FACTORS INFLUENCING ADOPTION OF E-BANKING SERVICES IN SOMALIA

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DECLARATION

This research project is my original work and has not been presented for a degree in any other University.

Signature: ..... Date: .....

ABUBAKAR GEDOW AWALE

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This research project has been submitted for the examination with my approval as the University Supervisor.

Signature: …… Date: …….....

AARON L. MUKHONGO

SUPERVISOR, JKUAT

DEDICATION

This piece of work is dedicated to my dear parents, for all that they have sacrificed to raise me up and direct me in the right path of life.

ACKNOWLEDGEMENT

After an intensive period of several months, today is the day: writing this note of thanks is the finishing touch on my research proposal. It has been a period of intense learning for me, not only in the academic arena, but also on a personal level. Writing this research proposal has had a big impact on me. I would like to reflect on the people who have supported and helped me so much throughout this period.

I would first like to thank my soul mate Hodman Ali for encouragement and tolerance to with me any situation during my research. then my colleagues from my internship at JKUAT for their wonderful collaboration. You supported me greatly and were always willing to help me. I would particularly like to single out my supervisor, Aaron L. MukhongoI want to thank you for your excellent cooperation and for all of the opportunities I was given to conduct my research proposal and further my research project. In addition, I would like to thank all my lecturers, for their valuable guidance. You definitely provided me with the tools that I needed to choose the right direction and successfully complete my thesis.

I would also like to thank my parents for their wise counsel and sympathetic ear. You are always there for me. Finally, there are my friends. We were not only able to support each other by deliberating over our problems and findings, but also happily by talking about things other than just our papers.

Thank you very much, everyone!

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LIST OF ACRONYMS

IT	Information Technology
ATM	Automated Teller Machines
IBS	International bank of Somali
PC	Personal Computer
IV	Independent Variable
DV	Dependent Variable
TAM	Technology Acceptance Model
ICT	Information and Communication Technology
SME	Small and Medium Enterprises
E-business	Electronic Business
M-Banking	Mobile Banking
NPL	Non-Performing Loan
IS	Information System
E-banking	Electronic-Banking

DEFINITION OF TERMS

E-banking	is called transactional online banking, because it involves the provision of facilities such as accessing accounts, transfer of funds, and buying financial products or services online (Saythe, 1999).
E-banking Investment	Capital consists of assets, monetary and non-monetary, contributed by owners of a corporate organization to keep a business afloat. (Farshadhavasi, 2013).
Transaction costs	In economics and business, transaction costs are the costs we incur when we make economic exchanges during the purchase of goods and services. Transaction costs may cover many areas (Migdadi, (2008)
Perceived Risk	The word "risk" is derived from the Italian verb riscare, which means "to dare." Business entities therefore "dare to" generate profits by taking advantage of the opportunistic side of risk (drake, 2010).
Government Regulation	A law that controls the way that a business can operate or all of these laws considered together (Gardachew, 2010)
Adoption of E-banking	The Mobile phone, PC and the Internet are regarded as an option that was taken into consideration in banking services (Olteanu,2000).

ABSTRACT

Internet banking has become one of the most popular banking services adopted by the banks. This research aims at enriching the knowledge and understanding of factors influencing adoption of E-banking services in Somalia, specifically, this study investigated the effects of E-banking investment, transaction cost, bank's perceived risk and government regulation on adoption of E-banking services in Somalia. The evolution of Internet banking benefits both the banks and their customers, and most banks have been using it as one of their distribution channels. Benefits of the internet banking to commercial banks include generating additional revenue, improving customer service, extending marketing, and increasing cost saving. For consumers, Internet banking means convenience, less transaction cost, less time consuming and availability anytime at anywhere. This study conducted through a descriptive study. In addition the study employed a survey research design in data collection. The sampling procedure of this study is used non-probability sampling procedure particularly purposive sampling or judgmental sampling.This research employed quantitative data collection method whereby data is gathered by the use of closed ended questionnaires which are self-administered. The data collected were analyzed using the software called Statistical Package for the Social Sciences (SPSS) version 20 and results shown in terms of frequency distribution and percentages. A regression model was applied to determine the relationship between E-banking investment, transaction cost, bank's perceived risk, and government regulation as the independent variables and adoption of E-banking services in Somalia. Results confirm the varying importance of the factors influencing adoption of E-banking services in Somalia. In general, the results reveal that E-banking investment($\beta = .384$; $t = 3.798$; $p < 0.05$), transaction cost($\beta = .410$; $t = 2.837$; $p < 0.05$), and government regulation($\beta = .319$; $t = 2.621$; $p < 0.05$) have significant and positive effects on adoption of E-banking services in Somalia. While correlation reveals E-banking investment, transaction cost, and government regulation have strong positive and highly significant correlation between them and Adoption of E-Banking with ($r = .571$, $P < 0.05$), ($r = .659$, $P < 0.05$), ($r = .679$, $P < 0.05$) and bank's perceived risk reveals negative and insignificant correlation with($r = .360$, $P > 0.05$). The study recommends that adequate legal structure and security framework could encourage the use of E-Business in Somalia, The cost of accessing physical/traditional financial services has been found to be higher and thus internet banking can cut costs for both the customers and service providers, offering high quality services to satisfy consumers‟ needs, at lower cost and fees, will be the potential competitive advantage of electronic banking sustainability and growth in the future.

CHAPTER ONE

INTRODUCTION

1.1 Background

Global internet access exceeded 1094 million people in December 2006 (IWS, 2006), offering new markets for internet-based services such as internet banking. internet technology that spreads faster than any other technology - the use of Internet isestimatedto double in every hundred days (Saadulaah, 2007). Since the new millennium, internet banking has experienced explosive growth in many countries and has transformed traditional banking practice. By offering internet banking services, traditional financial institutions seek to lower operational costs, improve consumer banking services, retain consumers and expand share of customer (Saadulaah, 2007).

Banking, being an information intensive activity, has been quick in adopting Information Technology (IT) and especially Internet in its operations. Banks extensively use Internet as the delivery channel (Christopher et al., 2006) for its various banking activities such as accessing accounts, transferring funds, online payments, viewing account balances, availing online services, etc. (Haque et al., 2009) and such application of Internet to banking operation is termed as Internet banking or online banking.

