondents who are doing different kind of jobs. The occupation category of respondents is classified into seven groups in this study. It includes, Govt. employee, Private employee, Agriculture, Business, Professionals, Students and Others. Analysis result is given in the following section.

Table 6.4: Occupation of Respondents and Awareness on TEBSS

Awareness	Sum Squares	Df	Mean Square	F	Sig
Between Groups	5.537	6	0.923	1.291	0.258
Within Groups	638.139	893	0.715		
Total	643.676	899			

Source: Result of Primary Data Analysis Using SPSS

There is no significant difference in the user awareness between the respondents who are having different types of occupation since the p value is 0.258, which is greater than the acceptance criterion ($p < 0.05$). It supports the notion that, the type of occupation does not make any significant difference in their awareness about TEBSS. The customers acquire some basic

knowledge about TEBSS at their post-use stage of TEBSS or at the initial stage of use itself. In the post-adoption stage, they acquire the information regarding the technological updates and technical knowledge etc. It depends on many other factors but not on their type of occupation.

6.3.1.4. Monthly Income of Respondents and Awareness on TEBSS

Income wise analysis of respondents and awareness of TEBSS by respondents are examined. Monthly income of respondents was divided into six groups starting from; up to ₹ 20000, ₹ 20001-30000, ₹ 30001-40000, ₹ 40001-50000, ₹ 50001-60000 and above ₹ 60000. Significance of association between awareness and monthly income of respondents is depicted in the following table.

Table 6.5: Monthly Income of Respondents and Awareness on TEBSS

Awareness	Sum Squares	Df	Mean Square	F	Sig
Between Groups	8.112	5	1.622	2.282	0.05
Within Groups	635.564	894	0.711		
Total	643.676	899			

Source: Result of Primary Data Analysis Using SPSS

The relationship between monthly income and user awareness shows as insignificant. The p value is 0.05 which denotes that, there is no significant difference in the awareness about TEBSS based on their monthly income. This further states that, monthly income wise difference does not exist among customers in their awareness about TEBSS. As the customers are in the post-use stage, their level of income or job status does not reflect in their awareness since the awareness is evolved from the

user experiences and the information provided by banks regarding the usage of TEBSS. Customers gain the information regarding the usage, benefits, risks, threats and safety measures from the experienced users, friends or colleagues or from their own experiences in the post-use stage. Thus, it is not associated with the user's monthly income or job.

6.3.2 Demographic Factors and Accessibility of TEBSS

To find out whether the perception of respondents regarding the accessibility of TEBSS vary according to some selected demographic characteristics including age, education, occupation, and monthly income, the one-way ANOVA test is applied.

6.3.2.1 Age of Respondents and Accessibility of TEBSS

Association between respondents' age and accessibility of TEBSS is tested by using one-way ANOVA. It was intended to know the difference in the perception of users about the accessibility of TEBSS in accordance with their age. The table below represents the analysis result.

Table 6.6. Age of Respondents and Accessibility of TEBSS

Accessibility	Sum Squares	Df	Mean Square	F	Sig
Between Groups	3.128	4	0.782	1.159	0.327
Within Groups	603.607	895	0.674		
Total	606.735	899			

Source: Result of Primary Data Analysis Using SPSS

Age wise difference in accessibility perception does not exist among the respondents belongs to different age groups since the $p > 0.05$.

The accessibility is assessed based on the timely availability, easy access of TEBSS at anywhere, reduced waiting time for transactions etc. Irrespective of the age, all the customers who choose the TEBSS expect the easy accessibility of the same without any hurdles.

6.3.2.2 Education of Respondents and Accessibility of TEBSS

Education wise difference is examined on the accessibility perception about TEBSS by users. The table provided here shows the analysis result.

Table 6.7: Education of Respondents and Accessibility of TEBSS

Accessibility	Sum Squares	Df	Mean Square	F	Sig
Between Groups	8.214	5	1.643	2.454	0.302
Within Groups	598.521	894	0.669		
Total	606.735	899			

Source: Result of Primary Data Analysis Using SPSS

Result of analysis of education and customers' perception on accessibility of TEBSS indicates that; education wise difference in the perception of accessibility of TEBSS among respondents is insignificant since the $p > 0.05$. Which means accessibility perception does not significantly vary among respondents belongs to different educational qualifications. Accessibility means that the easiness in accessing the banking services through TEBSS at anywhere and anytime. Hence, the level of customers' perception regarding the accessibility of TEBSS is not significantly associated with respondents' educational qualifications.

6.3.2.3 Occupation of Respondents and Accessibility of TEBSS

Occupation of respondents and their perceptions about the accessibility of TEBSS is examined in order to check if there is any significant difference exist in their accessibility perception about TEBSS based on their occupation.

Table 6.8: Occupation of Respondents and Accessibility of TEBSS

Accessibility	Sum Squares	Df	Mean Square	F	Sig
Between Groups	10.230	6	1.705	2.553	0.019
Within Groups	596.505	893	0.668		
Total	606.735	899			

Source: Result of Primary Data Analysis Using SPSS

It is noted that, there exists significant difference in the perception of customers regarding the accessibility of TEBSS according to their occupation since the $p < 0.05$. In the post-use stage, accessibility of TEBSS is one of the important factors for the active use of TEBSS. Accessibility of TEBSS depends on where the customers are actually present as well as which types of infrastructural facilities available to them. Hence, it may depend on the environment where the customer is when he performing activities through TEBSS. So, there is significant difference in the accessibility perception of customers based on their occupation. Customers are under different work environment as well as their banking requirements are different according to the type of job they are doing. Once the difference is identified as significant, then post-hoc analysis is needed to be checked to know which groups of respondents based on their

occupation are significantly differing in their accessibility perception. Post-hoc analysis (Appendix.3.10) results shows that there is significant difference between government employees and private employees ($p < 0.05$) in the perception on accessibility of TEBSS. Private employees are having more dynamic working conditions when compared to the govt. employees. So, the accessibility of TEBSS might be significantly associated with their working atmosphere.

6.3.2.4 Monthly Income of Respondents and Accessibility of TEBSS

Accessibility of TEBSS is checked with monthly income of respondents in order to analyse whether an income wise difference exists in the perception of accessibility of TEBSS. The table furnished here represents the analysis result.

Table 6.9: Monthly Income of Respondents and Accessibility of TEBSS

Accessibility	Sum Squares	Df	Mean Square	F	Sig
Between Groups	6.754	5	1.351	2.013	0.075
Within Groups	599.981	894	0.671		
Total	606.735	899			

Source: Result of Primary Data Analysis Using SPSS

The analysis result depicts that, there is no significant difference in the accessibility perception on TEBSS by respondents based on their monthly income. The p value is 0.075, it denotes that, the income wise difference is not significant on the perception about accessibility of TEBSS. It is definite that, easy availability of TEBSS at anytime,

anywhere are not based on the monthly income of the respondents. Hence there is no significant difference in the accessibility perception of users according to their monthly income.

6.3.3 Demographic Factors and Ease of Use of TEBSS

Ease of use of TEBSS is analysed against some basic demographic features of the respondents to identify the difference in the perception of ease of use among respondents belongs to different category of age, education, occupation and monthly income.

6.3.3.1 Age of Respondents and Ease of Use of TEBSS

Respondents' age and their perception on ease of use is examined to identify whether there exists any significant association between respondents who belongs to different age groups and their ease of use perception. One- way ANOVA is applied here also and the following table represents the result.

Table 6.10: Age of Respondents and Ease of Use of TEBSS

Ease of Use	Sum Squares	Df	Mean Square	F	Sig
Between Groups	10.136	4	2.534	3.817	0.004
Within Groups	594.180	895	0.664		
Total	604.316	899			

Source: Result of Primary Data Analysis Using SPSS

Significant difference is noticed in the ease of use perception about TEBSS among the customers who belongs to different age groups since the $p < 0.05$. It supports the notion that, technology usage is highly

associated the age group of people. This result also indicating that customers who are at different age groups are having varying perception regarding the easiness in usage of TEBSS. Post-hoc analysis (Appendix 3.11) is performed in order to test which groups of people significantly differ in their ease of use perception. The post-hoc results revealed that; significant differences exist between below 25 age group and above 50 age group ($p < 0.05$) and between 26-30 age group and above 50 age group ($p < 0.05$). It simply states that, youths and elder generations are significantly different in their ease of use perception about TEBSS. It is certain for youngster becoming skilful at using technology are easier and their technical competence is high compared to elder generations. This result also reflects the same thing that, the ability of customers to become experts in the use of TEBSS is more depend on their age.

6.3.3.2 Education of Respondents and Ease of Use of TEBSS

Respondents' education and their perceived ease of use is analysed to check whether the significant association exists among respondents in their ease of use perception on TEBSS, based on their educational qualifications. The following table discloses the analysis result.

Table 6.11: Education of Respondents and Ease of Use of TEBSS

Ease of Use	Sum Squares	Df	Mean Square	F	Sig
Between Groups	4.763	5	0.953	1.421	0.214
Within Groups	599.553	894	0.671		
Total	604.316	899			

Source: Result of Primary Data Analysis Using SPSS

It is inferred that, education wise difference in the perceived ease of use of TEBSS is not significant since the $p > 0.05$. Most of the TEBSS are designed as customised manner and with good interactivity. Once the user practiced the use of TEBSS, it is easy for customers to become expert in the use if they possess very basic technical knowledge. Since the TEBSS are not designed for a specific group, it can be easily use by a common man. Hence it can be stated that, educational qualification of respondents does not make significant difference in the ease of use perception of TEBSS.

6.3.3.3 Occupation of Respondents and Ease of Use of TEBSS

Occupation of respondents and their perceived ease of use is examined to assess the occupation wise difference in ease of use perception among users of TEBSS. The table presented below holds the analysis results.

Table 6.12: Occupation of Respondents and Ease of Use of TEBSS

Ease of Use	Sum Squares	Df	Mean Square	F	Sig
Between Groups	4.736	6	0.789	1.176	0.317
Within Groups	599.580	893	0.671		
Total	604.316	899			

Source: Result of Primary Data Analysis Using SPSS

The analysis result conveys that, occupation wise difference is not significant in ease of use perception of respondents about TEBSS. The p value is 0.317 indicates that, the respondents' occupation and their ease of use perception about TEBSS is not associated. Customers of any type of

occupation can easily use the TEBSS with a minimum level of understanding since the TEBSS are designed in such a manner. The only requirements for performing transactions through TEBSS is to memorise some password and pin. It is not much a burden to customers; hence their occupation type does not make any significant difference in their ease of use perception.

6.3.3.4 Monthly Income of Respondents and Ease of Use of TEBSS

Monthly income wise analysis is employed on customers perception about the ease of use of TEBSS using one-way ANOVA, in order to identify the income wise difference in ease of use perception. The table tagged below represents the analysis result.

Table 6.13: Monthly Income of Respondents and Ease of Use of TEBSS

Ease of Use	Sum Squares	Df	Mean Square	F	Sig
Between Groups	7.267	5	1.453	2.176	0.055
Within Groups	597.049	894	0.668		
Total	604.316	899			

Source: Result of Primary Data Analysis Using SPSS

It is inferred that; the monthly income does not make any significant difference in the perceived ease of use of TEBSS since the p value is 0.05. It is evident that, perception about ease of use of TEBSS is not varying among high income group respondents and low-income group respondents.

6.3.4 Demographic Factors and Usefulness of TEBSS

Customers' perception about usefulness of TEBSS is examined on the basis some demographic factors like age, education, occupation and monthly income with the purpose of identifying whether there is significant variance in the perception of customers about the usefulness of TEBSS.

6.3.4.1 Age of Respondents and Usefulness of TEBSS

Age wise difference is checked on the usefulness perception of respondents about TEBSS through one-way ANOVA. The following table shows the analysis result and the interpretation is given afterwards.

Table 6.14: Age of Respondents and Usefulness of TEBSS

Usefulness	Sum Squares	Df	Mean Square	F	Sig
Between Groups	8.763	4	2.191	3.495	0.008
Within Groups	560.969	895	0.627		
Total	569.732	899			

Source: Result of Primary Data Analysis Using SPSS

Analysis result discloses that, customers' perception about usefulness of TEBSS is significantly varying with their age group. The $p < 0.05$ which signifies differences in the usefulness perception among respondents in various age groups. It indicates that, usefulness of TEBSS regarding the speed of service delivery, their feeling of enhanced efficiency in the banking transactions by the use of TEBSS are varying according to their age group. Once the difference is obtained as

significant, it is necessary to check which groups are significantly differing in their perceived usefulness. For this, post-hoc analysis later performed (Appendix.3.12) and the post-hoc results shows the significant differences between respondents in the age group below 25 and 31-40 ($p < 0.05$). It is because usefulness is high for those who actively dealing with TEBSS. The middle agers (31-40) should have a job and regular income. They might be the most active users of TEBSS and are really benefited with the use of TEBSS, since they need to carry out more banking transactions when compared to younger customers who are mostly consists of students.

6.3.4.2 Education of Respondents and Usefulness of TEBSS

Education of respondents and their perception about usefulness of TEBSS is analysed to know whether the perception of customers about usefulness of TEBSS is varying with their level of education. The table displayed below represents the result of analysis.

Table 6.15: Education of Respondents and Usefulness of TEBSS

Usefulness	Sum Squares	Df	Mean Square	F	Sig
Between Groups	3.596	5	0.719	1.136	0.340
Within Groups	566.136	894	0.633		
Total	569.732	899			

Source: Result of Primary Data Analysis Using SPSS

The result states that; the education wise difference in the usefulness perception is insignificant since the p value is insignificant (0.340) at the

level of acceptance criterion $p < 0.05$. It implies that the perception about usefulness of TEBSS is not varying between customers having high educational qualification and low educational qualification.

6.3.4.3 Occupation of Respondents and Usefulness of TEBSS

Occupation wise difference in the perception of usefulness of TEBSS is analysed to know whether there is any significant difference in the usefulness perception among respondents who are under various occupation.

Table 6.16: Occupation of Respondents and Usefulness of TEBSS

Usefulness	Sum Squares	Df	Mean Square	F	Sig
Between Groups	12.252	6	2.042	3.271	0.003
Within Groups	557.480	893	0.624		
Total	569.732	899			

Source: Result of Primary Data Analysis Using SPSS

It is evidenced that; occupation wise difference exists between respondents in their perception of usefulness since the $p < 0.05$. Result implies that, the perceived usefulness of respondents about TEBSS who are doing different types of jobs are significantly varies according to their job type. The volume of banking transactions done by customers who are doing different types of jobs are varying significantly. Those who requires lot of banking related transactions are actually benefited by the use of TEBSS. Hence their perception regarding usefulness of TEBSS may not be similar to those who are less required of banking related transactions.

Since the difference is found as significant, post-hoc analysis is performed in order to track which categories of respondents based on their occupation are significantly varying in their usefulness perception. Post-hoc analysis results (Appendix 3.13) reveals that, significant differences exist in between the occupation groups government employees and students ($p < 0.05$). Compared to students, govt. employees are more engaged in banking related activities since they have regular income and their salary and financial dealings are related with banks. Hence, they are actually benefited and well experienced the usefulness of TEBSS.

6.3.4.4 Monthly Income of Respondents Usefulness of TEBSS

Monthly income wise analysis of respondents and usefulness of TEBSS is analysed. One-way ANOVA test is applied to check the association of monthly income and usefulness perception of customers. The result of income wise difference in usefulness perception of respondents is tabulated below.

Table 6.17: Monthly Income of Respondents and Usefulness of TEBSS

Usefulness	Sum Squares	Df	Mean Square	F	Sig
Between Groups	11.171	5	2.234	3.576	0.003
Within Groups	558.561	894	0.625		
Total	569.732	899			

Source: Result of Primary Data Analysis Using SPSS

The Table (6.17) above shows the analysis result of income and usefulness perception of respondents. It is seen from the table that; perception about usefulness of TEBSS is significantly varying among

respondents who are having varying monthly income ($p < 0.05$). Since the varying purposes are met through a single TEBSS, they can avoid the frequent bank visits for each purpose. Thus, the usefulness perception is significantly varying according to the monthly income of customers. Post-hoc analysis (Appendix 3.14) then applied and found that, significant differences in usefulness of TEBSS exists between respondents who belongs to the income groups Up to ₹ 20000 and ₹ 20000-30000 ($p < 0.05$).

It is understood from the analysis that customers perception on adoptability of TEBSS varies to an extent according to some of demographic factors. The analysis result disclosed that, user awareness about TEBSS is significantly varies among respondents who belongs to different class of education. Mainly the variance is reported in between graduates and post-graduates. However, awareness does not vary according to other factors like age, occupation or income. Accessibility of TEBSS seems to be varying against the occupation status of users. Specifically, it varies among government employees and private employees but it does not vary according to any other demographic factors like age, education or income.

Ease of use and usefulness also showed variance with the user demographics. Ease of use of TEBSS is significantly different for the respondents who are at different age groups. Mainly the difference exists among youngsters and older adults. Similarly, usefulness of TEBSS shows significant difference according to the age group, occupation, and monthly income of respondents.

6.4 Analysis of Post-use Experiences of Customers on TEBSS

The post-use experiences analysis includes the analysis of customer satisfaction, post-use trust and risk perception about TEBSS. Customer satisfaction is the feeling of customers regarding the characteristics of TEBSS including speed of transactions, scope of services, safety and security measures, language and support systems in TEBSS etc. Post-use trust measures the customers' feeling about security aspect of TEBSS in terms of safe guards, pass word and pin protection of transactions etc. Descriptive analysis carried out on post-use experiences and the following table represents analysis result. Differences in the post-use experiences was also checked in the study on the basis of different demographical factors of respondents.

Table 6.18: Analysis of Post-Use Experiences of Customers on TEBSS

Variables	N	Mean	Std. Dev.
Satisfaction	900	3.75	0.711
Post-use trust	900	3.41	0.754
Risk Perception	900	2.83	0.863

Source: Result of Primary Data Analysis Using SPSS

It can be seen that the customer satisfaction is high in TEBSS, mean score (3.75, Std. Dev. 0.7). Which states that, customers are satisfied with; the different types of services offered through TEBSS, speed of services through TEBSS, they are satisfied with digitalisation of their personal information, satisfied with safety and security measures of TEBSS etc. Most of all, their perception is high, since they have overall satisfaction feeling regarding TEBSS usage.

Result of analysis shows that, level of customers' post-use trust is also high since the mean score (3.41 with Std. Dev. 0.75). It communicates that, customers have the feeling that safe guards (encryption, passwords and PIN etc.) are enough for comfortable use of TEBSS, security system against un authorised access is appropriate, and TEBSS had the necessary functionalities needed for performing online transactions. Moreover, one reason also can be cited for the increased trust in TEBSS that, they might have a prevalent level of trust in their banks before they assess the TEBSS of that bank. These are the reasons that can be stated for the higher level of post-use trust.

The mean value of risk perception shows that risk perception is low (mean score 2.83) indicates the risk perception is low among majority of the users. The result indicates that, users are not much concerned about loss of control over privacy of account information, transaction failure, losing money via fraud practices, frustration or psychological discomfort in performing banking activities through TEBSS since they are practically experienced in their TEBSS transactions. Risk perception generally affects the behavioural intention negatively hence, it was very high in the pre-adoption studies found earlier. But when customers are in the post-adoption stage, their risk perception comes to low. Additionally, another justification can be given that the respondents are already having adequate level of trust in TEBSS. Hence their risk perception would be low.

6.4.1 Demographic Characteristics and Customer Satisfaction

In previous studies, some socio- demographic factors evidenced as having significant effect on customer satisfaction in using banking

technologies. For the purpose of this study, some selected demographic factors which are expected to make difference in the level of satisfaction of customers in using TEBSS are analysed.

Customer satisfaction in using TEBSS is analysed based on some user specific attributes like age, education, occupation and monthly income in order to find out whether there is any significant difference in the satisfaction of respondents according to their demographic features.

6.4.1.1 Age of Respondents and Satisfaction in using TEBSS

Age wise analysis on satisfaction of respondents is performed to identify if there is any significant difference in the level of satisfaction of respondents in using TEBSS according to their age. One-way ANOVA test is applied on satisfaction and age of respondents and the result is tagged below.

Table 6.19: Age of Respondents and Satisfaction in using TEBSS

Satisfaction	Sum Squares	Df	Mean Square	F	Sig
Between Groups	7.968	4	1.992	3.986	0.003
Within Groups	447.277	895	0.500		
Total	455.245	899			

Source: Result of Primary Data Analysis Using SPSS

It is revealed from the Table (6.19) that; satisfaction in TEBSS is varying in accordance with the age group of respondents. It is seen that, the $p < 0.05$, which implies satisfaction level of respondents with TEBSS is significantly associated with the age group of respondents. It implies that,

customers belong to different age groups are varying in their satisfaction in using TEBSS in terms of types of services provided through TEBSS, speed of services, digitalisation of personal as well as banking details etc. Post-hoc analysis (Appendix.3.15) then performed to identify which age groups of people are significantly varying in satisfaction. The analysis result shows that significant difference exists in between the age group below 25 and 31- 40 ($p < 0.05$), below 25 and above 50 ($p < 0.05$). Since the younger generation is more familiar with computer and internet, they are more interested to perform banking activities through TEBSS. It supports the findings of Yitbarek et al. (2013) that, gradual but steadily decline in the preference of use of TEBSS leads to difference in their satisfaction as age grows.

6.4.1.2 Education of Respondents and Satisfaction in using TEBSS

Education wise analysis is carried out on user satisfaction with TEBSS to assess the whether there is variance in user satisfaction in TEBSS according to the education qualification of respondents. The following table presents the one-way ANOVA result.

Table 6.20: Education of Respondents and Satisfaction in using TEBSS

Satisfaction	Sum Squares	Df	Mean Square	F	Sig
Between Groups	1.758	5	0.352	0.693	0.629
Within Groups	453.487	894	0.507		
Total	455.245	899			

Source: Result of Primary Data Analysis Using SPSS

It can be inferred from the Table (6.20) that; there is no significant difference in customer satisfaction based on their education since the

$p > 0.05$. It means that, educational qualification of respondents does not make any significant difference in their satisfaction with TEBSS. Since the customers are already adopted the TEBSS and started using the TEBSS, they experienced the functionalities of TEBSS. Hence their satisfaction might be based on their experiences in the quality of the services they are availing through TEBSS. So, their education does not have any significant association with their satisfaction.

6.4.1.3 Occupation of Respondents and Satisfaction in using TEBSS

Occupation wise deference is ascertained on respondents' satisfaction of TEBSS in order to understand whether there is any association between satisfaction and the type of occupation they are currently doing. One-way ANOVA is applied to examine the difference in the satisfaction of respondents according to their occupation status. The analysis results are presented below.

Table 6.21: Occupation of Respondents and Satisfaction in using TEBSS

Satisfaction	Sum Squares	Df	Mean Square	F	Sig
Between Groups	10.334	6	1.722	3.457	0.002
Within Groups	444.910	893	0.498		
Total	455.245	899			

Source: Result of Primary Data Analysis Using SPSS

Analysis result reveals that, there exists significant difference in satisfaction of respondents based on their occupation. The $p < 0.05$, supports the significant difference in the satisfaction of respondents doing different kind of jobs. Which means that, satisfaction of customers in

different types of services offered through TEBSS, speed of service delivery, digitalisation of personal as well as banking details, safety and security measures are closely associated to their nature of job. The customers who are having busy schedule of work may more attracted to TEBSS since the speed of service delivery is high and it matches their job profile. Post-hoc analysis (Appendix.3.16) then applied to know which all the groups are significantly differs in their satisfaction. The post-hoc analysis result reveals that significant difference exists between the groups private employees and students ($p < 0.05$) and agriculturists and students ($p < 0.05$). Since the private employees are more busy schedules of life and work, they may have gained time and effort advantages through the TEBSS.

6.4.1.4 Monthly Income of Respondents and Satisfaction in using TEBSS

Monthly income of the respondents was grouped in to six groups starting from up to ₹ 20000 to above ₹ 60000. One-way ANOVA test is employed to identify if there is any significant association satisfaction of respondents and their monthly income. Given table depicts the analysis results.

Table 6.22: Monthly Income of Respondents and Satisfaction in using TEBSS

Satisfaction	Sum Squares	Df	Mean Square	F	Sig
Between Groups	11.347	5	2.269	4.570	0.000
Within Groups	443.898	894	0.497		
Total	455.245	899			

Source: Result of Primary Data Analysis Using SPSS

Result denotes that, significant difference in the satisfaction exists between respondents who are having different amount of monthly income. P value is 0.000 supports the difference between the groups are significant. Generally, bank customers who are having frequent financial dealings may depend on the TEBSS since it is very efficient for basic banking transactions like fund transfer, payment services etc. Thus, for the people who are having different scale of monthly income may differ in their satisfaction with TEBSS. The post-hoc analysis (Appendix.3.17) is executed later to identify which groups are significantly differ in their satisfaction. The analysis revealed that, significant difference in satisfaction exists among respondents included in the first category of income (Up to ₹ 20000) and third category of income (₹ 30001-40000) ($p < 0.05$), first category of income (Up to ₹ 20000) and fourth category of income (₹ 40001-50000) ($p < 0.05$).

6.4.2 Demographic Characteristics and Post-Use Trust of Customers

Post-use trust is analysed based on the perception of customers regarding the proficiency of security features of TEBSS. The descriptive analysis performed later shows that, customers have favourable perception regarding the safety and security options that are available in TEBSS. Trust is generally a user specific attribute; hence it is checked against some selected demographic factors to identify whether the post-use trust is varying according to their demographic characteristics. Respondents' age, education, occupation and monthly income are selected for testing the difference in the post-use trust. Following section deals with the analysis of post-use trust based on demographical characteristics.

6.4.2.1 Age of Respondents and Post-Use Trust in using TEBSS

Age wise analysis is performed on the post-use trust of respondents in using TEBSS to analyse difference in the post-use trust of respondents on TEBSS based on their age groups. The table below shows the one-way ANOVA test result.

Table 6.23: Age of Respondents and Post-Use Trust in using TEBSS

Post- Use Trust	Sum Squares	Df	Mean Square	F	Sig
Between Groups	4.278	4	1.069	1.901	0.108
Within Groups	503.372	895	0.562		
Total	507.650	899			

Source: Result of Primary Data Analysis Using SPSS

It is evident from the table that; respondents' age does not make any significant difference in the post-use trust in using TEBSS since the $p < 0.05$. The safety and security features are common for all TEBSS, once the customers are experienced this, their perception regarding trust become favourable or otherwise unfavourable. So, there is no age wise difference in the perceptions regarding trust specifically about the pin or password protection of transactions, digitalisation of transactions for unauthorised access of account and bank details etc. It can be concluded that post-use trust in TEBSS is not varying significantly among respondents who are young, middle age or older adults.

6.4.2.2 Education of Respondents and Post-Use Trust in using TEBSS

Education wise analysis of respondents is carried out on post-use trust of respondents in using TEBSS. One-way ANOVA test is applied for the same and the result is discussed below.

Table 6.24: Education of Respondents and Post-Use Trust in using TEBSS

Post-Use Trust	Sum Squares	Df	Mean Square	F	Sig
Between Groups	1.322	5	0.264	0.467	0.801
Within Groups	506.327	894	0.566		
Total	507.650	899			

Source: Result of Primary Data Analysis Using SPSS

It is understood that, post-use trust on TEBSS does not significantly varying between respondents who are educationally qualified and not qualified. Since the ANOVA test shows the p value 0.801 ($p > 0.05$), it is inferred that, post-use trust of customers is not significantly differs according to the educational qualification of respondents. Customers are started using the TEBSS with a minimum level of knowledge, so their level of education is no-way related to their post-use trust in TEBSS.

