

**ASSESSMENT OF THE FACTORS THAT INFLUENCE
ADOPTION OF ELECTRONIC BANKING IN
TANZANIA:
THE CASE OF NMB CUSTOMERS IN MOROGORO
MUNICIPALITY**

By

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**A Dissertation Submitted in Partial Fulfillment of the Requirements
for Award of the Degree of Masters of Business Administration
(MBA) Corporate Management of Mzumbe University.**

2013

CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University, a dissertation entitled: ***Assessment of the Factors that influence the adoption of Electronic banking in Tanzania The case of NMB customers in Morogoro Municipality***, in fulfillment of the requirements for the Master degree of Business Administration (MBA) Corporate Management of Mzumbe University.

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DEDICATION

This work is dedicated to Mama Saidia my beloved Mom who has always been the spirit of my inspiration throughout tireless efforts and encouragements for my achievement

ABSTRACT

The purpose of this study was to assess Factors that influence the adoption of Electronic banking in Tanzania specifically at NMB Bank in Morogoro Municipality. Specifically the study sought to investigate the contribution of education to the adoption of e-banking, to examine the relationship between the income and adoption of e-banking, to assess the relationship between age and adoption of e-banking and to determine the influence of occupation on the adoption of e-banking.

The study adopted case study design whereby a sample of 100 respondents was selected from customers and NMB Bankstaff in Morogoro Municipality. Purposive and simple random sampling techniques were used in selecting the respondents. Data collection was through questionnaire and interview schedules. Data analysis was done by the use of Statistical Package of Social Science (SPSS) and Excel.

Findings of the study indicated that education, income, demographic factors such as age, security, cost, perceived ease of use influenced the adoption of e-banking. The biggest challenges identified were network failure, technical difficulties during transactions among others. In conclusion, this study provides evidence that clearly reflect that customers perceive e-banking in terms of its usefulness, ease of use, trustworthiness, cost effectiveness, reliability, convenient, and accessibility.

Electronic banking is seemingly becoming a matter of need and holds the key that will help the banking industry to formulate their marketing strategy as well as continue to compete in the globalized network and gain market competitive advantage in the 21st century. Based on the findings of the study it was strongly

recommended that NMB Bank should make sure proper and reliable security is provided to protect e-banking customers, also NMB Bank should improve infrastructure, create a sense of awareness to the customers in order to encourage more customers to adopt e-banking.

TABLE OF CONTENTS

CERTIFICATION	i
DECLARATION AND COPYRIGHT.....	ii
ACKNOWLEDGEMENTS.....	iii
DEDICATION.....	iv
ABSTRACT.....	v
TABLE OF CONTENTS.....	vii
LIST OF TABLES.....	x
LIST OF ABBREVIATION.....	xii
CHAPTER ONE	1
1.0 Introduction	1
1.1 Background to the study.....	1
1.2 Statement of the Research Problem	5
1.3 Research Objectives	6
1.3.1 General objective.....	6
1.3.2 Specific Research Objectives	6
1.4 Research Questions	7
1.5 Significance of the study	7
CHAPTER TWO	8
LITERATURE REVIEW	8
2.1 Introduction	8
2.2 Theoretical literature Review	8
2.3.1 Theory of Reasoned Action.....	8
2.3.2 Theory of Planned Behaviour	10
2.3.3 Technology Acceptance Model (TAM)	11
2.4 Empirical Literature Review	12

2.5 Synthesis and Research Gape.....	15
2.6 Conceptual Framework	16
2.6.1 Research variables.....	17
2.6.2 Independent variable:	17
2.6.3 Dependent variable.....	19
2.6.4 Control variable.....	19
CHAPTER THREE	21
RESEARCH METHODOLOGY	21
3.1 Introduction	21
3.2 Research Design.....	21
3.3 Study Area.....	22
3.4.1 Population and Sample Size.....	22
3.4.2 Sampling techniques	23
3.6 Data Collection Methods.....	23
3.6.1 Questionnaire	23
3.6.2 Interview.....	24
3.6.3 Observation	25
3.6.4 Documentary review	25
3.7 Reliability and Validity of Data	25
3.7.1Reliability	25
3.7.2 Validity.....	26
3.8 Data Analysis	27
3.9 Quantitative data analysis.....	28

CHAPTER FOUR	31
PRESENTATION OF RESEARCH FINDINGS	31
4.1 Introduction	31
4.2 Characteristics of Respondents	31
4.2.1 Age bracket of respondents	32
4.2.2 Gender of respondents.....	32
4.2.3 Education of respondents	33
4.2.4 Respondents Experience in Using E-banking	34
4.3 Correlation coefficient analysis.....	34
4.4 Determinants of e-banking adoption	39
 CHAPTER FIVE	44
DISCUSSION OF FINDINGS	44
5.1 The Relationship between Education and Adoption of e-banking.....	44
5.2 The Relationship between Age and Adoption of e – banking.....	44
5.2.1 The Relationship between Income and Adoption of E – banking.....	45
5.2.2 Customers of certain occupation use more E- banking than others	46
 CHAPTER SIX	47
SUMMARY, CONCLUSION AND RECOMMENDATIONS	47
6.1 Introduction	47
6.2 Summary of the Study	47
6.3 Conclusion.....	48
6.4 Recommendations	49
6.5 Limitations of the study.....	52
6.6 Suggestions for future/further studies	53
APPENDICES	61

LIST OF TABLES

Table 4.1: Age bracket of respondents	32
Table 4.2: Sex of respondents	32
Table 4.3: Education of respondents.....	33
Table 4.4: Duration of using E-banking services by the respondents.....	34
Table 4.5 Interpretation of 'r' value (Guilford, 1996)	35
Table 4.6 Correlation coefficient of education	35
Table 4.7 Correlation coefficient of income	36
Table 4.8 Correlations Coefficient of age.....	37
Table 4.9 Correlations Coefficient of Occupation.....	38
Table 4.10 Multiple Regression analysis	40
Table 4.11 Variables relationships by T-Test	42
Table 4.12; Variables relationship significance by t-value.....	43

LIST OF FIGURES

Figure 2.1: Technology Acceptance Model (Davis, 1989).....	12
Figure 2.2: conceptual framework	17

LIST OF ABBREVIATION

ATM	Automatic Teller Machine
EB	Electronic Banking
IB	Internet Banking
NMB	National Microfinance Bank
TAM	Technological Acceptance Model
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action

CHAPTER ONE

1.0 Introduction

This chapter comprises the background information on electronic banking, by tracing the historical development and theoretical perspective, statement of the research problem, objectives of the study, research questions and significant of the study. Since the new millennium, electronic banking has experienced explosive growth in many countries and transformed traditional banking practice. By offering electronic banking services, traditional financial institutions seek to lower operating costs, improve customer banking services, retain customer, reduce their branch networks, and downsize the number of their service staff.

1.1 Background to the study

Over the last few decades information technologies had affected the banking industry highly and have provided a way for the banks to differentiate their products and services. For more than 200 years, banks were using branch based operations but the advent of multiple technologies and applications changed the nature of financial services delivered to customers. For instance, automated teller machines (ATM) displaced cashier tellers, telephone represented by the call centers replaced the branch banking, the internet replaced mail, credit cards and electronic cash replaced bank transactions. In the 21st century, Internet banking (IB) has experienced exponential growth in many countries around the globe and drastically changed traditional banking practice. The adoption of technology into service industries is becoming a strong trend as service providers are now being urged by industry bodies to invest in technology (Joseph et al.1999) as a way of securing their future in the electronic age. In a world that is

becoming increasingly globalized through the use of the Internet and the World Wide Web, internet banking has been gaining ground as a new opportunity for banking institutions. These new opportunities and challenges have resulted in new competitors in the global banking market (Suganthi, et al., 2001:2). The compound annual growth of internet banking has been 80 percent since 1994. Today, more than 100 million households worldwide bank online, and 25 percent of American households have adopted internet banking (Polatoglu and Ekin 2001:157).

Unsurprisingly, Northern European countries are home of the most enthusiastic online bankers with adoption rates of 62-77%. The European core (e.g. Germany, France and UK) constitutes a second cluster with rates between 35 to 54%. Most countries with adoption rates below 32% are in Southern and Eastern Europe (Ireland is an exception). Finally, there is group of rather poor countries where online banking has barely taken hold.

Currently, every third of European uses online banking and there are no signs of a slowdown in adoption. The highest growth rates can be seen in Southern and Eastern Europe indicating a catch-up process. By 2020, more than 60% of Europeans may use online banking ("Deutsche Bank Research, 2010). Reports have shown that Internet banking adaptation in the developing countries of Latin America, Asia and Africa is also relative higher although differs to a certain extent from one country to another. For instance in Asia the adoption of e-banking is higher in South Korea, Singapore, China, India and others while, in countries like Malaysia is relatively low and there is little research to understand the key adaptation determinants (Ndubisi et al. 2004). Although there is evidence that electronic revolution has commenced in Malaysia, widespread electronic banking is still in its growing stage, which makes it hard for banks and other

interested parties to design interventions that would enhance the diffusion of internet banking.

There is limited understanding of the advantages of using E-banking, the factors influencing the African consumers to adopt E- banking and the role played by e-banking to the performance of microfinance institutions. An understanding of how demographic characteristics, social influences, consumers perceptions and attitudes toward internet banking influence the adoption of internet banking can allow banks to create solutions and plans to attract consumers to use internet banking to gain more share in the internet banking market. Very little research has been undertaken in Africa, some of these few studies have been conducted in South Africa, Tunisia, Nigeria as well as in few other African countries on factors influencing the consumer's adoption of internet banking and its contribution to the general performance of microfinance institutions; only 672,000 people are banking online or have banked online in South Africa. In Africa E-banking is a new industry, consumer acceptance and use of E- banking is still small (Karin, 2002:1).