E-banking, a system that enables banks to offer their customers access to their accounts to transact business and obtain information via electronic communication channels such as Automated Teller Machines (ATMs), tele-banking, home banking and internet banking is becoming a common practice across the developed world (Pikkarainen et al, 2004). Although internet banking comes with a horde of hazards and security threats but still more and more banks are using the benefits the internet has to deliver banking services to their customers. Both customers and the banks enjoy benefits that E-banking services has

to offer, banks relish cost reduction and market expansion and customers on the other hand enjoys a wider range of products/services and convenient banking due to the ubiquitous nature of the internet (Flavian et al, 2006). The advantages of Internet banking to both the customers and the commercial banks are driving the adoption and its growth. While the speed and convenience in the execution of banking transactions are the primary benefits for the customers (IAMAI's, 2006); reduced costs (Orr, 1999), enhanced capacity, wider reach and service efficiency are considered to be the important benefits to a bank (Mittal et al., 2004; Berger, 2003).

According to DiDio (1998), the average transaction cost at a full service bank is about $1.07. It reduces to $0.27 at an ATM and falls to about a penny if the same transaction is conducted on the web. Internet banking has also been seen as an important aid in improving the understanding of the customer's needs and thereby increasing customer). satisfaction ((Dixon, 1999) Further, commercial banks are able to integrate other Internet banking services with the core banking services without significant investment in the infrastructure (Wah, 1999). In view of the above benefits, banks are making heavy investments in Internet infrastructure and embracing this technological system to bring about major changes in the manner banking is conducted. While the Internet technology holds a great promise, it is still haunted by low rate of adoption by bank customers due to lack of trust in the virtual environment of Internet (Kim and Prabhakar, 2004;

Culnan and Armstrong, 1999)

In Africa, include Somalia due to the developing state of the economies internet is readily accessible to most individuals willing to conduct financial transactions. But in the recent past East Africa include Kenya and Somalia has experienced a range on financial services through the adoption of mobile banking; these services include sending and receiving money, paying bills, account notification, balance enquiry, purchase of mobile

airtime all at the convenience of the customer. Factors affecting customers' intention to adopt e-banking service channels have been at the forefront of several research works in the developed world. But there is limited published works that investigate the factors influencing the adoption of e-banking from the viewpoint of customers in the context of Africa and developing countries. and from viewpoint of banks is very much limited.

Despite the growth of e-banking worldwide, commercial banks in Somalia continue to conduct most of their banking transactions using traditional teller based methods. Banking operation is still under developed backed by low level of infrastructural development, lack of suitable legal and regulatory framework, high rates of illiteracy, frequent power interruption and security issues. Moreover, e-banking is a new technology in Somalia which needs a lot of effort and resources to be easily adopted by customers. Hence, in order to help commercial banks improve e-banking adoption by banks and their customers, it is necessary to examine factors that influence bank's intention to adopt e-banking service.

1.1.1 Electronic banking in Somalia

While international community has focused on Somalia's political and security challenges during decades of civil war, the financial sector turned to *hawalas* or money transfer services, a system which hasn't been recognized by the majority of banks. But last years the financial sector has been growing very fast. On 2014, the Premier bank, Somalia domestic bank, announced that government has given its approval for commercial banks to offer Internet banking services. Salaam Somali bank also told officially that they will provide this kind of service, quoted their website "We know you have better things to do with your time. That's why we've blended the power of the Internet with the latest technology to give you the best online banking experience available. With our online banking you will do your banking faster than ever before. We also know that security is an

important feature for any online banking system. For this reason, we have implemented secure technologies to protect you from identity theft and fraud". Currently, only banking institutions licensed under Central government of Somalia are allowed to offer Internet Banking services in Somalia. These include Dahabshiil International bank, International bank of Somali (IBS) Premier Bank and Salaam Somali Bank all these banks announced that they implemented internet banking service.

Internet banking became a new channel for banks to deliver services. As a result banks were increasingly offering their services online. Internet banking became more beneficial to the banks than to the consumers. However, customers' acceptance and confidence in the system remain a prime factor in ensuring the success of Internet banking.

The aim of this paper is, therefore, to examine the determinants of bank's intention to adopt e-banking service channels in Somalia.

1.2 Statement of the problem

Since the introduction of the gold and the paper money as a medium of exchange there has been a need for people to keep their money safe and to use it conveniently in conducting their transactions. Over the years the gold and money deposit takers have come up with different methods of conducting business and handling their clients as time goes and as different levels of technologies kick-in (Wambari, 2009). Traditional branch based banking remains the most widespread method for conducting banking transactions in Somalia with agency banking and mobile banking being the recently adopted and widely used(Omar,2009).

However, internet technology is rapidly changing the way personal financial services are being designed and delivered. Despite all their efforts aimed at developing better and easier internet banking systems, these systems remains largely unnoticed by the banks and certainly is seriously under-used in spite of their availability (Byoung& Widdows,2000).

The security of information on the internet is the primary factor, which determines the adoption of Internet banking technology, (Ramakrishna, 2007).

Banks offer Internet banking in two ways. An existing bank with physical offices can establish a Web site and offer Internet banking to its customers as an addition to its traditional delivery channels (Furst, William, and Daniel, 2000). A second alternative is to establish a "virtual," "branchless," or "Internet-only" bank (Furst et al., 2000).

There are a lot of benefits through adoption of internet banking for the banks and their customers. On the whole, Internet banking increases operational efficiencies and reduces costs, besides giving a platform for offering value added services to the customer, thereby fulfilling all the essential prerequisites for a flourishing banking industry. The success or failure of many banks is dependent upon the capabilities of management to anticipate and react to such changes in the marketplace (Gan et al., 2006). It is necessary to consider the problem Statement and Interpretations in to specific meaning from the research to understand and apply internet banking services and it is consequence of organizational performance. Therefore, answers should be made to the following fundamental Problem statement.

Firstly, this would compare the determinants of adoption of E-banking services

Secondly, the purpose of this study was to determine the variables that explain the result become negative or positive effect and identify those variables.

Thirdly, the most banks ignore in most cases that the strength of E-banking services influence the level of success and the effective of organizational performance.

Therefore this research aims at identifying the factors influencing the adoption of internet banking in Somalia, and answer questions on why there is lack of enthusiasm on the adoption of internet banking by banks.

1.3 Research objectives

1.3.1 General objective

The research aims at enriching the knowledge and understanding of factors influencing adoption of E-banking services in Somalia, specifically, the main objectives of this study are:

1.3.2 Specific objectives

1. To investigate the influence of E-banking investment on adoption of E-banking services in Somalia
2. To analyze the influence of transaction cost on adoption of E-banking services in Somalia
3. To ascertain the influence of bank's perceived risk on adoption of E-banking services in Somalia
4. To examine the influence of government regulation on adoption of E-banking services in Somalia

1.4 Research questions:

1. How does E-banking investment influence the adoption of E-bankingservices in Somalia
2. How does transaction costinfluence the adoption of E-banking services in Somalia
3. How does bank's perceived risk influence the adoption of E-banking services in Somalia
4. How does government regulation influence the adoption of E-banking services in Somalia

1.5 Justification of study

According to comptroller's, 2004 internet banking refers to systems that enable bank customers to access accounts and general information on bank products and services through a personal computer or other intelligent device. At an advanced level, internet banking is called transactional online banking, because it involves the provision of facilities such as accessing accounts, transfer of funds, and buying financial products or services online (Saythe, 1999).

