

Chapter I

CHAPTER I

INTRODUCTION

1.1 BACKGROUND

The evolution from traditional business activities to digital banking activities has brought significant benefits to businesses, including increased efficiency, improved financial management, expanded market reach, and enhanced customer experiences which is stimulated by advancements in technological developments and constant changes in consumer preferences. Embracing digital banking activities has become crucial for businesses to stay competitive in today's rapidly evolving digital landscape.

The rapid development of information technology and the Internet has significantly changed how banks operate their business and how consumers conduct their banking activities (Eriksson, K., Kerem, K. & Nilsson, D., (2005), Yoon & Steege, (2013)). While the drivers of digital banking users' and non-users' digital banking adoption behaviour have been investigated extensively, customers who have used digital banking but have discontinued, have generally been ignored. The question of 'how discontinued users can be brought back to digital banking remains largely unanswered in the existing literature. Similarly, there is a lack of digital banking adoption literature that addresses the complete process of adoption, which involves the customers' initial decision to adopt digital banking, actual implementation, continued use of digital banking and sometimes discontinuance with digital banking and reuse of digital banking after such discontinuance. An understanding of the determinants of non-users' initial adoption of digital banking will help banks to acquire new customers, while that of the determinants of current users' helps to achieve customer retention and create opportunities for cross-promotion and sales, and generate referrals.

1.2 SCOPE OF THE STUDY

The present era reveals user acceptance of computer and information technology in a wide range of end – user computing technologies. From a business point, commerce through internet is exhibiting tremendous growth over the past few years, but there are few factors which affect the decisions of customers when adopting internet commerce positively or negatively. This study tries to analyse the customers acceptance level of

digital banking services in Coimbatore district. Also, the digital banking services are measured in service quality dimension by adopting SERVQUAL model from the user's perspective. These findings could help banks to fine tune their digital banking services.

Also, recent advanced developments in global technological infrastructure have paved way for virtual banking that in turn promotes electronic trade across national borders. It has resulted in creation of digital economy. Virtual banking leads to virtual supply chain and other electronic business tools. In India, there is still a huge gap that is to be filled by Indian commercial banks to convert themselves virtually. So, this research will act as a base for the way from digital banks to virtual banks. In future, researches can be made in the area of how virtual banking can support international business thus contributing for economic prosperity.

1.3 STATEMENT OF THE PROBLEM

Many studies agreed on the significance of customer acceptance and complete utilization of digital banking services as the key factors in order to achieve the benefits from launching the digital channel for Indian banks. Also, they have highlighted the critical role of the comprehensive understanding of the factors and their interactions with each other that influence customers in accepting and adopting digital banking services. A review of the literature related to digital banking services showed that while there are numerous studies that have tried to identify the factors affecting adopters but there is currently no study that sheds light on the factors influencing customers' acceptance and adoption in service quality dimension.

Furthermore, recent private reports revealed by banks have shown that although a huge number of customers have registered for their digital banking service as users of it, most of them rarely use this mode of channel and only a few of them have fully utilized its overall capabilities. As a result, in order to provide additional insights into this topic, a comprehensive study is very much needed to focus more on the factors affecting customers' acceptance and adoption level of digital banking services in service quality perspective.

1.4 RESEARCH QUESTIONS

1. What are the demographic characteristics (age, gender, income, education, etc.) of digital banking users in Coimbatore District?
2. What are the primary purposes for which customers in Coimbatore District use digital banking services?
3. What are the common challenges or difficulties faced by customers during the process of adopting digital banking services in Coimbatore District?
4. What security measures do customers in Coimbatore District commonly adopt while using digital banking services?
5. What are the key dimensions of service quality that influence the adoption and acceptance of digital banking services in Coimbatore District?

1.5 RESEARCH OBJECTIVES

- i. To identify the demographic and other factors influencing the acceptance and adoption of digital banking in Coimbatore District.
- ii. To explore the opinion of banking customers regarding the purpose of usage of digital banking services.
- iii. To identify the issues and challenges faced by customers while adopting digital Banking services.
- iv. To quantify the various security measures adopted by customers while using digital banking services.
- v. To develop service quality dimension model that analyses the adoption and acceptance level of digital banking services.