The rapid development of information and communication technologies during the 1990's has enabled companies to introduce more and more high-tech services. It is better to think of E- banking and other completely new services that add value to existing products by substituting or complementing personal interactions with service staff by means of technological solutions. Taking into account these developments, it is evident that service researchers need to pay more attention to consumer evaluations of technology-based services (Parasuraman 2000). Internet-based services are believed to be superior to those delivered through the regular channels because of their convenience, interactivity, relatively low cost and high degree of

customization/personalization among other advantages. There is very little understanding, however, of the factors that affect customer satisfaction with internet-based services (Khalifa and Liu 2002).

The reason was the numerous key advantages that banks could gain by providing electronic banking services. In this way they had lower transaction costs, 24 hours trading, more extended business territory and also increased efficiency in daily banking processes. At present, banks are faced with competitive environment and in order to succeed in such market places, they must offer a wide array of products with latest technology. As such, many banks and financial institutions are actively developing new electronic banking products for their customers throughout the world. The role of technology in service organizations as discussed by Kelly (2000) has been predominantly employed to reduce costs and eliminate uncertainties. In the service sector, technology has been used to standardize services by reducing the employee/customer interface.

According to Parisa (2006), “By offering IB services, traditional banks seek to lower operating costs, improve customer experience, retain/expand customer base, reduce their branch networks, and downsize the number of their service staff”. Customers also benefit from the convenience, speed and round-the-clock availability of Internet banking services. However, as noted by Kuismaet *al.*, (2007); Littler and Melanthiou, (2006). The majority of customers now constantly prefer to opt for a technology based service delivery over that of the employee. “Though IB provides many advantages, there are still a significant number of customers who refuse or reluctant to adopt IB services. Therefore, understanding various reasons usefulness of E-banking would be useful for bank to introduce new strategies that will enable them leverage on their competitive advantage.

This emerging trend raises some important issues about the impact of technology towards service quality and customers satisfaction level. To what extent can the employee/customer interface be removed from the front line or maintain the front line and improve the level of customers' satisfaction? Dabholkar (2000) suggests that little is known about contributions of E- banking to the performance of banks and even the consumer preference for self-service options, particularly those that are technological based. Therefore, this study aims to investigate the factors that influence adaption of electronic banking in Tanzania: The case of National Microfinance Bank customers in Morogoro Municipality.

1.2 Statement of the Research Problem

Electronic banking is creating dramatic changes for the banking industry. Electronic banking is defined as an internet portal, through which customers can use different kinds of banking services ranging from bill payment to making investments. Banking can be done literally from anywhere if one has a computer and net connectivity. Internet banking helps consumers in conducting fast and convenient financial transaction activities.

In many countries, Electronic banking has gained wide acceptance and Tanzania is no onlooker to this phenomena. Banks in Tanzania started embracing technology in a massive way in the early 2000s, led in particular by the new private banks and multinational banks. The growing competition and growing expectations led to increased awareness amongst banks on the role and importance of technology in banking, forcing banks to go in for the latest technologies so as to meet the threat of competition and retain their customer base. However with the advancement of science and technology especially the evolution in mobile phone telecommunications in Tanzania has led to the emergence of the online banking and mobile phone financial activities such as

Tigo which provide Tigo- PESA, Vodacom- VODA PESA, Airtell with Airtell – MONEY and Zantel with Easy PESA.

Very little consideration has been given to researching the factors for adoption and the contributions locally, and perhaps this is why electronic banking has not been more widely exploited in this country. The fact that Tanzania trails many other countries in the rate of adoption of e- banking indicates that there is an urgent need for a locally based study of this nature that focuses on the factors that influence adoption of electronic banking in Tanzania.

1.3 Research Objectives

1.3.1 General objective

The main objective of the study is to assess the factors that influence the adoption of electronic banking in Tanzania

1.3.2 Specific Research Objectives

For the purpose of this study, the specific objectives focus towards examining if there is significant relationship between education, income, age and occupation to the adoption of electronic banking in Tanzania particularly in National Microfinance Bank, these objectives include;

1. To determine the contribution of education to the adoption of e-banking
2. To examine the relationship between the income and adoption of e-banking
3. To assess the relationship between age and adoption of e-banking
4. To determine the influence of occupation on the adoption of e-banking

1.4 Research Questions

1. What is the contribution of education to the adoption of e-banking?
2. What is the relationship between income and adoption of e-banking?
3. What is the relationship between age and adoption of e-banking?
4. What is the influence of occupation on the adoption of e-banking?

1.5 Significance of the study

This study will positively and substantially impact various groups of stakeholders in the banking industry in Tanzania, to mention but a few; customers, bankers, academicians, Government and Policy Makers and others.

- (i) This study will broaden our understanding on what may be the sources of motivation for client/customer to adopt e-banking and thus helps the management establishes an effective strategies on managing and encouraging e-banking.
- (ii) Organization will realize the best way of retaining customers at a broad base by creating customer loyalty in the banking industry through the use of e-banking system.
- (iii) The study shall provide guide and become useful to future researchers who will be interested to carry out researches in the same area, also being as a partial fulfillment for the award of a Masters degree in Business Administration (MBA) Corporate Management at Mzumbe University.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter explores both the underlying theoretical as well as empirical studies that are of relevance to this research problem. Furthermore in this chapter, analysis of the conceptual framework on which this study will built and the underlying assumptions as well as providing the definitions and describe the relationship between variables and finally provide the hypotheses of this problem.

2.2 Theoretical literature Review

This section provides an overview of behavioral adoption models. The theories discussed are Reasoned Action (TRA), Theory of Planned Behavior (TPB) and Technology Acceptance Model (TAM). These models follow the Attitude-Behavior paradigm which suggests that actual behavior is declared through intention toward the behavior. Intention is influenced by attitude and subsequently salient beliefs influence intention attitude. Ozdemir and Trott (2009) introduced TAM as an extension of the TRA, but with more focus on the context of computer use.

2.3.1 Theory of Reasoned Action

The Theory of Planned Behavior (TPB) is a further extension of the Theory of Reasoned Action (TRA) that further explains computer use behavior. The theory of reasoned action (TRA) (Fishbein and Ajzen, 1975), originally introduced in the field of Social Psychology, has been widely used to explain individuals behaviour. The TRA hypothesizes that behaviour is predicted by an individual's intention to engage in a given behaviour. Intention, in turn, is

predicted by two factors, the individual's attitude towards the outcome of the behaviour and by the opinions of the person's social environment, which is called the subjective norm (Fishbein and Ajzen, 1975).

Attitude toward the behaviour reflects an individual's evaluation or general feeling toward target behaviour. It indicates an individual's positive or negative evaluation about performing the behaviour. The attitude toward behaviour is a product of beliefs about the behaviour and the individual's evaluation of the outcome resulting from that behaviour. The theory postulates that the intention to perform a behavior will be higher when the individual has positive evaluation of performing the behaviour (Ajzen, 1991).

Subjective norm refers to an individual's perceived social pressure to perform or not to perform target behaviour. The subjective norm is a composite of normative beliefs about a certain behaviour and the individual's motivation to comply with relevant others (Fishbein and Ajzen, 1975). Normative beliefs indicate one's perception of the influence of opinion among reference groups while motivation to comply indicates the extent the individual wants to comply with the wishes of the referent other (Mathieson, 1991). The theory suggests that people often act based on their perception of what others think they should do, and their intention to adopt behavior is potentially influenced by people close to them.

As proposed in the theory of reasoned action, we hypothesized that attitude towards electronic banking and subjective norm positively affect an individual's intention to use electronic banking.

2.3.2 Theory of Planned Behaviour

The theory of Planned behaviour (TPB) (Ajzen, 1985, 1991; Mathieson, 1991) is an extension of the theory of reasoned action (TRA) developed by Ajzen and Fishbein (1980). Both theories were developed to predict and understand motivational influences on behaviour, identify how and where to target strategies for changing behaviour and to explain such behaviours (Brown, 1999). According to the theories the most important determinant of human behaviour is behavioural intention. The individual's intention to perform certain behaviour is a combination of the person's attitude towards performing that behaviour and the subjective norm. The extension included in TPB adds perceived behavioural control to the predictors of intention. This is because it is recognized that not all behaviours are in the volitional control of the individual.

The TPB has been used in many studies in information systems literature (Mathieson, 1991; Taylor and Todd, 1995, Harrison et al., 1997). Predicting behavioural intention and actual behaviour is extremely useful in the online environment. This medium has the peculiar characteristics of speed, ubiquity and wide reach; this holds huge advantages for businesses as they can now reach large user groups, in a timely manner. However the disadvantage of this is that errors and miss-steps are glaring and may propagate very fast over large audiences. This leaves very little margin for error for any prospective online business venture. Being able to predict user behaviour and its antecedents in relation to an online venture are of crucial importance. Online banking is no exception to this; it even takes on a more sensitive nature as a result of the underlying intention of facilitating relationships.

According to a study in adoption of online banking by Shih and Fang (2004, 220-221) attitude and perceived behavioral control could be used to explain behavior. They found that subjective norm did not have any predictive value. Another study by Tan and Teo (2000, 31), found that attitude, subjective norm and perceived behavioral control had an influence. Like Shih et al (2004, 220-221) they found that only attitude and perceived behavioral control had a significant effect. The emphasis is thus on current customers and not so much on new ones. It is believed that attitudes formed during interaction with the banking website would form the basis of the user's attitude towards the electronic banking. The normative beliefs of user within the online banking environment would not differ much with regards to personalization within the same environment. Ajzen (1991) compares this construct to Bandura's (1997) concept of self efficacy, or the belief in ones competence to perform an action. This we believe will be significant in predicting behavioural intention towards an online environment.