6.4.2.3 Occupation of Respondents and Post-Use Trust in using TEBSS

Analysis of respondents' occupation and post-use trust is performed in order to test the association between post-use trust of respondents and their type of occupation. One-way ANOVA test is used for the analysis and the results are discussed below.

Table 6.25: Occupation of Respondents and Post-Use Trust in using TEBSS

Post-Use Trust	Sum Squares	Df	Mean Square	F	Sig
Between Groups	5.485	6	0.914	1.626	0.137
Within Groups	502.165	893	0.562		
Total	507.650	899			

Source: Result of Primary Data Analysis Using SPSS

It is recognised from the analysis that, there is no significant difference in the post-use trust among the respondents who are doing different types of jobs since the $p > 0.05$. Which further states that, occupation wise difference does not reflect in the level of post-use trust in using TEBSS. Safety and security measures of TEBSS are inbuilt and it is not particularly beneficial for any groups of customers based on their type of job.

6.4.2.4 Monthly Income of Respondents and Post-Use Trust in using TEBSS

Monthly income wise analysis is performed on post-use trust of customers in using TEBSS. One-way ANOVA test is used to test the monthly income wise difference in the post-use trust of customers. The table below discloses the analysis result.

Table 6.26: Monthly Income and Post-Use Trust in using TEBSS

Post-Use Trust	Sum Squares	Df	Mean Square	F	Sig
Between Groups	5.364	5	1.073	1.909	0.090
Within Groups	502.286	894	0.562		
Total	507.650	899			

Source: Result of Primary Data Analysis Using SPSS

It is inferred that; there is no significant difference in the post-use trust of customers according to their monthly income. The test value of significance is greater than $p < 0.05$, that implies monthly income of respondents does not make any significant difference in post-use trust of respondents in using TEBSS. The association between post-use trust and monthly income of respondents is totally insignificant since the customers are using TEBSS and their frequent practice made them to believe the technology irrespective of their monthly income.

6.4.3 Demographic Characteristics and Risk Perception of Customers

Risk perception is measured in the study to test its influence on the relationship between post-use trust and continuance intention. It was evident in the previous e-banking literature that, the risk perception is influenced by certain demographic characteristics. Hence, for the present study also, it is tested with some of the demographic factors, such as Age, Education, Occupation and Monthly Income.

6.4.3.1 Age of Respondents and Risk Perception in using TEBSS

Age-wise analysis is made on risk perception of customers of TEBSS in order to check whether there is any significant difference in the risk perception based on their age. One-way ANOVA test is used for checking the age wise difference in the risk perception of customers. The following table shows the details of analysis.

Table 6.27: Age of Respondents and Risk Perception in using TEBSS

Risk Perception	Sum Squares	Df	Mean Square	F	Sig
Between Groups	6.303	4	1.576	2.122	0.076
Within Groups	664.565	895	0.743		
Total	670.868	899			

Source: Result of Primary Data Analysis Using SPSS

The analysis result shows that; age wise difference in the risk perception is not significant since the p value is 0.076 which is greater than ($p < 0.05$). The result further depicts that, risk perception of customers in using TEBSS is not significantly vary among youths, middle age respondents and older adults.

6.4.3.2 Education of Respondents and Risk Perception in using TEBSS

One-way ANOVA is applied to check if there is any significant difference in the risk perception of customers regarding the use of TEBSS based on their level of education. Given below is the table showing one-way ANOVA result.

Table 6.28: Education of Respondents and Risk Perception in Using TEBSS

Risk Perception	Sum Squares	Df	Mean Square	F	Sig
Between Groups	12.575	5	2.515	3.415	0.005
Within Groups	658.293	894	0.736		
Total	670.868	899			

Source: Result of Primary Data Analysis Using SPSS

The result of ANOVA reveals that risk perception in the usage of TEBSS is significantly differs with the education level of respondents. The $p < 0.05$, at 5% confidence level indicates the significance of association. Risk perception mainly depends on the ability of respondents to assess the possible risk which may affect the usage of TEBSS. So, it is clear that, the respondents are having varying level of education are differ in their risk perception in the use of TEBSS. Post-hoc analysis is performed as the difference is significant (Appendix 3.18). The post-hoc analysis states that risk perception is significantly varies between graduates and post-graduates ($p < 0.05$).

6.4.3.3 Occupation of Respondents and Risk Perception in using TEBSS

In order to check whether the risk perception of respondents in the use of TEBSS has any significant association with the type of job they are doing, one-way ANOVA test is applied. Following table shows the result of analysis.

Table 6.29: Occupation of Respondents and Risk Perception in Using TEBSS

Risk Perception	Sum Squares	Df	Mean Square	F	Sig
Between Groups	16.125	5	3.225	4.403	0.001
Within Groups	654.743	894	0.732		
Total	670.868	899			

Source: Result of Primary Data Analysis Using SPSS

The result of ANOVA reveals that, the risk perception of customers is significantly associated with the type of occupation they are doing. Since the $p < 0.05$, it can be inferred that, the risk perception in using TEBSS is significantly differs among respondents who are doing different kind of jobs. It varies significantly between groups. In order to spot the groups in which the significant difference exists, post-hoc analysis is also carried out (Appendix 3.19). It is observed from the post-hoc analysis that, private employees and students ($p < 0.05$), agriculture respondents and students ($p < 0.05$) are the two groups in which the variance is significant.

6.4.3.4 Monthly Income of Respondents and Risk Perception in using TEBSS

Monthly income wise analysis is also performed on risk perception of customers in order to check whether there is any significant difference exists among customers who have varying level of monthly income on their risk perception. The one-way ANOVA test result is given in the following table.

Table 6.30: Monthly Income of Respondents and Risk Perception in Using TEBSS

Risk Perception	Sum Squares	Df	Mean Square	F	Sig
Between Groups	7.122	5	1.424	1.918	0.089
Within Groups	663.746	894	0.742		
Total	670.868	899			

Source: Result of Primary Data Analysis Using SPSS

The analysis result can be interpreted in such a way that, there is no significant difference in the risk perception of customers in using TEBSS according to their monthly income such that the p value is 0.089, which is higher than the acceptance criterion ($p < 0.05$). So, it can be stated that, the risk perception about TEBSS is not varying based on their monthly income.

6.5 Analysis of Continuance Intention of Customers in Using TEBSS

Customers' continuance intention in using TEBSS is analysed in the current study based on the data collected from the users of TEBSS.

Continuance intention is the outcome variable of the study and it is analysed in detail in the later sections. It is a primacy to know the continuance intention of customers to use the TEBSS in future. For this purpose, descriptive analysis is done on continuance intention and the result is presented below.

Table 6.31: Analysis of Continuance Intention to use the TEBSS

Variable	N	Mean	Std. Dev
Continuance Intention	900	3.93	0.78

Source: Result of Primary Data Analysis Using SPSS

The Table (6.31) shows the descriptive analysis on continuance intention, and it is seen that the mean value is 3.93 with a standard deviation of 0.78, which indicates that, customers continuance intention to use the TEBSS in future is high. It reveals, customers are strongly intent to continue the use of TEBSS in future as well as they are willing to extent their use of TEBSS for different purposes in future and also ready to recommend the use of TEBSS to others. Since the customers are strongly intend to continue the use of TEBSS, it is indeed to look on the factors which are having significant influence on continuance intention. In the following section, continuance intention is examined on the basis of some of the selected socio-demographic factors.

6.5.1 Demographic Characteristics and Continuance Intention of Customers in using TEBSS

Continuance intention is analysed based on some selected demographic factors in order to gather the information on the association between these

factors and continuance intention. Continuance intention is analysed against age, education, occupation and monthly income of respondents. One-way ANOVA test is used for analysing the group wise difference in each case. The following section involves the discussion of analysis results.

6.5.1.1 Age of Respondents and Continuance Intention to use the TEBSS

Age wise analysis is carried out on continuance intention of respondents in using TEBSS in future. Aim of analysing the age wise difference in continuance intention is to check whether there is any significant difference in the continuance intention of respondents who are belongs to different age categories. The table tagged below represents the analysis result.

Table 6.32: Age of Respondents and Continuance Intention to use the TEBSS

Continuance Intention	Sum Squares	Df	Mean Square	F	Sig
Between Groups	12.260	4	3.065	5.022	0.001
Within Groups	546.201	895	0.610		
Total	558.461	899			

Source: Result of Primary Data Analysis Using SPSS

Analysis reveals that, there is significant difference in continuance intention to use the TEBSS based on the age of respondents such that the $p < 0.05$. It implies that, customers' continuance intention to use the TEBSS is closely associated with their age. Their intention to continue the use of TEBSS in future, their intention to extent the use of services, their willingness to recommend the services to others are significantly different according to their age. Once the difference is found as significant, it is

obvious to know respondents in which age groups significantly differ in their continuance intention. Thus, post-hoc analysis (Appendix 3.20) is also carried out and post-hoc result shows that, significant difference exists among the respondents in the age group below 25 and 26-30 ($p < 0.05$), below 25 and 31-40 ($p < 0.05$), below 25 and above 50 ($p < 0.05$). Which further states that customers who are youngsters and elder generations are mainly differ in their continuance intention in using TEBSS.

6.5.1.2 Education of Respondents and Continuance Intention to use the TEBSS

Education wise difference is checked on continuance intention of customers in using TEBSS by using one-way ANOVA. Respondents are spread across various educational background; hence it is indeed to check whether there is any association exists with the continuance intention to use the TEBSS. The table given below included the result of analysis.

Table 6.33: Education of Respondents and Continuance Intention to use the TEBSS

Continuance Intention	Sum Squares	Df	Mean Square	F	Sig
Between Groups	3.629	5	0.726	1.170	0.322
Within Groups	554.831	894	0.621		
Total	558.461	899			

Source: Result of Primary Data Analysis Using SPSS

It is seen from the analysis that; education wise difference in continuance intention is not significant. The p value is 0.323 indicates that educational qualification of respondents does not make any significant difference in their continuance intention in using TEBSS. Which further

depicts that, the continuance intention of customers to use the TEBSS is not associated with the educational qualification of users. Even if the customers are highly educated or low educated, once they started using the TEBSS and if they are satisfied and have trust in the use of TEBSS, they will continue their use.

6.5.1.3 Occupation of Respondents and Continuance Intention to use the TEBSS

Monthly income wise difference is checked in the continuance intention of respondents in using TEBSS using one- way ANOVA. The table furnished here includes the details of analysis results.

Table 6.34: Occupation of Respondents and Continuance Intention to use the TEBSS

Continuance Intention	Sum Squares	Df	Mean Square	F	Sig
Between Groups	4.981	6	0.830	1.339	0.237
Within Groups	553.480	893	0.620		
Total	558.461	899			

Source: Result of Primary Data Analysis Using SPSS

The Table (6.34) given above shows the one-way ANOVA test result on continuance intention and occupation of respondents. It is evidenced that, there is no significant difference in the continuance intention of respondents in using TEBSS according to the status of their occupation ($p > 0.05$). It implies that, the willingness of customers to use the TEBSS in future as well as their intention to extent the use of TEBSS is not based on their type of occupation since they are already experienced the TEBSS.

6.5.1.4 Monthly Income of Respondents and Continuance Intention to use the TEBSS

Continuance intention in using TEBSS by customers and their monthly income are analysed by using one-way ANOVA in order to check if there is any significant difference in continuance intention among respondents who have varying range of monthly income. Details of analysis is given below.

Table 6.35: Monthly Income of Respondents and Continuance Intention to use the TEBSS

Continuance Intention	Sum Squares	Df	Mean Square	F	Sig
Between Groups	13.753	5	2.751	4.514	0.000
Within Groups	544.708	894	0.609		
Total	558.461	899			

Source: Result of Primary Data Analysis Using SPSS

It is inferred from the analysis that; continuance intention of respondents in using TEBSS is significantly vary among respondents who belongs to various income category since the $p < 0.05$. It is clear from the analysis that, the users' intention to continue the use of TEBSS in future as well as their intention to make the extensive use of TEBSS for different purposes in future are depend on their income. It is quite true that only those people who need to carry out the banking transactions regularly are more attracted to TEBSS. The volume of banking transactions of customers more or less depends on their level of income. Income wise difference in continuance intention hence means that, those

customers who are having varying level of monthly income also varies in their continuance intention to use the TEBSS. The post-hoc analysis (Appendix 3.21) is performed to spot the respondents which income category are mostly varying with others. Post-hoc analysis result signifies that difference in continuance intention is exist among the respondents who are having monthly income up to ₹ 20000 and ₹ 20001-30000 ($p < 0.05$), up to ₹ 20000 and ₹ 30001-40000 ($p < 0.05$).

Analysis result reveals that, post-use experiences of customers and their continuance intention to use the TEBSS are vary across some demographic factors. It is identified that; customer satisfaction is significantly associated with the age groups of customers, different occupation status, and those who are having varying scale of monthly income. Whereas post-use trust does not vary based on any of these demographic characteristics. But risk perception of customers in using TEBSS is vary among respondents who are having different educational qualifications as well as among those who are doing different types of jobs.

Continuance intention is also significantly different among respondents based on their age as well as their monthly income. It can be summarised as the customers are already experienced the TEBSS and its different functionalities, the demographic factors like age, education, occupation and income of customers are not much influencing their post-use behaviour.

6.6 Confirmatory Factor Analysis of Variables

Confirmatory Factor Analysis is the part of structural equation modelling, which is used to estimate the relationship between observed indicators and their underlying constructs. It is also called as measurement model. Measurement model assess how the latent constructs are measured by the observed constructs and check the fit of the data to the hypothesised model. The measurement model analysis explicates the result of the structure of data to the specified model with reliability and validity measures. Construct validity is measured in the model with confirmatory factor analysis. CFA is used when the factor structure is known for the latent construct and known that each item of the variables is associated to one factor. CFA is known as the measurement model of the SEM as it depicts the pattern of the observed variables for the latent constructs in a hypothesised model. It is used to test the inter-relationship and covariance with constructs. The main aim of performing the confirmatory factor analysis is to test whether the data fit the hypothesised model. The measurement model analysis starts with the identification of the hypothetical model. Once the model is identified, the same is checked with the model fit analysis tools. For checking the model fit, most important factors to be considered are absolute fit, incremental model fit and parsimonious fit. For each, model fit is identified by different values of criteria.

6.6.1 Absolute Model Fit

Absolute model fit indicates how well a priori model fits the sample data as well as demonstrates that which model has superior fit. The

absolute fit of the measure simply indicates that, how well a proposed theory fits the data. For the absolute model fit, a model requires the chi-square value, RMSEA and GFI values.

6.6.2 Chi-square Value

Chi square value is the traditional model fit indices, which explains the overall fit of the identified model. Even though the chi square statistic is used for assessing the model fit, more alternate methods of model fit are used apart from relying on the chi-square statistics. Since the chi-square test is sensitive to the sample size, the other alternate model fit indices are taken for consideration. Chi-Square statistic nearly always rejects the model when large samples are used (Bentler and Bonnet, 1980; Jöreskog and Sörbom, 1993). On the other hand, where small samples are used, the Chi-Square statistic lacks power and because of this, may not discriminate between good fitting models and poor fitting models (Kenny and McCoach, 2003).

6.6.3 RMSEA

The Root Mean Square Error Approximation (RMSEA) value is one of the important model fit indices which is considered as one of the most informative fit indices. The value of RMSEA indicates how well the chosen parameter estimates would fit the population covariance matrix. The value is good when it is less than 0.05, acceptable when it comes in the range of 0.05 and 0.08, and bad if it comes 0.10 or more. It actually measures the badness of fit, hence the value less than 0.08 is preferred for good model fit. The RMSEA tells how well the model, with unknown but

optimally chosen parameter estimates would fit the population covariance matrix (Byrne, 1998).

6.6.4 GFI, AGFI & RMR

Goodness of Fit Index is another measure for absolute model fit. GFI is the alternative to chi-square test. The model fit is identified by analysing the Goodness of Fit Indices and the AGFI (Adjusted Goodness of Fit Indices) values. AGFI tends to increase with sample size. As with the GFI, values for the AGFI also range between 0 and 1 and it is generally accepted that values of 0.90 or greater indicate well-fitting models. Given the often-detrimental effect of sample size on these two fit indices, they are not relied upon as a stand -alone index (Daire Hooper, 2008). Root Mean square of Residual (RMR) indicates the square root of the difference between the residuals of the sample covariance matrix and the hypothesised covariance model. It is also a badness of fit indicator. If the items of the questionnaire measured with different scales, like one item in five -point scale and other in seven- point scale, the RMR value is difficult to calculate. In this case Standardised RMR (SRMR) is calculated and the value obtained in RMR is less than 0.05 indicates the well fit model.

6.6.5 Incremental Fit indices (IFI)

Incremental fit indices are also known as relative fit indices or comparative fit indices. Comparative fit indices are a group of indices that do not use the chi-square in its raw form, but compare the chi-square value to a baseline model (Daire Hooper, 2008). Comparative fit indices

or incremental fit indices also taken to consider the assessing the model fit. Most common comparative fit indices are, Comparative Fit Indices, Normed Fit Indices, and Tucker Lewis Index etc. All the comparative fit indices of the model should be >0.90 for better model fit.

6.6.6 Comparative Fit Indices (CFI)

Comparative fit indices of the hypothesised model with some alternative models such as null or independent models. CFI compares the fit of the targeted model with the independent model. An independent model is the model in which, the variables are assumed to be non-correlated. Fit refers in this context as the difference between the covariance matrices and predicted covariance matrices as represented by the chi-square index. In short, it indicates that to what extent the hypothesised model better than that of the independent model. Values that approach to 1 are treated as good for the fit.

6.6.7 Normed Fit indices (NFI)

Normed Fit index shows the comparison of the chi-square value of the model to the chi-square value of the null model. The null/independence model is the worst-case scenario as it specifies that all measured variables are uncorrelated. Value of statistic is ranging from 0 to 1 and the values greater than 0.90 is treated as a good fit of the model.

6.6.8 Tucker Lewis Index (TLI)

TLI or Non-Normed Fit Index (NNFI) is another comparative measure of goodness of fit. The TLI fit index is also comparing the hypothesised model with the null, and the specification is that it is highly

sensitive to the sample size. It may show a poor fit despite other indicators showing the best fit in the case of small sample size. The values of TLI also required near to 1 for better model fit.

6.6.9 Parsimony Fit Indices

Parsimony fit indices are another type of fit indices taken into consideration in a saturated or complex model. In this case, the estimation is based on the sample data which may lead to falsification or disconfirmation. In this context, PGFI and PNFI measures are taken into consideration. Both these measures are seriously penalizing for model complexity which results in parsimony fit index values that are considerably lower than the other goodness of fit indices (Daire Hooper, 2008). The structure and the goodness of fit measures are necessary to analyse for the initial model to provide the information about changes in the parameters and it gives the theoretical justification of the theory underlying to the hypotheses model.

6.7 Measurement Model Analysis

The measurement model in SEM defines the relationship between the observed and unobserved variables. Measurement model depicts the relationship between the latent variable and their measures. It is basically a theoretical model based on which the path model is hypothesised. For the present study, the measurement model comprises 8 factors, each factor measured by a minimum of three and a maximum of seven indicators. Each of these indicators are regressed with the concerned factors. All these 8 factors shown to be inter-correlated hence the

structural model analysis can be forwarded in SEM. The measurement model (CFA) and the model fit values are given in the following section.

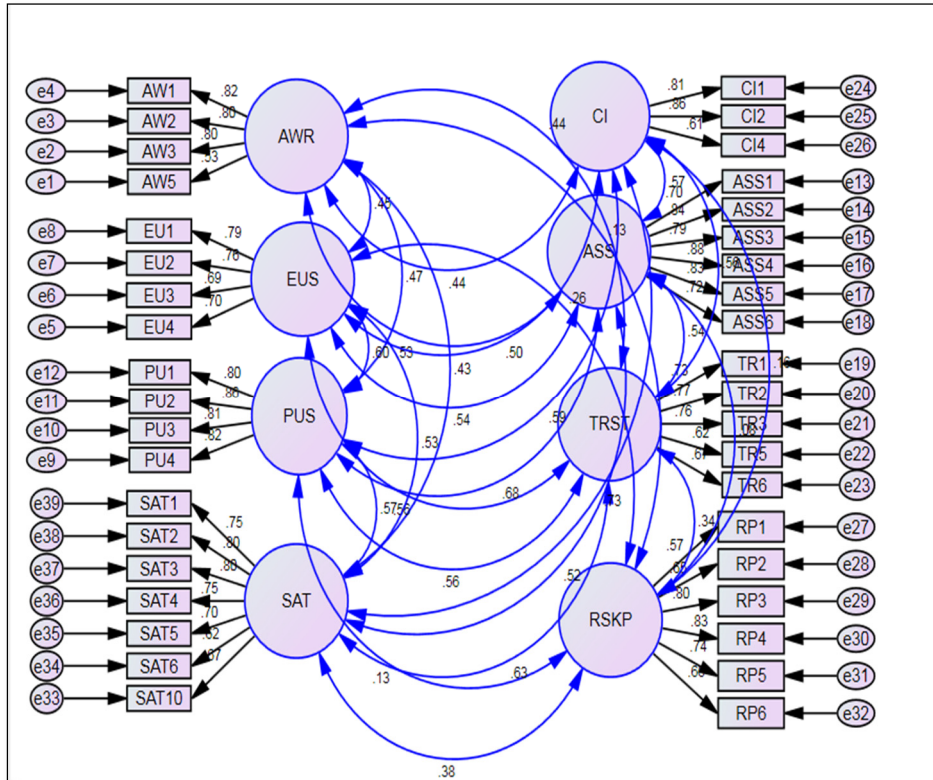


Fig. 6.1: Measurement Model

6.7.1 Measurement Model Fit

Model identification is the first phase of testing the measurement model. Model identification is done with chi-square statistic. Chi-square is the minimum value of the discrepancy. It simply represents how many of the implied moments and sample moments are differ. For model

identification along with chi-square statistic, degrees of freedom are also taken into consideration. The value of CMIN/ df is the minimum discrepancy ratio. This ratio should be close to one for a correct model with a significant p value of less than 0.05. The Chi-square value of the default model is 1417.799, and the degrees of freedom 474. Since the degree of freedom is positive the model is over identified, and the model fit values and estimates can be calculated further. Following Table shows the model fit of the measurement model of the study. Generally reported model fit indices are only included in the Table.

Table 6.36: Model fit Result of Conceptual Model

Measurement of Fit Indices	Standard value	Reference	Default model	Model fit
CMIN/DF	<3 or < 5	Byrne 1994	2.991	Good fit
Goodness of Fit Indices (GFI)	>= 0.90	Byrne 1994	0.912	Good fit
RMR	< or = 0.80	Hu & Bentler 1998	0.036	Good fit
RMSEA	< or = 0.08	Brown & Cudeck 1993	0.047	Good fit
NFI	>= 0.90	Byrne 1994	0.918	Good fit
CFI	>=0.90	Byrne 1994	0.944	Good fit
IFI	>= 0.90	Byrne 1994	0.944	Good fit
TLI	>=0.90	Byrne 1994	0.937	Good fit
AGFI	>= 0.90	Byrne 1994	0.896	Good fit

Source: Based on AMOS output

All the values of model fit are justifying the good fit of the model. Most commonly reported model fit indices are Goodness of Fit Index (GFI), RMSEA and Chi -square value. For the absolute fit, the chi square value is checked and result indicates the model is over identified. For the incremental fit, all the comparative fit indices are showing the acceptable values. The parsimonious fit indices also indicated good fit indices of the default model. Since the model fit indicators are showing the good model fit, the estimates can be analysed further.

6.7.2 Factor Structure of the Constructs

Main aim of carrying out the confirmatory factor analysis is to confirm the underlying factors of the construct being measured. It is a method of checking the theoretical relationship depicted by the hypothesised model. The confirmation procedure starts with the analysis of strength of relationship of indicators with the latent constructs. For the purpose of examining the results, standardised regression weights are taken in to consideration with significant p values. The following path estimates provides further explanation about the relationship of un-observed variables with observed variables.

Table 6.37: Standardised Estimates of Factor Loadings

Constructs	Item	Estimates
Awareness	AW4	0.530
	AW3	0.804
	AW2	0.802
	AW1	0.816
Ease of Use	EU4	0.698
	EU3	0.691
	EU2	0.763
	EU1	0.786
Usefulness	PU4	0.825
	PU3	0.805
	PU2	0.857
	PU1	0.802
Accessibility	ASS1	0.700
	ASS2	0.841
	ASS3	0.791
	ASS4	0.875
	ASS5	0.835
	ASS6	0.718
Trust	TR1	0.733
	TR2	0.769
	TR3	0.756
	TR4	0.622
	TR5	0.666
Continuance Intention	CI1	0.813
	CI 2	0.858
	CI3	0.614
Risk Perception	RP1	0.567
	RP2	0.648
	RP3	0.802
	RP4	0.826
	RP5	0.744
	RP6	0.656
Satisfaction	SAT7	0.674
	SAT6	0.622
	SAT5	0.696
	SAT4	0.751
	SAT3	0.797
	SAT2	0.800
	SAT1	0.751

Source: Based on AMOS Output

** AWR- Awareness, EUS- Ease of Use, PUS- Perceived Usefulness, ASS- Accessibility, TRST- Trust, CI- Continuance Intention, RISP- Risk Perception, SAT- Satisfaction

The standard estimates of the items structure of the underlying constructs are listed. All the indicators of the variables are loaded significantly with the p value less than 0.05 in confirmatory factor analysis. Standardised factor loadings of the construct awareness are listed in the first. Factor loadings of the variable awareness shows, 0.816, for the Aw1 item, 0.802 for second item, 0.804 for third item and 0.530 for fourth item. The standardised loading refers the strength of the relationship of the indicators to the construct. A value above 0.5 is acceptable but when it reaches the 0.70 or above, it indicates strong relationship. Here all the values are above 0.70 indicating strongly predict the construct except one Aw3. The Aw3 item also has the significant influence on the construct since the value is greater than 0.50.

For the construct ease of use, all the items of indicators are showing the significant standardised loadings. EUS1 (0.786), EUS2 (0.763), EUS3 (0.691) and EUS4 has 0.698 regression values. All the values are above 0.50 which indicates strength of the relation is good to explain the construct. For the construct usefulness, the second item is observed as high impact on predicting the construct (0.857). The fourth item PU4 (0.825), PU3 (0.805), and for PU1(0.802), all the factor loadings are above the criterion.

The construct accessibility has six indicators and the strength of the relationship after the CFA analysis shows that all indicators are significantly predicting the construct. The indicator ASS-4 has the strong regression weight indicating the maximum strength in explaining the construct accessibility. The remaining indicators, representing the construct as ASS5 (0.835), ASS2 (0.841), ASS3 (0.791), ASS6 (0.718), and ASS1

(0.700). The factor structure of the construct post-use trust is identified with five indicators. All the indicators are showing as significant in predicting the construct. The item TR2 shows the estimate of 0.769, which have the high regression value indicating the robust relationship. The other indicators also show a significant relationship with standardised regression values of TR3 (0.756), TR1 (0.733), TR5 (0.666), TR4 (0.622). All the regression co-efficient are above 0.50 acceptable criterion.

The factor structure of the construct risk perception is confirmed in to six factors. The identified factor structure and the loadings of the factors are significant and above the criterion. The indicator RP4 has the highest regression weight (0.826). The other indicators explain the construct as RP3 (0.802), RP5(0.744), RP6(0.656), RP2 (0.648), and indicator RP1(0.567).