1.6 RESEARCH STRATEGY

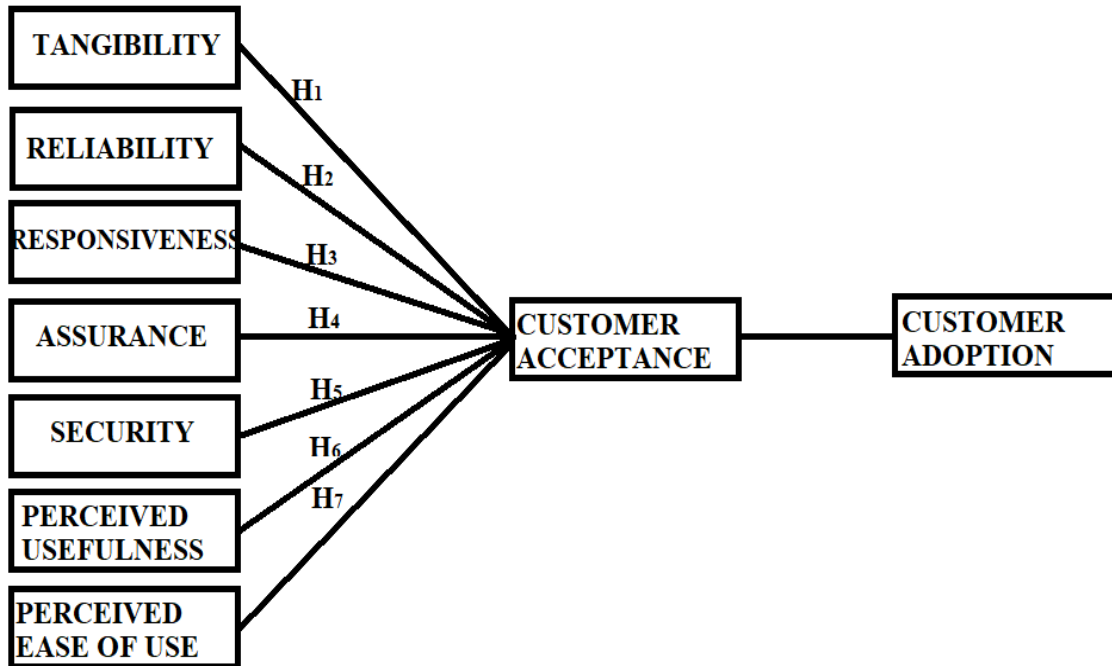
Research ideology is to systematic investigation for establishing facts and principles. Researchers have to select a research paradigm based on the field and topic of study. Research in information systems realm could be divided into two paradigms: positivistic (quantitative) and interpretive (qualitative) (Galliers, 1994).

Interpretive research concentrates on the full complexity of human sense making as the situation emerges and does not predefine the various dependent and independent variables. It uses qualitative methods to seek out explanations and gain an understanding of human and social systems. Descriptive and qualitative methods have been used in the current study. Thus, the research model obtained in this research was tested by conducting a survey using the quantitative method.

1.7 RESEARCH DESIGN

Research Level	Detailed Description
Types of research questions	Analyzing factors affecting customer acceptance and adoption of digital banking
Strategy	Survey
Paradigm	Positivistic
Data collection method	Questionnaire
Tools to be used	Percentage analysis, Correlation, ANOVA, Independent t –Test, Multiple Dichotomy Analysis, Factor Analysis, SE Modelling
Participants	Banking customers
Type of results	Descriptive and Quantitative

1.7.1 Research Model



Source : Computed Data

Tangibility – Digital banking services are tangible in nature. Banking customers derive their perception of Digital banking services offered by the banks by linking the tangibles associated with these services. It includes the appearance of the physical facilities provided by the banks, equipment’s relating to digital banking services, bankers’ personnel and communication materials like ATM.

Reliability – This construct measures the ability of banks to accomplish the promised service on digital banking services. Reliability reveals that whether the banks deliver its promises as desired specifically about the digital banking service outcomes and other core service activities.

Responsiveness – This construct explains the willingness of Indian banks to help their customers in performing banking activities and to provide prompt services. This dimension details the attentiveness of banks and also their promptness in dealing with customer’s. Responsiveness also captures the banks’ ability to tailor the services that satisfy individual needs of the customers.to customer needs.

Assurance – It narrates the trust and confidence that the banking customers have towards their banks. It is defined as banking person's knowledge of courtesy and their banking ability to gain trust and confidence from their customers. It is important for banking personnel to gain trust and confidence in order to develop competitive advantage by obtaining their loyalty.