2.3.3 Technology Acceptance Model (TAM)

There are several models existing that have been used to investigate adoption of technology. Several studies focusing on adoption of mobile services have their roots in Technology Acceptance Model (TAM) originally proposed by Davies in 1986. The model is originally designed to predict user's acceptance of Information Technology and usage in an organizational context. TAM focuses on the attitude explanations of intention to use a specific technology or service; it has become a widely applied model for user acceptance and usage. There are a number of meta-analyses on the TAM that have demonstrated that it is a valid, robust and powerful model for predicting user acceptance (Bertrand and Bouchard, 2008). TAM, shown in figure 1 was also

the first model that established external variables as key factors in studying technology adoption.

TAM model which deals with perceptions as opposed to real usage, suggests that when users are presented with a new technology, two important factors influence their decision about how and when they will use it (Davis, 1989). These key factors are:

Perceived usefulness (PU) - This was defined by Davis as "the degree to which a person believes that using a particular system would enhance his or her job performance".

Perceived ease-of-use (PEoU) - Davis defined this as "the degree to which a person believes that using a particular system would be free from effort."

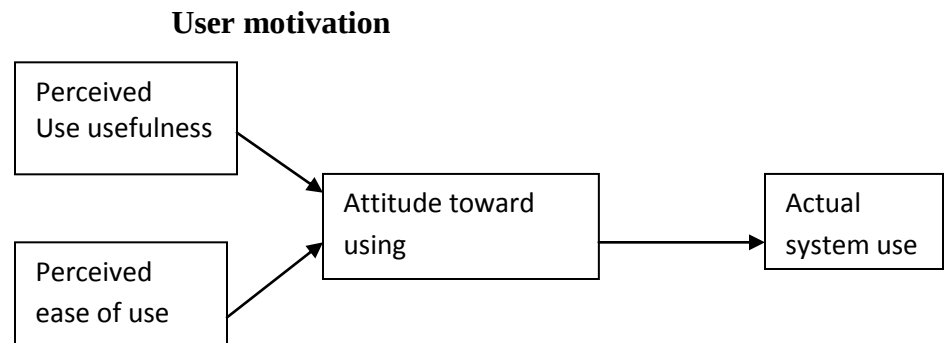


Figure 2.1: Technology Acceptance Model (Davis, 1989)

Source: International Journal of Computing and ICT Research, Vol. 6, Issue 1, June 2012

2.4 Empirical Literature Review

Heikki (2002) in the study "Electronic banking in Finland Consumer Beliefs, Attitudes, Intentions, and Behaviors" By means of 30 in-depth interviews and a mailed questionnaire (1167 responses), we found that 39 percent of the

Finnish consumers who responded to this survey were already using Internet banking services in their homes or workplaces. The results of the study indicate the following: (1) beliefs and attitudes toward electronic banking varied between non-users and users of Internet banking. The results suggest that well educated and relatively wealthy segment uses Internet banking services. Internet banking was considered a fast way to take care of banking affairs. (2) Personal banking experience and prior experience of computers and technology were the main factors underlying the formation of attitude toward Internet banking. Attitude toward using computers was found to be the most significant factor affecting intention to engage in Internet banking. Internet banking users had a more positive attitude toward technology, especially toward computers, than did nonusers. (3) A negative attitude toward technology, valuing personal service, and demographic characteristics were found to be most substantial barriers to the adoption of Internet banking in Finland.

Salman Shamim and KashifSardar (2010) in their research “Electronic banking and e-readiness adoption by Commercial Banks in Pakistan” Their study examined the current status concerning the electronic banking problems during implementation of electronic problems in Pakistan and causes that hinders this process. To investigate in the real-time scenario they used case study of Muslim Commercial Bank Limited in Pakistan in order to understand “why” and “how” the electronic banking could not be implemented successfully. The data was collected via interviews, surveys and bank website. Both qualitative and quantitative research approach were used to investigate and have proper understanding of current e-banking issues.

The response of interviews and surveys shows that there are certain issues that hinder the use of e-banking in Pakistan. In spite of the fact that internet banking has been started in Pakistan, people are still using the old manual system to do the banking transaction, popularity of cash system waiting in long queues for hours and lacking of proper computer education and trust etc are the major problems that are hurdles in electronic banking. On the other side there are a lot of reasons that the banks did not concentrate on internet banking and cash flow is still popular in banks and internet banking was used by the banks for the limited services. Also it was found that banks are facing the problem of customer awareness regarding security and privacy of using Internet banking services as still customers were reluctant to use the online banking services so they preferred to go to banks and deposit the money by hand.

Wu (2005) in his study “Factors that influence the adoption of internet banking by South Africans in the Ethekweni metropolitan region” The study presents both the results of the 400 interviews and the analysis of these results, with graphs and figures to determine the extent that the factors studied influence customer adoption of internet banking. The hypotheses of the research were tested with a chi-square test and independent sample t-test. A chi-square test was used to test for relationship between consumers’ demographic characteristics and the adoption of internet banking. An independent sample t-test was used to test differences between users and non-users in terms of their perceptions of internet banking.

The key findings revealed that demographic factors including age, income, education level and occupation have a relationship with the adoption of internet banking. Psychological factors including perceived relative advantage, perceived compatibility, perceived complexity, perceived risk, and

perceived cost were found to influence the adoption of internet banking. Social influences including opinions of friends, parents and colleagues were not found to be significant factors to influence the adoption of internet banking in the South Africa context.

2.5 Synthesis and Research Gape

From the literature review, most research has taken place on online banking and its adoption, which focuses on the ease of use as the prime determinant of user satisfaction and adoption. As the field expanded over the years, it is not safe to say that ease of use can be the only determinant of an individual's adoption behavior, however little has said on the factors that influence the adoption of Electronic banking in Tanzania. Various models have been developed and used in order to understand the information technologies, such as Internet banking but due to time and space it is necessary to undertake a study on the factors influencing the adoption of E-banking in Tanzania since currently almost all financial institutions have adopted e-banking.

Recently, Pikkarainen and Pikkarainen (2004) applied the traditional Technology Acceptance Model (TAM) in Finland and found that perceived usefulness and information on online banking were the main factors influencing customer acceptance. Also Jacob Bello (2008) in the study “customer perceptions regarding Internet banking services” conducted in Kinondoni district, Dar es Salaam. His study focused on the perceptions of the bank customers regarding E- banking, but did not focus on the factors influencing the adoption of e-banking to the banking sector in Tanzania leaving a lot to be done on the subject matter.

2.6 Conceptual Framework

Conceptual frameworks, according to educational researcher Smyth (2004), are structured from a set of broad ideas and theories that help a researcher to properly identify the problem they are looking at, frame their questions and find suitable literature. Most academic research uses a conceptual framework at the outset because it helps the researcher to clarify his research question and aims. Conceptual frameworks (theoretical frameworks) are a type of intermediate theory that attempt to connect to all aspects of inquiry (e.g., problem definition, purpose, literature review, methodology, data collection and analysis).

Conceptual frameworks can act like maps that give coherence to empirical inquiry. Because conceptual frameworks are potentially so close to empirical inquiry, they take different forms depending upon the research question or problem (Botha, 1989). According to sociologists Haralambos and Holborn, a conceptual framework enables the researcher to find links between the existing literature and his own research goals. In respect to this particular study a conceptual framework provided below helps to show the relationship between independent and dependent variables.