For the variable satisfaction, the indicators were seven. The indicators of the construct have significant regression co-efficient with significant p values. All the indicators are having a strong relation with the underlying construct. The item 2 has highest significant regression value of 0.800, for the item SAT3 (0.797), SAT1 and SAT4 (0.751), SAT5 (0.696), SAT 7- (0.674), SAT 6 (0.622). From the CFA analysis, it is clear that all the indicators of constructs significantly explained the respective underlying constructs in the hypothesised model. The theoretical relationship of the hypothesised model is established as significant in the confirmatory factor analysis.

6.7.3 Correlation between Variables

Correlation between the constructs is checked as the second step of confirmatory factor analysis. Since the regression analysis of the variables

with indicators was done, correlation between the observed variables should be ensured for confirming the measurement model. Following Table shows the standardised estimates of the correlation of CFA analysis in Amos.

Table 6.38: Result of Correlations Between Variables in the Conceptual Model

Correlations	Estimates	P values
AWR<- -> EUS	0.448	***
AWR<-> PUS	0.467	***
AWR <-> ASS	0.526	***
AWR<-> TRST	0.438	***
AWR<-> CI	0.436	***
AWR<-> RISP	0.128	***
AWR<-> SAT	0.429	***
EUS <-> PUS	0.596	***
EUS <-> ASS	0.543	***
EUS <->TRST	0.560	***
EUS <->CI	0.502	***
EUS<-> RISP	0.263	***
EUS <-> SAT	0.530	***
PUS <-> ASS	0.676	***
PUS <-> TRST	0.556	***
PUS <-> CI	0.595	***
PUS <-> RSKP	0.126	***
PUS <-> SAT	0.571	***
ASS <-> TRST	0.535	***
ASS<-> CI	0.575	***
ASS<-> RISP	0.075	***
ASS<-> SAT	0.516	***
TRST<-> CI	0.560	***
TRST<-> RISP	0.336	***
TRST<-> SAT	0.627	***
CI <-> RISP	0.155	***
CI <-> SAT	0.726	***
RISP<-> SAT	0.381	***

Source: Based on AMOS output

The correlations of the constructs were analysed for the best explanation of the theoretical relationship among the constructs. All the variables in the study are significantly correlated ($p < 0.05$) among each other. The association of the variables significantly proved in the measurement model.

6.7.4 Reliability and Validity of Measurement Constructs

Assessing the uni-dimensionality, reliability and validity of the measurement model is necessary to ensure before testing the structural model. For assessing the validity and reliability of the measurement construct convergent validity, discriminant validity and construct validity to be ensured along with the measure of reliability. Reliability of model explains how reliable the hypothesised measurement model in explaining the intended constructs and indicators. Reliability of the measurement includes two types of reliability, inter item reliability and construct reliability. Internal reliability of the measurement constructs indicates that, how well the measurement items are held together in measuring the constructs. The internal reliability of items of the construct is measured using Cronbach's Alpha, in SPSS. The value $>$ or $= 0.5$ is needed for good reliability. A value greater than 0.7 is considered as a better measure of internal reliability of the items of the construct. Composite reliability is the measurement of internal consistency of the latent construct. A value of CR $>$ or $= 0.7$ is accepted for good reliability.

Table 6.39: Reliability of Measurement Constructs

Constructs	Cronbach's Alpha	Composite Reliability (CR)
AWR	0.823	0.832
ASS	0.909	0.912
PUS	0.893	0.893
EUS	0.824	0.825
SAT	0.886	0.888
TRST	0.834	0.836
RISP	0.857	0.859
CI	0.797	0.810

Source: Based on Primary Data Analysis

All the constructs are measured in more than three items scale, except the continuance intention (it is measured in three items standardised scale). The values of the Cronbach's Alpha are above the criterion for better reliability, hence the internal consistency of the items of the construct is ensured. Composite reliability of the construct is also analysed in the CFA the result shows that the composite reliability of all latent constructs is above the criterion value of 0.70.

6.7.5 Measurement Model Validity

For the validity of measurement model, three types of construct validity to be ensured, the convergent validity, discriminant validity and nomological validity. Among the three measures of validity, convergent and discriminant validity are statistically tested. Average Variance Extracted (AVE) is the measure of convergent validity, which indicates the average percentage of variance explained by the indicators on the

constructs measured. An AVE $>$ or equal to 0.5 is required for each construct. For ensuring the discriminant validity, shared variance of the construct with others is tested. Maximum Shared Variance is tested for the discriminant validity. Maximum Shared Variance (MSV) and Average shared variance should be less than Average Variance Extracted (AVE) to support the validity. The AVE should be higher than that of MSV because, the items of the constructs are internally correlated well than the items of the constructs correlated with other constructs. It is based on the theory that a latent variable should explain better the variance of its own indicators than the variance of other latent variables. Once the measurement model validity has been achieved, the structural model can be tested in the AMOS. The following table shows the measurement model validity of the constructs.

Table 6.40: Measurement Model Validity

	CR	AVE	MSW	MaxR (H)	RSKP	AWR	EUS	PUS	ASS	TRST	CI	SAT
RSKP	0.859	0.508	0.145	0.877	0.713							
AWR	0.832	0.559	0.277	0.857	0.128	0.748						
EUS	0.825	0.541	0.355	0.830	0.263	0.448	0.736					
PUS	0.893	0.677	0.457	0.895	0.126	0.467	0.596	0.823				
ASS	0.912	0.634	0.457	0.921	0.075	0.526	0.543	0.676	0.796			
TRST	0.836	0.506	0.393	0.843	0.336	0.438	0.560	0.556	0.535	0.711		
CI	0.810	0.591	0.527	0.842	0.155	0.436	0.502	0.595	0.575	0.560	0.769	
SAT	0.888	0.533	0.527	0.895	0.381	0.429	0.530	0.571	0.516	0.627	0.726	0.730

Source: Statwiki MS-Excel Validity Master Output

From the above Table (6.40), it is evidenced that, there is no validity concerns for the model. The value of composite reliability (CR) for all variables have values above 0.8 establishes the reliability of

variables since it is greater than the criterion value of 0.70. All the values of Average Variance Extracted (AVE) are above 0.5 which seems to be good enough to ensure the convergent validity. Discriminant validity is also ensured since the MSV values are less than the AVE values and the square root of AVE of each construct is higher than that of its highest correlation with any other construct. The discriminant validity indicates the extent to which a variable is distinct from other variables. To summarise there is no validity issues with the hypothesised model under study.

6.8 Influence of Customers' Perception on Adoptability of TEBSS on Continuance Intention to use the TEBSS

The fourth objective of this study is to examine the influence of customers' perception on adoptability of TEBSS on their continuance intention to use the TEBSS. Customers' perception on adoptability is ascertained in terms of customer awareness, accessibility of TEBSS, ease of use of TEBSS and usefulness of TEBSS. Hence, four research hypotheses are formulated based on this objective;

- H1 Customers' awareness of TEBSS has a significant influence on their continuance intention to use the TEBSS.
- H2 Customers' perception on accessibility of TEBSS has significant influence on their continuance intention to use the TEBSS.
- H3 Customers' perception on ease of use of TEBSS has significant influence on continuance intention to use the TEBSS.
- H4 Customers' perception on usefulness of TEBSS has significant influence on continuance intention to use the TEBSS.

The structural model analysis in AMOS is performed in order to attain the objective and to test the proposed relationship. The following figure (6.2) represents the structural model with customers' perception on adoptability namely customer awareness, accessibility, ease of use and usefulness as independent variables and continuance intention as dependent variable.

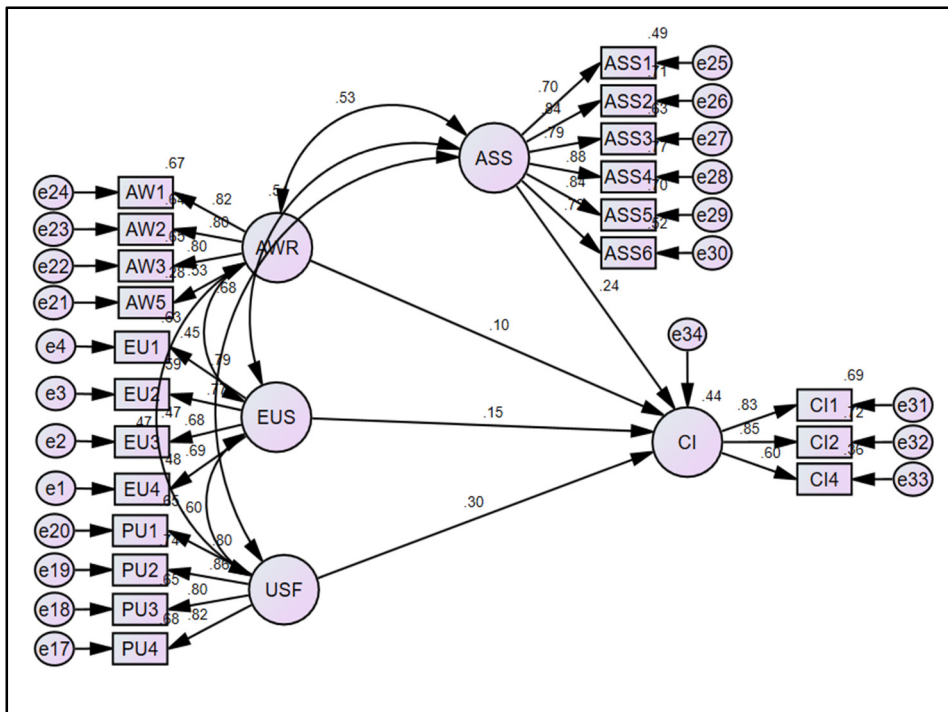


Fig. 6.2: Structural Model of Customers' Adoptability and Continuance Intention to use the TEBSS

The model fit indices depicted in the Table (6.41) are confirm the fit of hypothesised model. The fit indices CMIN/DF- 3.127, RMSEA- 0.049, RMR- 0.033, GFI-0.944, CFI-0.964 are fall under the acceptable range of values of criterion. Hence, the model fit is supported for the data.

Table 6.41: Fit Indices of the Model relating Customers' Perception on Adoptability of TEBSS and Continuance Intention to use the TEBSS

Measurement	Standard FIT	Default model	Model fit
CMIN/df	<5	3.127	Good fit
RMR	<0.08	0.033	Good fit
GFI	>0.90	0.944	Good fit
RMSEA	<0.08	0.049	Good fit
CFI	>0.90	0.964	Good fit
NFI	>0.90	0.949	Good fit
RFI	>0.90	0.940	Good fit
TLI	>0.90	0.958	Good fit
IFI	>0.90	0.965	Good fit

Source: Result of Primary Data Analysis using AMOS

Further, the hypotheses are tested using the path analysis in the structural model. The following table (6.42) represents the hypothesis testing results

Table 6.42: Result of Hypotheses Test between Customers' Perception on Adoptability and Continuance Intention to Use the TEBSS

Path	Standardised Estimates	P value	C.R	S. E	R square
AWR → CI	0.104	0.011	2.55	0.056	0.437
ASS → CI	0.241	0.000	4.90	0.051	
EU → CI	0.148	0.001	3.24	0.049	
PU → CI	0.299	0.000	5.89	0.054	

Source: Result of Primary Data Analysis using AMOS

It is observed that, customer awareness has a significant positive relationship ($p < 0.05$), accessibility has a significant positive relationship ($p < 0.05$), ease of use has a positive relationship ($p < 0.05$) and usefulness has a significant positive relationship ($p < 0.05$) with continuance intention to use the TEBSS. Hence the hypotheses H1, H2, H3 and H4 are proved. Customers perceptions on adoptability explains 43.7 per cent of variance in explaining continuance intention to use the TEBSS (R^2 0.437).

Customers continuance intention to use the TEBSS increases when customers are more aware about the TEBSS. Awareness is not confined to the simple user awareness about the use and benefits of using the TEBSS; instead it is persons' degree of attentiveness towards the new system and ability to depict the belief in a certain time and space (Islam & Gronlund, 2011). Since the customers are already started using the TEBSS, they have the minimum level of knowledge about the use of TEBSS, benefits and risk of using TEBSS etc.

Similarly, TEBSS ensure time saving, effortless and convenient way of doing banking transactions. Thus, the user once experienced the convenience in using these products and services, or when it is easy to use and when it became more useful to them, they may have the tendency to continue the use. When customers perceive more on the adoptability, their intention to continue the use of TEBSS in future also will be strong. The findings support the views of Wangpipatwong & Chutimaskul (2008); Hamid & Zaidi (2016); Pikkarainen (2004).

6.9 Influence of Customer Satisfaction and Post-Use Trust in the Relationship between Adoptability and Continuance Intention to Use the TEBSS

The fifth objective of this study was to test the mediating role of post-use experiences namely customer satisfaction and post-use trust on the relationship between customers' adoptability of TEBSS and their continuance intention. Mediation analysis is performed to examine the direct and indirect effect of the post-use trust and satisfaction in the relationship between adoptability of TEBSS and continuance intention. Since, the AMOS output gives the results of combined indirect effect of the variables, it was a necessity to look at the individual effect of these intervening variables on each case. In order to explain the indirect effect more precisely in each case, mediation analysis was carried out in PROCESS. PROCESS allows the analysis of indirect effect by controlling the effect of other variables. So, the specific indirect effect of each of these variables through the mediators can be tested in PROCESS MACRO. It is an extension to the statistical software SPSS developed by Hays (2013), to analyse the indirect effects of the constructs in the model. It is a tool for path analysis based on mediation and moderation as well as their combination as conditional process models.

Similar to SEM, bootstrapping method is applied for mediation analysis in PROCESS also. Bootstrapping is a method of resampling by creating a sampling distribution to estimate sampling errors and confidence intervals to confirm the mediation effect. The bootstrapping method was developed by Preacher & Hays (2008). Additionally, it has the advantage over Sobel' test and can help determining the mediation effect with

certainty. The basic assumption of SEM is the data normality but many of the studies failed to satisfy the normality assumption. In this case the resampling method has more power than a single sample method. The original sample size of 'n' is treated as a miniature representation of the population originally sampled (Hays, 2018). Regardless of the inferential problem the essence of bootstrapping remains constant across applications. Hence a separate mediation analysis in PROCESS is more specific over extracting the combined effects in SEM using AMOS, if there is multiple independent variables and multiple mediators.

Mediation in this study is identified as parallel mediation. For the purpose of conducting the analysis in PROCESS macro, it included some sequences of tests after identifying the concerned model templates. Here the model template is identified as Model 4 and hence for testing the parallel mediation in PROCESS, model 4 is taken as model template. Once the model is identified from the templates, the relationships are tested in following steps;

- **Step1- Independent variable and mediator 1**

In this stage, direct relationship between independent variables and first mediator (M1) is analysed using regression analysis. Relationship is analysed by looking on p value.

- **Step 2- Independent variable and mediator 2**

In this stage the regression analysis is again used to test the direct relationship between independent variable and mediator 2 (M2). Here also the p value is checked for testing the significance.

▪ **Step3- Mediators (M1, M2) to dependent variable**

In this stage, the direct relationship of both the mediators to the dependent variables are analysing using p value and regression weights.

▪ **Bootstrapping/ composition of the effects**

Bootstrapping analysis is performed for testing the significance of indirect effect by analysing the bootstrap confidence intervals of direct, indirect and total effects. The bootstrap analysis mainly includes;

- Checking direct effect is significant or not
- Bootstrapping analysis on Indirect effect through M1 and M2 on DV
- Contrast analysis for testing the significance of the difference of indirect effects

6.9.1 Analysis of the Effect of Awareness on Continuance Intention through Satisfaction and Post-use Trust

Mediation result of the relationship between awareness and continuance intention through customer satisfaction and post-use trust is interpreted through the procedure explained before. The conceptual model for mediation analysis is given below.

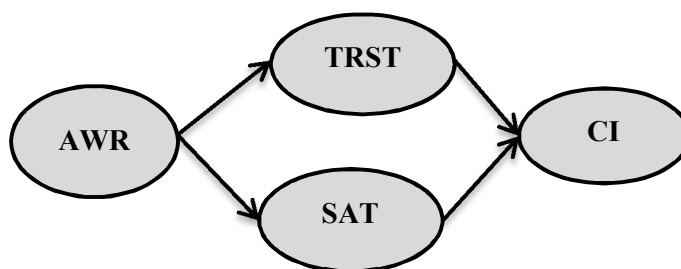


Fig. 6.3: Mediation Model – Awareness and Continuance Intention

(AWR-Awareness, TRST- Post-use trust, SAT- Satisfaction, CI- Continuance Intention)

- **Analysing the Significance of The Impact of Awareness on Customer Satisfaction and Post-use Trust**

Table 6.43: Impact of Awareness on Satisfaction and Post-Use Trust

Outcome	Model	Co-eff	S. E	T	P	LLCI	ULCI
Satisfaction	Constant	2.5934	0.0967	26.8300	0.000	2.4037	2.7831
	AWR	0.3207	0.0259	12.3619	0.000	2698	0.3716
Trust	Model	Co-eff	S. E	T	P	LLCI	ULCI
	Constant	2.2169	0.1025	21.6347	0.000	2.0158	2.4180
	AWR	0.3308	0.0275	12.0290	0.000	0.2768	0.3848

Source: Result of Mediation Analysis in Process Macro

The Table (6.43) shows that customer awareness significantly influences customer satisfaction and post-use trust. It examines to what extent the awareness predicts both the satisfaction and post-use trust. Since the p value $p < 0.05$) in both cases, it is stated that the awareness significantly predicts both the mediators.

- **Analysing the Effect of Satisfaction and Post-use Trust on Continuance Intention**

Table 6.44: Impact of Satisfaction and Post-use Trust on Continuance Intention

Outcome-	Model	Co-eff	S. E	T	P	LLCI	ULCI
CI	Constant	0.9141	0.1211	7.5499	0.000	0.6765	1.1518
	SAT	0.5621	0.0344	16.3176	0.000	0.4945	0.6297
	TRST	0.1543	0.0325	4.7476	0.000	0.0905	0.2181
	AWR	0.1040	0.0260	4.0018	0.001	0.0530	0.1550

Source: Result of Mediation Analysis in Process Macro

Second stage of mediation analysis is testing the relationship between mediators and dependent variable. Considering the values in the table, p values in both cases are significant ($p < 0.05$). Therefore, it indicates that customer satisfaction and post-use trust have significant influence on continuance intention. Consequently, it is proceeding to check the direct and indirect effects of awareness on continuance intention in the presence of the mediators.

▪ **Analysing the Direct and Indirect Effects**

Table 6.45: Direct Effect- Awareness on Continuance Intention

	Effect	S. E	T	P	LLCI	ULCI
Direct effect	0.1040	0.0260	4.0018	0.001	0.0530	0.1550

Source: Result of mediation Analysis using PROCESS MACRO

The direct effect table (6.45) shows that, awareness on continuance intention in the presence of satisfaction and post-use trust is significant with the $p < 0.05$. For analysing the indirect effects, the following analysis is needed to be checked.

Table 6.46: Indirect Effects- Awareness on Continuance Intention

	Effects	Boot SE	Boot LLCI	Boot ULCI
TOTAL	0.2313	0.0265	0.1812	0.2854
SAT	0.1803	0.0233	0.1380	0.2278
TRST	0.0510	0.0139	0.0257	0.0812
C1	0.129	0.027	0.076	0.182

Source: Result of Mediation Analysis in PROCESS MACRO

The indirect effect is the influence that the independent variable exerts on dependent variable through the mediators. The bootstrap confidence intervals are examined to check the significance of effects. The indirect effects of awareness on continuance intention through satisfaction is significant since there is no zero value in between the bootstrap intervals (0.1380 -0.2278). Similarly, the indirect effect of awareness on continuance intention through post-use trust is also found as significant for the reason that no zero included in between the bootstrap intervals (0.0257-0.0812).

The last section of the table indicates the result of contrast analysis (C1). It denotes the significance of difference in the indirect effects. It is seen from the indirect effect analysis that; the influence of satisfaction is strong when compared to post-use trust. Contrast analysis states that, this difference in the indirect effect is also significant since there is no zero-value included in between the bootstrap confidence interval of contrast analysis (LLCI-0.076- ULCI-0.182).

Thus, it is inferred that customer satisfaction as well as post-use trust significantly influence the relationship between awareness and continuance intention. Awareness had significant effect on continuance intention before adding the mediators whereas, the influence of awareness through satisfaction and post-use trust is found as strong. Since the influence of awareness on continuance intention is significant even at the presence of influences of satisfaction and post-use trust, it indicates the case of partial mediation. To summarise, the influence of satisfaction and post-use trust is more crucial to the continuance intention decisions of

customers to use the TEBSS. Awareness of customers about TEBSS is needed to continue the TEBSS once the customers are highly satisfied in TEBSS, since the satisfaction is largely influencing the relationship between awareness and continuance intention. Here, the hypotheses H5 and H6 are proved as;

H5 There exists a mediating effect of customers' satisfaction on the relationship between customers' awareness and their continuance intention to use the TEBSS.

H6 There exists a mediating effect of post-use trust of customers on the relationship between their awareness and continuance intention to use the TEBSS.

6.9.2 Analysing the Effect of Accessibility on Continuance Intention through Satisfaction and Post-use Trust

Mediation analysis is done with the next independent variable, accessibility. The indirect effect of accessibility on continuance intention is assessed through customer satisfaction and post-use trust. The tested mediation model and results are tagged below.

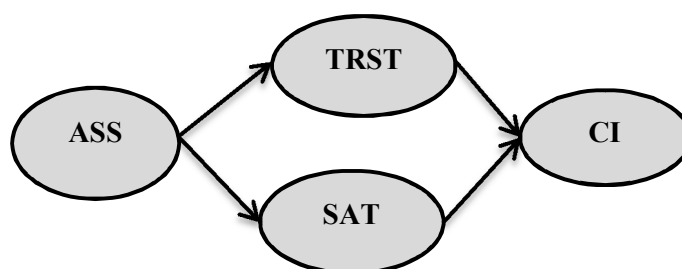


Fig. 6.4: Mediation Model – Accessibility and Continuance Intention
(ASS- Accessibility, TRST-Post-use trust, SAT- Satisfaction, CI- Continuance Intention)

- **Analysing the Significance of the Relationship of Accessibility on Customer Satisfaction and Post-use Trust**

Table 6.47: Impact of Accessibility on Satisfaction and Post-Use Trust

Outcome	Model	Co-eff	S. E	T	P	LLCI	ULCI
Satisfaction	constant	2.190	0.1015	21.588	0.000	1.9913	2.3896
	ASS	0.4037	0.0256	15.7830	0.000	0.3535	0.4538
Trust	Model	Co-eff	S. E	T	P	LLCI	ULCI
	Constant	1.7120	0.1062	16.1188	0.000	1.5035	1.9204
	ASS	0.4394	0.0268	16.4117	0.000	0.3868	0.4919

Source: Result of Mediation Analysis in PROCESS MACRO

From the Table (6.47) given above, it is observed that accessibility significantly predicts both customer satisfaction and post-use trust. The p values are less than the criterion $p < 0.05$.

- **Analysing the Effect of Satisfaction and Post-use Trust on Continuance Intention**

Table 6.48: Impact of Satisfaction and Post-use Trust on Continuance Intention

Outcome-	Model	Co-eff	S. E	T	P	LLCI	ULCI
CI	constant	0.7486	0.1175	6.3725	0.000	0.5181	0.9792
	SAT	0.5160	0.0339	15.2176	0.000	0.4495	0.5826
	TRST	0.1002	0.0324	3.0921	0.002	0.0366	0.1637
	ASS	0.2321	0.0279	8.3241	0.000	0.1774	0.2869

Source: Result of Mediation Analysis in PROCESS MACRO

It is clear from the above table that the effect of satisfaction and post-use trust on continuance intention is significant at p value 0.000 ($p < 0.05$).

▪ **Checking the Direct and Indirect effects**

Table 6.49: Direct Effect- Accessibility on Continuance Intention

	Effect	S. E	T	P	LLCI	ULCI
Direct effect	0.2321	0.0279	8.3241	0.000	0.1774	0.2869

Source: Result of Mediation Analysis in PROCESS MACRO

The direct effect is significant in the presence of mediators since no zero-value included in between the bootstrap confidence intervals. To explain the mediation further, the indirect effect needed to be checked.

Table 6.50: Indirect Effects- Accessibility on Continuance Intention

	Effects	Boot SE	Boot LLCI	Boot ULCI
TOTAL	0.2523	0.0250	0.2052	0.3030
SAT	0.2083	0.0230	0.1664	0.2562
TRST	0.0440	0.0172	0.0122	0.0793
C1	0.164	0.031	0.102	0.226

Source: Result of Mediation Analysis in PROCESS MACRO

Indirect effect of the construct accessibility on continuance intention through customer satisfaction and post-use trust is significant. The influence of satisfaction and post-use trust weakened the existing relationship between accessibility and continuance intention. Whereas, the direct effect analysis revealed that, the direct effect is significant at the presence of satisfaction and post-use trust, hence it is understood as the case of partial mediation. It is also evident that, the accessibility has strong indirect effect through satisfaction and the contrast analysis supports the significance of this

difference so that there is no zero value in the bootstrap intervals of contrast analysis (LLCI 0.102- ULCI 0.226).

To be more specific, customer satisfaction and post-use trust significantly influences the relationship between customers' perception on accessibility and continuance intention. It refers that, easy accessibility of TEBSS is much needed for continuance intention to use the TEBSS for those customers who are highly satisfied and have strong trust in TEBSS. Customer satisfaction is highly influencing the relationship between awareness and continuance intention. It means that easy accessibility of TEBSS is more relevant to continue the use of TEBSS in future, once the customers are satisfied with TEBSS. Here, the hypotheses H7 and H8 are proved as;

H7 There exists a mediating effect of customers' satisfaction on the relationship between customers' perception on accessibility of TEBSS and their continuance intention to use the TEBSS.

H8 There exists a mediating effect of post-use trust of customers on the relationship between their perception on accessibility and continuance intention to use the TEBSS.

6.9.3 Analysing the Effect of Ease of Use on Continuance Intention through Satisfaction and Post-use Trust

The indirect effect of ease of use on continuance intention satisfaction and post-use trust is ascertained through mediation analysis. The mediation model and results are given in the following section.

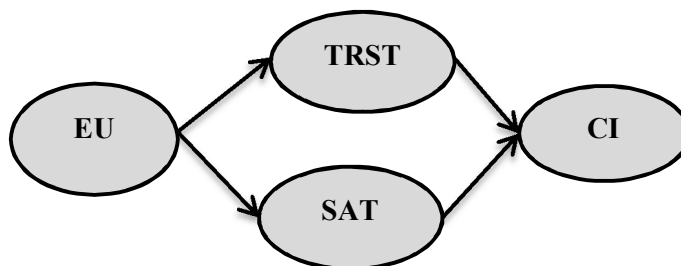


Fig. 6.5: Mediation Model – Ease of Use and Continuance Intention
 (EU- Ease of Use, SAT- Satisfaction, TRST- Post-use trust, CI- Continuance Intention)

- **Analysing the Significance of the Relationship of Ease of Use on Customer Satisfaction and Post-use Trust**

Table 6.51: Effect of Ease of Use to Satisfaction and Post-Use Trust

Outcome	Model	Co-eff	S. E	T	P	LLCI	ULCI
Satisfaction	constant	1.6078	0.1105	14.553	0.000	1.3910	1.8246
	EU	0.2281	0.0280	8.146	0.000	0.1731	0.2830
Trust	Model	Co-eff	S. E	T	P	LLCI	ULCI
	Constant	1.1425	0.116	9.8123	0.000	0.914	1.3710
	EU	0.275	0.0295	9.33	0.00	0.217	0.333

Source: Result of Mediation Analysis in PROCESS MACRO

It is revealed that ease of use predicts the both satisfaction and post-use trust significantly since the $p < 0.05$.