The investment costs incurred by the bank, risks arise from the internet and the government regulations on internet banking all affect the adoption of internet banking. Transactions cost and internet enabled costs would greatly contribute to the adoption of the internet banking as well.

Banks management and directors should aware the technology developments towards their financial service, and how effectively manage the influence of technology.

1.6 Scope

The variables to be examining in this study include Factors influencing to implement e-banking services in Somalia those will be broken in to Transaction Cost, Bank's Perceived Risk, Government Regulation and E-Banking Investment. The variable Adoption of e-banking (DV): will focus only how determinants of Adoption of e-banking services contribute implementation of internet banking services in Somalia. This study will be conducted on the four largest banks that exist in Somalia, especially Mogadishu the capital, Dahabshiil International Bank, Salaam Somali Bank, Premier Bank. The study will be conducted from March 9, 2016 –October 9, 2016, it will take a period of 8 months.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The previous chapter provided the background, the problem discussion and objectives of the study. In this chapter will be presented literature review: The aim of this chapter is to provide the relevant literature in the field that researcher selected for research. The chapter is divided intosections including Theoretical Framework, Conceptual Framework, Review of variables, Empirical Literature Review, detail overview of prior research and Critique of Existing Literature, Research Gaps and summery of the chapter

2.2 Theoretical Review

The following section presents the related theories of Determinants of Adoption of Internet banking. This study is anchored on three major theories namely, Technology Acceptence Model, Theory of Reasoned Action and theory Planned Behavior.

2.2.1Technology Acceptance Model (TAM)

TAM inspects the influence of technology on a user's behavior and was developed by Davis (1986) with the aim of establishing a theory of a user's computer technology behavior (Rauniar et al., 2014). This model was originally developed from another theory, called the "theory of reasoned action" (TRA) that describes a person's behavior by their intentions and was founded by Fishbein and Ajzen (1975) (Rauniar et al., 2014). The TRA model intends to create a theory which describes human behavior in general, whereas TAM focuses on the factors which influence a person's general computer acceptance (Rauniar et al., 2014). The TAM consists of two main factors, "Perceived Usefulness" (PU) and "Perceived Ease of Use" (PEU) that influence a person's intention to make use of a technology (Davis, 1986; Liu et al., 2010).

Perceived Usefulness (PU): PU is defined as "the extent to which a person believes that using a particular system will enhance his or her job performance" (Sun et al., 2009, p.52). Consequently, it is related to the belief that a technology enhances an individual's performance (Liu et al., 2010). The TAM and its extended models from other researchers uncovers that PU enhances a person's objective in mandatory and voluntary situations (Verkasalo et al., 2010).

However, past research has shown that there is a contrary result related to the effect which PU has on a person's usage behavior of a new technology system (Verkasalo et al., 2010). This inconsistency of results leads to the question to which extent a person adopts social media, as PU and social media acceptance is an emerging research field. For the purpose of this study, PU is connected to social media in the following way: It represents the degree to which an individual that uses social media considers social media to meet his/her goal of integrating it into the innovation process (Rauniar et al., 2014). Thus, the assumption is made that the PU of social media influences a manager to use this technology in innovation processes. Nath et al. (2014) showed that PU influences a person's attitude towards using their technology. Therefore, the first hypothesis is stated as: H1: The manager's perceived usefulness of social media influences the attitude towards using them in innovation processes. Perceived Ease of Use (PEU): PEU is "the extent to which a person believes that using a particular system will be free of effort" (Sun et al., 2009, p.52).

Studies validated that when individuals think employing a certain technology is easy to use, they will be inclined to work with it (Davis, 1986; Liu et al., 2010). 13 Connecting this fact to social media, it is assumed that if social media are easy to handle, managers will make use of it. As in the case of PU, PEU has an influence on a person's attitude towards using their technology system (Nath et al., 2014).

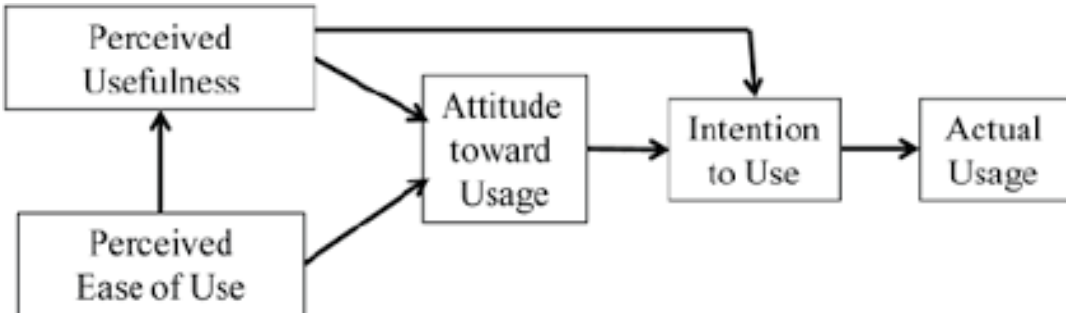

Figure 2.1: The Technology Acceptance Model (TAM) (Davis, 1989)

Venkatesh and Davis (2000) extended the original TAM model by creating TAM2 which included additional factors, namely of "social influence processes (subjective norm, voluntariness, and image) and cognitive instrumental processes (job relevance, output quality, result demonstrability, and perceived ease of use)" (p.187). In fact, their study reveals that the TAM2 model offers more in-depth information than the ordinary TAM model by explaining the key factor of perceived usefulness which is the prestep of usage behavior (Venkatesh and Davis, 2000). Furthermore, TAM2 uncovers that subjective norms, which are one factor of TRA (Fishbein and Ajzen, 1975), affect the usage intentions directly, having a larger influence than perceived usefulness and perceived ease of use (Venkatesh and Davis, 2000). Figure 3 illustrates the different factors of TAM2 and their relationships.