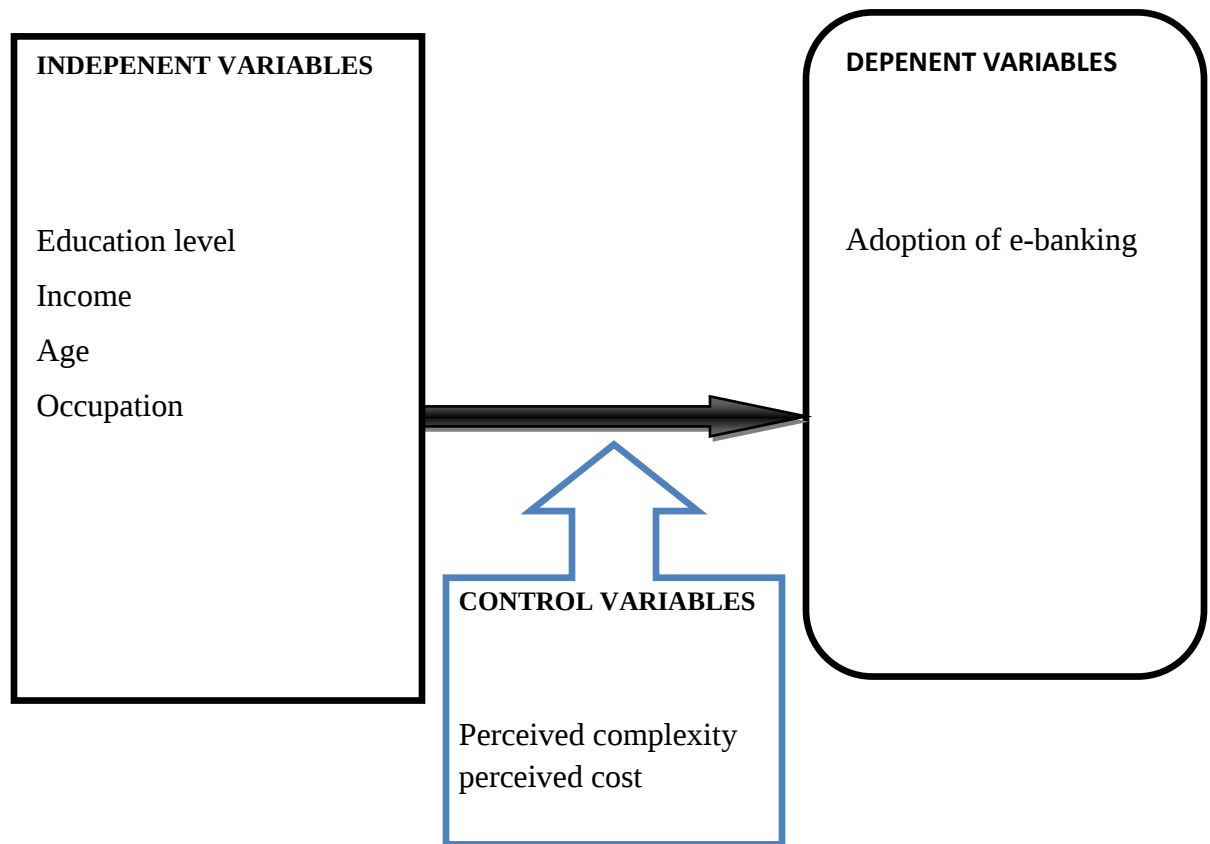


Figure 2.2: conceptual framework

Source: Developed by researcher 2012

2.6.1 Research variables

2.6.2 Independent variable:

Education

Education in its general sense is a form of learning in which the knowledge, skills, and habits of a group of people are transferred from one generation to the next through teaching, training, or research. Education frequently takes place under the guidance of others, but may also be autodidactic. Any

experience that has a formative effect on the way one thinks, feels, or acts may be considered educational.

It was expected that people who are highly educated may require less training in response to technological change if their general skills enable them to learn the new technology. Therefore, in this study education level was compared with the adoption of e-banking, respondents of different education level took part in this study. Consequently, well educated individuals will respond more quickly than less educated individuals.

Income,

Income is the consumption and savings opportunity gained by an entity within a specified timeframe, which is generally expressed in monetary terms. However, for households and individuals, income is the sum of all the wages, salaries, profits, interests, payments, rents and other forms of earnings received in a given period of time.

It was expected that customers with higher income have higher value of time than customers with lower income, so consumers with high income can create more benefits through adoption of electronic banking. In this study people of various backgrounds were invited. The income of respondents was compared with the possibility of adoption of electronic banking

Age

Age is referred to: Ageing, which is the effect of time on a person. The time of life at which some particular qualification, power, or capacity arises or rests or it can be one of the stages of life the length of an existence extending from the beginning to any given time. In relation to age with adoption of electronic

banking at Morogoro, the study compared the demographics factors such as young age and old age propensity with the adoption of electronic. Since, it is expected that age affects the attitude of individuals towards electronic banking.

Occupation

Means an activity that serves as one's regular source of livelihood; a vocation or an activity engaged in especially as means of passing time an avocation. It was expected that people in the certain occupation preferred to adopt electronic banking compared to other occupations. Therefore, this study targeted a population of teachers, bankers, soldiers, students among others.

2.6.3 Dependent variable

E-banking adoption

Daniel (1999) described electronic banking as the provision of banking services to customers through Internet technology. Other authors (Daniel, 1999; Karjaluoto et al., 2002) indicated that banks have the choice to offer their banking services through various electronic distribution channels technologies such as Internet technology, video banking technology, telephone banking technology, and WAP technology.

2.6.4 Control variable

Perceived costs, banks can benefit from much lower operating costs by offering electronic banking services, which require less staff and fewer physical branches. Customers will also benefit from the convenience, speed and round-the-clock availability of electronic banking services

Perceived complexity, Complexity is defined as the degree to which an innovation is perceived as complex/difficult to understand or to use (Cheung, Chang & Lai, 2000). Innovation that is simpler to understand and also easy to use would incline to be adopted more rapidly than innovations that requires adopters to learn new skills and understanding. In this study, perceived complexity was examined in relation to the adoption of electronic banking in Morogoro, especially on how some customer proffered e-banking or not.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter represents Research methodology. The chapter had the following sections: Research Design; Study Area; Sample and Sample Size; Sampling Procedures; Data Collection Methods; Validity and Reliability; and Data Analysis Plan.

3.2 Research Design

Kamuzora et al (2008), defined research design as a detailed blue print to guide a research study towards its objectives. It is a detailed plan of work to be done to achieve the research objectives. Kombo and Tromp (2003) define research design as an arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance research purpose.

Kothari (2004) explained that, research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure; it constitutes a blue print for the collection, measurement and analysis of data. The research adopted a case study design to assess the role of e-banking on the performance of microfinance institutions at National Microfinance Bank (NMB) in Morogoro Municipality.

Leedy and Ormrod (2005: 135) say that in a case study a particular individual, program or event is studied in depth for a defined period of time. The central role of e-banking to the performance of microfinance institutions will be the focus of the current study. A case study is especially suitable for learning

more about a little known or poorly understood situation (Leedy and Ormrod, 2005: 135).

3.3 Study Area

The study was conducted at the National Microfinance Bank (NMB) Morogoro Branches of Wami and Masika whereby the customers of the particular bank were selected as the central focus of the study. National Microfinance Bank (NMB) Morogoro was selected because is one among the banks that have highly embraced e-banking system in the region and most of the banking activities are done through e-banking such as money transfer from one account to another, payment of bills to other institutions such as ZUKU TV, TANESCO, TRA, DSTV, STAR TIMES and MOBILE BANKING among others, also NMB bank has a strong customer base as many people use the particular bank compared to any other financial institutions in the region. For this reason the selected study area enabled better generalization findings.

3.4.1 Population and Sample Size

Population is a group of individuals, objects or items from which samples are taken for measurement. It refers to an entire group of persons or elements that have at least one aspect in common (Kombo and Tromp, 2003). National Microfinance Bank (NMB) at Morogoro Municipality comprises many departments but only few departments will be the centre in the study. The sample for the study comprises IT, marketing and sales, credit and loans, financial department, warehousing and administration. Sample size refers to number of items selected from the population to constitute a sample. To accomplish this task effectively and efficiently the researcher used 100 respondents. The size was deemed adequate to the study.

3.4.2 Sampling techniques

Sampling involves technique used in selecting items for sample (Kothari, 2004). In this study purposive sampling technique will be used whereby the researcher will select employees of all departments as well as customers of the respective bank in all branches. Simple random sampling will be used as among probability sampling procedures. Each respondent is given equal chances of being selected in the sample (Chamwali, 2007). A set of random numbers is then generated, and the units having those numbers will be included in the sample. Simple random sampling was used to select sample from customers of National Microfinance Bank at Morogoro branches. It means that all respondents had equal chances of being selected and hence, bias was avoided. In order to avoid bias, the procedures of using a table of random numbers elaborated was be used.

According to Kothari (1990), simple random sampling is advantageous in many ways. It is easy to obtain the sample size required, it gives each element in the population an equal probability of getting into the sample and all choices are independent of one another. In addition, it gives each possible a sample combination on an equal probability of being chosen and it is easy to understand as well as apply.

3.6 Data Collection Methods

The data was collected through Questionnaire, Interview, observation and documentary review.

3.6.1 Questionnaire

Adam and Kamuzora (2007) define questionnaire as a series of questions, each one providing a number of alternative answers from which respondents

can choose. Saunders, Lewis and Thornhill (2000) also define questionnaire as an instrument for data collection that consists of a set of predetermined and structured questions given to the subject to respond or filled in by researcher through self administered questionnaire. According to Kothari (1990), advantages of questionnaires is that they are not expensive, they are free from bias of the interviewer, respondents have adequate time to give well thought answers and large samples can be used and thus results can be made high dependable and reliable.

Therefore, close – ended as well as open-ended questionnaires were used as data collection methods. The questionnaires were prepared and used towards collecting information on employees and customers understanding, experience, feelings, views and also factual information on role of e-banking system on the performance of microfinance institutions ant National Microfinance Bank (NMB) at Morogoro Municipality.

3.6.2 Interview

An interview involves presentation of oral-verbal stimuli and reply in terms of oral verbal (Kothari, 2004). Interviews are data collection methods involving data collection through direct verbal interactions between researchers and respondents. Its advantage is that the interviewer has freedom to decide the manner and sequence in which questions would be asked, to explore reasons and motives as well as focus attention on the given experience of the respondents and its effects. In this study both structured and unstructured interviews were used to collect additional data from respondents who participate, the aim of using interviews is to probe and hence supplement questionnaires and observation methods especially in those areas where questionnaires and observation were not able.

3.6.3 Observation

Observation is a data collection method that demands a researcher to be physically present in the field during the process of data collection. (Kothari, 2004) This is a primary source of data. Through this method, the researcher will observe activities as they are being performed whereby e-banking activities were mostly observed. The researcher will be physically present at the study area and collect data especially where it was difficult to respondents to answer researcher's questions through interview or questionnaires.

3.6.4 Documentary review

This is secondary source of data collection. According to Kothari (1990), secondary data are those already collected by someone else and have already been passed through the statistical process. For example, published and unpublished data. Published data include, research reports, magazines, books and newspapers. Unpublished reports include diaries, letters, biographies and autobiographies. This researcher collected relevant information from various written documents concerning e-banking programs and strategies. They also include booklets, reports and certification documents, to mention but a few. Data obtained from documents were used together with other pieces of information obtained from different sources of data collection methods.