- **Analysing the Effect of Satisfaction and Post-use Trust on Continuance Intention**

Table 6.52: Influence of Satisfaction and Post-use Trust on Continuance Intention

Outcome-	Model	Co-eff	S. E	T	P	LLCI	ULCI
CI	constant	0.7094	0.1216	5.8324	0.00	0.470	0.948
	SAT	0.5000	0.0350	14.26	0.000	0.431	0.568
	TRST	0.0971	0.0332	2.9201	0.003	0.031	0.162
	EU	0.0495	0.0291	1.700	0.089	-0.007	0.106

Source: Result of Mediation Analysis in PROCESS MACRO

Since the p values of the effect satisfaction is significant ($p < 0.05$) as well as post-use trust ($p < 0.05$) is also significant. Hence the next step of analysis can be applied.

- **Checking the Direct and Indirect Effects**

Table 6.53: Direct effect– Ease of Use on Continuance Intention

	Effect	S. E	T	P	LLCI	ULCI
Direct effect	0.049	0.029	1.700	0.089	-0.007	0.106

Source: Result of Mediation Analysis in PROCESS MACRO

The direct effect of ease of use of TEBSS on continuance intention is found as insignificant at the presence of mediators. To explain the mediation analysis more, the indirect effect is ascertained.

Table 6.54: Indirect Effects- Ease of Use on Continuance Intention

	Effects	Boot SE	Boot LLCI	Boot ULCI
TOTAL	0.140	0.020	0.1022	0.1823
SAT	0.114	0.0182	0.0798	0.1514
TRST	0.026	0.0114	0.0047	0.0499
C1	0.087	0.023	0.043	0.134

Source: Result of Mediation Analysis in PROCESS MACRO

The indirect effect of ease of use on continuance intention through satisfaction and post-use trust is found as significant since there is no zero value in between the bootstrap confidence intervals. The direct effect of ease of use of TEBSS on continuance intention after adding the mediators was found as insignificant. Ease of use had significant direct effect on continuance intention before adding the mediators. Hence, it can be inferred that, satisfaction and post-use trust fully mediates the relationship between ease of use and continuance intention. Which further implies that, if the customers are satisfied as well as if they trust the TEBSS, ease of use of TEBSS does not matter in their continuance use decisions. The indirect effect of ease of use through satisfaction is high (Effect 0.1140) while comparing the effect with trust (0.0267). The contrast analysis provided in the last row (C1) of the above table (6.54) represents that the difference in the indirect effect is also significant.

The result of analysis can be understood in such a way that, the easiness of use of TEBSS influences the customers' decision to continue the use of TEBSS in future only if they are satisfied or they have trust in TEBSS. Otherwise it can be stated that, customers may not continue the

use of TEBSS by considering its easiness in usage, unless they trust the TEBSS and they are satisfied with TEBSS. Satisfaction is more important to continue the use of TEBSS when users perceive more easiness in use of TEBSS. Hence, the hypotheses H9 and H10 are proved as follows;

H9 There exists a mediating effect of customers' satisfaction on the relationship between customers' perception on ease of use of TEBSS and their continuance intention to use the TEBSS.

H10 There exists a mediating effect of post-use trust of customers on the relationship between their perception on ease of use of TEBSS and continuance intention to use the TEBSS.

6.9.4 Analysing the Effect of Usefulness on Continuance Intention Through Satisfaction and Post-use Trust

The indirect effect of usefulness through satisfaction and post-use trust on continuance intention is analysed. The following model depicts the mediations model.

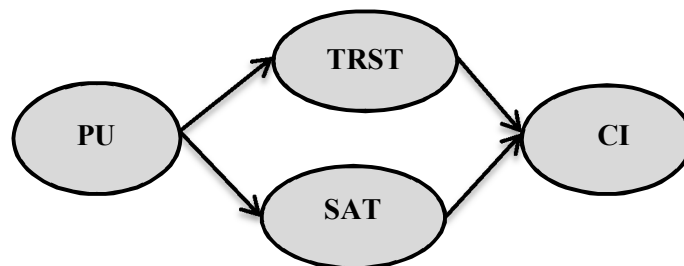


Fig. 6.6. Mediation Model- Usefulness and Continuance Intention

(PU- Usefulness, SAT- Satisfaction, TRST- Post-use Trust, CI- Continuance Intention)

- **Analysing the Significance of the Relationship Usefulness on Customer Satisfaction and Post-use Trust**

Table 6.55: Effect of Usefulness on Satisfaction and Post-Use Trust

Outcome	Model	Co-eff	S. E	T	P	LLCI	ULCI
Satisfaction	Constant	1.6078	0.110	14.553	0.000	1.3011	1.8246
	PU	0.330	0.028	11.459	0.000	0.273	0.387
Trust	Model	Co-eff	S. E	T	P	LLCI	ULCI
	Constant	1.1425	0.116	9.8123	0.000	0.914	1.3710
	PU	0.318	0.030	10.480	0.000	0.2589	0.3761

Source: Result of Mediation Analysis in Process MACRO

It is evident that the p values are below 0.05 in each case. It indicates that the effect of usefulness on customer satisfaction and post-use trust is significant.

- **Analysing the Effect of Satisfaction and Post-use Trust on Continuance Intention**

Table 6.56: Effect of Satisfaction and Post-use Trust on Continuance Intention

Outcome-	Model	Co-eff	S. E	T	P	LLCI	ULCI
CI	Constant	0.7094	0.121	5.833	0.000	0.470	0.948
	SAT	0.500	0.035	14.268	0.000	0.431	0.568
	TRST	0.097	0.033	2.920	0.003	0.031	0.162
	PU	0.208	0.030	6.743	0.000	0.147	0.269

Source: Result of Mediation Analysis in PROCESS MACRO

Effect of satisfaction and post-use trust on continuance intention has been proved as significant since the p values are under the criterion of acceptance ($p < 0.05$).

▪ **Checking the Direct and Indirect effects**

Table 6.57: Direct Effect – Usefulness on Continuance Intention

	Effect	S. E	T	P	LLCI	ULCI
Direct effect	0.208	0.030	6.7431	0.00	0.147	0.269

Source: Result of Mediation Analysis in PROCESS MACRO

P value of the direct effect of the usefulness on continuance intention is ($p < 0.05$). It is observed that, the direct effect of usefulness on continuance intention in the presence of intervening variables satisfaction and post-use trust is significant.

Table 6.58: Indirect effects- Usefulness on Continuance Intention

	Effects	Boot SE	Boot LLCI	Boot ULCI
TOTAL	0.1961	0.0237	0.1504	0.2435
SAT	0.1652	0.0217	0.1232	0.2094
TRST	0.0309	0.0133	0.0055	0.0579
C1	0.134	0.027	0.081	0.189

Source: Result of Mediation Analysis in PROCESS MACRO

It is found as usefulness has significant indirect effect through both customer satisfaction and post-use trust since there is no zero values included in the bootstrap intervals. The direct effect analysis shows that, the impact of usefulness on continuance intention under the influence of satisfaction and post-use trust is significant. It means that there exists partial mediation. The strong indirect influence is found through satisfaction (0.1652) than post-use trust (0.03). The contrast analysis (C1) result supports the significance of this difference in indirect effect such that the bootstrap confidence intervals do not contain zero value (LLCI- 0.081- ULCI 0.189).

The mediation analysis can be interpreted as, users' intention to continuance the use of TEBSS by considering its usefulness will be strong when they are satisfied with the TEBSS as well as when they trust the TEBSS. The enhanced usefulness perception about TEBSS strongly favours their continuance intention to use the TEBSS when they are more satisfied in the TEBSS. Hence, the hypotheses H11 and H12 are proved in the following way;

H11 There exist a mediating effect of customers' satisfaction on the relationship between customers' perception on usefulness of TEBSS and their continuance intention to use the TEBSS.

H12 There exists a mediating effect of post-use trust of customers on the relationship between their perception on usefulness of TEBSS and continuance intention to use the TEBSS.

Thus, the mediation analysis can be summarised with the finding that, the impact of customers perception on adoptability of TEBSS such as awareness, accessibility ease of use and usefulness on continuance intention have significantly influenced by customer satisfaction and customer post-use trust. It further implies that once the customers started using TEBSS, they are more concerned about post-use experiences. That is why in all the cases, the influence of post-use experiences such that satisfaction and post-use trust are proved as significant in the mediation analysis. Additionally, the influence of ease of use on continuance intention was found as fully mediated through satisfaction and post-use trust. This might be because of the reason that, once they are adopted the TEBSS, they will become familiar about the use of TEBSS. The frequent

use makes them skilful at using the TEBSS. Thus, in the post-use stage, they are not much considered the easiness of usage of TEBSS. Also, the repeat use makes them comfortable in using TEBSS so their focus has been shifted towards the post-use experiences.

6.10 Influence of Risk Perception of Customers in the Relationship between Post-use Trust and Continuance Intention to Use the TEBSS

The sixth objective of this study was to examine moderating role of Risk perception on the relationship between customers' post-use trust and their continuance intention to use the TEBSS. Risk perception had identified as significant factor which influences the behaviour of respondents in using the technology-oriented banking products and services. It was identified from the earlier literature that, the level of risk perception significantly differs from one to another based on the individual characteristics, belief and confidence they have attained after the initial usage. Trust belief and the risk perception are connected and the level of trust is compared with the perceived risk in situations. By the moderation analysis, it is intended to test the impact of the customer post-use trust on continuance intention under the influence of risk perception.

The moderation analysis was done in SPSS PROCESS. Risk perception in the study is measured in continuous scale. So, the moderation analysis is carried out in PROCESS MACRO. Moderation analysis in PROCESS includes two steps. Firstly, the significance of interaction effects is analysed. If there exists any significant interaction effect, then next step is to identify under which conditions the interaction effect is significant.

The conceptual model for the moderation analysis of the study is given below.

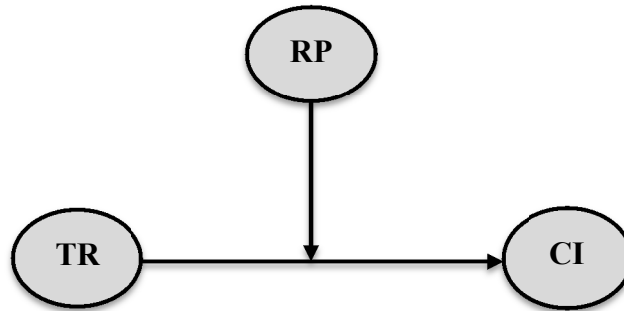


Fig. 6.7: Moderation Model

(Abbreviations used; TR- Trust, RP- Risk Perception, CI- Continuance Intention)

Template shown above is the identified model for the moderation analysis of the study. The identified template of model is model 1, presented as figure 6.8. The statistical model for the study according to the templates (Hayes, 2013) for moderation analysis in PROCESS is also given as figure 6.9.

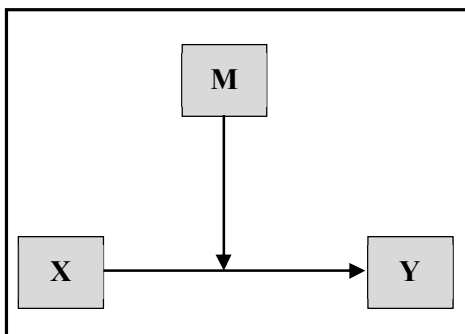


Fig. 6.8: Template of Model for Moderation Analysis

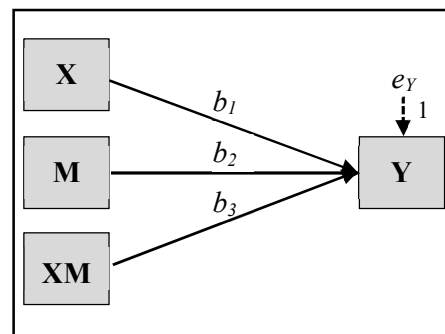


Fig. 6.9: Statistical Template for Moderation Analysis

As described earlier, the first step of moderation analysis was to identify if the interaction effect is existing between the constructs under study. The following table gives the interaction effect of the risk perception on the relationship between trust and continuance intention.

Table 6.59: Interaction Effect-Risk Perception

	Co. eff	S.E	t	p	LLCI	ULCI
RP_N	0.2850	0.1099	2.5922	0.0097	0.0692	0.5007
TRST_N	0.6977	0.0925	7.5387	0.0000	0.5160	0.8793
int_1	-0.0761	0.0309	-2.4641	0.0139	-0.1367	-0.0155
	R ² Change	f	df1	df2	p	
x*w	0.0052	6.0720	1		0.896	0.0139

Source: Result of Moderation Analysis in PROCESS MACRO

The bootstrap intervals do not include the zero values in between the interaction effect, so it is found as significant. It is also seen from the table that; the interaction effect is negative. Which indicates that, risk perception negatively influences the relationship between post-use trust and continuance intention. But the R² change due to interactions is found as 0.0052, which signifies that the effect of interaction is low on the relationship. The interaction effect is depicted in the R² value and the small R² change implies the influence of moderator makes only slight changes in the existing relationship between the independent variable and the dependent variable. Since the interaction effect is significant, risk perception of customer makes significant changes in the post-use trust and continuance intention, but the effect of the moderator will be low as R² change is low. In order to analyse in which conditions, the moderation

effect is significant in the relationship between post-use-trust and continuance intention, the conditional effect is analysed.

Table 6.60: Conditional Effect of Post- use Trust on Continuance Intention

RP	Effect	S. E	T	p	LLCI	ULCI
1.9698	0.5478	0.0415	13.1941	0.000	0.4663	0.6293
2.8337	0.4821	0.0325	14.8293	0.000	0.4183	0.5459
3.6975	0.4164	0.0426	9.7811	0.000	0.3328	0.5000

Source: Result of Moderation Analysis in PROCESS MACRO

The Table (6.60) shows the direct effect of post-use trust on continuance intention at different levels of risk perception. The direct effect of post-use trust on continuance intention is significant at all levels of risk perception (High, Medium, Low). While looking the size of effects in each level, it is evidenced that, there is no significant differences in the effect of post-use trust on continuance intention at different levels of risk perceptions (0.5478, 0.4821, and 0.4164 at low, medium and high levels respectively). So, it is stated that the effect is significant at high, medium and low levels of risk perception but it does not make large variance in the relationship. To check the direction of effect, following table is provided.

Table 6.61: Direction of Effect of Risk Perception

Level of Risk Perception	Effect of Post-use Trust on Continuance Intention
Low	0.5478
Medium	0.4821
High	0.4164

Source: Result of Moderation Analysis in PROCESS MACRO

The moderation effect is negative in direction, which means when risk perception at low level, the effect of trust on continuance intention is highest (0.5478). Whereas when risk perception is at medium, the effect of trust on continuance intention comes lower (0.4821). Once the risk perception is at high level, the effect of trust on continuance intention reaches lowest (0.4164). Thus, it can be concluded that, when a customer perceives high risk; the relationship between trust and continuance intention weakens. Whereas when the customer perceives low risk, then the relationship between trust on his continuance intention in using TEBSS strengthened. The effect of trust on continuance intention tends to go lower in the case of higher risk perception and vice versa. The analysis can be better understood from the following matrix.

Table 6.62: Matrix of the Conditional Effects

		Level of Risk Perception		
		Low	Medium	High
Level of Trust	Low	3.5131	3.5841	3.6551
	Medium	3.9243	3.9464	3.968
	High	4.3365	4.3087	4.2809

Source: Result of Moderation Analysis in PROCESS MACRO

The matrix presented above shows the effect of trust on continuance intention at different levels of risk perception. It is understood that, continuance intention is highest (4.3365), when their risk perception is low, and trust is high. But the continuance intention is lowest (3.5131), even at the low level of risk perception and customer possess low level of trust. Customer who have high level of post-use trust, will have strong continuance intention (4.2809) even at the high level of risk perception. The continuance

intention is low (3.6551) for those people, who possess low level of post-use trust when their risk perception is high.

Moderation analysis result can be interpreted in such a way that, the influence of risk perception significantly effects the customers trust to continue the use of TEBSS. When customers perceive high level of risk in the use of TEBSS their trust to continue the use of TEBSS would be low. Whereas, when the customers perceive low level of risk in the use of TEBSS, the effect of trust on continuance intention will be strong. It is already evidenced that, when customers have strong trust in using TEBSS, their intention to continue the use of TEBSS will also be high. However, the moderation analysis evidenced that, the risk perception negatively influencing the relationship as well as this negative influence of risk perception is significant at all levels such as low, medium or high level of risk perception. This means that, the risk perception decreases the customers' trust to continue the use of TEBSS. Whether customers perceive low level of risk, or high level of risk it can lowers the trust to continue the use of TEBSS. Hence, the analysis can be summarised as the influence of customers' post-use trust on their continuance intention in using TEBSS is also depends on their risk perception of TEBSS. Hence, the hypothesis H13 is proved as follows.

H13 The risk perception of customers has a moderating effect on the relationship between post-use trust and their continuance intention to use the TEBSS.

6.11 Validation of the Proposed Model of the Study

The final objective of this study was to validate the conceptual model proposed for the study. The conceptual model proposed in the study includes customers' perception on adoptability of TEBSS as independent variables; namely customer awareness, accessibility, ease of use, and usefulness of TEBSS and continuance intention to use the TEBSS as dependent variable. Customer satisfaction and post-use-trust portrayed as mediating variables in the model and risk perception of customers using TEBSS as moderating variable. The empirical validation of the model is done using Structural Equation Modelling in AMOS 23. For the empirical validation of the model, measurement model validity is to be ascertained first before moving to structural model analysis. The measurement model including all variables in the study is presented in the earlier part of this chapter and it was evidenced as good fit for the data.

The conceptual model, including all variables except moderating variable is tested in AMOS. Interactions among continuous latent variable require non-linear constraints among the parameters. AMOS assumes that, latent variables are continuous and does not support non-linear parameter constraints. If the moderator is categorical variable, then AMOS can be applied to model the interaction in terms of a multi-group model (Rigdon & Schumacker, 1998). In this study, the moderating variable is risk perception and it is measured in the continuous scale. Hence the moderation analysis is separately done in PROCESS (which is

explained in the previous part of this chapter), and the proposed model excluding the moderation effect is tested in AMOS 23.

The proposed relationships between variables are tested and the integrated conceptual model assessment includes analysis of model fit, analysis of relationship and hypothesis testing.

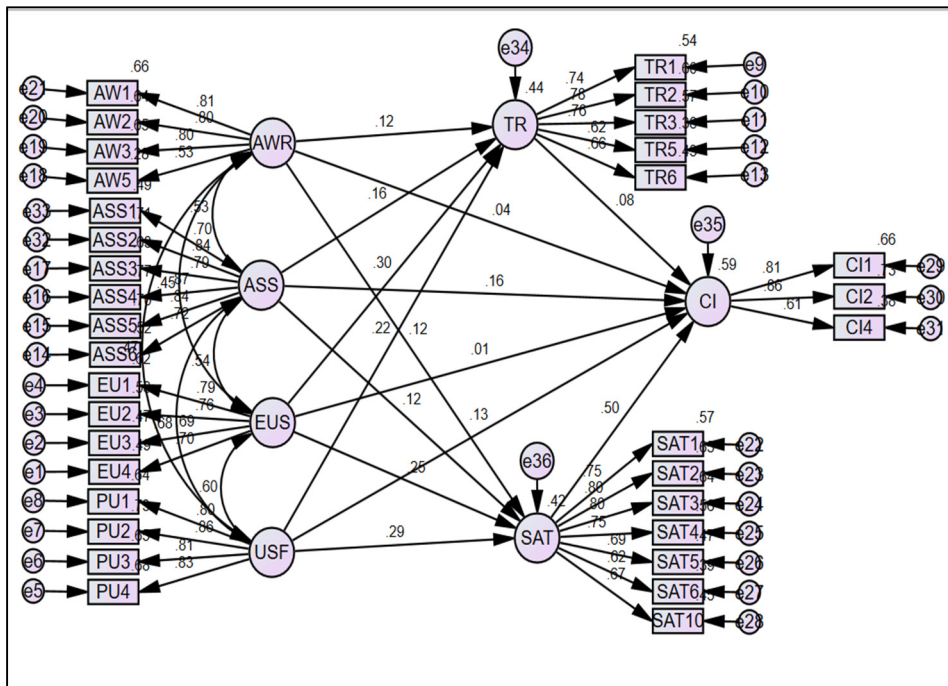


Fig. 6.10: Structural Model of the Study

(Abbreviations used in the model AWR; Awareness, ASS; Accessibility, EU; Ease of use, PU; Usefulness, SAT; Satisfaction, TRST; Trust, CI; Continuance Intention)

6.11.1 Assessment of Model Fit

The model is tested for ensuring the model fit. The model fit summary and model fit indices are given in the following table. The chi-

square value is 1491.79 with the degrees of freedom 475. It is found as significant since ($P < 0.05$). The following table further explains the model fit with the statistical values.

Table 6.63: Model Fit- Structural Model

Measurement	Standard FIT	Default model	Model fit
CMIN/df	<5	3.141	Good fit
RMR	<0.08	0.044	Good fit
GFI	>0.90	0.908	Good fit
RMSEA	<0.08	0.049	Good fit
CFI	>0.90	0.939	Good fit
NFI	>0.90	0.914	Good fit
RFI	>0.90	0.904	Good fit
TLI	>0.90	0.932	Good fit
IFI	>0.90	0.939	Good fit

Source: Result of Primary Data Analysis Using AMOS

The fit indices of the model depict the values indicating the good fit of the proposed model since all the values are as per the standard of fit. The goodness of fit indices is 0.903 indicates the good fit of the model. The RMR value is 0.044 and which is less than 0.080, also represents the good fit of hypothesised model and the RMSEA value signifying the model fit with the value of 0.05. All the comparative fit indices are given in the picture represents the values greater than 0.90 (CFI-0.939, NFI-0.914, TLI- 0.932, IFI- 0.939, RFI- 0.904) demonstrates the adequate fit of the model.

6.11.2 Estimates of the Relationship

Once the model is proved as fit, it is advised to move forward for testing the hypothesised relationship. Path analysis is used for checking the significance of the relationship between constructs. The path analysis is based on the regression analysis. The following table shows the regression weights and the significance.

Table 6.64: Path Estimates- Structural Model

Regression weights (Default model)						
Paths	Estimates	S. E	C.R	P value	R square	
AWR → SAT	0.122	0.048	3.094	0.003	0.423	
ASS → SAT	0.124	0.047	2.644	0.008		
EU → SAT	0.254	0.043	5.644	0.000		
PU → SAT	0.287	0.047	5.834	0.000		
AWR → TRST	0.120	0.054	2.935	0.003	0.438	
ASS → TRST	0.162	0.053	3.330	0.000		
EU → TRST	0.301	0.049	6.364	0.000		
PU → TRST	0.220	0.052	4.348	0.000		
AWR → CI	0.036	0.049	0.980	0.327	0.593	
ASS → CI	0.160	0.049	3.596	0.000		
EU → CI	0.008	0.047	0.177	0.867		
PU → CI	0.135	0.049	2.824	0.005		
SAT → CI	0.502	0.047	11.588	0.000		
TRST → CI	0.082	0.042	1.983	0.047		

Source: Result of Primary Data Analysis Using AMOS

The standardised regression weights of the relationships between variables are analysed to examine the relationship. The path analysis result shows that, customers' awareness has significant relationship with customer satisfaction (0.122, $p < 0.05$). Knowledge about the benefits and risks in using TEBSS might have influenced the use of the products and

services in a systematic manner without failures or hurdles. Being aware and updated with the technological changes will enhance the user satisfaction through the extended use of the services.

Awareness of customers shows significant influence on customer post-use trust (0.120, $p < 0.05$), but no direct relationship was found on customers' continuance intention ($p > 0.05$). The trust is developed through the knowledge regarding specific attributes of the technology or from the experienced functionalities. Awareness about updates, threats, security issues are keeping the customers being conscious. Being conscious and updated with new technology trends and new features, they can avoid mistakes in performing activities through TEBSS and ultimately, they will become experts in using the same. This might be a reason for awareness having a significant influence on post-use trust. Whereas, it has no influence on continuance intention since the customers are not much bothered about the advanced level of information and security features of TEBSS once they started using the TEBSS with their basic level of knowledge.

Similarly, the accessibility of TEBSS was found to have significant influence on customer satisfaction (0.124, $p < 0.05$), on post-use trust (0.162, $p < 0.05$) and on continuance intention to use the TEBSS (0.160, $p < 0.05$). When TEBSS are easily accessible as the customer needs it, their satisfaction in the TEBSS will be high. Moreover, the technology-enabled banking self-services provide the easy access to the accounts, customised way of doing activities and eliminates the intermediaries in between the customer and bank, thereby TEBSS enhances the trust among customer in technology-enabled banking self-services.

Correspondingly, ease of use of TEBSS is evidenced as having significant influence on customer satisfaction (0.254, $p < 0.05$), on post-use trust (0.301, $p < 0.05$), but no direct influence is found on continuance intention since the p value 0.867. When the customers experienced the products and services as easy to use, they become easily adapted with the technology. TEBSS are developed in a customised manner with good interactivity. It requires only simple user experience to perform transactions. This might be the reason for significant influence of ease of use on customer satisfaction. Similarly, ease of use increases the credibility of services. When the services are easy to perform, user will feel like they have a better understanding about TEBSS and there is less need of control over the usage, thus it become more reliable for the users. The more customers become familiar with the innovation, the more they adhere to the decision of using the same in future and their trust in that innovation also simultaneously improves. However, users will not continue the usage of TEBSS only because of TEBSS are easy to use unless they are satisfied or they have trust in TEBSS. Once they are satisfied and they have trust in TEBSS, the easiness of usage influences the continuance intention, otherwise not.

Additionally, usefulness of TEBSS found as having significant influence on satisfaction (0.287, $p < 0.05$) on post-use trust (0.220, $p < 0.05$) and on continuance intention (0.135, $p < 0.05$). TEBSS are more sophisticated since it increases the convenience in conducting banking transactions like access of accounts for faster transfers, payment services etc. which all are termed as emergency banking services and the customers are more satisfied when they experienced increased usefulness of TEBSS. In the same sense, user may have felt the usefulness in terms of reduced time,

cost and efforts in using them. The cost-benefit analysis of new technology in terms of performance of tasks may directed the users to trust on TEBSS. Also, the usefulness is more important in the post-adoption stage of TEBSS since majority of customers are attracted towards the TEBSS only because of their increased usefulness perception.

In the model, customers' perceptions on adoptability of TEBSS explains 42.3 per cent variance in customer satisfaction. Even though the satisfaction is significantly influenced by all perceptions, usefulness has strong influence on satisfaction. Which emphasise that, increased usefulness of TEBSS boost their satisfaction. Also, the tested model shows that, the customers' perceptions on adoptability explains 43.8 per cent variance in post-use trust. Even if awareness, accessibility of TEBSS and usefulness influence the post-use trust, the ease of use has strong influence on post-use trust. As well, the model depicts that, customer satisfaction and post-use trust has significant influence on continuance intention with the values (0.502, $p < 0.05$), (0.082, $p < 0.05$) respectively.

It is evidenced that, customers perception on adoptability of TEBSS namely accessibility and usefulness have significant influence on continuance intention. User awareness and customers' perception on ease of use of TEBSS influence the continuance intention only through satisfaction and post-use trust. When customers are well aware of the technological trends, upgrades, improved features etc., it will enhance their satisfaction as well as post-use trust through improved service performance. This will result in their continuance intention to use the TEBSS. In the same way, easiness in usage of TEBSS satisfies the

customers and improve their post-use trust it will finally reflect in their future intentions to use the TEBSS. Whereas, the accessibility and usefulness of TEBSS are more important in the post-adoption stage of TEBSS in order to retain the customers with these technologies.