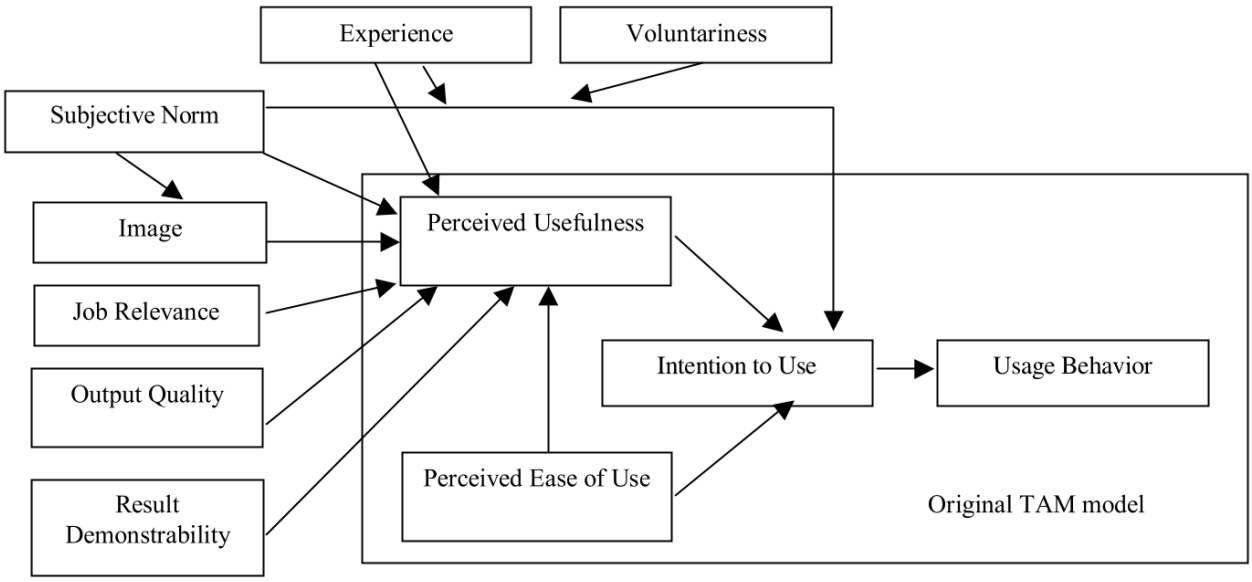

Figure 2.2: TAM2 (Venkatesh and Davis, 2000)

Nevertheless, TAM only gives a general view on a person's technology acceptance (Liu et al., 2010). Thus, it has been applied to different contexts by past researchers, for example in the mobile business (Sun et al., 2009), online learning communities (Liu et al., 2010); or core banking systems (Nath et al., 2014). By applying the extended TAM approach to this study, the author's goal of this paper is to show several factors that affect the acceptance and attitude of managers towards social media integration for innovation processes. As the TAM is only a general model, it is applied to the study's context by adding the following variables to perceived usefulness (PU) and perceived ease of use (PEU): Perceived behavioral control (PBC), subjective norm (SN), behavioral intention (BI), personal innovativeness (PIIT) and attitude towards using (ATT) social media.

2.2.2. Diffusion of Innovation Theory

Theory Rogers (2003), DOI Theory has prevailing usage while searching factors affect diffusion of inventions in a social system (Majanja&Kiplangat, 2005, p. 211). Diffusion is a process of delivering of innovation (new ideas, application, product and technologies) via a specific channel between the members of a social system. According to Rogers (2003, p. 5–6), the theory explains many exogenous factors that affect decision on application of information technology innovation.

diffusion of inventions theory has been applied in many academic disciplines foremost economy and including health, education, sociology, geography, communication and business (Murray, 2009, p. 110). Information systems has theoretic base for realization of ideas devoted to adoption of its projects (Majanja&Kiplangat, 2005, p. 213). Diffusion of innovation, namely uptake of subscribers, is a significant determiner for success of a company (Frambach&Schillewaert, 2002, p. 163).

Rogers (2003) model clarifies the factors affecting innovation adoption by 28 attitudes gathered in five characteristics. Developing an attitude toward innovation is the reason for either approval or denial of innovation. Aforesaid variables are subjective, perceptual measurements which differ according to individuals. To the theory's assertion, when aforementioned variable factors have been applied, the diffusion of innovation will accelerate further. These factors are (Ollila&Lyytinen, 2003, p. 282–283; Rogers, 2003, p. 26–36, 242–244);

a. Individual factors: The perception of potential user toward information system is substantive determiner of information adoption. In DOI Theory, individual attitude toward innovation determines adoption or denial. If adoption is to be decided, innovation will be applied (Thong, 1999, p. 194). These are elements constitute individual factors: Own testing: Testing innovation means experiencing it in a limited area. It is necessary to test system to perform information system's function. Resolution of problems is particularly important. Innovation is tried as experimental basis (Ollila&Lyytinen, 2003, p. 282) Personal contact network: People trust experiences of their friends.They rely on experiences of their peers, similar to interpersonal networks (Ollila&Lyytinen, 2003, p. 282). Own rules and control of job: New ideas should be experienced to reach the advantages of innovation. The innovator has to conduct experimentation with a new idea in order to assure itself that innovation is advantageous (Ollila&Lyytinen, 2003, p. 282). Learning by doing: Learning to evaluate the innovation on the basis of experience. It means learning to consider innovations depending on experience. Innovation application that includes less concern and uncertainty will accelerate adoption (Ollila&Lyytinen, 2003, p. 282).

b. Innovative factors: The judgment of potential users who want to adopt innovation determined by these factors: Relative advantage: The degree to which an innovation is

perceived better than the idea it supersedes. It is a level of perception of that innovation is better (economic, effective, efficient, satisfactory and functional) than previous system (Ollila&Lyytinen, 2003, p. 282). Ease of use: The degree to which an innovation is perceived difficult to understand and use. It is the conception of that learning and using innovation is not hard. According to Theory, ease of understanding of innovation will speed up adoption (Ollila&Lyytinen, 2003, p. 282). Compatibility: It means that the perception of content of innovation is compatible with present needs, values and business applications, and not to be too complex.