3.7 Reliability and Validity of Data

3.7.1 Reliability

Reliability is defined as quality of consistency or reliability of a study or measurement. Kothari (2004), comments that a measuring instrument is reliable if it provides consistent results. That means if the same or different researcher repeats the study it should produce more or less the same results. Dooley (2005) reliability refers to degree to which observed scores are “free

from errors of measurement”. Reliability is gauged by the constancy of scores. For example, an agreement between parallel forms of a test or between different items of the same questionnaire or between different raters by using a measure can be checked. The value of measure depends not only on its reliability and validity but also on its specific purpose. Thus a measure with modest reliability and validity may prove adequate for initial study but too crude for making an important decision about particular phenomena. In order to reduce bias and in a view of reliability the researcher used multiple methods in this study namely interviews, questionnaires, observation and documentary review.

3.7.2 Validity

Validity refers to the appropriateness, meaningfulness, and usefulness of the specific inferences” made from measures (Dooley, 2005). That means effectiveness of research instruments to measure what is intended to be measured like attitude, knowledge and practice. Thus validity belongs not just to a measure but depends on relationship between the measure and its level. Validity can be content validity (validity of the measuring instrument) or construct validity (the degree of relationship between the study problem, instruments and variables. To address the issue of validity, the researcher will conduct a pilot study to make sure that data to be collected provide valid information. Questionnaires and interview questions were tried out in a small sample to check on the correctness of the wording, whether the questions measure what they are supposed to measure and if there is any biasness, as well as knowing if the respondents can understand the questions as the researcher intends. From the pilot study improvements was made.

3.8 Data Analysis

Data management is systematically organizing mass of raw data collected in a manner that facilitates data analysis of data. It also includes identifying (and correcting) errors in the data, coding the data, and storing it in appropriate form. Therefore data is put into some systematic form. (Kothari, 2004: Kombo and Tromp, 2003). For open ended questions the researcher will categorize all responses by giving and assigning numbers to them and for closed ended questions numbers will be assigned directly. According to Kombo and Tromp (2003) data analysis refers to examining what has been collected in survey or experiment and making deductions as well as inferences. It involves uncovering underlying structures, extracting important variables, detecting anomalies and testing any underlying assumptions.

In order to get desired results from the study, data collected were processed by editing, coding, classification and tabulation. According to Kothari (1990), editing is a process of examining the collected raw data to detect errors, omissions and correct them. Coding is the process of assessing numerals or other symbols to answers so that responses can be put into limited number of categories or classes. They should be appropriate to the research problem under consideration. Classification means to arrange data in groups or classes on the basis of common characteristics. Tabulation is the process of summarizing raw data and displaying the same in compact form.

To get more accurate study results, data entry and analysis was done by using Statistical Package for Social Sciences (SPSS) 20 version. Also, all calculations of totals and percentages was done by using SPSS, which easily displays percentages and graphs that helps in analyzing responses and their ranks. The research also used Ms Office Excel 2007 version software to carry

out analysis of secondary data especially in computing correlation and graphs for data presentation. Data analyses begin with an individual response. Then responses from different respondents were purposefully sorted and grouped to make them coherent with research objectives. The sorted data were then compared to identify related data, in so doing; large amounts of organized data were reduced into small manageable and analytical portions. Small manageable and analytical portions of data were used because analyzing large amounts of data is difficult and time consuming. Variable analysis is whereby units of data that can change between different cases will be analyzed. Variables were analyzed on their own (univariate analysis), with one another variable (bi-variate analysis) or with a number of others (multivariate analysis).

Also the study focus concerned more with themes, interpretation and the use of language. Therefore quantitative and qualitative variable analysis conducted in order to produce findings which are representative and valid. Due to the nature of the study, the researcher presented and analyzes data by using both qualitative and quantitative techniques. Discussions and explanations oriented, tables, simple statistics like percentage will be used.

3.9 Quantitative data analysis

Regression

The researcher used regression method in order to determine whether the hypotheses are significant or not. According to Burns and Bush (2000), multiple regression analysis is an expansion of bivariate regression analysis in that more than one independent variable is used in the regression equation. The interpretation of the regression analysis

is based on the multiple regression analysis, T-test, R square (R^2), and F-test. This test to provide evidence whether to accept or reject the hypotheses made before.

Multiple regression analysis

The statistical tools use in the study is Multiple Linear Regression Model. This model of analysis is done to examine the simultaneous effects of several independent variables on a dependent variable.

T-test

T- Test is used to determine if there is a significant relationship between dependent and independent variables. It is desirables to have as large (either positive or negative) t- statistic as possible for each independent variable.

Coefficient of determination, R^2

Coefficient of determination shows the explanatory power of the equation. It determines how much change in the dependent variable in relation to the independent variables.

F-statistic

F –statistic is determined by look the value at F and Sig. in ANOVA table regression. The F-value is the Mean Square Regression divided by the Mean Square Residual. The p-value associated with F value. The p- value is compared to alpha level 0.05 and if smaller, the independent variables reliably predict the dependent variable. If the p-value were greater than 0.05, the independent variable does not show a statistically significant relationship with the dependent variables.

CHAPTER FOUR

PRESENTATION OF RESEARCH FINDINGS

4.1 Introduction

This chapter focuses on analysis of data and presentation of research findings and discussion. The study is designed to discuss the Factors that influence the adoption of Electronic banking in Tanzania. The findings are based on questionnaires, interview guide, observation schedule and documentary review as used and once established in chapter three.

The presentation of findings in this chapter based on the three research objectives that aimed to find answer to the projected research questions. The objective of this study included: to determine the contribution of education to the adoption of e-banking, to examine the relationship between the income and adoption of e-banking, to assess the relationship between age and adoption of e-banking and to determine the influence of occupation on the adoption of e-banking. During the administration of this study the actual sample of 100 respondents were selected. This sample included customers and staff of NMB Bank in Morogoro. Therefore this chapter provides the information explaining the data, which are then presented in tables, graphs, charts, frequencies and percentages.

4.2 Characteristics of Respondents

The typical characteristics of respondents is crucial interpreting and discussing research findings in terms of education level, experience in business, age and gender of respondents. They provide general image and meaningful information on factors that influence the adoption of Electronic banking in Tanzania.

4.2.1 Age bracket of respondents

This shows age range of the respondents and its effect to the adoption of electronic banking.

Table 4.1: Age bracket of respondents

Age bracket	Frequency	Percentage (%)
Between 18-25 years	30	30
Between 25-35years	50	50
35 years and above	20	20
Total	100	100

The findings showed that 30% of the respondents were between 18 to 25 years, 50% were between 25 to 35 years and constituted the majority. 20% were between 35years and above.

4.2.2 Gender of respondents

This indicates the ratio of gender in relation to the adoption of electronic banking.

Table 4.2: Sex of respondents

SEX OF RESPONDENTS	
Sex	Percentage
Female	46%
Male	54%

From the data provided in table 4.2 above shows that fifty four percent (57%) out of 100 respondents were male while forty six percent (43%) of females took part in this study and so the views and opinions given in here are representative of all sexes. The number of respondents who participated in the study was almost equal between males and females. The result for gender shows that the customer's attitude towards e-banking adoption is higher for males. A result that potential shows that males are more likely to adopt and use e-banking services than females. It may simply indicate that it is more convenient for male to use e-banking than females.

4.2.3 Education of respondents

This indicates education level of the respondents and its relation to the adoption of electronic banking.

Table 4.3: Education of respondents

EDUCATION OF RESPONDENTS	
Education level	Percentage
Diploma and below	29%
Degree	40
Masters and above	31

Table 4.3 above shows that respondents who took part in this study are learned and their views and opinions can be trusted to inform and shape the purposes of this study. The main educational qualifications of the non-Internet banking users are people below diploma level while most of the respondents

who were found to embrace electronic banking were those with bachelors Diploma, 29% respondents (40% Degree holders and, 31% respondents. This implies that education level influence the inclination towards electronic banking in Morogoro.

4.2.4 Respondents Experience in Using E-banking

It indicates the experience of respondent in using electronic banking.

Table 4.4: Duration of using E-banking services by the respondents

Respondents	Frequency	Percentage (%)
Less than 1 year	20	20
Between 1-3 years	10	10
Between 3-5 years	20	20
Over 5 years	50	50
Total	100	100

From the above findings show that 50% of the customers in the NMB Bank have an experience of using e-banking for five years and above. This thus revealed that most of the customers involved in this research have a long time experience in using electronic banking services.

4.3 Correlation coefficient analysis

Pearson Correlation Coefficient is used for test the variables. The variable is the linear relationship exists between two variables which is dependent and

independent variable, as seen in the correlation coefficient (r). As in all hypothesis tests, the goal is to accept the alternative hypothesis. In other words, it is to decide that an effect, in this case a relationship exists. The researcher decided to use the suggested interpretation for value or “ r ” in determining the strength of coefficient as proposed by (Guilford, 1996).

Table 4.5 Interpretation of ‘ r ’ value (Guilford, 1996)

“ r ” value	INTERPRETATION
Less than .20	Slight, almost negligible relationship
.20 - .40	Low correlation, definite but small relationship
.40 - .70	Moderate correlation, substantial relationship
.70 - .90	High correlation, marked relationship
.90 – 1.00	Very high correlation, very dependable Relationship

Variable one indicated that there is a significant relationship between education level and customers’ adoption of electronic banking.