6.12 Chapter Summary

The first part of this chapter dealt with analysis of second and third objective of the study. The demographic character wise analysis of customers' perceptions on adoptability, post-use experiences and continuance intention are also included in this part. The second part of the chapter discussed the analysis of remaining objectives. The analysis of fourth objective was done by using structural equation modelling. The fifth and sixth objectives are analysed using Process Macro 3. The mediation and moderation analysis were applied to achieve these objectives. The final objective analysis was explained in the last section and it was achieved through structural equation modelling using AMOS.

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DISCUSSION, FINDINGS, SUGGESTIONS AND CONCLUSION

Contents

- 7.1 *Discussion and Findings*
- 7.2 *Suggestions*
- 7.3 *Implications of the Study*
- 7.4 *Conclusion*
- 7.5 *Scope for Future Research*

This chapter deals with the summary of research findings on the basis of the proposed objectives. The practical and theoretical implications of the study are discussed followed by suggestions and conclusion.

7.1 Discussion and Findings

7.1.1 Purpose and Extent of Usage of TEBSS

Analysis of purpose and extend of usage of TEBSS was the first objective of this study. Before moving to the usage analysis, some basic banking details of the respondents were obtained like with which bank they are keeping their accounts and what type of account they use etc. It is identified that, SBI and ICICI bank are the two banks where majority of respondents keep their accounts. Also, most of the customers are actively using their saving account for carrying out e-banking transactions.

7.1.1.1 Type of TEBSS Use

As a part of usage analysis, customers were asked to disclose their years of use, type/ or combination of TEBSS, duration of use for different purposes and intensity of usage of TEBSS. It is revealed that, many of the customers have started using the TEBSS for more than 2-4 years (37 per cent). Apart from that, respondents specified the combination of TEBSS they are currently using. Almost 29 per cent of respondents affirmed that they use the combination of debit cum ATM card, Mobile banking and Internet banking as their most frequent combination of TEBSS. Following to this, most of the customers use the combination of TEBSS; debit cum ATM card, IB, MB and Credit Cards (25 per cent). In both of these groups, majority of users are youths and mainly males. It was also identified that; private employees are largely using TEBSS compared to other customers doing different type of occupations.

7.1.1.2 Purpose of Using TEBSS

Purpose of usage of TEBSS was analysed in detail and it was found that payment service is the most common and frequently availing service through TEBSS by majority of the respondents. Most of the respondents stated that they generally use TEBSS for payment services including payment of bills, taxes, service charges like electricity, gas, water, cabs and other routine services which involves payment. While analysing the payment services based on age of respondents, it was found that, young customers are highly using TEBSS for payment services. It is obvious that, youths are more attracted towards new technology compared to older adults. Education wise analysis revealed that post-graduates and graduates are largely using payment services through TEBSS, it might be because of their understanding about TEBSS performance. Occupation wise analysis on payment service usage through TEBSS revealed that, private employees and students are largely utilising TEBSS for payment services. Unlike any other occupation, private employees are under busy scheduled conditions of work. In order to avoid the hesitation of standing on long queues and to reduce the time taken for traditional banking services, they always depend on new technologies. Similarly, income wise analysis on payment service disclosed that, high income group customers are mostly using TEBSS for the same.

Contrasting to any other services, a large majority of respondents stated that they are sometimes using informational services. But when the income wise analysis performed on informational service usage, it was found that customers having monthly income above Rs. 50000 often

using information services through TEBSS. It may be for the reason that, those customers might have been regularly carrying out e-banking transactions. Age wise analysis of the use of informational service found that, youths are very much using it. Occupation and income wise analysis of informational service usage revealed that, professionals are extensively using TEBSS for informational purposes and high-income group customers abundantly using this service through TEBSS. Since the professionals and high-income group customers may need to carry out a large volume of financial transaction through their bank account in their personal as well as professional life, their frequency of use of TEBSS might be high compared to others.

Usage analysis of TEBSS continued with the analysis of another purpose, transferring funds. Post-graduates are largely using TEBSS for transferring funds. However, fund transferring service through TEBSS is often preferred by majority of respondents doing different category of occupation except business and professionals. Business and professional customers largely stated that they are always using TEBSS for transferring funds. It is obvious that, they are handling huge amount of cash dealings in their daily life compared to other types of occupation. The income wise analysis of transferring funds also supports the same conclusion.

As a part of usage analysis, booking services through TEBSS was then analysed with different demographic factors. To a great extent, post-graduates are highly using the TEBSS for booking services. Apart from this, it is also revealed that, customers having high income are always

using TEBSS for booking related purpose. Utilisation of TEBSS for online shopping/ e-commerce activities observed and noticed that, low educated customers are not preferring to use TEBSS for online shopping or e-commerce activities. It might be because of their lack of knowledge and confidence in handling the mature banking activities through an unknown platform. They might not have the adequate knowledge about the technological advancement already took place in the TEBSS even if they are familiar with basic e-banking services. At the same time, majority of the post-graduates as well as professionals are always using the TEBSS for online shopping and e-commerce related activities. Hence it can be concluded that, the frequency of online shopping/ e-commerce activities through TEBSS is depend to a great extent of respondents' education level. Likewise, private employees and students are largely utilising TEBSS for online shopping/ e-commerce activities. Since the private employees and students are largely comprising of youths, who are more techno savvy and regularly updated with new technologies, they possess the strong intention to use such technology-based services.

Lastly the usage analysis was done on the use of TEBSS for POS transactions. Unlike other cases, the age wise analysis on use of TEBSS for POS transactions denotes that, older adults are largely using TEBSS at POS. Since it is one of the most common services that can be performed through TEBSS, adults are attracted towards using this service. Income wise analysis further reveals that, private employees, government employees and business persons are extensively using TEBSS at POS. The income wise analysis supports the same thing that customers who are having fair income are highly using TEBSS at POS.

7.1.1.3 Intensity of Usage of TEBSS

Analysis of intensity of usage of TEBSS revealed that, intensity of use of TEBSS is high among majority of respondents and it is also evidenced that, males are more intensive users of TEBSS than females. It also noticed that, since the TEBSS are customised as user friendly, respondents' educational qualification does not make any differences in the usage intensity of TEBSS. But the usage intensity differs among customers who are at different age groups and doing different types of jobs. Additionally, intensity of use of TEBSS mainly varying between students and government employees. It is case and clear that, the government employees need more banking related transaction compared to students. So, their intensity of use of TEBSS may not be similar to students. Similarly, customers having different monthly income also differs in their usage intensity. The customers who belongs to the category of high-income group needs to carry out more banking related transactions than the customers who are having low income. So, their intensity of usage might be high and they may have excessive transactions to carry out through TEBSS.

7.1.2 Customers' Perceptions on Adoptability of TEBSS

Customers' perception on adoptability of TEBSS in terms of their awareness about TEBSS, accessibility, ease of use and usefulness of TEBSS were analysed. Awareness on TEBSS is found as moderately high. All respondents being the users of TEBSS was having basic level of understanding about TEBSS and its benefits, risks etc. It was expected to have excessively high level of awareness among many respondents who are already practicing the services, but it was not as expected. It might be

because of the lack of adequate knowledge about updates and advancement in technology. In order to improve the usage experiences as well as to prevent the safety and security threats, the increased level of awareness is necessary. The analysis result also supports the importance of creating knowledge about different aspects of TEBSS, since the user awareness significantly different for customers who are highly educated. No other factors make significant difference in awareness level of customers other than education.

Difference in the awareness of customers with different demographic characteristics have been analysed in this study and revealed that, level of awareness does not vary across age, occupation and monthly income but significantly vary between customers having different educational qualification. A large growing body of literature had investigated the adoption of technology in banking sector and acknowledged that lack of awareness as the main barrier to adoption especially in rural areas because of lack of education and proficiency in using the same.

Customers believe that, TEBSS are available anytime, anywhere and it ultimately reduced their effort in terms of time and cost in performing banking activities. They can use the TEBSS by sitting at home or office and carry out banking transactions if they have a smart phone and internet connection. This enhanced accessibility feature makes them believe that, TEBSS is highly accessible to them. Accessibility of TEBSS seems to be varying against the occupation status of users. Specifically, it varies among government employees and private employees. It is because of private employees are more likely to use these types of

services since they are proficient enough for accepting and updating changes. Accessibility was considered the easy availability of services in terms of time, place and use dimensions, hence they feel enhanced accessibility in their dynamic working conditions with efficient system of networking when compared to government employees.

Additionally, the respondents in this study had the opinion that, TEBSS are very easy to use. Most of the TEBSS are developed in a customised manner with good interactivity, so the user can easily become skill full at performing transactions through TEBSS. This also resulted in their belief that, easiness in usage of TEBSS is high. Ease of use perception of users about TEBSS is found as varying according to the age of customers who are using it. The difference is found significant in between youngsters and elder generations. It is certain that, younger generations are ready to use modern technologies than elder generations. For younger generation, it is very easy to learn and use most modern technologies and equipment compared to old generations.

Customers perceive usefulness of TEBSS as high, since the use of TEBSS enhanced their efficiency in carrying out banking transactions. Speed of service delivery, reduced time and effort in performing transactions, easy accessibility at anywhere and anytime are the unique features of TEBSS. These characteristics make customers to choose TEBSS over the traditional banking even though they exhibited a significant level of comfort and familiarity in traditional banking. Result of the analysis on usefulness shows significant variance according to the age, occupation and income of customers. Based on the nature of job, customers

differ in their banking requirements. Those customers who need to carryout banking transactions as routine can avoid wasting time and effort in traditional banking by the use of TEBSS. So, they perceive high usefulness compared to other customers who are not in the similar type of job. Likewise, the income of customer is another important factor which lead to use of TEBSS. The customers, who are handling large amount of money, need TEBSS for performing the routine transactions like payments, transfer, booking services as well as e- commerce related activities etc.

7.1.3 Customers' Post- Use Experiences of TEBSS

Post-use experiences of customers in using TEBSS namely satisfaction, post-use trust and risk perception are analysed in this study. Satisfaction of respondents is found as high (Mean score 3.75) among the majority of users of TEBSS. Since TEBSS are characterised with speed, accuracy, increased efficiency etc., the satisfaction of customers is influenced by these elements because most of these service expectations are getting fulfilled through TEBSS. It is also found study that, satisfaction on TEBSS vary across their age, occupation and income but does not vary across education. Satisfaction is found as significantly different among customers who belongs to different age groups mainly younger respondents and older adults. It also shows variance according to the occupation of respondents mainly private employees and students and agriculturists and students. In addition to that, satisfaction is varying across different income groups and significant difference exists in between low-income group and high-income group.

In this study, customers' post-use trust in TEBSS was also found as high (Mean score 3.41). Unlike the perceived trust in TEBSS, post-use trust shows a different result. It is good thing that the customers are having a positive belief regarding trust in using TEBSS. The analysis of demographic characteristics wise difference on post-use trust showed invariance across age, education, occupation and monthly income. Since the post-use trust depends on technological aspects, the demographic differences found to have insignificant effect on it.

Risk perception in the use of TEBSS was another factor analysed in the study and it is found as low (Mean score 2.83). Since the post-use trust in TEBSS already seen as high, it was sure that risk perception would not go too high. It was also identified perception of ease of use of TEBSS is high among respondents, once the TEBSS is become easy to use, customers have the feeling that there is not much complexity in the use of TEBSS, hence there is no much risk involved in the performance of transactions. Analysis result showed that, risk perception significantly varies across education and occupation, but not with age and their monthly income. It is obvious that, education qualification influences the risk perception. Previous studies also support the view that education makes significant difference in risk perception. As higher educational qualification bringing the attention towards new technological updates, threats and security issues etc., customers can minimise their risk in using TEBSS (Muche & Sharma, 2017).

7.1.4 Customers' Continuance Intention in Using TEBSS

The continuance intention in using TEBSS among majority of respondents is found as high (Mean score is 3.93, Table 6.31). It indicates that majority of users are willing to continue the use of TEBSS and are ready to extent the use to maximum possible purposes. Since their satisfaction is high, post-use trust is high and their level of risk perception is low they are expected to continue the use of such services in future also. From the current study, it was evident that, most of the respondents are only using certain common services regularly through TEBSS. Study also highlighted that they are satisfied with those services and they are willing to continue the use also. Thus, the outreach of these services can be further enhanced by creating more user awareness (technical as well as non-technical) and by developing customised products and services in order to make them explore additional services.

Continuance intention has been checked with different demographic characteristics and found that, continuance intention does not vary across education and occupation, but vary across users' age and income. Rather than senior citizens, youths are more attracted towards technology. Technical competence, high penetration of latest smartphones with variety of features and high-speed internet availability etc. might have its role in their usage behaviour. The income wise analysis supports that, customers having high income tends to continue the use of TEBSS.

7.1.5 Influence of Adoptability of TEBSS on Continuance Intention

The main aim of this study was to analyse the continuance intention of the customers on TEBSS. Once the penetration of internet-based

technologies became deeper, it is more relevant to study the long-term behaviour of the users on these technologies. The long-term behaviour is determined by many factors in the case of a new technology adoption context. Hence, the influence of customers' perception on adoptability of TEBSS in terms of awareness, accessibility, ease of use and usefulness on continuance intention had been checked. The first four hypotheses (H1 to H4) of this study were about to test the influence of adoptability of TEBSS on continuance intention. All the four hypotheses are proved in the study.

The influence of user awareness on continuance intention in using TEBSS is revealed that, user awareness has significant impact in determining continuance intention ($\beta=0.104$, $p<0.05$, Table 6.42). Since the technologies are getting updated frequently, user awareness is inevitable for customers' positive intention to continue the use of TEBSS. Un awareness to expand the existing knowledge in new technology adoption context is one of the important issues that was pointed out by many researchers earlier (Mahatanankoon & Vila-Ruiz, 2007). Hence, for the long-term user decisions in technology adoption context, awareness is significant in the post-adoption stage especially for continuance intention.

It was noticed that the accessibility of TEBSS has significant influence on continuance intention ($\beta=0.241$, $p<0.05$). When a customer feels that the products and services are easily accessible, or available at anywhere anytime, without any limitation of time, place, they will be probably use it always in future. That might be the reason for the strong influence of accessibility on continuance intention. It was also observed in the study that, customers' perception on ease of use of TEBSS and

usefulness had significant influence on continuance intention (β values 0.148, 0.299 at $p < 0.05$). Consistent with TAM, higher perception on ease of use and usefulness directly enhances the user intention to continue the use of TEBSS. Perceived usefulness is the strongest predictor of continuance intention (Regression value 0.29, Table 6.42). This finding yields the conclusion that, usefulness of TEBSS is more important to customers to continue the usage of TEBSS.

7.1.6 Mediating Role of Satisfaction and Post-use Trust on the Relationship between Customers' Adoptability of TEBSS and Continuance Intention

In the context of e- banking, it was identified that, the trust and satisfaction are mostly varying over the period of time. Hence these factors might have influenced the post-use behaviour of customers in technology-oriented products and services. For this reason, the intervening effect of customer satisfaction and post-use trust is analysed on the relationship between customers' perceptions on adoptability of TEBSS and their continuance intention in this study as fifth objective. The analysis has resulted in the remarkable insights into the role of satisfaction and the post-use trust in strengthening the continuance intention. The hypotheses H5 to H12 are proved through mediation analysis.

7.1.6.1 Influence of Satisfaction on the Relationship between Customers' Awareness and Continuance Intention to Use the TEBSS

The findings of current study revealed that customer satisfaction significantly influences the relationship between awareness and continuance intention. Satisfaction has significant influence on

continuance intention. When the customers are more satisfied with different aspects of TEBSS, they may have strong intention to continue the use of TEBSS. Awareness also had significant positive influence on continuance intention to use the TEBSS. When customers are well aware about the technology and its performance, he may have high intention to continue the use in future. However, in the study it is identified that, at the presence of satisfaction, the influence of awareness on continuance intention become low. It means that, satisfaction enhances the relationship between awareness and continuance intention. Awareness had significant influence on continuance intention, but simply having awareness about the TEBSS customers are not much influenced in their future use behaviour. Whereas, if the customers are satisfied with the existing TEBSS, then only their continuance intention would become strong. Role of awareness in the post-adoption stage is well established due to the frequent updates in the technology. Present study argues that user awareness improves the continuance intention to use the TEBSS, if customers are satisfied in the use of TEBSS.

7.1.6.2 Influence of Post-use Trust on the Relationship between Customers' Awareness and Continuance Intention to Use the TEBSS

The post-use trust is also found as influencing the effect of awareness on continuance intention to use the TEBSS. Customers are experienced the banking transactions in a protective and systematic manner in traditional method. A paradigm shift to an entirely different method, where direct contact is absent and customers are un-aware of many aspects of the technology necessitated the belief of trust in TEBSS

for retention or continue the usage in long term. If the customers have strong trust in using the TEBSS, their awareness about technology updates and improved features etc. give a boost to their continuance intention to use the TEBSS. Since it is a finance related decision, which involves transmission of highly confidential information passed through the network, awareness about possible threats is mandatory for users to trust the TEBSS. This reason might cause the enhancement of the influence of awareness on continuance intention through trust. Study proved that, awareness of customers about TEBSS strengthens the continuance intention if the customers have trust in using TEBSS.

7.1.6.3 Influence of Satisfaction on the Relationship between Accessibility of TEBSS and Continuance Intention to Use the TEBSS

The results of this study depict that the satisfaction has significant influence on the effect of accessibility on continuance intention. Accessibility is presented as the easily and timely availability of TEBSS according to user wish. The effect of accessibility on continuance intention is significant and positive. It indicates that, when customer perceive more accessibility of TEBSS, they will have high intention to continue the use of TEBSS. In addition to that, if the customers are satisfied in the use of TEBSS, then their continuance intention due to the easy accessibility of TEBSS will be stronger. It states that, when customers are more satisfied with TEBSS, the influence of accessibility on continuance intention will also be strong. It can be stated that, if the customers are satisfied with TEBSS, their perception about accessibility of TEBSS can strongly influence their continuance intention to use the same in future.

7.1.6.4 Influence of Post-use Trust on the Relationship between Accessibility of TEBSS and Continuance Intention to use the TEBSS

Intervening effect of post-use trust in the relationship between accessibility and continuance intention was also tested in the study and it was found as significant. This means that the real time availability and easy accessibility of the services can create a significantly high positive intention towards the long run usage of TEBSS when user trust the TEBSS. Similarly, the effect of accessibility on continuance intention will be stronger, when the user have trust after their initial use of TEBSS. Once the customer positively experienced the easy accessibility of TEBSS, user may have a positive feeling of trust on the same. That will then direct towards the formation of a favourable intention to continue the same. If the customers face any trouble in accessing their account through TEBSS they may lose their trust in TEBSS, it will badly affect their future use intentions of the same. Hence this study evidenced that, the influence of accessibility on continuance intention is high when customers have strong trust in TEBSS.

7.1.6.5 Influence of Satisfaction on the Relationship between Ease of Use of TEBSS and Continuance Intention to use the TEBSS

It is found in the present study that; customer satisfaction fully mediates the positive impact of ease of use on continuance intention. Ease of use had significant positive relationship with continuance intention. However, study evidenced that, easiness of use of TEBSS is no longer important for customers, once they are satisfied and they have trust in TEBSS. This finding further suggests that, ease of use does not necessarily

promote their continuance intention unless users are satisfied with TEBSS. Ease of use has impact in determining the continuance intention if the customers are highly satisfied with it. Hence, it can be concluded that, continuance intention of customer to use the TEBSS in future is not solely depends on the easiness of TEBSS usage. It means that, they may not continue the use of TEBSS only because of the reason that it is easy to use.

7.1.6.6 Influence of Post-use Trust on the Relationship between Ease of Use of TEBSS and Continuance Intention to use the TEBSS

Analysis revealed that the influence of ease of use on continuance intention is significantly improved through post-use trust. Ease of use was the major contributor of post-use trust in the TEBSS according to this study. When the user feels TEBSS are easy to use, they will have a positive attitude to continue the use in future. Likewise, if the user has strong trusting belief in the TEBSS, it will enhance their intention in long run. Generally, the complexity of TEBSS makes confusion and anxiety among the customers when interacting with TEBSS. Once the customer has the feeling that TEBSS is simple and customised for their usage, they have the feeling of trust in TEBSS and later their intention to continue the services will be also high. Once the easiness in usage is experienced, their attention may have shifted towards the trust or satisfaction in the use of TEBSS. They may no longer concern about the easiness of use of TEBSS after their usage. This might be the reason for insignificant direct effect of ease of use in the presence of both satisfaction and trust. Study revealed that, customers are not much concerned about the easiness of use of TEBSS to continue the use, once they experienced the TEBSS as trust worthy.

7.1.6.7 Influence of Satisfaction on the Relationship between Usefulness of TEBSS and Continuance Intention to use the TEBSS

Satisfaction is found as having significant intervening role in the positive association between the usefulness and continuance intention. It indicates that effect of usefulness on continuance intention to use the TEBSS will be high once the customers are more satisfied with TEBSS. Satisfaction with respect to the enhanced efficiency in carrying out the transactions, improved way of customer relationships etc. leads to strong intention to continue the usage of TEBSS. User examines whether their expectations about TEBSS are matching with their actual experiences or not, actual performance of the TEBSS was evaluated by users based on the characteristics of TEBSS. Thus, the influence of usefulness on continuance intention is significantly improved through satisfaction. The result can be summarised as the effect of usefulness of TEBSS on customers' continuance intention will be stronger when the customers are satisfied with the TEBSS.

7.1.6.8 Influence of Post-use Trust on the Relationship between Usefulness of TEBSS and Continuance Intention to Use the TEBSS

Study found the effect of usefulness on continuance intention is enhanced when customers have strong trust in TEBSS. Usefulness has a noteworthy effect through post-use trust on continuance intention. As long as customer perceive more usefulness about TEBSS, their continuance intention to use the TEBSS would be that much strong. If the post- use trust of customers in the use of TEBSS is high because of the improved efficiency of transactions, they will have a consistent

favourable affect towards the TEBSS. It can be also stated in such a way that, the influence of usefulness of TEBSS on customers' continuance intention to use the TEBSS will be stronger, if the customers have strong trust in the use of TEBSS.

The findings of mediation analysis support the existing theory of ECM as mediating role of customer satisfaction on continuance intention with user perceptions. Further this study extended the theory by adding the post-use trust as mediator in the relationship. Study provides evidences that both the satisfaction and post-use trust significantly improve the effects of customers' perceptions of adoptability on their continuance intention to use the TEBSS.

7.1.7 Moderating Role of Risk Perception on the Relationship between Post-use Trust and Continuance Intention

Moderating role of risk perception on the relationship between post-use trust and continuance intention is tested in the study to know whether the impact of trust on continuance intention is depend on the level of risk perception by the customers. The moderating influence of risk perception is found as significant and it was negatively influencing the trust and continuance intention relationship (Table.6.59). This suggests that, when customer perceives high level of risk, the impact of customers' post-use trust on continuance intention will be low. When they have low risk perception on TEBSS, the effect of post-use trust on continuance intention will be high. The level of trust of customers on TEBSS is varying according to their level of risk perception. Former researchers are consistent with the notion that, the risk perception negatively influences

the behaviour intentions. Both the adoption intention and continuance intention are behavioural intentions measured at different points of time. Additionally, customers share their highly confidential financial information in an unknown platform, where the direct personal contact is absent and users are unaware about the technical and operational aspects of the same. Risk perception hence have significant negative influence in their trust to continue the use of services in future.

In the study, risk perception was found as low (Mean Score 2.83) and post-use trust was found as high (Mean Score 3.41). As far as TEBSS is concerned, the adopters may have certain level of trust with their banks even before they assess the perceived risk in TEBSS. This trust can bring down their risk perception. The feeling of uncertainty regarding the usage and the future impacts of TEBSS causes the non-adopters to perceive high risk on TEBSS. Consequently, their perception on trust becomes low. But the respondents in this study are adopters who are at the maturity stage of using TEBSS. So, their level of risk perception may come down due to the frequent use and experience. The interactivity of risk perception and trust was mentioned in previous studies and a bi-directional causality has been established as risk creates opportunity for trust, same time trust influences risk perception. Even though the influence of customers' trust on continuance intention is depending on the level of risk perception of customers, much variations are not reported on the post-use trust and continuance intention, by changes in the level of risk perception since the R^2 change is very low (0.005).

It can be summarised as the risk perception of customers after their use of TEBSS significantly influences their trust and continuance intention to use the TEBSS. Continuance intention of users to use the TEBSS will be high when customers have strong trust in TEBSS. But if they perceive risk in the use of TEBSS, it will be negatively affecting their trust to continue the use of TEBSS. In the moderation analysis it was also proved that, this negative influence of risk perception is significant in all levels of risk perception. Whether the risk perception is low, medium, or high, it will negatively affect their trust to continue the use of TEBSS in future. Study further evidenced that, to what extent their risk perception goes high, that much their trust to continue the use of TEBSS will reduce. It supports the findings of (Khattab & Al-Shalab, 2015). The hypothesis (H13) is proved in the study as customers' trust to continue the use of TEBSS is depends on the level of their risk perception.

7.1.8 Validation of the Model Formulated for the Study

The final objective of this study was to empirically test the conceptual model formulated for the study. Amongst the different theories and models of post-adoptive use of new technology, one of the prominent models well established in the previous studies was Expectation Confirmation Model. The formulated model for this study is based on the Information System Continuance Model originally based on theory of Expectation and Confirmation. Since the TEBSS become an important part of banking activities for few years. Numerous types of technology enabled banking products and services are now available with multiple features. Therefore, the factors which explain the adoption and usage continuance intention of TEBSS are explored in this study.

The extended model formulated for the study postulated customers' perception on adoptability of TEBSS as independent variables which includes awareness, accessibility, ease of use and usefulness. Customer satisfaction and post-use trust as mediating variables, risk perception as moderating variable and continuance intention as dependent variable. It was proposed in the study that, customers' perception on adoptability of TEBSS has significant influence on continuance intention through customer satisfaction and post-use trust. Additionally, it was also proposed that, the trust of customers to continue the use of TEBSS is influenced by risk perception.

The validation of the conceptual model of the study revealed that accessibility and usefulness have direct positive influence on continuance intention in using the TEBSS. Among these, accessibility was found as strongest predictor of continuance intention (Table.6.64). This result supports the finding of (Chiang & Dholakia, 2008). Unlike the traditional banking, the distinct characteristics of TEBSS is its easy accessibility which has been found to be the major motive for customers in choosing TEBSS over traditional banking. Easiness of use of TEBSS and customer awareness increases the continuance intention of TEBSS through enhancing their satisfaction and post-use trust (Table 6.64). Also, it was evidenced that, satisfaction and customer trust have significant role in predicting user intention to continue the TEBSS. It was found that, formulated conceptual model can be accepted with a good fit (Table. 6.63) and it explained 59.3 per cent variance in the continuance intention.

7.1.8.1 Influence of Accessibility of TEBSS on Continuance Intention to Use the TEBSS

Influence of accessibility of TEBSS on continuance intention in the model evidenced as one of the strong predictors of TEBSS ($\beta= 0.160$). It is more important for the adopters to get the TEBSS as and when they are actually need the TEBSS. The increased accessibility without any hurdles may lead them to believe that TEBSS are useful for them. When customers perceive increased accessibility of TEBSS they may have strong intention to continue the use of TEBSS in future. If any hurdles occur in accessing the bank account for performing transactions, their intention to use will be reduced in future. The positive significant relationship between accessibility and continuance intention to use the TEBSS is evidencing that, increased accessibility of TEBSS ensures the continuance intention to use the TEBSS.