Innovations which are not compatible technically require for a change in values. More compatibility will accelerate adoption of new system (Ollila&Lyytinen, 2003, p. 282). Visibility:To what extend the innovation is visible to others. Innovation should be able to be test and include visible results. Visible results will reduce doubts for decision of adoption (Ollila&Lyytinen, 2003, p. 282). Price: The cost of an innovation (Ollila&Lyytinen, 2003, p. 282). Problem solver: The desirability of adopting an innovation depends on the problem of the innovation promises to be solved for the adopter. The endeavor of information technology application should handle the problems stemming from company (Ollila&Lyytinen, 2003, p. 282). Standard: It means actions that are needed to be followed by producers and users when they begin to use innovation. Manufactures and clients begin to use a standard forcing the user to follow (Ollila&Lyytinen, 2003, p. 282). Technological edge: It is superiority of innovation in terms of others (Ollila&Lyytinen, 2003, p. 282).

c. Task factors: Task factors consist of below sub-branches: Commercial advantage: The internal or external vendor sells an innovation in a form of a useful product. Afterwards, this product is commercialized (Ollila&Lyytinen, 2003, p. 282). User satisfaction: An innovation must match the user needs in the task (Ollila&Lyytinen, 2003, p. 282). User

resistance: It refers user's endurance to change when user's tasks are in vicious circle.When tasks become difficult, users resist change (Ollila&Lyytinen, 2003, p. 282).

d. Organizational factors: Some characteristics of organizational factors have an effect on innovation adoption decision. It consists of these variables: Interpersonal networks: Evaluations of innovations are exchanged between individuals of social system (Ollila&Lyytinen, 2003, p. 283). Communication: Exchange of information is informal and unplanned between individuals. This occurs via media or inter-personal channels. By means of communication, it is possible to reveal innovation or to focus on the usage of information (Ollila&Lyytinen, 2003, p. 283).

Technological experience: It refers technological experiment over a long time period (Ollila&Lyytinen, 2003, p. 283). Working teams: Information technologies projects need team combinations. This stuff should be consisted of skillful administrative and technical personnel. Project team should be strengthened to take fast and efficient decisions. Team members should keep primary control over their management (Ollila&Lyytinen, 2003, p. 283). Project leaders: An individual who influences clients innovation decisions. They are elected among top managers. Personnel may have to work excessive hours while adopting the administration information system. In addition, accompanying stress may demoralize stuff. Project leaders will fortify project members in this situation (Ollila&Lyytinen, 2003, p. 283). Interdependence from others: Adapter of innovation takes benefit of it more than others who will take benefits of innovation in the future. Each adopter increases the utility of the innovation for both future adopters (Ollila&Lyytinen, 2003, p. 283).

Adopter type: The degree to which an individual is earlier in adopting new ideas than others. This is who adapt the innovation in first place (Ollila&Lyytinen, 2003, p. 283). Management hierarchy: an order is given to adopt an innovation (Ollila&Lyytinen, 2003,

p. 283). Size of organization: Larger organizations are more innovative. It is measured in the number of staff, the amount of actives and size of sell out (Rogers, 2003, p. 379).

e. Environmental factors: Innovations are not independent from environmental factors. The successful transfer of innovation is also dependent on environment (Wejnert, 2002, p. 310). Existence or absence of environmental factors determines the decision of innovation adoption. Environmental factors consist of these elements: Cultural values: Cultural beliefs concerning change. It represents participation of stuff to the decisions in terms of cooperation, coordination, personal strengthening, organizational vision, open communication, strong leadership, role and mission (Ollila&Lyytinen, 2003, p. 283). Technological infrastructure: The maturity of the technological infrastructure. More changes are needed while operating more complex technological structures (Ollila&Lyytinen, 2003, p. 283). Community norms: The obedience to norms (Ollila&Lyytinen, 2003, p. 283). Funding: Available resources to invest (Ollila&Lyytinen, 2003, p. 283).

2.2.3 Institutional theory

Institutional theory emphasizes that institutional environments are crucial in shaping organizational structure and actions (Scott and Christensen 1995, Scott 2001). According to the institutional theory, organizational decisions are not driven purely by rational goals of efficiency, but also by social and cultural factors and concerns for legitimacy. Institutions are transported by cultures, structures, and routines and operate at multiple levels. The theory claims that firms become more similar due to isomorphic pressures and pressures for legitimacy (Dimaggio and Powell 1983). This means that firms in the same field tend to become homologous over time, as competitive and customer pressures motivate them to copy industry leaders. For example, rather than making a purely internally driven decision to adopt e-commerce, firms are likely to be induced to adopt and

use e-commerce by external isomorphic pressures from competitors, trading partners, customers, and government.

Several recent studies have taken an institutional approach to e-commerce or EDI diffusion and assimilation (Purvis et al. 2001, Chatterjee et al. 2002, Teo et al. 2003). It is well known that mimetic, coercive, and normative institutional pressures existing in an institutionalized environment may influence organizations' predisposition toward an IT-based interorganizational system (Teo et al. 2003). Mimetic pressures are observed when firms adopt a practice or innovation imitating competitors (Soares-Aguiar and Palma-Dos-Reis 2008). Coercive pressures are a set of formal or informal forces exerted on organizations by other organizations upon which the former organizations depend (Dimaggio and Powell 1983). Normative pressures come from dyadic relationships where companies share some information, rules, and norms. Sharing these norms through relational channels amongst members of a network facilitates consensus, which, in turn, increases the strength of these norms and their potential influence on organizational behaviour (Powell and DiMaggio 1991). Some studies combine the TOE framework with the institutional theory (Gibbs and Kraemer 2004, Li 2008, Soares-Aguiar and Palma-Dos-Reis 2008). The institutional theory adds to the environmental context of the TOE framework external pressures, which include pressure from competitors and pressure exerted by trading partners.