Security – It evaluates how the digital banking services are secured and about the measures that banks take to protect the individual customers' data. In this digital world, the banking customer's requirements are increasing day by day and it is essential for any banks to secure the individual or the institutional accounts since everything is linked in the cloud.

Perceived Usefulness - Perceived usefulness is one of the strongest attitudes in the study of digital banking adoption. It is defined as a valuable, instrumental and informative variable in analysing the user acceptance model. Perceived usefulness triggers the user's intention towards adopting new technology in both voluntary and mandatory methods.

Perceived Ease of Use - Perceived Ease of use is an important construct that evaluates how comfortable are the banking customers interacting with digital banking. Perceived Ease to use (PEOU) authorized that the opinion of banking customers about using a digital banking service and how it eases their banking activities.

Customers' Acceptance - Customers intention to accept digital banking services is an important variable used to test the user's adoption of digital banking services. This enumerates about the critical factors that induce the users to engage in the behaviour. Acceptance towards digital banking services can also be called as consistent factors to adopt the services in future.

Customers Adoption - It is very essential to analyse the Customer adoption to understand how they react to the new technological developments in the banking sectors especially digital banking services. The adoption of high technological products is undergoing a drastic change. In this technological world, banks are moving towards the stage of virtual banking. So, it is essential to analyse customer adoption variables on digital banking services.

1.7.2 Research Construct and Hypothesis

Research Construct	Hypothesis
Tangibility	H1: Tangibility has a positive effect on the customer acceptance and adoption of Digital banking
Reliability	H2: Reliability has a positive effect on the customer acceptance and adoption of Digital banking
Responsiveness	H3: Responsiveness has a positive effect on the customer acceptance and adoption of Digital banking
Assurance	H4: Assurance has a positive effect on the customer acceptance and adoption of Digital banking
Security	H5: Security has a positive effect on the customer acceptance and adoption of Digital banking
Perceived usefulness	H6: Easy and Convenient Banking has a positive effect on the customer acceptance and adoption of Digital banking
Perceived ease of use	H7: Customer Services has a positive effect on the customer acceptance and adoption of Digital banking

1.7.3 Survey Questionnaire Design

Questionnaire for the survey was designed to gather the respondent's personal information and views about the factors included in the research model. The survey questionnaire contained three sections. Section I contained questions for capturing respondent's demographic details. Section II, questions to collect various factors that influencing customers adoption of technology in digital banking services, problems faced by them while accepting digital banking services and various security measures adopted by customers. Section III contains questions to analyse acceptance and adoption of digital banking services in various service quality dimensions. While designing the questionnaire, questions from previous surveys were also considered and relevant important questions were included in the survey.

1.7.4 Survey Items Design

While developing the items for measuring constructs of the research model, items in the previous studies were examined. Wherever possible, items used in the study were adopted from items used previously to ensure content validity and reliability which would minimize chances of misleading and inaccurate recording of responses. Usage of items which has been tested thoroughly in the past studies would result in good measure of respondent's views on the variables. Findings of the elicitation study helped in framing the most appropriate questions.

Response to an item is captured using a five point Likert scale containing response level from "Strongly Disagree to Strongly Agree". In total, fifty two items were added in the survey questionnaire for measuring the nine constructs used in the research model.

1.7.5 Pilot Study

Pre-testing of the survey questionnaire was carried out among 25 people who are using digital banking services from Coimbatore in order to identify if there were any ambiguous questions, problems in understanding the questions, check if the questions were properly ordered and to get feedback on questionnaire in general. Respondents in the pre-test mentioned that questions were straight forward and they did not face any problems in responding.

Most of the respondents felt that the length of the questionnaire was little long and there were similar sounding questions. Since this was one of the few studies in this area, the researcher decided to leave the sections on collecting personal information unchanged so as to gather maximum information about a respondent. Regarding the questions in Section III the researcher decided to keep the similar sounding questions so that survey results become more reliable. Questionnaire used in this survey is provided in Appendix I.

1.7.6 Servqual Model

One of the objectives of this research is to study the impact of digital banking services on the satisfaction level of the customers using the services of Digital banking.

To study the quality of digital banking services, SERVQUAL model has been used. Reviewing the literature and studies done in the past, a modified SERVQUAL model has been used. Five dimensions that is Reliability, Assurance, Tangibility, Security and Responsiveness of the original model developed by Parasuraman et al.(1994) is used in the form of 26 statements in the questionnaire.