7.1.8.2 Influence of Usefulness of TEBSS on Continuance Intention to Use the TEBSS

Usefulness of TEBSS is found as a good predictor of continuance intention in this study. It implies that, if the customers consider the TEBSS as useful and improve their banking transactions, then they will be more likely to continue the use of TEBSS in future. Before adopting the TEBSS customers evaluate the TEBSS in such a way that, whether it is actually useful for them. Once they experience as it is highly useful, their future intention to use the TEBSS will be high. The findings support the previous studies in information system research Hamid & Zaidi (2016).

7.1.8.3 Influence of Customers' Awareness of TEBSS on Continuance Intention

The relationship between customers' awareness and continuance intention went in contrary to the prior expectation by evidencing an insignificant influence of awareness on continuance intention (Table 6.64). In the stage of adoption, awareness is most important factor which influences the users' intention of adoption, however in the post-adoption stage, they are experienced users as well as they might be having minimum level of knowledge about the procedures and methods of using TEBSS, how to overcome the difficulties in performing transactions etc. Hence customers are not much concerned about the awareness about TEBSS to continue the usage if they are satisfied with the TEBSS and if they have trust in TEBSS.

7.1.8.4 Influence of Ease of Use of TEBSS on Continuance Intention

Ease of use of TEBSS is also found as having insignificant influence on continuance intention in using TEBSS (Table. 6.64). Unlike usefulness, ease of use is affecting the user intention at the initial stage of a new technology itself. Customers are not much concern about the easiness in using TEBSS once they started using TEBSS. Hence it is not influencing their future decisions. Moreover, once the customers become familiar with the TEBSS use, they will be gaining expertise in using these technologies through the repeated use. So, whether the TEBSS are easy to use or not, will no longer will be their focus of attention. Hence, their future intention to use the TEBSS will not likely to be affected by their ease of use perception. Even if the banks upgrade the system, they will not be discontinuing the usage of TEBSS for this reason. Additionally, it

is found that the effect of ease of use on continuance intention is enhanced through satisfaction and post-use trust. However, study do not indicate that, an easy to use TEBSS is unimportant, since the satisfaction and post-use trust are significantly affected by ease of use of TEBSS.

7.1.8.5 Influence of Customers' Perceptions on Adoptability of TEBSS on Customer Satisfaction

Awareness or information acquiring process is a never-ending process in this present scenario, it is not confined with any single technology. TEBSS are frequently undergoing with vigorous changes. Being aware about these changes is necessary for each user to experience the new features. The customer awareness about all aspects of the technology enabled banking self-services have a deep influence on customer satisfaction. The findings are in accordance with the previous author Regina (2015).

Once the user experiences the TEBSS, he or she might be having a positive or negative feeling based on their earlier usefulness perceptions. If their expectation is positively confirmed after the use, they become satisfied otherwise they will not be satisfied. Ample studies have already supported this finding that the usefulness has significant impact on customer satisfaction Hada (2018); Kodithuwakku (2018). In addition to this, novelty of TEBSS and its ability to perform different activities might be useful for the customers. Simultaneous use of many digital payment apps, e- wallets etc. are also available under TEBSS, all these are the reasons for the strong influence of usefulness on satisfaction.

Generally, the customers always prefer to use the products and services which are easy to use; and when the products and services are easy to use, they will be satisfied with it. Once the technology enabled banking self-services are easy to use, customers frequently use it. By the frequent and repeated use of TEBSS, they become proficient in using the same and will become more satisfied in TEBSS.

According to the study result, accessibility of TEBSS is significant predictor of satisfaction. Reason is understood that, the huge penetration of mobile, internet and digital communication technologies, uninterrupted 4G network and data plans etc. made TEBSS as easily available to one's mobile or PC. Thus, the issue of non-accessibility is not greatly affected the busy scheduled life of customers for the time being.

7.1.8.6 Influence of Customers' Perceptions on Adoptability of TEBSS on Post-Use Trust

The relationship between customers' perception on adoptability of TEBSS and post-use trust has been examined in this study. The result of the empirical analysis exposed that, adoptability of TEBSS namely awareness, usefulness, accessibility and ease of use have significant positive impact on post-use trust.

This study supported the significant influence of awareness on post-use trust. Although, the awareness has predominant role in adoption decision, many users are started to use the service after getting a minimum level of knowledge. For that reason, it may have significant influence on their trusting belief in post-adoption phase. The post-use trust is much stronger belief than the pre-use trust and it is developed after

the extensive usage of the products and services. Since it is gradually formed and developed after the usage, it has significant influence on their personal judgments. The judgment / attitude may depend on prior knowledge regarding technology and experience.

It was revealed that, ease of use has the highest impact on customer post-use trust when comparing the other adoptability perceptions. In this study also, a robust relationship of ease of use on post-use trust nearly with 30 percentage of variance has been found. Customers feel that the TEBSS are easy to use hence are less threatening. Post-use trust in any technology innovation is formed after the user experience the new technology. If it becomes easy to use after the initial use, then they would start using the same extensively and the extensive usage makes the user familiar to that technology/innovation. As far as financial dealings are concerned, customers always prefer security and safety as most important factors. Most of the banking service users are common people without having much knowledge about technology and related terms. So, when it is easier to cop up with banking technology, greater chance is to win the heart of the potential users. This finding corroborates the vision of Ortega (2011); Wen et al. (2011).

Present study evidenced that, consequences of usefulness on trust is low when it is compared with ease of use. It is because ease of use is prime for technology acceptance, only if the TEBSS are easy to use, then only customers starts to use it. But customers start to assess the usefulness later in the post-adoption stage, based on the beneficial attribute of a technology/ or product. As stated by Mou & Shin (2016), the actual usage

experiences might have modified the initial usefulness perceptions of the users, which further directed the user to develop a positive trust feeling in the TEBSS. In accordance with the present result, the positive association of usefulness and user trust had been explained by Koufaris & Sosa (2004).

Main feature of the technology enabled banking self-services are the real time availability. Since the services are instantly available customers may have trust in the same. Accessibility is the main antecedent of the extensive usage of technology enabled services. In the case of TEBSS, customer can perform multiple banking transactions at anywhere, any time. This will direct in the repeated use or the intensive use of TEBSS which will results in enhanced trust among customers. Real time accessibility of services is one of the unique characteristics of the TEBSS. It was also reported from the literature that, accessibility has significant influence on trust in technology enabled services.

7.1.8.7 Mediating Role of Satisfaction

The relationship between customer satisfaction and continuance intention was tested in the study and the result revealed that satisfaction has strong significant relationship with continuance intention. Satisfaction strongly predicts the continuance intention, that explains nearly 50 percentage of variance in continuance intention (Table 6.64). It supports the views of earlier researchers like Limayem & Cheung (2008), Hadji & Degoulet (2016); Bhattacharjee & Lin (2015). It is obvious that, when a customer is more satisfied with a product or service, he will repeat the use or they may re-use the product in future also. In technology usage also,

the studies had proved that satisfaction have strong impact in success and continued use of the same in future. When the user experiences increased efficiency, varieties of service offerings, speed and accuracy in performing transactions, they will be satisfied in TEBSS as a result they will be continue using (re-use) the same in future.

Here in the case of TEBSS, mediating role of satisfaction is analysed. It was noticed in the study that, more the customers are satisfied with the TEBSS more their intention to continue use the same. Even if many of them are not satisfied with the charges and the cost that is involved in TEBSS, their overall feeling of satisfaction is high. The intervening effect of satisfaction is proved as significant in the study such that, their perception regarding the adoptability of TEBSS is improved once they experience more satisfaction and it will ultimately boost their continuance intention to use the TEBSS in future. In the post-adoption stage of any technology, satisfaction is based on their first-hand experience. Thus, it is more realistic, un biased and less likely to change. So, those customers who are more satisfied with TEBSS, may have strong favourable intention to continue the use of TEBSS.

7.1.8.8 Mediating Role of Post-Use Trust

The surprising element in the finding of the study is that, it explicit a positive direction of effect of post-use trust to continuance intention (Table 6.64). Generally, in adoption studies, the perceived trust limiting the adoption intention, as it is always negative. But in the present study, post-use trust is positive and having a favourable good impact on continuance intention. Trust in technology- based products and services

had great deal in determining the continuance intention since it includes some sort of innovation and improvements in performance that the user is unfamiliar before. Pre- use trust in adoption was formed based on the information available to prospective users. Hence the perceived trust is un-biased, un-realistic or un-certain. Thus, it seen as a critical factor that limiting the adoption intention. Whereas, this study showed that the post-use trust positively related with the continuance intention. Which means that, when the customers trust more the TEBSS their future intention to use the TEBSS will also be strong.

Moreover, users in the post-adoption of TEBSS, may possess the basic idea about the privacy, security and safety measures in using them. Those who are positively convinced with the safety and security of using TEBSS after their experience, are more likely to continue using the same. Additionally, customers receive security alerts, security encrypted OTPs and other advance security features while using the TEBSS. It will enhance their trust, reduce the level of risk perception, hence they will have positive intention to continue the TEBSS.

Here in this study, the mediating role of post-use trust is proved as significant. Post-use trust might have included trusting beliefs in channel, trust in service provider and technology trust etc. When the technology becomes more advance, trust is necessary for long term use of TEBSS, since the direct personal contact is absent in the service delivery and financial dealings of the customer in TEBSS. Hence their adoptability perceptions are strengthened when they have adequate trust in TEBSS and it will result in the positive intention to continue the use of TEBSS in

future. As the trusting belief increases, user will be more willing to experiment with different features of TEBSS, or use more features of TEBSS with an intention to continue the usage in future. Additionally, the technology enabled banking services have to depend on the global network developed by various communication channels. The use of such an open communication channel necessitates the scope for security concerns regarding the efficiency of banks to securely save and protect the privacy and financial details of customers (Pavlou et al., 2007). So, the favourable trust is vital to develop a strong intention to continue the use on the basis of their perception regarding the adoptability of TEBSS.

7.1.8.9 Moderating Role of Risk Perception

It is observed from the study that, risk perception of customers regarding the use of TEBSS is low (Mean score 2.83, Table 6.18)) among majority of the customers in this study. The moderating role of risk perception was analysed in the study on the relationship between post-use trust and continuance intention. Earlier studies of technology adoption showed that risk perception influences the perceived trust. The same finding was emerged in this study as the risk perception negatively influencing the post-use trust and continuance intention relationship. The moderation analysis was separately done in PROCESS MACRO by identifying the separate model template for the relationship (Mentioned in the chapter 6).

Study result revealed that, the influence of post-use trust on continuance intention is varying according to the degree of risk perception of customers. It was also found as risk perception weakens the positive effect of trust to continue the use of TEBSS. It is consistent with

the notion that, risk perception negatively influencing the behaviour intentions. When customers trust TEBSS more, their intention to continue the use of TEBSS will also be strong, while if they perceive any risk in using TEBSS their trust to continue the use of TEBSS will reduce. This result supports findings of the earlier research (Liu & Zhang, 2018). It can be further stated as, when the risk perception of customers is low, those customers who possess the strong trust in TEBSS highly intend to continue the use of TEBSS. Similarly, when risk perception of customers is high, then the person who possess the low trust in TEBSS have very weak intention to continue the use of TEBSS. The moderation analysis is summarised in the study that, the presence of risk perception of customers alters the relationship between their trust and continuance intention. Or it can be said that, risk perception limits the trust to continue the use of TEBSS.

7.2 Suggestions

Based on the findings of the study, the following suggestions are put forward, which could be adopted by banks to retain the customers with TEBSS as well as to attract the new customers in stream of TEBSS adoption.

7.2.1 Most of the advanced functionalities like payment services, booking services, fund transfer services are common among the customers who are having high level of education and income. The penetration of TEBSS for diversified functions in long-run can be enhanced if the focus is given to spread the use of TEBSS among customers who belongs low profile in terms of education and income. Special attention should be given in this area.

- 7.2.2** Banks who are actively developing the technology enabled banking services must focus on educating the customers regarding the technology updates, improvised features of new technologies in order to keep them aware with technology. The customers can make extensive use of TEBSS when he or she is informed about the advancement in technology.
- 7.2.3** Age wise difference is seen in the ease of use and usefulness perception on adoptability of TEBSS, satisfaction and continuance intention. Moreover, study found that, young customers are extensively using the TEBSS. So, while developing the TEBSS, due consideration should be given for customising the TEBSS as user friendly as possible to get the benefit of it to all age groups.
- 7.2.4** Study revealed that, accessibility of TEBSS is the proximal predictor of continuance intention. Hence, banks should ensure the easy accessibility of TEBSS to the customers. Once the customer feels any discomfort or trouble in accessing the TEBSS it will badly affect their intention to continue the usage of same.
- 7.2.5** It is also suggested that banks must diversify their TEBSS to adopters as well as to non-adopters. Since the study result shows that ease of use of TEBSS is no longer matters to continue the use if customers are satisfied and they have trust in TEBSS. Whereas ease of use is essential in the initial stage of adoption for satisfaction and to create trust in TEBSS. Hence, while designing new products and services for adopters and non-adopters, the service providers should keep in mind these important insights.

7.2.6 Since the usefulness is found as another strong predictors of continuance intention, the banks should continue developing the new types of TEBSS which possess competitive advantages in terms of cost advantages and differentiation advantages over traditional banking. Apart from this, they should focus on publicising their competitive advantages in order to attract new customers towards the TEBSS.

7.2.7 This study showed that, post-use trust is only moderately high among adopters (Table. 6.18). This emphasise that there exists lack of adequate security measures in TEBSS to improve the customers trust. It is vital that, customer should have favourable trust to continue the use of TEBSS in future. Thus, adequate measures should be implemented while designing the TEBSS to further improve the trust of customers. Trust can be enhanced through the improved customer support from banks regarding the use of TEBSS. All major commercial banks are spending huge amount for research and development in technology updates for their sustainable development. But customer support on the virtual channels simply might enhance the customer trust in the TEBSS. Since the financial dealings are highly confidential to customers, they seek for support from the service providers. But presently informational service supports are only available for customers. Keeping the customers informed about the updates in the technology, possible troubles and problems, etc. are crucial for developing trust. Instant support system by using voice recognition, or instant online assistant mechanism etc. are absent in the TEBSS,

if the service providers can include these features in their TEBSS it would have a vigorous change in their post-use trust.

7.2.8 Study suggests that, the banks should give due consideration to minimise the risk by proper monitoring the risk factors, by enhancing the efficiency of safety and security features of TEBSS in order to boost the customers' trust. As per the study result, customers' post-use trust is varying according to the level of their risk perception. The fact is that, risk perception has negative influence in the trust to continue the use of TEBSS. Which means that, even if customer perceives low level of risk, it can weaken their level of trust. So, the banks should ensure proper measures to tackle this issue.

7.2.9 Real time supporting system can be enabled with TEBSS like the user guidance in some technology applications. That will be more helpful for customers to carry out the transactions and reduces the trouble in conducting the transactions. Moreover, it can help to enhance the customers' trust as well as minimising the risk perception. Instant Voice Response (IVR) system or support assistance system by text messages in local contents etc. are the possible value-added technologies that can be included in TEBSS. Further it would have resulted in the increased adoption rate besides the enhancement of trust.

7.3 Implications of the Study

The implication of this research has been presented in two heads, theoretical contributions of the study and practical contributions of the study.

7.3.1 Theoretical Implications

This study contributes to the stream of literature on the development of a model explaining the continuance intention in the use of technology enabled banking self-services. The model was tested empirically and found that the model has good explanatory power. The main aim of developing technology-based banking products and services was to make use of the same at maximum possible extent in the long run. Thus, the present model provided an integrated framework for the prediction of user behaviour at post-adoption phase, based on customers' perceptions on adoptability of TEBSS. Understanding the need and significance of post-adoptive use of TEBSS for assessing the long-term success of technology is more relevant in the present scenario of virtual banking. Study provided new theoretical insights about important factors that might have direct as well as indirect influences on the users' continuance intention of TEBSS which have been neglected so far.

Post-use trust is added as an antecedent of customer continuance intention in the model. Trust was found as an influencing factor for technology acceptance in the previous literature. Continuance intention is the long-term behaviour; thus, the role of user trust is added to the model for better prediction of the behaviour. Also, it is postulated as a mediating variable for predicting the continuance intention. It is more relevant to

study the user behaviour after the adoption by considering the effect of post-use trust in a new technology, which was less explored in the earlier studies. Study also analysed the parallel mediation effect of post-use trust of customers and satisfaction in the relationship between customers' perception on adoptability of TEBSS and continuance intention in using TEBSS which has been un-identified earlier.

Additionally, risk perception has been found to have influence in usage behaviour of customers in TEBSS. Previous studies identified its role of risk perception in the pre-adoption stage. This study checked the influence of risk perception on continuance intention in the post-adoption stage of TEBSS. The user effect of trust on continuance intention is estimated under different level of risk perception and which would have expected to explain the continuance intention more precisely. The moderating role of risk perception in the post-adoption stage of TEBSS was not explored in the previous studies.

Study supported the positive association of accessibility and awareness with post-use trust of customers of TEBSS, which was less explored earlier in the e-banking research. Although, there are studies available on adoption and continuance intention, this study being unique in the sense that, it has made an attempt to bring all these behavioural elements in an integrated framework. Altogether, this study contributes the literature of electronic banking in terms of different factors influencing the usage and continuance intention of technology enabled banking self-services.

7.3.2 Practical Implications

From the practical perspective, the findings of the study can be utilised by banks for providing customised services for customers in order to increase the penetration of technology enabled banking self-services. It can help them not only attracting the customers but also retaining them as loyal.

Findings of the study suggested that, the customers' perception on adoptability has significant influence on satisfaction, post-use trust and continuance intention. Thus, developing positive perceptions by mitigating the problems of customers in using TEBSS is necessary for long-term continued usage of TEBSS. In addition to that, favourable perceptions about TEBSS from the current users is beneficial for the banks for further improve the adoption intention through positive word of mouth.

Extended and continued use of TEBSS is essential for both the service providers as well as the government of the country, since it paves the way of digital economy. Understanding the continuance intention and the critical factors influencing the user behaviour is also beneficial for the industry to further improve their products and services in customised manner. This would further increase the efficiency by way of reduced operational costs of banks since they are investing huge amounts in technology.

Insights of the study can be utilised for development and implementation of policies by the authorities to further refine the TEBSS,

for enhancing the penetration of such services among non-users. In this highly competitive market place, the technology is pervasive and customers have numerous choices for selection. Hence this study recommends that, banks which are specifically handling TEBSS, could retain the customers with them by keeping them satisfied and trust worthy.

This study identified trust and satisfaction as important factors which contribute to the continuance intention. Thus, banks should ensure their customer's post-use-trust and assure their satisfaction through cost cutting, changes in charges and fees, developing new security measures etc. Additionally, it is to be emphasised that, the influence of risk is negatively affecting the trust to continue the use of TEBSS. So, the service providers can take this result to keep the risk elements at minimum level by proper monitoring the TEBSS to retain them as trust worthy and loyal to their TEBSS.

Technology being disruptive in nature, requires significant amount of funding and therefore the contributing factors to continuance intention need to be analysed. By identifying the critical factors, banks can develop and implement customised products and services by way of efficient and cost-effective manner to reduce the operational costs.

This research will help to priorities the factors of continuance intention of technology enabled banking self-services from the comprehensive data collected from the customer survey. Based on the results of the study, banks can identify a few most significant factors which are commonly affecting a major share of customers. By addressing these factors, the most significant benefits can reach a large number of

customers simultaneously on priority. Thus, it will improve the efficiency of customer service by meeting their expectations effectively.

By the user survey conducted among the different types of customers, banks can identify the knowledge gap customers are having about the efficacy of a technology they are already using. Rather than using the resources to upgrade the existing system un-necessarily, this will help the banks to fill the gap only. It will give a clear idea whether technology limitation lies with the technology or with customers.

Cashless is the emerging global trend and the government after demonetization is also trying their best to make the country as a digital economy. The basement of digital economy is stands on the four pillars; government support, financial and technology infrastructure, availability digital financial services and the propensity/ willingness of the customers as well as business to adopt and continue the use of the digital innovations. Taking the records of the current situation it is evident that, some technology adoption in banking sector is embraced by customers only due to the policy compulsion. But for a complete transformation from traditional to digital economy, the voluntary willingness of customers to use the TEBSS is necessary. The current research attempted to study the willingness of customers to continue the use of these services in the long run. Same study can be replicated among the industry and business groups, for identifying their propensity and insights of the results can be also applicable for future policy decisions.

Finally, present study addressed the behaviour of users on internet-based service continuance. Hence those firms specifically handling online

services can also utilise this study to focus on the key elements for their consumer retention strategies (minimising discontinuance) for maintaining customer base and market share.

7.4 Conclusion

To maximise the financial transactions through technology enabled banking self-services, banks ought to assume that, customers will continue the use of such services in long run after their initial use. This study evidenced on the factors that will influence the customers' continuance intention to use the TEBSS. Study had introduced an integrated model by linking the customers' perceptions on adoptability of TEBSS namely awareness, accessibility, ease of use and usefulness, post-use experiences like customer satisfaction, customer trust and continuance intention in technology enabled banking self-services. The model was tested and validated empirically. The mediating role of satisfaction and post-use trust was found as significant in the relationship between customers' perceptions on adoptability and continuance intention. The influence of risk perception was also analysed in the study and found there is significant moderating influence exists in the relationship of post-use trust and continuance intention. An integrated framework was necessary for explaining the customer behaviour in the context of TEBSS, since there are only very few studies previously attempted to analyse the continuance intention on TEBSS.

Study found that major share of customers is not much explored TEBSS for different purposes other than common services. Further, it states that majority of customers are highly satisfied in performing the

services which they are currently using through TEBSS and intend to continue the same in future also. But they are not highly aware about advanced technology updates about the TEBSS even after the adoption. Hence, it can be suggested that, if the customers get proper awareness from their service providers, they may further explore the TEBSS for varying purposes.

Reducing the physical banking activities by shifting majority of activities online will help for eradication of corruption, black money, proper tax collection system, control parallel economy etc. and moving to long term flourishing economy. Additionally, it is more beneficial to environment since it paves the way of green banking. Hence it is important for banks to keep going with the technology.

The current situation in India also demands such a study such that, the country is in the pathway of transformation of traditional banking into digital platform. The demonetisation of currency notes in 2016 resulted in the extensive usage of TEBSS in the country. But the majority of the customers still reluctant to carry out their complete banking transactions in virtual platforms. The study on continuance intention of technology has important role in demonstrating the customer behaviour at this situation after this policy change. The cash-less transactions emerged at the time of demonetisation of the currency, lost its momentum gradually when currency notes crisis got solved by distribution of new currency notes. Also, relevance of this study got much attention when the demonetisation happened in between the period of study. The study results had significant implications for the present context of enhanced digital transactions

routed by increased internet penetration, extensive usage of smart phones and a completely transforming digital world.

7.5 Scope for Future Research

Commercial banks both public sector banks and private sector banks are significantly differing in developing and maintaining their TEBSS. Bank wise difference in the usage and continuance intention can be done in the future studies, which will give more insights about the customers' attitude towards the TEBSS. Future, studies can also be concentrated on specific technologies like digital payments, e-wallets etc. by using the same model.

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Appendices

Appendix 1

QUESTIONNAIRE

Dear Respondent,

Thank you for taking part in this study. This questionnaire is intended to collect data for my Ph. D research work being carried out on the topic 'Attitudinal Precedents in the Adoption and Usage Continuance of Technology Enabled Banking Self-Services: A study among Bank Customers in Kerala'. The data provided by you will be kept strictly confidential and used only for academic purpose.

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Please put a tick mark (✓) in the appropriate boxes

I. PERSONAL PROFILE

1. Name (Optional) :
2. Age :
3. Gender : Male Female
4. Marital status : Married Unmarried
Widower/ widowed Separated
5. Place of Residence : Urban Semi-urban Rural
6. Education : Up to Xth Plus two/PDC Graduation
Post - graduation Professional Others ---
7. Occupation : Govt. Employee Business.
Pvt. Employee Professionals/ self-employed
Agriculture Others (Specify)
8. Monthly income : Up to Rs.20000 ₹ 20001-40000
₹ 40001-60000 ₹ 60001- 80000
₹ 80001-100000 Above ₹ 100000

II. GENERAL BANKING INFORMATION

9. Name of your most frequent bank (with maximum number of transactions)
10. Please tick the type of dealings you have with above bank (Put a tick mark in the respective columns)
- Saving Account Current Account
11. How long have you been using the Technology Enabled Banking Self-Services
- Less than 1 year 2-4 years 5-7 years
 8-10 years Over 10 years
12. Which of the following technology enabled banking services are you using? Put a tick (√) mark in the respective columns
- ATM/Debit Card Credit Card
 Internet Banking Mobile Banking
13. State your level of agreement to the following statements regarding the Awareness on TEBSS (Technology Enabled Banking Self-Services (Internet banking, Mobile banking, Bank Cards)). Put a tick mark (√) in the respective columns (1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree)

		1	2	3	4	5
13.1	I am aware of how to use the Technology Enabled Banking Self-services.					
13.2	I am aware of the risk and how to handle those risks in using the TEBSS.					
13.3	I am aware of the benefits of using technology enabled banking self-services.					
13.4	I am frequently getting updated with TEBSS technology. Thus, I can extend my usage of TEBSS and manage if any transaction failure happens.					

14. Please state your common transactions by using TEBSS (Internet banking, Mobile banking, Bank Cards). Put a tick mark (√) in the respective columns.

	I use the TEBSS for-	Always	Often	Sometimes	Rare	Never
14.1	Information of statement of accounts / ordering check book?					
14.2	Payment services (Bills, taxes, duties, rent etc.).					
14.3	Booking hotels/ air or rail ticket.					
14.4	Transferring funds					
14.5	Point of Sale (POS/E-Commerce).					
14.6	Investment Activities (Online share trading).					
14.7	Viewing the status of cheque and present bill/ ECS.					
14.8	Shopping online					
14.9	Loan application					

15. Please state your level of agreement to following statements regarding the Usage Intensity of TEBSS. Put a tick mark (√) in the respective columns. (1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree).

		1	2	3	4	5
15.1	Using TEBSS have become a part of my routine banking activity.					
15.2	I feel sorry if any of TEBSS failed, due to technical problems, while using them.					
15.3	I always use the TEBSS in as many occasions as possible.					
15.4	While using the TEBSS I feel I am connected to Innovative banking technology.					
15.5	I am proud to tell people that, I am using the TEBSS					
15.6	I feel it is important to keep up with latest banking technology					

16. Please state your level of agreement regarding the adoptability of TEBSS (Internet banking, Mobile banking, Bank Cards). Put a tick mark (√) in the respective columns. (1=Strongly Disagree, 2=Disagree, 3= Neutral, 4=Agree, 5= Strongly Agree)

		1	2	3	4	5
16.1	TEBSS are available at 24 hours of the day.					
16.2	TEBSS helps me to avoid irritation of standing on long queues in branches of banks					
16.3	Banking transactions can be performed anywhere					
16.4	TEBSS helps to save the time compared to transactional banking.					
16.5	TEBSS helps me to perform multiple banking purposes					
16.6	Instant access of the websites of the bank helps me to do what I want to do					
17.1	It is easy for me to learn how to use TEBSS					
17.2	It is easy for me to become skilful at using TEBSS					
17.3	I don't make any errors while using TEBSS					
17.4	I think interacting with technology enabled banking self-services do not require a lot of mental efforts					
18.1	TEBSS make me easier to do my banking transactions.					
18.2	TEBSS enables me to perform my banking needs more quickly than traditional way of doing banking.					
18.3	TEBSS allows me to manage my banking activities efficiently.					
18.4	TEBSS are more useful to me in conducting banking transactions.					