Table 4.6 Correlation coefficient of education

		demand	security
Adoption	Pearson Correlation	1	.675**
	Sig. (2-tailed)		.000
	N	110	110
Education	Pearson Correlation	.675**	1
	Sig. (2-tailed)	.000	
	N	110	110

Based on the correlation coefficient test in the Table 4.6, it shows that education level is positively associated with the customers' attitude towards adoption of e-banking. The result shows the correlation between education and the customers' demand is $r = 0.675$. Based on the (Guilford's 1956), this result is having moderate correlation. Hence, there is substantial relationship between those two variables. Since it has a substantial relationship, education is one of the important factors in influencing customers' attitude towards adoption of electronic banking.

Therefore for this variable, the result for degree of significant is:

$$0.000 < 0.05 = V_1 \text{ is Accepted.}$$

From the result, the variable 1 is accepted as there is moderate correlation between the two variables. The available findings on variable 2 indicate that there is a significant relationship between income level and customers' attitude towards electronic banking.

Table 4.7 Correlation coefficient of income

		demand	cost
Demand	Pearson Correlation	1	-.512**
	Sig. (2-tailed)		.000
	N	110	110
income	Pearson Correlation	-.512**	1
	Sig. (2-tailed)	.000	
	N	110	110

Based on the correlation coefficient test in the Table 4.7, it shows that income is negatively associated with the consumers' attitude towards electronic banking. The result shows the correlation between income and the customers' demand is $r = -0.512$. Based on the (Guilford's 1956), this result is having a slight correlation. Hence, there is almost negligible relationship between those two variables. Since it has an almost negligible relationship, income is not an important factor in influencing consumers' demand towards internet banking.

Therefore for this variable, the result for degree of significant is:

0.000<0.05= V_2 is Accepted.

From the result, the variable 2 is accepted as there is having a slight correlation between the two variables.

Variable 3: There is a significant relationship between age customer and adoption towards electronic banking.

Table 4.8 Correlations Coefficient of age

		demand	easy
demand	Pearson Correlation	1	.597**
	Sig. (2-tailed)		.000
	N	110	110
Age	Pearson Correlation	.597**	1
	Sig. (2-tailed)	.000	
	N	110	110

Based on the correlation coefficient test in the Table 4.8, it shows that age is positively associated with the customers' demand towards electronic banking. The result shows the correlation between age and the customer adoption is $r = 0.597$. Based on the (Guilford's 1996), this result is having a moderate correlation. Hence, there is substantial relationship between those two variables. Since it has a substantial relationship, the age is one of the important factors in influencing customers towards adoption of electronic banking.

Therefore for this variable, the result for degree of significant is:

0.000 < 0.05 = V_3 is Accepted.

From the result, the Variable 3 is accepted as there is having moderate correlation between the two variables.

Variable 4: There is a significant relationship between occupation customer and adoption towards electronic banking.

Table 4.9 Correlations Coefficient of Occupation

		demand	easy
demand	Pearson Correlation	1	.597**
	Sig. (2-tailed)		.000
	N	110	110
Age	Pearson Correlation	.597**	1
	Sig. (2-tailed)	.000	
	N	110	110

Based on the correlation coefficient test in the Table 4.9, it shows that occupation is positively associated with the customers' demand towards electronic banking. The result shows the correlation between occupation and the customer adoption is $r = 0.597$. Based on the (Guilford's 1996), this result is having a moderate correlation. Hence, there is substantial relationship between those two variables. Since it has a substantial relationship, the occupation is one of the important factors in influencing customers towards adoption of electronic banking.

Therefore for this variable, the result for degree of significant is:

$0.000 < 0.05 = V_3$ is Accepted.
--

From the result, the Variable 3 is accepted as there is having moderate correlation between the two variables.

4.4 Determinants of e-banking adoption

Focus of this study is to determine the factors that influence the adoption of electronic banking. The factors that contribute to the adoption are education, income, Age and occupation of the internet banking. This study used the data collect from questionnaire. The questionnaires were distributed to the customers at NMB banks in Morogoro. Target respondents consisted customers who are banking users in the city. As many as 100 respondents was been targeting to answer this questionnaire.

Table 4.10 Multiple Regression analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	5.184	.847		6.122	.000
Education	.469	.060	.468	7.775	.000
Income	-.520	.085	-.343	-6.104	.000
Age	.311	.057	.329	5.457	.000
Occupation	.311	.057	.329	5.457	.000
a. Dependent Variable: E- Banking Adoption					

The following observations can be made from the table:

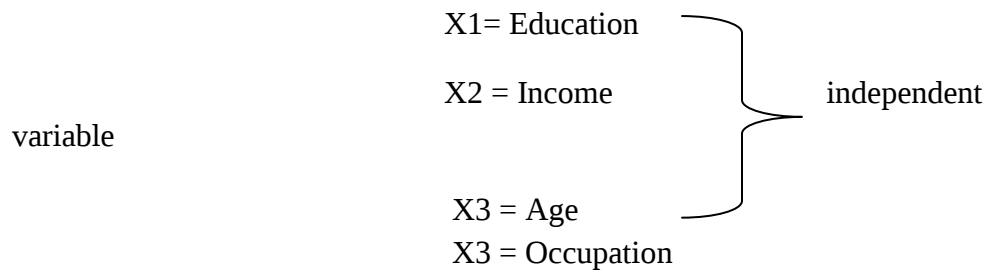
The coefficient of education was positive ($\beta = 0.469$). This means that when the education level is increases by 1 level then the E-banking adoption increases by 46.9% and on the other hand when education level decreases by one level the adoption decreases by 46.9%. The regression coefficient of Income was -0.52, which implies that an increase in income by 1 is associated with a decrease in adoption by 52% and vice versa. The coefficient of Age in the regression was 0.311 which implies that an increase in age by 1 is associated with an increase in adoption by 31.1%. The regression coefficient of Occupation was 0.311, which implies that an increase in occupation status is associated with an increase in adoption by 31.1% and vice versa.

The regression equation is:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$$

$$Y = 5.184 + 0.469X_1 - 0.520X_2 + 0.311X_3$$

Where Y = E-Banking adoption (dependent variable)



From Table 4.3.4, $R^2 = 0.688$ means that 68.8% have been covered by Education ($\beta = 0.468$), Income ($\beta = -0.343$), Age ($\beta = 0.329$). AND

The beta value in the Coefficients table shows that the highest number in the beta is 0.468 for Education, which is significant at the 0.000 level. Then, the second highest number in the beta is 0.329 for Income, which is significant at the 0.000 level. The lowest number in the beta is -0.343 for Age and occupation which is significant at 0.000 levels. By analyzing this result, Table 5 shows that all four variables that had been tested which is the Education, income, age and Occupation were accepted.

Table 4.11 Variables relationships by T-Test

Coefficients			
Model		T	Sig.
1	(Constant)	6.122	.000
	Education	7.775	.000
	Income	-6.104	.000
	Age	5.457	.000
	Occupation	5.457	.000
a. Dependent Variable: Adoption of E- banking			

Table 4.11 shows the highest number in the t value is 7.775 for education, 5.457 for income and -6.104 for age and occupation while the significant value is 0.000. Since it is lower than 0.05, which means there is a significant relationship between customer adoption of e-banking and education, income, age and Occupation of electronic banking and the viable were accepted.

Using degree of freedom, $df = n - k - 1$ ~~110~~ $\rightarrow 3 - 1 = 106$

Where, n = number of observation k = number of independent variable

Using 95% confident interval, table t- value = 1.980

The variable will be significant when calculated t-value is above 1.980.

Table 4.12; Variables relationship significance by t-value

Independent variables	Calculated t-value		Table t-value	Result
Education	7.775	>	1.980	Significant
Income	6.104	>	1.980	Significant
Age	5.457	>	1.980	Significant
Occupation	5.457	>	1.980	Significant

There is a significant relationship between education and customer's attitude towards electronic banking system. Based on the result show, calculated t-value is 7.775 is higher than table t- value, 1.980. There is a significant relationship between education and customers' demand towards electronic banking. Variable 1 is accepted.

There is a significant relationship between income and customers' adoption of electronic banking system. Based on the result show, calculated t- value is 6.104 is higher than table t- value, 1.980. There is a significant relationship between income and customers' attitude towards electronic banking. Variable 2 is accepted.

There is a significant relationship between age and occupation with customers' adoption of electronic banking system. Based on the result show, calculated t- value is 5.457 is higher than table t- value, 1.980. There is a significant relationship between age and occupation with customers' adoption towards electronic banking. Variable 3 and 4 are accepted.

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.1 The Relationship between Education and Adoption of e-banking

The study sought to investigate the relationship between education and adoption of e-banking from the point of view of the customer.

The findings revealed that 65% of the respondents, which are the majority, strongly agreed that the education level had a relationship with the adoption of E-banking.

Many customers of NMB Bank who identified themselves as e-banking users were well educated; their education level ranges from ordinary level to university level.

The results from multiple regression showed that there is a positive relationship between education and adoption of e-banking. When education level increases by one level, then the adoption increases by 46.9%. These findings are similar with MCMC (2008), who found that those individuals who have tertiary education are the largest group of people who adopt e-banking. The demographic evidence revealed by Suganthi et al. (2001) indicates that e-banking users are graduates and undergraduates. Huam et al. (2008) suggest that approximately 67% of internet banking users already had their first university degree or are well educated (Mirza et al. 2009).

5.2 The Relationship between Age and Adoption of e – banking

The influence of Age Group on e-banking use was among the key objectives of this study. Therefore, the study sought to examine on which age group more e-banking is used, respondents who were invited to participate in

this study were asked to give their views. Also, questionnaires were distributed in order to gather additional information.