Additional constructs to measure the satisfaction has been added. These constructs have been explored after review of the past literature in the area of Digital banking. Thus, in total 52 items were included under 9 dimensions (Reliability, Tangibility, Responsiveness, Assurance, Security, Perceived ease of use, Perceived usefulness, Intention to adopt, Acceptance). A five-point Likert scale has been used where 5 denotes Strongly agree and 1 represents Strongly disagree.

Table 1.1 Constructs and the Variables used in the study

Construct	Items	Description	Reference
Tangibility	T1	Bank has up - to – date	Parasuram A, Zeithaml V.A and Berry L.L (1990)
	T2	Location of the Bank	
	T3	Sufficient number of ATM machines	
	T4	Cash counting machines	
	T5	Counter partitions in bank and its branches	
	T6	Materials associated with the banks office (Pamphlets, brochures) are visually appealing at the banks office	
	T7	The employees’ approach	
	T8	Guide signs indicating as to which counters are offering which services	

Construct	Items	Description	Reference
Reliability	R1	The bank website does not freeze after customer put in all the information	Parasuram A, Zeithaml V.A and Berry L.L (1990)
	R2	Information provided on website	
	R3	Up to date content	
	R4	Process of transactions	
	R5	Wide range of products and services provided	
Responsiveness	RE1	Customer service representative.	Parasuram A, Zeithaml V.A and Berry L.L (1990)
	RE2	Bank performs the services right the first time	
	RE3	Quick confirmation	
	RE4	Our requests are handled promptly	
Assurance	ASS1	Employees of bank have the knowledge to answer customer questions	Parasuram A, Zeithaml V.A and Berry L.L (1990)
	ASS2	Politeness and friendly staff	
	ASS3	Employees are always willing to help you.	
	ASS4	Experienced management team.	
Security	S1	Security for ATMs	Parasuram A, Zeithaml V.A and Berry L.L (1990)
	S2	Online filling	
	S3	Protection of banking transactions	
	S4	Privacy / Confidentiality of the bank.	
	S5	Care in collection of personal information	

Construct	Items	Description	Reference
Perceived Usefulness	PU1	Using the digital banking applications is time saving	Davis (1989)
	PU2	The apps helps me to accomplish things more quickly	
	PU3	Using the digital banking apps is efficient	
	PU4	The digital banking apps is useful for me	
	PU5	The apps are more convenient in finding sources	
	PU6	The digital banking apps have more number of features	
	PU7	Only young people use digital banking apps vastly	Moore and Benbasat (1991)
	PU8	Using a digital banking app distinguishes me from others	
	PU9	Digital banking apps improves my image	
Perceived Ease of use	PE1	The digital banking apps are easy to use	Davis (1989) Bouwman (2012)
	PE2	The digital banking apps are easy to use	
	PE3	The apps helps me in what I want to do	
	PE4	My interaction with the digital banking apps is clear and understandable	
	PE5	I find the digital banking apps are pleasant	
	PE6	The digital banking apps insists on error notifications	

Construct	Items	Description	Reference
Customer Acceptance	CA1	Using a digital banking apps has its advantages	Taylor (1995)
	CA2	Using digital banking apps personalize my phone	
	CA3	The digital banking apps allow me to stay connected with my friends	Suki, N.M (2009)
	CA4	Digital banking Apps helps me to stay connected in social Networking websites	
	CA5	Digital banking apps contended with news feeds	
	CA6	Using digital banking apps reflects my personality from others	
Intention to adopt Banking Services	IN1	I think the chances are that within 6 months I will use another type of digital banking application	Todd (1995)
	IN2	I think the chances are that within 12 months I will use another type of digital banking application	
	IN3	Within 18 months I will use another type of digital banking application	
	IN4	The digital banking apps fit my style	Slyke (2004)
	IN5	Fewer push notifications to adopt apps	

1.7.7 Sampling Technique

The research is based on both the primary and secondary data. The sample for data collection is related to bank customers living in Coimbatore District of Tamil Nadu. The instrument used for collection of data is a well-designed and well-defined questionnaire carrying the statements measuring various aspects pertaining to digital banking in addition to statements measuring demographic characteristics of the sample respondents. The 5-point Likert type scale items are included in the questionnaire for obtaining the customers' view about various aspects of digital banking. The researcher resorted to convenience sampling approach for selecting the respondents for this survey.