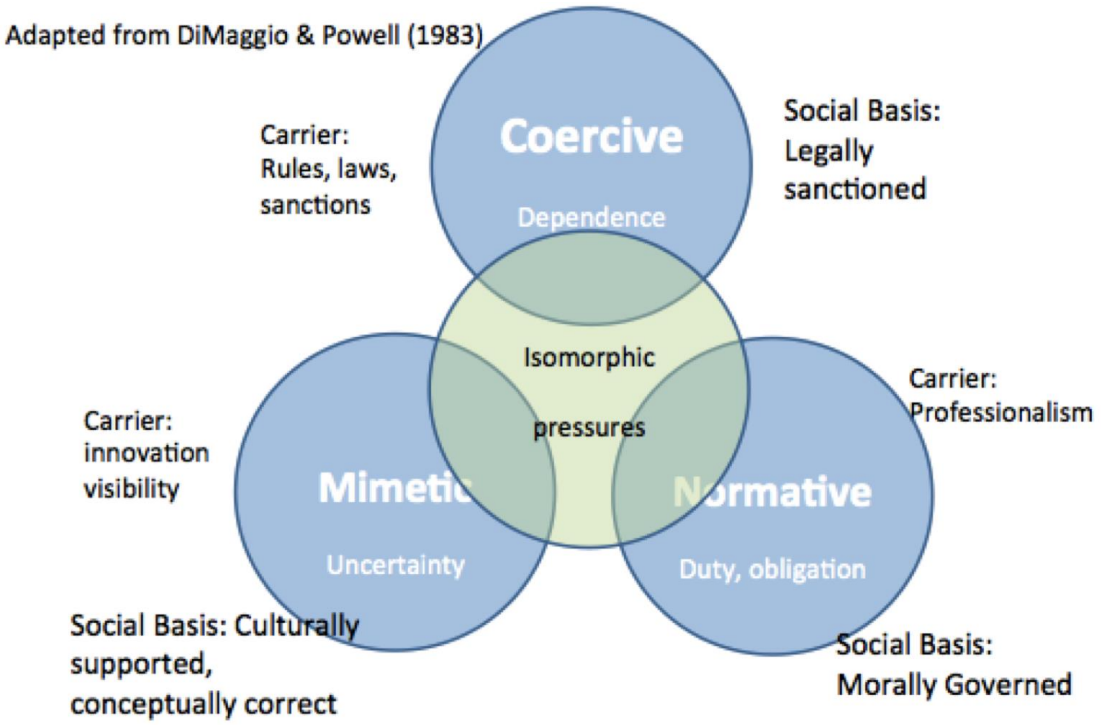

Figure 2: Institutional theory (Dimaggio& Powel, 1983)

2.3 Conceptual Framework

According to Young (2009), conceptual framework is a diagrammatical representation that shows the relationship between dependent variable and independent variables. A conceptual framework shows the relationship between independent and dependent variable

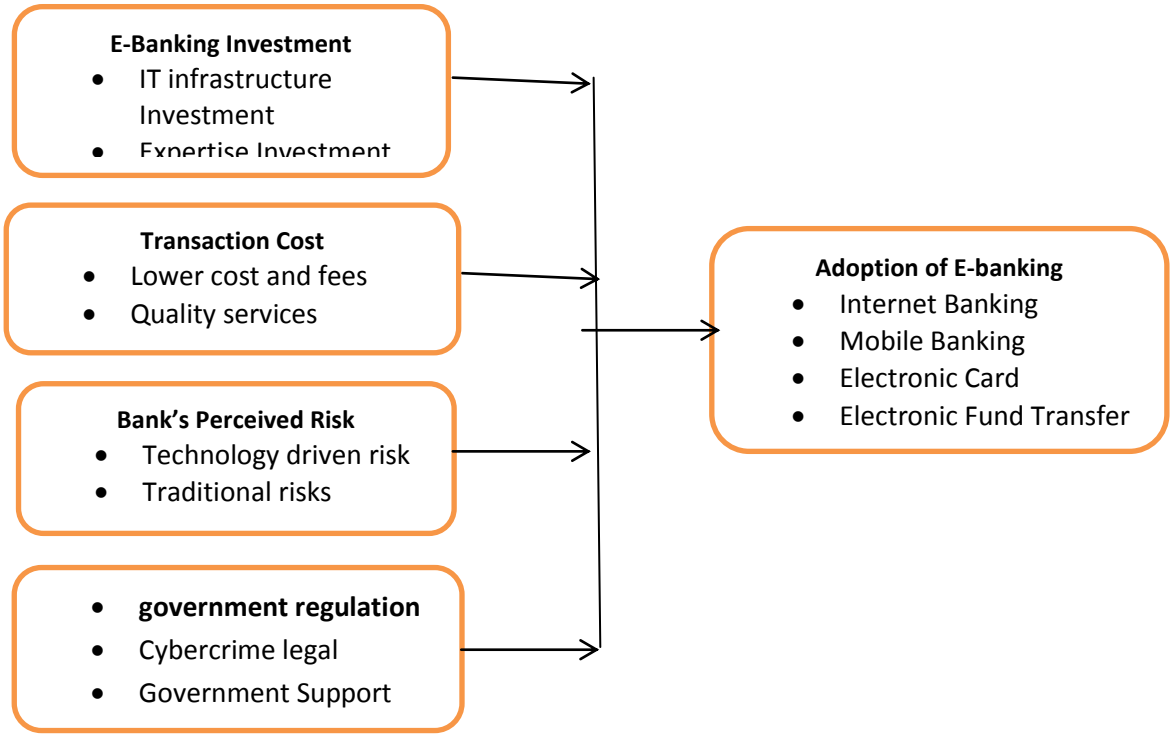

Figure 2..4: Conceptual Framework

2.3.1 E-banking Investment:

Capital consists of assets, monetary and non-monetary, contributed by owners of a corporate organization to keep a business afloat. Association of Certificated and Chartered Accountants (1998) defined capital as the monetary and non-monetary assets contributed by owners of an enterprise (equity capital), and by the creditors (loan capital) to get the organization going. It refers to the right of an enterprise to utilize the services of produced factor inputs. In other words, capital (money) is held because transactions take place at discrete time intervals. However, the right of a company to utilize the services of produced factor inputs (capital) is a function of the total value of real and financial assets available to it(Govindarajan, (2004)). This right can be exercised either in the ownership and control of real assets, or in that of financial assets. According to(Goyal, 2006), real assets are tangible assets, while financial assets are claims on income to be generated by real assets. Pandy further stated that, the total value of real and financial assets available to an economic unit at any point in time constitutes its stock of capital, otherwise referred to as, the wealth of that economic unit.

Empirical evidence provides some indications that capital investments might be positively related to adoption of internet banking

Every alteration requires foundation, support and expertise. The possibility to have suitable foundations, updated equipment and support groups requires a considerable amount of money. In fundamental changes of the society such as electronic banking this issue is of even more importance (Farshadhavasi et al, 2013). Lack of investment in the field of telecommunication, expenses regarding web connection, satellite expenses, the expenses for up grading webs are some examples in thisregard. Aboutusing ATM and POS machines it should be said that the banks keep receiving commissions.

Telecommunication center is not faced with serious financial problems in this regard (Farshadhavasi et al, 2013).

Electronic banking is dependent to updated and useful technology. Lots of are required in this regard at the same time like telecommunication, information technology, etc (Farshadhavasi et al, 2013).The influencing factors on electronic banking include: implement to web, internet speed, ISP centers, number and width o(BIS, 2003,) (Sheshunoff, (2000) (Sathye, (1999) (Farshad havasi1, 2013)f internet bands, IT and electronic banking experts, quality, ICI expansion, qualified electronic banking services, etc all these factors need huge investment that cannot adhere many banks.

2.3.2 Transaction Cost:

The beginning of new technologies has completely transformed banking transactions. In the past, Banks had to employ several tellers to physically make all bank transactions and Customers had to come physically into the bank branch to do banking transactions including transfers, deposits, information about their accounts and withdrawals. Then Internet conveyed venue with which customers could do banking, reducing the need for physical transactions. Online banking allowed customers to do financial transactions from their PCs at home via Internet. The cost of the average payment transaction on the Internet is minimum.