Customers' age was found to have effect on customers' attitude towards e-banking adoption. From findings provided in figure above, it was revealed that 43% who perceived themselves as users of e-banking were teenagers, 30% were of the middle age, while 27% of old age considered themselves as e-banking users. This result implies that older customers have a negative attitude towards technology innovation as a whole and e-banking in particular as compared to younger adults who are more interested in using this new technology. However these results only hold to the age above 30 years. On the other hand the age below 30 years respondents behaved differently and therefore the multiple regression results showed positive relationship between age and adoption of e-banking. The regression coefficient was 0.311 which implies that an increase in age by one year leads increase in adoption rate by 31.1%. This view is in consistent with Cox (2009) who also found out that youth are more likely to adopt e- banking.

5.2.1 The Relationship between Income and Adoption of E – banking

The study explored whether people with more income have high tendency of using electronic banking or not. Therefore, the questions were asked to determine to which extent customers of high income have a tendency of using e-banking at NMB Bank in Morogoro. The regression coefficient of Income was -0.52, which implies that an increase in income by 1shs is associated with a decrease in adoption by 52% and vice versa. Nevertheless this was only for the entrepreneurs and self employed people. Most of the business men who generate large profits were reluctant to adopting the e-banking. But this was contrary to the people with high income associated with employment status

5.2.2 Customers of certain occupation use more E- banking than others

In this section the researcher aimed at investigating the influence of occupation with a tendency of adopting e-banking at NMB Bank in Morogoro. The study shows that 50% of the respondents strongly agree that certain occupation had a tendency of adopting E-banking. 45% agree, none- was not sure, 2% disagree and 3% strongly disagree implying that the statement is true. Work status has an effect on the type of activities undertaken online. However, this is in part also a factor of other socioeconomic influences such as income, as well as occupation, in this study most of the respondents who identified themselves as e-banking users were teachers 41%, military officers 23%, bankers 22% students 9% and others 5%.

Likewise the findings indicated that employed people are the largest group of e-banking users and tend to have some of the highest levels of e-banking transactions especially government employees. Also during the administration of this study some respondents indicated that customers with higher positions in companies tend to use e- banking than that low position or in the lower ranks. Based on these findings, it implies that occupation has relation with the intention to adopt e-banking. According to Lee and Lee (2001), consumers with busy lifestyle would be very much likely to adopt e-banking since it is a necessity, accessible at anytime and anywhere, and is convenient for them.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter presents the study findings, summary of findings of study, conclusion and recommendations

6.2 Summary of the Study

To accomplish this study researcher had to review various literatures relating to e-banking especially based on the research objectives and questions that were set. A number of documents had been reviewed in order to support the factors that have been identified. All of the concepts, ideas, opinions and theories that related to the research objectives were presented. The collection of data was collected based on the research questions whereby structured questionnaires and interviews were used. In order to get the data, the questionnaires had been distributed to 150 respondents which consist of the users who the customers of NMB Bank including the staff. Data analysis was done through the use of SPSS 20 version as well as Microsoft Excel 2007. In addition to the primary data, the secondary data were obtained from various sources such as internet, magazines, unpublished papers and books as well as some journals.

The result indicated that majority of the respondents who use the internet banking choose security as the most important factor towards e- banking. They choose security maybe because they think that by using e-banking, they can protect their money as well as financial information from other people such as thieves, robbery among others it was revealed that some respondents choose ease of use as a key factor towards e-banking. They choose e- banking

is easy to use at anytime and anywhere although it cannot be useful to those who are located in remote places especially in rural areas. Saving time and cost were among the reasons motioned by respondents behind the adoption of e-banking.

6.3 Conclusion

Based on the response from participants, it was found out that the perception of the consumers can be changed by awareness program, friendly usage, less charge, proper security, and the best response to the services offered apart from income, education, and occupation on the adoption of e-banking and other factors which were used as key variables in this study. As indicated in chapter four demographics play an important role in the adoption of E banking facilities as has been seen that age and education factor considerably affects the adoption.

In conclusion, this study provides evidence that clearly reflect that customers perceive e-banking in terms of its usefulness, ease of use, trustworthiness, cost effectiveness, reliability, convenient, and accessibility. Electronic banking is seemingly becoming a matter of need and holds the key that will help the banking industry to formulate their marketing strategy as well as continue to compete in the globalized network and gain market competitive advantage in the 21st century.

Generally Tanzania is still underdeveloped in e-banking adoption and usage, thus there is need for NMB bank and other financial institutions which located in urban centres to adopt ways that will encourage customers' engage in e-banking. It is also important to improve on the security features of the system being used, since this could re-assure the customers that e-banking is a safe

mode to perform transactions. There is need to promote trust, reliability, accessibility and awareness of e-banking services. Banks should also offer proper education and training to the customers emphasizing the relative ease and safety in using e-banking services so as enhance their overall confidence in the use of electronic banking services in the long term. Finally, the results provide evidence that there is need to make e-banking in Tanzania user friendly since many users in Tanzania are yet to become technically equipped in using these services.

The results also provide statistical evidence to show that reliability, trust, accessibility, ease of use and security will significantly influence customer's perception of the usefulness of e-banking services. The results illustrate that banks should ensure that e-banking distribution channels are always reliable; secured, accessible, easy to use and trustworthy. These results put together imply that banks should provide more security measures such as firewalls that can be used to protect the internal network of banks. For if banks can ensure this security measures, customers will turn to have confidence in adopting and using these e-banking services without any hesitations.

6.4 Recommendations

The study also provides the kind of relationship between various factors and adoption of e-banking. Some recommendations for the NMB Bank and other financial institutions on the basis of this research are:

1. Banks in general and NMB Bank in particular should ensure that e-banking is safe and secure for financial transaction given level of development of science and technology.

2. NMB Bank should organize seminar and conference to educate the customer regarding uses of e- banking as well as security and privacy of their accounts.
3. Some customers are hindered by lack of access to e -banking. They should be provided e -banking facilities near to their location.
4. NMB Bank must emphasize the convenience that online banking can provide to people, such as avoiding long queue, in order to motivate them to use it by spreading awareness about benefits of online banking.
5. NMB Bank should emphasize the cost saving e-banking can provide to the people, such as reduce transaction cost by use of e –banking.
6. Awareness of e- banking services is essential in the early adoption stages. As internet banking services are still new in Tanzania, effective presentations using all forms of media advertising such as leaflets, brochures, web pages, etc., will be useful to introduce the services to a wider audience and educate potential customers about the benefits of e-banking.
7. To access more potential adopters, information about internet banking should be provided by bank tellers and bank assistants at branches. The information should include references to “time saving”, “convenience” at anywhere any time, “low costs”, and “information availability”. In addition, banks should design their web sites as effective delivery channels and offer information beyond banking services.
8. In order to attract customers to the web site: NMB Bank should provide a well-designed and user-friendly web site; Provide

information in both Kiswahili and English languages; NMB Bank should also provide demonstrations in public places, e.g. bank branches, department stores, etc; Provide both electronic and documentary demonstrations of online services; and NMB Bank should regularly survey customers' responses to e- banking procedures.

9. Attract customers by ease of access: regularly monitor customers' access; implement traffic management systems for internal and external users; co-ordinate services with internet service providers. Build customers' confidence: present the security used in both technical and non-technical terms; outline the procedure and information on how to cope with problems if they occur; and provide instructions on how to use internet banking services safely.
10. Most of the respondents and bank managers believed that there must be several infrastructural developments before adopting e-banking; was due to the fact that some respondents complained about technical difficulties they experienced in using e-banking facilities. Consequently, NMB Bank Morogoro branch should therefore convince more of its customers to go online.
11. NMB Bank Morogoro branches should play an important role in order to attract people to use the e-banking. Since most of the people are busy and they do not have time to go to the bank itself. As NMB Bank offer such services must make sure that the securities regarding E-banking are completely safe. Other than that, the NMB Bank has to consider about the cost incurred while doing the transactions due to the

fact that most of the respondents complained about the e-banking transactions. The NMB Bank should offer a lower cost in order to attract more customers to use this e- banking services.

12. NMB Bank and its customers in Morogoro they should choose the best alternative in order to make sure that their financial information are safe and cannot be traced by other people such as internet hackers or scam.

6.5 Limitations of the study

Some of the limitations of this study include:

1. First of all, the research data may be biased since it was gathered from website links and bulletin boards. Secondly, the validity of the research data may be limited by the casualness of some people filling out the questionnaire. Readers are cautioned when assessing the generalization of this study's findings.
2. Lack of seriousness on research response by many participants in the study, because despite of being aware of the research topic respondents did not provide detailed opinions/views to some questions.
3. Resistance from other respondents due to lack of trust on the subject matter on the study, resistance was common among few individuals fearing that the results might have negative impact on their jobs.
4. Financial constrain, as the researcher was self sponsored and in this case had few sources of funds and that may affect doing extensive research. To solve this constrain researcher decided to cut unnecessary cost.

5. Unavailability of respondents for interview meetings due to the nature of their businesses, limited time was available for interview with some respondents.

6.6 Suggestions for future/further studies

Future research is recommended to focus on how capital availability, social cultural factors, advancement of science and technology as well as economic conditions affects the adoption of e-banking, since they can be such powerful that effect for e-banking adoption.

For future research, other researchers should explore about this topic and make sure that all the information regarding e- banking can be used and can help the customers and the bankers to choose the best way.

Another research direction involves viewing risk perception as a component of trust management. As an essential element of e- banking, trust encompasses a variety of managerial and technological issues. A systematic understanding of risk perception in the broader context of trust management will establish a clearer link with overall business strategy.

Replicating the study in areas other than banks would provide a more solid basis to generalize the findings reported in this paper. Consumers' cognitive activities are constrained by the cultural environment.