19. Please state your level of agreement to following statements regarding Post-use Trust in using TEBSS. Put a tick mark (√) in appropriate columns. (1= Strongly Disagree, 2= Disagree, 3= Neutral, 4=Agree, 5= Strongly Agree,)

		1	2	3	4	5
19.1	I feel that, TEBSS had enough safe guards (such as encryption of passwords & pin) to make me feel comfortable in using.					
19.2	I feel that, the security system of the TEBSS were suitable against the un authorized access of my account.					
19.3	I feel that, TEBSS are reliable and trust worthy					
19.4	I feel that Technology enabled banking self-services had all the functionalities that I needed.					
19.5	I feel that, the TEBSS provided error free transactions for me each time I am using it.					

20. Indicate your level of agreeableness to the following statements regarding your Risk Perception. Please put a tick mark (√) in the respective columns (1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree)

		1	2	3	4	5
20.1	I think using TEBSS for performing financial activities is risky					
20.2	There is possibility of harm resulting from mis-use of my personal information while using TEBSS					
20.3	There are chances for losing money due to fraud practices when carrying out financial transactions through TEBSS					
20.4	There are chances for losing control over privacy of account information when transactions take place over TEBSS					
20.5	There are chances for failure of performance of transactions when using TEBSS					
20.6	There is a scope for feeling of frustration/ psychological discomfort when something goes wrong in the use of the TEBSS					

21. The following statements indicate your level of Satisfaction in TEBSS; Put a tick mark (√) in the respective columns (1=Very Dissatisfied, 2= Dissatisfied. 3= No Opinion, 4= Satisfied, 5= Very Satisfied)

		1	2	3	4	5
21.1	I am satisfied with the different types of services offered through TEBSS (Internet banking, Mobile banking and Bank cards).					
21.2	I am satisfied with digitalization of personal information and account information.					
21.3	I am satisfied with the speed of services such as clearing, deposits, transfers and response to enquiries.					
21.4	I am satisfied with the procedures and formalities for using TEBSS.					
21.5	I am satisfied with the security& privacy measures against Password & PIN theft, hacking etc.					
21.6	I am satisfied with the language and information support in using technology enabled banking self - services					
21.7	Overall, I am satisfied with technology enabled banking self – services.					

22. Please state your level of agreement to following statements regarding the Continuance Intention to use the technology enabled banking self-services in future. Put a tick mark (√) in appropriate columns. (1=Strongly Disagree, 2= Disagree, 3= Neutral, 4=Agree, 5= Strongly Agree)

		1	2	3	4	5
22.1	I intend to continue in using Mobile Banking, Internet Banking and Card banking for doing my banking transactions in future.					
22.2	I intend to continue in using Mobile Banking, Internet Banking and Card banking to the extent of services offered through it.					
22.3	I will strongly recommend the innovative banking products and services to others					

Thank you very much for your patience and time.

Appendix 2

RESULTS OF FACTOR ANALYSIS

2.1. Awareness of Customers

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.639	65.965	65.965	2.639	65.965	65.965
2	.669	16.725	82.690			
3	.363	9.072	91.762			
4	.330	8.238	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix

	Component
	1
AW1	.857
AW2	.851
AW3	.855
AW4	.669

Extraction Method: Principal Component Analysis a. 1 components extracted

2.2. Accessibility of TEBSS

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.150	69.172	69.172	4.150	69.172	69.172
2	.529	8.817	77.989			
3	.449	7.485	85.475			
4	.354	5.908	91.383			
5	.308	5.131	96.514			
6	.209	3.486	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix

	Component
	1
ASS1	.768
ASS2	.863
ASS3	.839
ASS4	.885
ASS5	.861
ASS6	.767

Extraction Method: Principal Component Analysis a. 1 components extracted

2.3. Satisfaction of Customers

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.185	59.779	59.779	4.185	59.779	59.779
2	.635	9.076	68.855			
3	.575	8.210	77.065			
4	.492	7.035	84.100			
5	.442	6.311	90.411			
6	.348	4.976	95.387			
7	.323	4.613	100.000			
Extraction Method: Principal Component Analysis.						

Component Matrix

	Component
	1
SAT1	.772
SAT2	.830
SAT3	.825
SAT4	.804
SAT5	.754
SAT6	.701
SAT7	.716
Extraction Method: Principal Component Analysis a. 1 components extracted	

2.4. Post-use Trust of Customers

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.009	60.188	60.188	3.009	60.188	60.188
2	.689	13.771	73.959			
3	.528	10.564	84.523			
4	.425	8.509	93.032			
5	.348	6.968	100.000			
Extraction Method: Principal Component Analysis.						

Component Matrix

	Component
	1
TR1	.782
TR2	.821
TR3	.810
TR4	.709
TR5	.753
Extraction Method: Principal Component Analysis a. 1 components extracted	

2.5 Risk Perception of Customers

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.516	58.606	58.606	3.516	58.606	58.606
2	.869	14.490	73.096			
3	.565	9.423	82.519			
4	.408	6.796	89.315			
5	.369	6.153	95.468			
6	.272	4.532	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix

	Component
	1
RP1	.669
RP2	.741
RP3	.827
RP4	.837
RP5	.791
RP6	.715

Extraction Method: Principal Component Analysis a. 1 components extracted

Appendix 3

POST-HOC ANALYSIS RESULT OF ANOVA

3.1. Occupation and Fund Transfer Service

Multiple Comparisons

Dependent Variable: PURP4

Tukey HSD

(I) Occupation	(J) Occupation	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Govt. employee	Private employee	.031	.147	1.000	-.40	.47
	Agriculture	.389	.164	.211	-.10	.87
	Business	.220	.191	.911	-.34	.78
	Professionals/ Self employed	.431	.180	.200	-.10	.96
	Students	.446*	.149	.044	.01	.89
	Others	.442	.193	.252	-.13	1.01
Private employee	Govt. employee	-.031	.147	1.000	-.47	.40
	Agriculture	.358	.145	.171	-.07	.79
	Business	.190	.175	.933	-.33	.71
	Professionals/ Self employed	.400	.162	.175	-.08	.88
	Students	.415*	.127	.020	.04	.79
	Others	.411	.178	.238	-.11	.94
Agriculture	Govt. employee	-.389	.164	.211	-.87	.10
	Private employee	-.358	.145	.171	-.79	.07
	Business	-.169	.189	.974	-.73	.39
	Professionals/ Self employed	.041	.178	1.000	-.48	.57
	Students	.057	.146	1.000	-.38	.49
	Others	.053	.192	1.000	-.51	.62
Business	Govt. employee	-.220	.191	.911	-.78	.34
	Private employee	-.190	.175	.933	-.71	.33
	Agriculture	.169	.189	.974	-.39	.73
	Professionals/ Self employed	.210	.203	.946	-.39	.81
	Students	.226	.176	.860	-.29	.75
	Others	.222	.215	.947	-.41	.86
Professionals/ Self employed	Govt. employee	-.431	.180	.200	-.96	.10
	Private employee	-.400	.162	.175	-.88	.08
	Agriculture	-.041	.178	1.000	-.57	.48
	Business	-.210	.203	.946	-.81	.39
	Students	.016	.164	1.000	-.47	.50
	Others	.012	.205	1.000	-.59	.62
Students	Govt. employee	-.446*	.149	.044	-.89	-.01
	Private employee	-.415*	.127	.020	-.79	-.04
	Agriculture	-.057	.146	1.000	-.49	.38
	Business	-.226	.176	.860	-.75	.29
	Professionals/ Self employed	-.016	.164	1.000	-.50	.47
	Others	-.004	.179	1.000	-.53	.52
Others	Govt. employee	-.442	.193	.252	-1.01	.13
	Private employee	-.411	.178	.238	-.94	.11
	Agriculture	-.053	.192	1.000	-.62	.51
	Business	-.222	.215	.947	-.86	.41
	Professionals/ Self employed	-.012	.205	1.000	-.62	.59
	Students	.004	.179	1.000	-.52	.53

*. The mean difference is significant at the 0.05 level.

3.2. Monthly Income and Fund Transfer Service

Multiple Comparisons

Dependent Variable: PURP4

Tukey HSD

(I) Monthly income	(J) Monthly income	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
upto20000	20001-30000	-.301	.114	.089	-.63	.02
	30001-40000	-.388*	.126	.025	-.75	-.03
	40001-50000	-.631*	.160	.001	-1.09	-.18
	50001-60000	-.381	.215	.484	-.99	.23
	Above 60000	-.660*	.162	.001	-1.12	-.20
20001-30000	upto20000	.301	.114	.089	-.02	.63
	30001-40000	-.087	.139	.989	-.48	.31
	40001-50000	-.330	.170	.380	-.82	.16
	50001-60000	-.080	.223	.999	-.72	.56
	Above 60000	-.359	.173	.299	-.85	.13
30001-40000	upto20000	.388*	.126	.025	.03	.75
	20001-30000	.087	.139	.989	-.31	.48
	40001-50000	-.243	.178	.748	-.75	.27
	50001-60000	.007	.229	1.000	-.65	.66
	Above 60000	-.273	.181	.658	-.79	.24
40001-50000	upto20000	.631*	.160	.001	.18	1.09
	20001-30000	.330	.170	.380	-.16	.82
	30001-40000	.243	.178	.748	-.27	.75
	50001-60000	.250	.249	.917	-.46	.96
	Above 60000	-.029	.206	1.000	-.62	.56
50001-60000	upto20000	.381	.215	.484	-.23	.99
	20001-30000	.080	.223	.999	-.56	.72
	30001-40000	-.007	.229	1.000	-.66	.65
	40001-50000	-.250	.249	.917	-.96	.46
	Above 60000	-.279	.251	.876	-1.00	.44
Above 60000	upto20000	.660*	.162	.001	.20	1.12
	20001-30000	.359	.173	.299	-.13	.85
	30001-40000	.273	.181	.658	-.24	.79
	40001-50000	.029	.206	1.000	-.56	.62
	50001-60000	.279	.251	.876	-.44	1.00

*. The mean difference is significant at the 0.05 level.

3.3. Monthly Income and Booking Service

Multiple Comparisons

Dependent Variable: PURP3

Tukey HSD

(I) Monthly income	(J) Monthly income	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
upto20000	20001-30000	-.465*	.119	.001	-.80	-.13
	30001-40000	-.380*	.131	.043	-.75	-.01
	40001-50000	-.515*	.166	.024	-.99	-.04
	50001-60000	-.315	.223	.722	-.95	.32
	Above 60000	-.390	.168	.188	-.87	.09
20001-30000	upto20000	.465*	.119	.001	.13	.80
	30001-40000	.085	.145	.992	-.33	.50
	40001-50000	-.050	.177	1.000	-.56	.46
	50001-60000	.150	.232	.987	-.51	.81
	Above 60000	.074	.180	.998	-.44	.59
30001-40000	upto20000	.380*	.131	.043	.01	.75
	20001-30000	-.085	.145	.992	-.50	.33
	40001-50000	-.135	.185	.978	-.66	.39
	50001-60000	.065	.238	1.000	-.62	.75
	Above 60000	-.011	.188	1.000	-.55	.53
40001-50000	upto20000	.515*	.166	.024	.04	.99
	20001-30000	.050	.177	1.000	-.46	.56
	30001-40000	.135	.185	.978	-.39	.66
	50001-60000	.200	.259	.972	-.54	.94
	Above 60000	.124	.214	.992	-.49	.73
50001-60000	upto20000	.315	.223	.722	-.32	.95
	20001-30000	-.150	.232	.987	-.81	.51
	30001-40000	-.065	.238	1.000	-.75	.62
	40001-50000	-.200	.259	.972	-.94	.54
	Above 60000	-.076	.261	1.000	-.82	.67
Above 60000	upto20000	.390	.168	.188	-.09	.87
	20001-30000	-.074	.180	.998	-.59	.44
	30001-40000	.011	.188	1.000	-.53	.55
	40001-50000	-.124	.214	.992	-.73	.49
	50001-60000	.076	.261	1.000	-.67	.82

*. The mean difference is significant at the 0.05 level.

3.4. Occupation and Point of Sale Service

Multiple Comparisons

Dependent Variable: PURP5

Tukey HSD

(I) Occupation	(J) Occupation	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Govt.employee	Private employee	-.150	.149	.953	-.59	.29
	Agriculture	.155	.166	.966	-.33	.65
	Business	.012	.193	1.000	-.56	.58
	Professionals/ Self employed	.213	.181	.903	-.32	.75
	Students	.187	.150	.876	-.26	.63
	Others	.373	.196	.476	-.21	.95
Private employee	Govt.employee	.150	.149	.953	-.29	.59
	Agriculture	.305	.147	.366	-.13	.74
	Business	.162	.177	.970	-.36	.68
	Professionals/ Self employed	.363	.164	.290	-.12	.85
	Students	.337	.129	.123	-.04	.72
	Others	.523	.180	.057	-.01	1.05
Agriculture	Govt.employee	-.155	.166	.966	-.65	.33
	Private employee	-.305	.147	.366	-.74	.13
	Business	-.143	.191	.990	-.71	.42
	Professionals/ Self employed	.058	.180	1.000	-.47	.59
	Students	.032	.148	1.000	-.41	.47
	Others	.218	.194	.921	-.36	.79
Business	Govt.employee	-.012	.193	1.000	-.58	.56
	Private employee	-.162	.177	.970	-.68	.36
	Agriculture	.143	.191	.990	-.42	.71
	Professionals/ Self employed	.201	.205	.958	-.40	.81
	Students	.175	.178	.958	-.35	.70
	Others	.360	.218	.646	-.28	1.00
Professionals/ Self employed	Govt.employee	-.213	.181	.903	-.75	.32
	Private employee	-.363	.164	.290	-.85	.12
	Agriculture	-.058	.180	1.000	-.59	.47
	Business	-.201	.205	.958	-.81	.40
	Students	-.026	.165	1.000	-.52	.46
	Others	.159	.207	.988	-.45	.77
Students	Govt.employee	-.187	.150	.876	-.63	.26
	Private employee	-.337	.129	.123	-.72	.04
	Agriculture	-.032	.148	1.000	-.47	.41
	Business	-.175	.178	.958	-.70	.35
	Professionals/ Self employed	.026	.165	1.000	-.46	.52
	Others	.186	.181	.948	-.35	.72
Others	Govt.employee	-.373	.196	.476	-.95	.21
	Private employee	-.523	.180	.057	-1.05	.01
	Agriculture	-.218	.194	.921	-.79	.36
	Business	-.360	.218	.646	-1.00	.28
	Professionals/ Self employed	-.159	.207	.988	-.77	.45
	Students	-.186	.181	.948	-.72	.35

3.5. Monthly Income and Point of Sale Service

Multiple Comparisons

Dependent Variable: PURP5

Tukey HSD

(I) Monthly income	(J) Monthly income	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
upto20000	20001-30000	-.409*	.116	.006	-.74	-.08
	30001-40000	-.318	.127	.126	-.68	.05
	40001-50000	-.477*	.162	.038	-.94	-.02
	50001-60000	-.289	.218	.769	-.91	.33
	Above 60000	-.372	.164	.209	-.84	.10
20001-30000	upto20000	.409*	.116	.006	.08	.74
	30001-40000	.092	.141	.987	-.31	.49
	40001-50000	-.067	.173	.999	-.56	.43
	50001-60000	.120	.226	.995	-.53	.77
	Above 60000	.037	.175	1.000	-.46	.54
30001-40000	upto20000	.318	.127	.126	-.05	.68
	20001-30000	-.092	.141	.987	-.49	.31
	40001-50000	-.159	.181	.951	-.68	.36
	50001-60000	.028	.232	1.000	-.64	.69
	Above 60000	-.054	.183	1.000	-.58	.47
40001-50000	upto20000	.477*	.162	.038	.02	.94
	20001-30000	.067	.173	.999	-.43	.56
	30001-40000	.159	.181	.951	-.36	.68
	50001-60000	.188	.253	.977	-.53	.91
	Above 60000	.105	.208	.996	-.49	.70
50001-60000	upto20000	.289	.218	.769	-.33	.91
	20001-30000	-.120	.226	.995	-.77	.53
	30001-40000	-.028	.232	1.000	-.69	.64
	40001-50000	-.188	.253	.977	-.91	.53
	Above 60000	-.083	.254	1.000	-.81	.64
Above 60000	upto20000	.372	.164	.209	-.10	.84
	20001-30000	-.037	.175	1.000	-.54	.46
	30001-40000	.054	.183	1.000	-.47	.58
	40001-50000	-.105	.208	.996	-.70	.49
	50001-60000	.083	.254	1.000	-.64	.81

*. The mean difference is significant at the 0.05 level.

3.6. Age and Usage Intensity of TEBSS

Multiple Comparisons

Dependent Variable: INTEN_N

Tukey HSD

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Below 25	26-30	-.11914	.07057	.442	-.3120	.0738
	31-40	-.23893*	.07461	.012	-.4429	-.0350
	41-50	-.25530	.13829	.348	-.6333	.1227
	Above 50	-.39526	.23351	.439	-1.0335	.2430
26-30	Below 25	.11914	.07057	.442	-.0738	.3120
	31-40	-.11980	.06136	.291	-.2875	.0479
	41-50	-.13617	.13162	.839	-.4959	.2236
	Above 50	-.27612	.22962	.750	-.9037	.3515
31-40	Below 25	.23893*	.07461	.012	.0350	.4429
	26-30	.11980	.06136	.291	-.0479	.2875
	41-50	-.01637	.13383	1.000	-.3822	.3494
	Above 50	-.15632	.23089	.961	-.7874	.4748
41-50	Below 25	.25530	.13829	.348	-.1227	.6333
	26-30	.13617	.13162	.839	-.2236	.4959
	31-40	.01637	.13383	1.000	-.3494	.3822
	Above 50	-.13996	.25859	.983	-.8468	.5669
Above 50	Below 25	.39526	.23351	.439	-.2430	1.0335
	26-30	.27612	.22962	.750	-.3515	.9037
	31-40	.15632	.23089	.961	-.4748	.7874
	41-50	.13996	.25859	.983	-.5669	.8468

*. The mean difference is significant at the 0.05 level.

3.7. Occupation and Usage Intensity of TEBSS

Multiple Comparisons

Dependent Variable: INTEN_N

Tukey HSD

(I) Occupation	(J) Occupation	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Govt. employee	Private employee	.12833	.08882	.777	-.1341	.3908
	Agriculture	.04177	.09889	1.000	-.2505	.3340
	Business	.25978	.11516	.267	-.0805	.6001
	Professionals/ Self employed	.09874	.10826	.971	-.2212	.4187
	Students	.29903*	.08962	.015	.0342	.5639
	Others	.29649	.11667	.146	-.0483	.6413
Private employee	Govt. employee	-.12833	.08882	.777	-.3908	.1341
	Agriculture	-.08655	.08749	.956	-.3451	.1720
	Business	.13146	.10553	.876	-.1804	.4433
	Professionals/ Self employed	-.02959	.09795	1.000	-.3190	.2599
	Students	.17071	.07685	.285	-.0564	.3978
	Others	.16816	.10717	.702	-.1485	.4849
Agriculture	Govt. employee	-.04177	.09889	1.000	-.3340	.2505
	Private employee	.08655	.08749	.956	-.1720	.3451
	Business	.21801	.11414	.474	-.1193	.5553
	Professionals/ Self employed	.05696	.10717	.998	-.2597	.3737
	Students	.25726	.08830	.056	-.0037	.5182
	Others	.25471	.11566	.295	-.0871	.5965
Business	Govt. employee	-.25978	.11516	.267	-.6001	.0805
	Private employee	-.13146	.10553	.876	-.4433	.1804
	Agriculture	-.21801	.11414	.474	-.5553	.1193
	Professionals/ Self employed	-.16105	.12235	.844	-.5226	.2005
	Students	.03925	.10621	1.000	-.2746	.3531
	Others	.03670	.12984	1.000	-.3470	.4204
Professionals/ Self employed	Govt. employee	-.09874	.10826	.971	-.4187	.2212
	Private employee	.02959	.09795	1.000	-.2599	.3190
	Agriculture	-.05696	.10717	.998	-.3737	.2597
	Business	.16105	.12235	.844	-.2005	.5226
	Students	.20030	.09868	.396	-.0913	.4919
	Others	.19775	.12376	.684	-.1680	.5635
Students	Govt. employee	-.29903*	.08962	.015	-.5639	-.0342
	Private employee	-.17071	.07685	.285	-.3978	.0564
	Agriculture	-.25726	.08830	.056	-.5182	.0037
	Business	-.03925	.10621	1.000	-.3531	.2746
	Professionals/ Self employed	-.20030	.09868	.396	-.4919	.0913
	Others	-.00254	.10784	1.000	-.3212	.3161
Others	Govt. employee	-.29649	.11667	.146	-.6413	.0483
	Private employee	-.16816	.10717	.702	-.4849	.1485
	Agriculture	-.25471	.11566	.295	-.5965	.0871
	Business	-.03670	.12984	1.000	-.4204	.3470
	Professionals/ Self employed	-.19775	.12376	.684	-.5635	.1680
	Students	.00254	.10784	1.000	-.3161	.3212

*. The mean difference is significant at the 0.05 level.

3.8. Monthly Income and Intensity of Usage of TEBSS

Multiple Comparisons

Dependent Variable: INTEN_N

Tukey HSD

(I) Monthly income	(J) Monthly income	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
upto20000	20001-30000	-.19447	.06862	.053	-.3904	.0015
	30001-40000	-.34697*	.07557	.000	-.5628	-.1311
	40001-50000	-.32447*	.09601	.010	-.5987	-.0503
	50001-60000	-.30364	.12935	.176	-.6731	.0658
	Above 60000	.01217	.09752	1.000	-.2663	.2907
20001-30000	upto20000	.19447	.06862	.053	-.0015	.3904
	30001-40000	-.15250	.08375	.453	-.3917	.0867
	40001-50000	-.13000	.10257	.803	-.4229	.1629
	50001-60000	-.10917	.13430	.965	-.4927	.2744
	Above 60000	.20663	.10399	.350	-.0903	.5036
30001-40000	upto20000	.34697*	.07557	.000	.1311	.5628
	20001-30000	.15250	.08375	.453	-.0867	.3917
	40001-50000	.02250	.10734	1.000	-.2841	.3291
	50001-60000	.04333	.13798	1.000	-.3507	.4374
	Above 60000	.35913*	.10870	.013	.0487	.6696
40001-50000	upto20000	.32447*	.09601	.010	.0503	.5987
	20001-30000	.13000	.10257	.803	-.1629	.4229
	30001-40000	-.02250	.10734	1.000	-.3291	.2841
	50001-60000	.02083	.15015	1.000	-.4080	.4496
	Above 60000	.33663	.12378	.072	-.0169	.6901
50001-60000	upto20000	.30364	.12935	.176	-.0658	.6731
	20001-30000	.10917	.13430	.965	-.2744	.4927
	30001-40000	-.04333	.13798	1.000	-.4374	.3507
	40001-50000	-.02083	.15015	1.000	-.4496	.4080
	Above 60000	.31580	.15112	.294	-.1158	.7474
Above 60000	upto20000	-.01217	.09752	1.000	-.2907	.2663
	20001-30000	-.20663	.10399	.350	-.5036	.0903
	30001-40000	-.35913*	.10870	.013	-.6696	-.0487
	40001-50000	-.33663	.12378	.072	-.6901	.0169
	50001-60000	-.31580	.15112	.294	-.7474	.1158

*. The mean difference is significant at the 0.05 level.

3.9. Education and Awareness of Customers

Multiple Comparisons

Dependent Variable: AWR_N

Tukey HSD

(I) Education	(J) Education	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Upto tenth	Plus two / PDC	.12791	.23428	.994	-.5412	.7970
	Graduation	-.02128	.21031	1.000	-.6219	.5794
	Post-graduation	-.22141	.20800	.895	-.8154	.3726
	Professional	-.02376	.21816	1.000	-.6468	.5993
	Others	-.26387	.24848	.896	-.9735	.4458
Plus two / PDC	Upto tenth	-.12791	.23428	.994	-.7970	.5412
	Graduation	-.14919	.12651	.847	-.5105	.2121
	Post graduation	-.34932	.12262	.051	-.6995	.0009
	Professional	-.15167	.13917	.886	-.5491	.2458
	Others	-.39178	.18307	.268	-.9146	.1310
Graduation	Upto tenth	.02128	.21031	1.000	-.5794	.6219
	Plus two / PDC	.14919	.12651	.847	-.2121	.5105
	Post graduation	-.20013*	.06620	.031	-.3892	-.0111
	Professional	-.00248	.09335	1.000	-.2691	.2641
	Others	-.24259	.15120	.596	-.6744	.1892
Post graduation	Upto tenth	.22141	.20800	.895	-.3726	.8154
	Plus two / PDC	.34932	.12262	.051	-.0009	.6995
	Graduation	.20013*	.06620	.031	.0111	.3892
	Professional	.19765	.08800	.218	-.0537	.4490
	Others	-.04246	.14796	1.000	-.4650	.3801
Professional	Upto tenth	.02376	.21816	1.000	-.5993	.6468
	Plus two / PDC	.15167	.13917	.886	-.2458	.5491
	Graduation	.00248	.09335	1.000	-.2641	.2691
	Post graduation	-.19765	.08800	.218	-.4490	.0537
	Others	-.24011	.16193	.675	-.7026	.2224
Others	Upto tenth	.26387	.24848	.896	-.4458	.9735
	Plus two / PDC	.39178	.18307	.268	-.1310	.9146
	Graduation	.24259	.15120	.596	-.1892	.6744
	Post graduation	.04246	.14796	1.000	-.3801	.4650
	Professional	.24011	.16193	.675	-.2224	.7026

*. The mean difference is significant at the 0.05 level.

3.10. Occupation and Accessibility of TEBSS

Multiple Comparisons

Dependent Variable: ACCESS_N

Tukey HSD

(I) Occupation	(J) Occupation	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Govt.employee	Private employee	.30249*	.09288	.020	.0280	.5769
	Agriculture	.09495	.10341	.970	-.2106	.4005
	Business	.02850	.12042	1.000	-.3274	.3844
	Professionals/ Self employed	.18148	.11321	.680	-.1530	.5160
	Students	.20757	.09371	.288	-.0694	.4845
Private employee	Others	.25281	.12200	.370	-.1077	.6133
	Govt.employee	-.30249*	.09288	.020	-.5769	-.0280
	Agriculture	-.20755	.09148	.260	-.4779	.0628
	Business	-.27399	.11035	.167	-.6001	.0521
	Professionals/ Self employed	-.12101	.10243	.901	-.4237	.1817
Agriculture	Students	-.09492	.08036	.901	-.3324	.1425
	Others	-.04968	.11207	.999	-.3808	.2815
	Govt.employee	-.09495	.10341	.970	-.4005	.2106
	Private employee	.20755	.09148	.260	-.0628	.4779
	Business	-.06644	.11935	.998	-.4191	.2863
Business	Professionals/ Self employed	.08654	.11207	.988	-.2446	.4177
	Students	.11262	.09233	.887	-.1602	.3855
	Others	.15786	.12094	.850	-.1995	.5153
	Govt.employee	-.02850	.12042	1.000	-.3844	.3274
	Private employee	.27399	.11035	.167	-.0521	.6001
Professionals/ Self employed	Agriculture	.06644	.11935	.998	-.2863	.4191
	Business	.15298	.12793	.896	-.2251	.5310
	Students	.17907	.11106	.674	-.1491	.5072
	Others	.22431	.13578	.648	-.1769	.6255
	Govt.employee	-.18148	.11321	.680	-.5160	.1530
Students	Private employee	.12101	.10243	.901	-.1817	.4237
	Agriculture	-.08654	.11207	.988	-.4177	.2446
	Business	-.15298	.12793	.896	-.5310	.2251
	Students	.02609	.10319	1.000	-.2788	.3310
	Others	.07133	.12942	.998	-.3111	.4538
Others	Govt.employee	-.20757	.09371	.288	-.4845	.0694
	Private employee	.09492	.08036	.901	-.1425	.3324
	Agriculture	-.11262	.09233	.887	-.3855	.1602
	Business	-.17907	.11106	.674	-.5072	.1491
	Professionals/ Self employed	-.02609	.10319	1.000	-.3310	.2788
Govt.employee	Students	.04524	.11276	1.000	-.2880	.3785
	Others	-.25281	.12200	.370	-.6133	.1077
	Private employee	.04968	.11207	.999	-.2815	.3808
	Agriculture	-.15786	.12094	.850	-.5153	.1995
	Business	-.22431	.13578	.648	-.6255	.1769
Professionals/ Self employed	Professionals/ Self employed	-.07133	.12942	.998	-.4538	.3111
	Students	-.04524	.11276	1.000	-.3785	.2880

*. The mean difference is significant at the 0.05 level.