Customer service delivery attributes in the electronic banking industry are important, in view of the fact that online banking, mobile banking and ATM interaction are the main sources of service delivery (Farshadhavasi et al, 2013). Therefore, offering high quality services to satisfy consumers‟ needs, at lower cost and fees, will be the potential competitive advantage of electronic banking sustainability and growth in the future (Farshadhavasi et al, 2013).. At present, studies show that electronic banking has successfully reduced operating and administrative cost and fees (Migdadi, (2008);

Suganthi, 2010 and Bankole et al, 2011) while at the same time research has proven that, cost and fees savings have helped e-based banks offer lower or no service cost/fees Mobile banking in developing countries. Cost was once considered as the major competitive priority and a key aspect for the future development in every organization (Burgess, 1998). Prior research has empirically found a positive relationship between cost/fees and customer service delivery as a critical factor with the use of electronic banking (Ching et al, 2011 ad Khumbula, 2010).

2.3.3 Bank's Perceived Risk

The word "risk" is derived from the Italian verb riscare, which means "to dare." Business entities therefore "dare to" generate profits by taking advantage of the opportunistic side of risk (drake, 2010). Riskiness of a project is defined as the variability of its cash flows from those that are expected (Van Horne &Wachowicz, 2001).

Continuing technological innovation and competition among existing banking organizations and new entrants have allowed for a much wider array of banking products and services to become accessible and delivered to retail and wholesale customers through an electronic distribution channel collectively referred to as e-banking (Basel committee on banking supervisor, 2003). However, the rapid development of e-banking capabilities carries risks as well as benefits.

The Basel Committee on Banking Supervision expects such risks to be recognized, addressed and managed by banking institutions in a prudent manner according to the fundamental characteristics and challenges of e-banking services. These characteristics include the unprecedented speed of change related to technological and customer service innovation, the ubiquitous and global nature of open electronic networks, the integration

of e-banking applications with legacy computer systems and the increasing dependence of banks on third parties that provide the necessary information technology (Basel committee on banking supervisor, 2003). While not creating inherently new risks, the Committee noted that these characteristics increased and modified some of the traditional risks associated with banking activities, in particular strategic, operational, legal and reputational risks, thereby influencing the overall risk profile of banking.

Perceived risk can cause bank to reject new Electronic banking services.Perceivedrisk is related to reliability and system failure. Banks are also worriedthattechnology-based service delivery systems will not work as expected, andlackconfidence that problems can be solved quickly (Walker, 2002). Westland (2002)found that transaction risk occurs when online markets fail to assure that service willbedelivered with adequate quality. Frequently, slow response time after theInternetinteraction leads to a delay of service delivery and causes customers to be unsure thatthetransaction was completed (Jun and Cai,2001).

2.3.4 Government Regulation

Lack of Legal and Regulatory Framework Electronic payments are not currently covered in Somali legal system. Lack of such legal framework may thus hinder the introduction of cost effective modern electronic payment instrument such as ATMs, credit and debit cards, mobile/telephone/internet banking.

Study of (Gardachew, 2010) revealed that lack of legal frame work is one of the challenges for E-banking system in Ethiopia. In contrary the study of Wondwossen and Tsegai (2005) revealed that an adequate legal structure and security framework could encourage the use of E-Business in Ethiopia. However, the result of survey about legal frame work on implementation of E-banking system revealed that lack of legal frame

works and cross country legal and regulatory difference is considered as barriers faced by banking industries for the adoption of E-banking system in Ethiopia.

A study conducted by Chong *et al* (2010) in Vietnam found out that a government's support in connection with bank and consumer's intention to use online banking is highly essential. Furthermore, it has been observed that in other to support the promotion of online services such as e-banking adoption, online shopping, online payment of bills among others, governments should offer free basic ICT programs in schools and universities that will concentrate on the teaching of basic computer knowledge and Internet awareness (Nasri, 2011). The reason being that, as more people become IT literates, the more they will accept online services and for that matter; online banking adoption will increase,

The government of Ghana has created an enabling policy and regulatory environment to expand and investment in mobile and online banking in the banking sector (Perkins, 2013). The aim of the policy is to enable the expansion of a dependable and cost-effective world class standard communications setup & facilities, underpinned by suitable high-tech novelties and reachable by all Ghanaian citizens to improve the advancement of monetary competitiveness in a knowledge-driven environment (Perkins, 2013). Additional legislations that have being developed to support the policy are;

Cyber Security Bill,

Data Protection Bill,

Electronic Communications Regulation,

Electronic Regulation on Dumping of Electronic Waste and;

National Digital Content Management Bill.

In addition to the competitive pressure, the study of Chong and Pervan's (2007) survey of Australian SME suggest that, government initiatives are the most significant factor

determining the extent and deployment of E-business adoption. Similarly the study of Sherah et al (2009) noted that government support is the major driver for the adoption of E-banking in china.

2.3.5Measurement of Adoption of E-banking

Together with the increasing rate of Internet and mobile services penetration, we are witnessing significant changes regarding the conduct of economic transactions (BahmanSaeidipour, 2013). Simultaneously, bank service providers have been constantly adapting to these changes and at the same time they have met consumers' requirements with new se rvices(Saeidipour, (2013)). The core of banks new strategic orientation currently consists of developing new alternative distribution channels. The Mobile phone, PC and the Internet are regarded as an option that was taken into consideration (Olteanu,2000).Thus, since their emergence services like Internet Banking, Home Banking and Mobile Banking were launched on the market very rapidly. It is worth mentioning that these services have gained popularity among users in a relatively small period of time. The premise of this kind of transaction emergence is the computerization of banking operations, the irreversible characteristic of the bank management. Electronic banking services included under the umbrella term of e-banking are divided into three categories: Internet Banking, Home Banking and Mobile Banking.

According to the definition provided by the current Romanian legislation, e-banking refers to a system that allows bank customers to perform banking activities without going to the banking institution and includes three categories mentioned above. Virtual banks can be established in several ways. For example, new investors in the banking industry obtain charters from state or federal supervisory authorities to establish new, independent virtual banks (Furst et al., 2000). Alternatively, existing banking companies create virtual banks as separately capitalized subsidiary banks of a bank

holding company (Furst et al., 2000). A third route is investors purchase the existing charter of a traditional bank, and then to recast the bank as a virtual bank under the existing charter (Furst et al., 2000).