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APPENDICES

QUESTIONNAIRES ON THE FACTORS INFLUENCING THE ADOPTION OF E-BANKING IN TANZANIA

This questionnaire is a device that helps the Researcher and other companies to understand the general learning situation in the banking Industry. This survey can be generally taken by marketer, bank manager etc.

Questionnaire for Employees

PART I – RESPONDENTS PROFILE

Please tick (✓) the appropriate choice

a) Background Information

1. Please select the response that best describes your answer with a ?

1. Age :

Less than 25 ☐

25-35 ? ☐

36-45 ? ☐

46-55 ? ☐

> 55 ☐

2. Background Information:

Gender: Male [] Female []

3. Education

Primary [] SSC[] HSSC[] BA[], BSc[] MA[], MSc[], MBA[],
MCS[], MIT []

4. Job Title

Branch Manager [] Operation Manager [] OG-1 [] OG-2 [] OG-3 [] IT
officer [] Clerk []

5. Years of Experience

Less than 5 years [] 6 – 10 years [] 11 – 15 years [] 16 – 19 years [] 20 years and more []

6. Are the customers fully aware of electronic banking?

Strongly disagree [] Disagree [] Moderate [] Agree [] Strongly agree []

7. Is perceived complexity influence them to use E-banking? Yes [] No []

Why?

Explain.....
.....
.....
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.....
.....

8. Is perceived cost influence them to adopt E- banking Yes [] No []

Explain

why.....
.....
.....
.....
.....

9. Do they know that how to pay utility bills electronically?

Strongly disagree [] Disagree [] Moderate [] Agree [] strongly agree []

10. Is the customer concerned about the security policy?

Strongly disagree [] Disagree [] Moderate [] Agree [] strongly agree []

11. Are the customers satisfied with the speed of internet provided by the Internet service

providers to use electronic banking?

Strongly disagree [] Disagree [] Moderate [] Agree [] Strongly agree []

12. What is your occupation?

Occupation Workers	
Not working	
Pensioner	
Self employed	
Other (Specify)	

13. What is the level of your monthly income?

Above 100,000 Tsh/	
Between 250,000 and 500,000	
Between 500,000 and 1,000,000	
1,000,000 and above	

14. In your opinion which age group uses more e- banking?

Youth	
Middle age	
Old age	

Why do you think

so?.....

.....
.....
15. People with more income have high tendency of using electronic banking
Strongly disagree [] Disagree [] Moderate [] Agree [] Strongly agree
[]

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.....
.....
16. Do they think that using electronic banking facility saves their time and money?

Strongly disagree [] Disagree [] Moderate [] Agree [] Strongly agree []

17. Are the customers aware of usefulness of the electronic banking?

Strongly disagree [] Disagree [] Moderate [] Agree [] Strongly agree []

18. Do they intend to use electronic banking facility in future?

Strongly disagree [] Disagree [] Moderate [] Agree [] Strongly agree []

19. Is there any feedback form in the electronic banking section of the website in order to get

feedback from customer about the quality of e-banking?

Strongly disagree [] Disagree [] Moderate [] Agree [] Strongly agree []

20. Do bank provides online technical assistance or 24 helpline to the customer?

Strongly disagree [] Disagree [] Moderate [] Agree [] Strongly agree []

21. According to customers electronic banking is easy to use

Strongly disagree [] Disagree [] Moderate [] Agree [] Strongly agree []

22. According to customers learning of electronic banking is easy

Strongly disagree [] Disagree [] Moderate [] Agree [] Strongly agree []

23. According to customers the instructions on the website to use e-banking services is not fuzzy

Strongly disagree [] Disagree [] Moderate [] Agree [] Strongly agree []

24. Are the services adapted to disable peoples or elder peoples who are lacking Computer experience?

Strongly disagree [] Disagree [] Moderate [] Agree [] Strongly agree []

25. Are they providing help assistance on their website to use electronic banking for the novice user?

Strongly disagree [] Disagree [] Moderate [] Agree [] Strongly agree []

26. Are they satisfied with security of electronic banking provided by the banks?

Strongly disagree [] Disagree [] Moderate [] Agree [] Strongly agree []

27. Are they satisfied by the information provided to them on the website?

Strongly disagree [] Disagree [] Moderate [] Agree [] Strongly agree []

28. Do they feel secure when performing transactions through bank website?

Strongly disagree [] Disagree [] Moderate [] Agree [] Strongly agree []

29. Are the customers satisfied by the electronic banking services provided by the banks?

Strongly disagree [] Disagree [] Moderate [] Agree [] Strongly agree []

30. Do they have high degree of trust on the bank?

Strongly disagree [] Disagree [] Moderate [] Agree [] Strongly agree []

31. E- banking is reliable and can be used for my banking transactions

Strongly Agree ☐

Agree ☐

Neutral ☐

Disagree, ☐

Strongly Disagree ☐

32. Customers of certain occupation use more E- banking than others

Strongly Agree ☐

Agree ☐

Neutral ☐

Disagree, ☐

Strongly Disagree ☐

Why? Explain

.....

THANK YOU SO MUCH FOR YOUR COORPORATION

**QUESTIONNAIRES ON THE FACTORS INFLUENCING THE
ADOPTION OF E-BANKING IN TANZANIA
QUESTIONNAIRE FOR CUSTOMERS**

Appendix

QUESTIONNAIRE

PART I:

Please select the response that best describes your answer with a ?

2. Age :

Less than 25 ☐

25-35 ? ☐

36-45 ? ☐

46-55 ? ☐

> 55 ☐

2. Gender: Male ☐ Female ☐

3. Marital status: Married ☐ Single ☐ Widowed ☐ Divorced ☐

4. Highest Education level (Years of education):

Primary Education ☐

Secondary Education ☐

Bachelors /UG/ Diploma ☐

Masters/PG ☐

Doctorate / PhD ☐

Professionally qualified ☐

5. Do you use E- banking?

Yes ☐

No ☐

Why? Explain

.....
.....

6. Is perceived complexity influences you to use E- banking?

Yes ☐

No ☐

Explain why?

.....

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.....

7. Is perceived cost influences you to adopt E-banking?

Yes ☐

No ☐

Explain why?

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PART II :

Please state your level of agreement or disagreement to the following statements regarding your attitude towards E- banking with a ?

(SA: Strongly Agree, A: Agree, N: Neutral, D: Disagree, SD: Strongly Disagree)

STATEMENTS SA, A, N, D, SD

1. E- Banking enables people to conduct financial transactions more quickly.

Strongly Agree ☐

Agree ☐

Neutral ☐

Disagree, ☐

Strongly Disagree ☐

2. E- Banking improves one's effectiveness in conducting banking transactions.

Strongly Agree ☐

Agree ☐

Neutral ☐

Disagree, ☐

Strongly Disagree ☐

3. E- banking makes it easier to conduct banking transactions

Strongly Agree ☐

Agree ☐

Neutral ☐

Disagree, ☐

Strongly Disagree ☐

4. E- Banking provides convenience since it is available 24 hours, 7 days of the week.

Strongly Agree ☐
Agree ☐
Neutral ☐
Disagree, ☐
Strongly Disagree ☐

5. E- Banking saves time compared to traditional banking.

Strongly Agree ☐
Agree ☐
Neutral ☐
Disagree, ☐
Strongly Disagree ☐

6. It would be easy for me to become skilful at using E- banking

Strongly Agree ☐
Agree ☐
Neutral ☐
Disagree, ☐
Strongly Disagree ☐

7. Learning to use E- banking is easy.

Strongly Agree ☐
Agree ☐
Neutral ☐
Disagree, ☐
Strongly Disagree ☐

8. Overall I believe that E- banking is easy to use.

Strongly Agree ☐

Agree ☐

Neutral ☐

Disagree, ☐

Strongly Disagree ☐

9. Banks offering E- banking implement security measures to protect their customer and have adequate safeguard mechanisms

Strongly Agree ☐

Agree ☐

Neutral ☐

Disagree, ☐

Strongly Disagree ☐

10. Using E- banking is as safe as using other modes of banking

Strongly Agree ☐

Agree ☐

Neutral ☐

Disagree, ☐

Strongly Disagree ☐

11. E- banking is reliable and can be used for my banking transactions

Strongly Agree ☐

Agree ☐

Neutral ☐

Disagree, ☐

Strongly Disagree ☐

12. E- banking can be trusted. There are not many uncertainties.

Strongly Agree ☐

Agree ☐

Neutral ☐

Disagree, ☐

Strongly Disagree ☐

13. People with high education level becomes more E- banking user

Strongly Agree ☐

Agree ☐

Neutral ☐

Disagree, ☐

Strongly Disagree ☐

Why? Explain.....
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.....

14. Awareness of the services that could be done using E- banking encourage many customers

and banks to adopt e- banking

Strongly Agree ☐

Agree ☐

Neutral ☐

Disagree, ☐

Strongly Disagree ☐

15. Security and privacy issues influence the adoption of E- banking

Strongly Agree ☐

Agree ☐

Neutral ☐

Disagree, ☐

Strongly Disagree ☐

16. In your opinion which age group uses more e- banking?

Youth	
Middle age	
Old age	

Why do you think so?

.....

.....

.....

.....

.....

.....

17 People with more income have high tendency of using electronic banking

Strongly disagree [☐] Disagree [☐] Moderate [☐] Agree [☐] Strongly agree [☐]

Why? Explain.....
.....
.....
.....
.....

18 .Customers of certain occupation use more E- banking than others

Strongly Agree ☐

Agree ☐

Neutral ☐

Disagree, ☐

Strongly Disagree ☐

Why? Explain.
.....
.....
.....
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.....
.....

THANK YOU SO MUCH FOR YOUR COORPORATION