1.7.8 Sampling Framework

As on January 2021, total number of internet users in India is 624 million. (Report: Datareportal, 2021). The study purposively selected Coimbatore district for conducting research. The sample respondents are selected under non-probability based convenient sampling method. This method is highly suitable for the qualitative nature of research. The sample size is determined by using the following Cochran's sample size formula.

At 95% level of the confidence, Z, the confidence level and the value are found to be 1.96. p is the standard deviation and since it is unknown, the value of p is taken as 0.5. and q is the variance and that equals to 0.5. Margin of error is taken as 0.4%. Hence the sample is found to be 601.

$$n = \frac{Z^2 pq}{e^2}$$
$$n = \frac{1.96^2 \times 0.5 \times 0.5}{0.4^2} = 601$$

Thus, using the formula, the sample is size 601. So, the researcher intends to collect the information from 601 banking customers.

1.7.9 Sample Size

Structured questionnaire was adopted to gather the required data for this research. 300 survey questionnaires were printed and distributed among the participants, 279 questionnaires were filled and returned, and 258 fully filled questionnaires were taken for the final analysis. Through online, 343 questionnaires were collected. Thus, the total number of respondents finalised to be 601.

1.7.10 Statistical Analysis

Data collected from the survey were analyzed and interpreted using various statistical techniques usually employed in positivistic study. Statistical analysis was carried out using SPSS (Statistical Package for Social Sciences) version 17.0. Descriptive analysis techniques like average, percentage, frequencies etc were performed on the data for getting an overall structure of the sample. Survey figures were converted into charts and tables to analyze the demographic characteristics of the respondents. Descriptive analyses helped in representing snapshot of a sample at a particular time and in turn gave more clarity to the observed behaviour.

The collected data was analysed using appropriate statistical tools which include t-test, one-way ANOVA, Kruskal Wallis test, factor analysis, linear regression analysis and multiple linear regression analysis. The reliability and construct validity of the research instrument were assessed before final analysis of the data. The Cronbach alpha coefficient for each research variable was computed to test for reliability. Factor analysis was adopted to discriminate and converge the variables into different constructs. Hypotheses were tested using linear regression analysis and multi-linear regression analysis was used to test model's prediction capabilities.

1.8 LIMITATIONS OF THE STUDY

Any research work would have its own inherent limitations. Although the finding can be statistically significant in most parts, the researcher has identified the following limitations in the present study.

- Digital banking is a relatively new concept in Coimbatore District. The researcher found lack of relevant information regarding digital banking acceptance or adoption

among banking customers covering the area of study during the collection of literature. The researcher had to rely on studies conducted in various other nations and regions in India while constructing the research model. Although the impact of the above lacunae was minimized by conducting a qualitative study before framing the research model, the limitation of lack of previous empirical studies cannot be neglected.

- This study covers only the selected factors pertaining to the satisfaction level of digital banking services users towards digital banking.
- This study is horizontal since it covers only the parameters that measure digital banking services. If the parameters like loans and disbursements, dealing with deposits etc. have included then the results may sound better.
- This research didn't analyze the banking personnel's perception about digital banking services.
- The same survey instrument was administered to both users and non-users of digital banking service. The opinions/ perceptions of users could differ considerably and this limitation could have affected the survey results.
- The study focuses on the response of bank customers during the study period only.

1.9 DISPOSITION OF THE THESIS

The research work is presented in the five chapters.

Chapter I includes the background, history, structure of the Indian banking system. It also covers the structure of Digital banking and the risks associated with it. Further, it covers the legal framework involved in digital banking system.

Chapter II covers the national and international reviews pertaining to the objectives of the study and finally discusses the identified research gap.

Chapter III focuses on the scope, statement of the problem and the methodology used in this research.

Chapter IV focuses on the demographic and other factors influencing the acceptance and adoption of digital banking in Coimbatore district.

Chapter V explores on the opinion of banking customers regarding the purpose of usage of Digital banking services.

Chapter VI identifies the issues and challenges faced by the customers while adopting Digital banking services.

Chapter VII quantifies various security measures adopted by the Digital banking users.

Chapter VIII focuses on developing the service quality dimension model that analyses the adoption and acceptance level of customers in using Digital banking services.

Chapter IX discusses the findings, suggestions and conclusion of the study.