3.11. Age and Ease of Use of TEBSS

Multiple Comparisons

Dependent Variable: EAS_N

Tukey HSD

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Below 25	26-30	-.06768	.07340	.888	-.2683	.1330
	31-40	-.19772	.07760	.081	-.4098	.0144
	41-50	-.19022	.14384	.677	-.5834	.2030
	Above 50	-.74471*	.24288	.019	-1.4086	-.0808
26-30	Below 25	.06768	.07340	.888	-.1330	.2683
	31-40	-.13004	.06383	.249	-.3045	.0444
	41-50	-.12254	.13690	.899	-.4967	.2517
	Above 50	-.67703*	.23884	.038	-1.3299	-.0242
31-40	Below 25	.19772	.07760	.081	-.0144	.4098
	26-30	.13004	.06383	.249	-.0444	.3045
	41-50	.00750	.13920	1.000	-.3730	.3880
	Above 50	-.54699	.24016	.153	-1.2034	.1095
41-50	Below 25	.19022	.14384	.677	-.2030	.5834
	26-30	.12254	.13690	.899	-.2517	.4967
	31-40	-.00750	.13920	1.000	-.3880	.3730
	Above 50	-.55449	.26897	.238	-1.2897	.1807
Above 50	Below 25	.74471*	.24288	.019	.0808	1.4086
	26-30	.67703*	.23884	.038	.0242	1.3299
	31-40	.54699	.24016	.153	-.1095	1.2034
	41-50	.55449	.26897	.238	-.1807	1.2897

*. The mean difference is significant at the 0.05 level.

3.12. Age and Usefulness of TEBSS

Multiple Comparisons

Dependent Variable: USEF_N

Tukey HSD

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Below 25	26-30	-.15987	.07132	.165	-.3548	.0351
	31-40	-.24545*	.07540	.010	-.4516	-.0393
	41-50	-.07926	.13976	.980	-.4613	.3028
	Above 50	-.55041	.23600	.136	-1.1955	.0946
26-30	Below 25	.15987	.07132	.165	-.0351	.3548
	31-40	-.08558	.06202	.641	-.2551	.0839
	41-50	.08061	.13302	.974	-.2830	.4442
	Above 50	-.39054	.23207	.445	-1.0249	.2438
31-40	Below 25	.24545*	.07540	.010	.0393	.4516
	26-30	.08558	.06202	.641	-.0839	.2551
	41-50	.16619	.13526	.735	-.2035	.5359
	Above 50	-.30496	.23335	.687	-.9428	.3329
41-50	Below 25	.07926	.13976	.980	-.3028	.4613
	26-30	-.08061	.13302	.974	-.4442	.2830
	31-40	-.16619	.13526	.735	-.5359	.2035
	Above 50	-.47115	.26135	.373	-1.1855	.2432
Above 50	Below 25	.55041	.23600	.136	-.0946	1.1955
	26-30	.39054	.23207	.445	-.2438	1.0249
	31-40	.30496	.23335	.687	-.3329	.9428
	41-50	.47115	.26135	.373	-.2432	1.1855

*. The mean difference is significant at the 0.05 level.

3.13. Occupation and Usefulness of TEBSS

Multiple Comparisons

Dependent Variable: USEF_N

Tukey HSD

(I) Occupation	(J) Occupation	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Govt. employee	Private employee	.23767	.08979	.113	-.0277	.5030
	Agriculture	.05632	.09997	.998	-.2391	.3517
	Business	.04497	.11642	1.000	-.2991	.3890
	Professionals/ Self employed	.19830	.10944	.540	-.1251	.5217
	Students	.31949*	.09060	.008	.0518	.5872
	Others	.24786	.11794	.352	-.1007	.5964
Private employee	Govt. employee	-.23767	.08979	.113	-.5030	.0277
	Agriculture	-.18135	.08844	.384	-.4427	.0800
	Business	-.19270	.10668	.544	-.5079	.1226
	Professionals/ Self employed	-.03937	.09902	1.000	-.3320	.2532
	Students	.08182	.07769	.941	-.1477	.3114
	Others	.01020	.10834	1.000	-.3100	.3303
Agriculture	Govt. employee	-.05632	.09997	.998	-.3517	.2391
	Private employee	.18135	.08844	.384	-.0800	.4427
	Business	-.01135	.11538	1.000	-.3523	.3296
	Professionals/ Self employed	.14198	.10834	.847	-.1782	.4621
	Students	.26317	.08926	.051	-.0006	.5269
	Others	.19154	.11692	.657	-.1540	.5370
Business	Govt. employee	-.04497	.11642	1.000	-.3890	.2991
	Private employee	.19270	.10668	.544	-.1226	.5079
	Agriculture	.01135	.11538	1.000	-.3296	.3523
	Professionals/ Self employed	.15333	.12368	.878	-.2122	.5188
	Students	.27452	.10736	.141	-.0427	.5918
	Others	.20289	.13126	.717	-.1850	.5908
Professionals/ Self employed	Govt. employee	-.19830	.10944	.540	-.5217	.1251
	Private employee	.03937	.09902	1.000	-.2532	.3320
	Agriculture	-.14198	.10834	.847	-.4621	.1782
	Business	-.15333	.12368	.878	-.5188	.2122
	Students	.12119	.09975	.888	-.1736	.4160
	Others	.04957	.12511	1.000	-.3201	.4193
Students	Govt. employee	-.31949*	.09060	.008	-.5872	-.0518
	Private employee	-.08182	.07769	.941	-.3114	.1477
	Agriculture	-.26317	.08926	.051	-.5269	.0006
	Business	-.27452	.10736	.141	-.5918	.0427
	Professionals/ Self employed	-.12119	.09975	.888	-.4160	.1736
	Others	-.07163	.10901	.995	-.3938	.2505
Others	Govt. employee	-.24786	.11794	.352	-.5964	.1007
	Private employee	-.01020	.10834	1.000	-.3303	.3100
	Agriculture	-.19154	.11692	.657	-.5370	.1540
	Business	-.20289	.13126	.717	-.5908	.1850
	Professionals/ Self employed	-.04957	.12511	1.000	-.4193	.3201
	Students	.07163	.10901	.995	-.2505	.3938

*. The mean difference is significant at the 0.05 level.

3.14. Income and Usefulness of TEBSS

Multiple Comparisons

Dependent Variable: USEF_N

Tukey HSD

(I) Monthly income	(J) Monthly income	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
upto20000	20001-30000	-.23902*	.06996	.009	-.4388	-.0392
	30001-40000	-.21485	.07704	.060	-.4349	.0052
	40001-50000	-.23152	.09788	.170	-.5110	.0480
	50001-60000	-.26277	.13187	.347	-.6394	.1138
	Above 60000	-.18898	.09942	.402	-.4729	.0949
20001-30000	upto20000	.23902*	.06996	.009	.0392	.4388
	30001-40000	.02417	.08538	1.000	-.2197	.2680
	40001-50000	.00750	.10456	1.000	-.2911	.3061
	50001-60000	-.02375	.13691	1.000	-.4147	.3672
	Above 60000	.05003	.10601	.997	-.2527	.3528
30001-40000	upto20000	.21485	.07704	.060	-.0052	.4349
	20001-30000	-.02417	.08538	1.000	-.2680	.2197
	40001-50000	-.01667	.10943	1.000	-.3292	.2959
	50001-60000	-.04792	.14066	.999	-.4496	.3538
	Above 60000	.02587	.11081	1.000	-.2906	.3423
40001-50000	upto20000	.23152	.09788	.170	-.0480	.5110
	20001-30000	-.00750	.10456	1.000	-.3061	.2911
	30001-40000	.01667	.10943	1.000	-.2959	.3292
	50001-60000	-.03125	.15307	1.000	-.4684	.4059
	Above 60000	.04253	.12619	.999	-.3179	.4029
50001-60000	upto20000	.26277	.13187	.347	-.1138	.6394
	20001-30000	.02375	.13691	1.000	-.3672	.4147
	30001-40000	.04792	.14066	.999	-.3538	.4496
	40001-50000	.03125	.15307	1.000	-.4059	.4684
	Above 60000	.07378	.15406	.997	-.3662	.5138
Above 60000	upto20000	.18898	.09942	.402	-.0949	.4729
	20001-30000	-.05003	.10601	.997	-.3528	.2527
	30001-40000	-.02587	.11081	1.000	-.3423	.2906
	40001-50000	-.04253	.12619	.999	-.4029	.3179
	50001-60000	-.07378	.15406	.997	-.5138	.3662

*. The mean difference is significant at the 0.05 level.

3.15. Age and Satisfaction of Customers

Multiple Comparisons

Dependent Variable: SAT_N

Tukey HSD

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Below 25	26-30	-.14356	.06368	.161	-.3176	.0305
	31-40	-.20312*	.06733	.022	-.3872	-.0191
	41-50	-.08372	.12480	.963	-.4248	.2574
	Above 50	-.65424*	.21073	.017	-1.2302	-.0782
26-30	Below 25	.14356	.06368	.161	-.0305	.3176
	31-40	-.05956	.05538	.819	-.2109	.0918
	41-50	.05984	.11878	.987	-.2648	.3845
	Above 50	-.51067	.20722	.100	-1.0771	.0557
31-40	Below 25	.20312*	.06733	.022	.0191	.3872
	26-30	.05956	.05538	.819	-.0918	.2109
	41-50	.11940	.12077	.861	-.2107	.4495
	Above 50	-.45111	.20837	.194	-1.0207	.1184
41-50	Below 25	.08372	.12480	.963	-.2574	.4248
	26-30	-.05984	.11878	.987	-.3845	.2648
	31-40	-.11940	.12077	.861	-.4495	.2107
	Above 50	-.57051	.23337	.105	-1.2084	.0674
Above 50	Below 25	.65424*	.21073	.017	.0782	1.2302
	26-30	.51067	.20722	.100	-.0557	1.0771
	31-40	.45111	.20837	.194	-.1184	1.0207
	41-50	.57051	.23337	.105	-.0674	1.2084

*. The mean difference is significant at the 0.05 level.

3.16. Occupation and Satisfaction of Customers

Multiple Comparisons

Dependent Variable: SAT_N
Tukey HSD

(I) Occupation	(J) Occupation	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Govt.employee	Private employee	.00325	.08021	1.000	-.2338	.2403
	Agriculture	-.06839	.08931	.988	-.3323	.1955
	Business	.02554	.10400	1.000	-.2818	.3329
	Professionals/ Self employed	.09828	.09777	.953	-.1906	.3872
	Students	.22698	.08093	.076	-.0122	.4661
	Others	.19692	.10536	.502	-.1144	.5083
Private employee	Govt.employee	-.00325	.08021	1.000	-.2403	.2338
	Agriculture	-.07164	.07901	.972	-.3051	.1618
	Business	.02229	.09530	1.000	-.2593	.3039
	Professionals/ Self employed	.09504	.08846	.936	-.1664	.3564
	Students	.22373*	.06940	.022	.0186	.4288
	Others	.19367	.09678	.415	-.0923	.4797
Agriculture	Govt.employee	.06839	.08931	.988	-.1955	.3323
	Private employee	.07164	.07901	.972	-.1618	.3051
	Business	.09393	.10308	.971	-.2107	.3985
	Professionals/ Self employed	.16667	.09678	.601	-.1193	.4527
	Students	.29537*	.07974	.004	.0597	.5310
	Others	.26531	.10445	.146	-.0433	.5740
Business	Govt.employee	-.02554	.10400	1.000	-.3329	.2818
	Private employee	-.02229	.09530	1.000	-.3039	.2593
	Agriculture	-.09393	.10308	.971	-.3985	.2107
	Professionals/ Self employed	.07274	.11049	.995	-.2538	.3992
	Students	.20144	.09591	.353	-.0820	.4849
	Others	.17138	.11726	.768	-.1751	.5179
Professionals/ Self employed	Govt.employee	-.09828	.09777	.953	-.3872	.1906
	Private employee	-.09504	.08846	.936	-.3564	.1664
	Agriculture	-.16667	.09678	.601	-.4527	.1193
	Business	-.07274	.11049	.995	-.3992	.2538
	Students	.12870	.08911	.778	-.1346	.3920
	Others	.09864	.11177	.975	-.2316	.4289
Students	Govt.employee	-.22698	.08093	.076	-.4661	.0122
	Private employee	-.22373*	.06940	.022	-.4288	-.0186
	Agriculture	-.29537*	.07974	.004	-.5310	-.0597
	Business	-.20144	.09591	.353	-.4849	.0820
	Professionals/ Self employed	-.12870	.08911	.778	-.3920	.1346
	Others	-.03006	.09738	1.000	-.3178	.2577
Others	Govt.employee	-.19692	.10536	.502	-.5083	.1144
	Private employee	-.19367	.09678	.415	-.4797	.0923
	Agriculture	-.26531	.10445	.146	-.5740	.0433
	Business	-.17138	.11726	.768	-.5179	.1751
	Professionals/ Self employed	-.09864	.11177	.975	-.4289	.2316
	Students	.03006	.09738	1.000	-.2577	.3178

*. The mean difference is significant at the 0.05 level.

3.17. Monthly Income and Satisfaction of Customers

Multiple Comparisons

Dependent Variable: SAT_N

Tukey HSD

(I) Monthly income	(J) Monthly income	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
upto20000	20001-30000	-.16756	.06236	.079	-.3457	.0105
	30001-40000	-.27303*	.06868	.001	-.4692	-.0769
	40001-50000	-.28970*	.08725	.012	-.5389	-.0405
	50001-60000	-.11827	.11756	.916	-.4540	.2175
	Above 60000	-.13636	.08863	.639	-.3895	.1168
20001-30000	upto20000	.16756	.06236	.079	-.0105	.3457
	30001-40000	-.10548	.07611	.736	-.3228	.1119
	40001-50000	-.12214	.09322	.779	-.3884	.1441
	50001-60000	.04929	.12205	.999	-.2993	.3978
	Above 60000	.03120	.09450	.999	-.2387	.3011
30001-40000	upto20000	.27303*	.06868	.001	.0769	.4692
	20001-30000	.10548	.07611	.736	-.1119	.3228
	40001-50000	-.01667	.09755	1.000	-.2953	.2619
	50001-60000	.15476	.12539	.820	-.2033	.5129
	Above 60000	.13667	.09879	.737	-.1455	.4188
40001-50000	upto20000	.28970*	.08725	.012	.0405	.5389
	20001-30000	.12214	.09322	.779	-.1441	.3884
	30001-40000	.01667	.09755	1.000	-.2619	.2953
	50001-60000	.17143	.13645	.809	-.2183	.5611
	Above 60000	.15334	.11249	.749	-.1679	.4746
50001-60000	upto20000	.11827	.11756	.916	-.2175	.4540
	20001-30000	-.04929	.12205	.999	-.3978	.2993
	30001-40000	-.15476	.12539	.820	-.5129	.2033
	40001-50000	-.17143	.13645	.809	-.5611	.2183
	Above 60000	-.01809	.13734	1.000	-.4103	.3741
Above 60000	upto20000	.13636	.08863	.639	-.1168	.3895
	20001-30000	-.03120	.09450	.999	-.3011	.2387
	30001-40000	-.13667	.09879	.737	-.4188	.1455
	40001-50000	-.15334	.11249	.749	-.4746	.1679
	50001-60000	.01809	.13734	1.000	-.3741	.4103

*. The mean difference is significant at the 0.05 level.

3.18. Education and Risk Perception of Customers

Multiple Comparisons

Dependent Variable: RP_N

Tukey HSD

(I) Education	(J) Education	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Upto tenth	Plus two / PDC	.51110	.23918	.269	-.1720	1.1942
	Graduation	.31748	.21472	.678	-.2957	.9307
	Post graduation	.52608	.21235	.132	-.0804	1.1325
	Professional	.55623	.22273	.126	-.0799	1.1923
	Others	.58936	.25368	.186	-.1351	1.3138
Plus two / PDC	Upto tenth	-.51110	.23918	.269	-1.1942	.1720
	Graduation	-.19362	.12916	.665	-.5625	.1752
	Post graduation	.01498	.12519	1.000	-.3425	.3725
	Professional	.04513	.14208	1.000	-.3606	.4509
	Others	.07826	.18690	.998	-.4555	.6120
Graduation	Upto tenth	-.31748	.21472	.678	-.9307	.2957
	Plus two / PDC	.19362	.12916	.665	-.1752	.5625
	Post graduation	.20861*	.06759	.025	.0156	.4016
	Professional	.23875	.09530	.124	-.0334	.5109
	Others	.27188	.15436	.492	-.1690	.7127
Post graduation	Upto tenth	-.52608	.21235	.132	-1.1325	.0804
	Plus two / PDC	-.01498	.12519	1.000	-.3725	.3425
	Graduation	-.20861*	.06759	.025	-.4016	-.0156
	Professional	.03014	.08985	.999	-.2264	.2867
	Others	.06327	.15105	.998	-.3681	.4947
Professional	Upto tenth	-.55623	.22273	.126	-1.1923	.0799
	Plus two / PDC	-.04513	.14208	1.000	-.4509	.3606
	Graduation	-.23875	.09530	.124	-.5109	.0334
	Post graduation	-.03014	.08985	.999	-.2867	.2264
	Others	.03313	.16532	1.000	-.4390	.5053
Others	Upto tenth	-.58936	.25368	.186	-1.3138	.1351
	Plus two / PDC	-.07826	.18690	.998	-.6120	.4555
	Graduation	-.27188	.15436	.492	-.7127	.1690
	Post graduation	-.06327	.15105	.998	-.4947	.3681
	Professional	-.03313	.16532	1.000	-.5053	.4390

*. The mean difference is significant at the 0.05 level.

3.19. Occupation and Risk Perception of Customers

Multiple Comparisons

Dependent Variable: RP_N

Tukey HSD

(I) Occupation	(J) Occupation	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Govt.employee	Private employee	-.20712	.09729	.336	-.4946	.0804
	Agriculture	-.16455	.10832	.733	-.4846	.1555
	Business	-.07654	.12614	.997	-.4493	.2962
	Professionals/ Self employed	.01120	.11858	1.000	-.3392	.3616
	Students	.14574	.09816	.754	-.1443	.4358
	Others	.07677	.12779	.997	-.3009	.4544
Private employee	Govt.employee	.20712	.09729	.336	-.0804	.4946
	Agriculture	.04257	.09583	.999	-.2406	.3257
	Business	.13058	.11559	.919	-.2110	.4722
	Professionals/ Self employed	.21832	.10729	.393	-.0987	.5354
	Students	.35286*	.08418	.001	-.1041	.6016
	Others	.28389	.11739	.192	-.0630	.6308
Agriculture	Govt.employee	.16455	.10832	.733	-.1555	.4846
	Private employee	-.04257	.09583	.999	-.3257	.2406
	Business	.08801	.12502	.992	-.2814	.4575
	Professionals/ Self employed	.17575	.11739	.747	-.1711	.5226
	Students	.31030*	.09672	.023	.0245	.5961
	Others	.24133	.12668	.477	-.1330	.6157
Business	Govt.employee	.07654	.12614	.997	-.2962	.4493
	Private employee	-.13058	.11559	.919	-.4722	.2110
	Agriculture	-.08801	.12502	.992	-.4575	.2814
	Professionals/ Self employed	.08774	.13401	.995	-.3083	.4837
	Students	.22228	.11633	.474	-.1215	.5660
	Others	.15331	.14222	.935	-.2670	.5736
Professionals/ Self employed	Govt.employee	-.01120	.11858	1.000	-.3616	.3392
	Private employee	-.21832	.10729	.393	-.5354	.0987
	Agriculture	-.17575	.11739	.747	-.5226	.1711
	Business	-.08774	.13401	.995	-.4837	.3083
	Students	.13454	.10808	.876	-.1849	.4539
	Others	.06557	.13556	.999	-.3350	.4662
Students	Govt.employee	-.14574	.09816	.754	-.4358	.1443
	Private employee	-.35286*	.08418	.001	-.6016	-.1041
	Agriculture	-.31030*	.09672	.023	-.5961	-.0245
	Business	-.22228	.11633	.474	-.5660	.1215
	Professionals/ Self employed	-.13454	.10808	.876	-.4539	.1849
	Others	-.06897	.11811	.997	-.4180	.2801
Others	Govt.employee	-.07677	.12779	.997	-.4544	.3009
	Private employee	-.28389	.11739	.192	-.6308	.0630
	Agriculture	-.24133	.12668	.477	-.6157	.1330
	Business	-.15331	.14222	.935	-.5736	.2670
	Professionals/ Self employed	-.06557	.13556	.999	-.4662	.3350
	Students	.06897	.11811	.997	-.2801	.4180

*. The mean difference is significant at the 0.05 level.

3.20. Age and Continuance Intention to use the TEBSS

Multiple Comparisons

Dependent Variable: CI_N

Tukey HSD

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Below 25	26-30	-.19738*	.07038	.041	-.3897	-.0050
	31-40	-.27792*	.07440	.002	-.4813	-.0746
	41-50	-.16381	.13791	.758	-.5408	.2132
	Above 50	-.73005*	.23287	.015	-1.3666	-.0935
26-30	Below 25	.19738*	.07038	.041	.0050	.3897
	31-40	-.08054	.06120	.681	-.2478	.0867
	41-50	.03357	.13126	.999	-.3252	.3923
	Above 50	-.53267	.22899	.138	-1.1586	.0932
31-40	Below 25	.27792*	.07440	.002	.0746	.4813
	26-30	.08054	.06120	.681	-.0867	.2478
	41-50	.11411	.13346	.913	-.2507	.4789
	Above 50	-.45213	.23026	.285	-1.0815	.1773
41-50	Below 25	.16381	.13791	.758	-.2132	.5408
	26-30	-.03357	.13126	.999	-.3923	.3252
	31-40	-.11411	.13346	.913	-.4789	.2507
	Above 50	-.56624	.25789	.182	-1.2711	.1387
Above 50	Below 25	.73005*	.23287	.015	.0935	1.3666
	26-30	.53267	.22899	.138	-.0932	1.1586
	31-40	.45213	.23026	.285	-.1773	1.0815
	41-50	.56624	.25789	.182	-.1387	1.2711

*. The mean difference is significant at the 0.05 level.

3.21. Monthly Income and Continuance Intention to use the TEBSS

Multiple Comparisons

Dependent Variable: CI_N

Tukey HSD

(I) Monthly income	(J) Monthly income	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
upto20000	20001-30000	-.25291*	.06908	.004	-.4502	-.0556
	30001-40000	-.27624*	.07608	.004	-.4935	-.0590
	40001-50000	-.21208	.09666	.241	-.4881	.0640
	50001-60000	-.30791	.13022	.170	-.6798	.0640
	Above 60000	-.14265	.09818	.694	-.4230	.1377
20001-30000	upto20000	.25291*	.06908	.004	.0556	.4502
	30001-40000	-.02333	.08431	1.000	-.2641	.2175
	40001-50000	.04083	.10326	.999	-.2541	.3357
	50001-60000	-.05500	.13520	.999	-.4411	.3311
	Above 60000	.11026	.10469	.900	-.1887	.4092
30001-40000	upto20000	.27624*	.07608	.004	.0590	.4935
	20001-30000	.02333	.08431	1.000	-.2175	.2641
	40001-50000	.06417	.10807	.991	-.2445	.3728
	50001-60000	-.03167	.13890	1.000	-.4284	.3650
	Above 60000	.13359	.10943	.827	-.1789	.4461
40001-50000	upto20000	.21208	.09666	.241	-.0640	.4881
	20001-30000	-.04083	.10326	.999	-.3357	.2541
	30001-40000	-.06417	.10807	.991	-.3728	.2445
	50001-60000	-.09583	.15116	.988	-.5275	.3359
	Above 60000	.06943	.12462	.994	-.2865	.4253
50001-60000	upto20000	.30791	.13022	.170	-.0640	.6798
	20001-30000	.05500	.13520	.999	-.3311	.4411
	30001-40000	.03167	.13890	1.000	-.3650	.4284
	40001-50000	.09583	.15116	.988	-.3359	.5275
	Above 60000	.16526	.15214	.887	-.2692	.5997
Above 60000	upto20000	.14265	.09818	.694	-.1377	.4230
	20001-30000	-.11026	.10469	.900	-.4092	.1887
	30001-40000	-.13359	.10943	.827	-.4461	.1789
	40001-50000	-.06943	.12462	.994	-.4253	.2865
	50001-60000	-.16526	.15214	.887	-.5997	.2692

*. The mean difference is significant at the 0.05 level.

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List of Publications

1. Rajisha T. (2019). Digital Payment System: A Technology Enabled Banking Self-Services in India. *Zenith International Journal of Multidisciplinary Research*, 9, pp. 537-548 (e-ISSN: 2231-5780).
2. Rajisha T. (2019). History of Banking in India and Emergence of New Generation Banks *International Journal of Research in Social Science*. 9 (7) pp.463-474 (ISSN: 2249-2496).
3. Rajisha T. (2019). Analysing the Role of Post-use Trust in Predicting Customer Satisfaction- A Study from Mobile Banking Perspective. *Think India Journal*, 22 (10) pp. 4781-4792 (ISSN: 0971-1260).
4. Rajisha T. (2014). Rupay Card- An Innovative Domestic Solution to Plastic Money in India, FINNOVA-15 (ISBN: 978-81-89085-95-7).

Paper Presentations

1. “Rupay Card- An Innovative Domestic Solution to Plastic Money in India” in a UGC sponsored National seminar on Financial engineering in India, growth prospects and challenges on 23rd Nov 2014 at N.S.S College, Nemmara, Palakkad (Best Paper Award)
2. “Role of Banking Sector in Entrepreneurship Development” at National seminar on Education, Innovation, and Entrepreneurship sponsored by Collegiate education Kerala, on 4th Feb 2015 at C.K.G.M. Govt. college Perambra.
3. “Innovative Products and Services of New Generation Banks in Kerala” at a UGC Sponsored National seminar on Emerging trends in banking and finance: opportunities challenge and Responses at Newman college Thodupuzha on 31st July 2015
4. “Payment Banking in India, Its Scope and Objectives” at a UGC sponsored National seminar on Financial services Market in India: Opportunities and challenges at Govt. Brennen College Thalasseri on 20th October 2015.
5. Customer Satisfaction in Virtual Banking Services – A Study with TAM Ugc sponsored National seminar on “Role of Technology in banking and financial services industry in India: Imperatives and Impediments” at Department of Applied Economics- Cochin University of Science and Technology on 24-25th May 2018.
6. Analysing the Role of Post-use Trust in Predicting Customer Satisfaction- A Study from Mobile Banking Perspective: International Conference on “Entrepreneurship in the era of Innovation and Disruption at John Mathai Centre, Thrissur on 12th November 2019.

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