The bank provided Internet based deposits, stock trading, bill payment, and foreign exchange services for qualified customers at discounted transaction fees (Ongkasuwan, 2002). The bank also reduced the online stock trading commission from RMB0.5 to RMB0.25 for the Internet based service in order to increase visiting rates and profits (Ongkasuwan and Tantichattanon, 2002).In Thailand, Adoption Of Internet banking due to the economic crisis and Non-Performing Loan (NPL) in 1997, many banks were forced to reduce costs via a reduction in human resources (Ongkasuwan and Tantichattanon, 2002). Many experienced bank employees were offered early retirement and the remaining employees faced increased workloads with shorter service hours (Ongkasuwan and Tantichattanon, 2002). This change caused the majority of the Thai banks to use Internet banking to reduce waiting time, errors and costs, and ultimately improve customers‟ satisfaction. This allowed customers to access and inquires about their accounts and performs simple transactions via the Internet from their computer at home or work at their convenience (Ongkasuwan and Tantichattanon, 2002). Electronic-based Internet banking is a relatively new banking method and provides financial transaction services to customers. The service includes 24 hour access to customer bank accounts, transfer transaction between accounts, personal financial consulting, online stock trading, shopping, and utilities fee payments (Ongkasuwan and Tantichattanon, 2002).

2.4 Empirical Literature Review

(Dannenberg, 1998)),in their study, overviewed the opportunitiesfor effective utilization of the Internet with regard to the banking industry. The authors evaluated that appropriate application of today’s cutting edge technology could ensure the success of

banks in the competitive market. They evaluated the services of banks via internet as websites provide sophisticated line of products and services at low price. The authors analyzed that transactions via internet reduce the risk of data loss to customers, chance to cut down expenses, higher flexibility for bank employees, re-shaping the banks' image into an innovative and technologically leading institutes, etc. The researchers found that banks could move one step further by entering into a strategic alliance with internet service provider. So, the bank of tomorrow stands to be feasible with today's technology.

Liao and Wong (2007) empirically explored the major considerations associatedwith internet-enabled e-banking systems and systematically measured the determinants of customer interactions with e-banking services. Confirmatory factor analysis confirmed that they possessed significant convergent and discriminatory validities. Both perceived usefulness and perceived ease of use have significant impact on customer interactions with e-banking services. Perceived security, responsiveness and convenience also represented the primary avenues influencing customer interactions. In particular, stringent security control was critical to e-banking operations. The findings had managerial implications for enhancing extent of e-banking operations and developing viable e-banking systems.

(Robbins, 2006)tried to evaluate whether the adoption of e-banking by the banksaffected the importance of bank location. The study looked into the state of consumer adoption of e-banking products and growth of e-banking products since 1995. The study also investigated whether consumer choice had changed as a result of increased e-banking use and how banks had responded. The study also questioned why location was still important today. The author focused that e-banking was not a perfect substitute of physical presence of banks in the market. Consumers want the convenience of e-banking products but only of those banks which fall close to their place. So, the location of a bank branch and

electronic banking were complementary to each other.

(Gan, (2007)examined consumer choices between electronic banking andnon-electronic banking in New Zealand. The authors evaluated that decision to use electronic banking was hypothesized to be a function of service quality, perceived risk factors, price factors, service product characteristics, individual factors and demographic variables. The findings showed that service quality, perceived risk factors, user input factors, employment and education were the dominant variables that influence consumers choice of electronic banking channels. The authors observed that consumer use e-banking because of its suitability, convenience and reliability.

(Boateng, (2006) explored some of the issues that affected the key decisions ofbanks while adopting e-banking techniques. The decisions were related to entering e-banking, e-banking channel choice, customers and managing conflicts. The findings of the study indicated operational constraints related to customer location, the need to maintain customer satisfaction and the capabilities of the banks. The author pointed out the need for African banks to understand customer needs, corresponding service to offer, the resources and partnership required to offer it, and develop appropriate e-banking strategies that maximized value for both customer and banks.

2.5 Critique of Existing Literature

All Empirical Literature Reviewindicate that there are very few studies that have been conducted on "determinants of adoption of internet banking in banks' point view. Many existing studies on this topic have focused on customer's point of view.

(Podsakoff, (2003) found the major limitation of the TAM studies included in their research was self-reported usage. The studies did not measure actual usage, but relied on the research subject to indicate usage. A better approach would have been to employ an

independent measure actual use. Another limitation was the use of a single IS system in each research project limiting the generalizability of the conclusions.

Some limitations of Theory of Reasoned Action include the inability of the theory, due to its individualistic approach, to consider the role of environmental and structural issues and the linearity of the theory components (Botha, (2005). Individuals may first change their behaviour and then their beliefs/attitudes about it. The TRA is now virtually obsolete due to the Theory of Planned Behaviour.

2.6 Research Gaps

A review of current studies indicates that there are very few studies that have been conducted on "determinants of adoption of internet banking in banks' point view. Many existing studies on this topic have focused on customer's point of view. Adoption of internet banking is always a top management exercise.

For company's survival in the face of competition and for growth and development, such a company needs constant flow of ideas for new methods providing services or products, investment evaluation of IT, improved services and procedures to achieve maximum return with minimal cost. Furthermore, it should be taken to the account an informed with certainty in an uncertain economic environment, the complex nature of IT utilization, the sophistication of the risk measurement devices, and inadequate infrastructure and expertise. These problems also militate against efficient utilization of Information Technology in most bank firms in Somalia.

2.7 Summary

The result from some of empirical literature review shows that variables like E-banking investment, banks perceived risk and transaction costs perceived security will influence the adoption of internet banking by the banks.

Without proper investment and security protection, banks will not use the internet

banking services. E-banking services can get benefit both banks and customers. Thus, internet banking providers should try strategies to gain the confidence of using systems.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In this chapter the research methodology used in the study is described. The geographical area where the study is conducted, the researcher designated the design, population and sample of the study. The instrument used to collect the data, including methods implemented to maintain validity and reliability of the instrument, was described.

3.2 Research Design

Burns and Grove (2003:195) define a research design as "a blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings". Polit et al (2001:167) define a research design as "the researcher's overall for answering the research question or testing the research hypothesis".

A survey obtains information from a sample of people by means of self-report, that is, the people respond to a series of questions posed by the investigator (Polit&Hungler 2003:148). In this study the information were collected through questionnaires distributed personally to the respondents by the researcher.

A descriptive survey was selected because it provides an accurate portrayal or account of the characteristics, for example behavior, opinions, abilities, beliefs, and knowledge of a particular individual situation or group. This design was chosen to meet the objectives of the study, namely to determine the knowledge and views of banks' administration members with regard to determinants of adoption of E-banking

3.3 Target population

According to Burns and Grove 1993:779), a population is defined as all elements (individuals, objects and events) that meet the sample criteria for inclusion in a study. The

study population consists of 43 from four banks (Dahabshill International bank, Salaam Somali bank, and Premier bank and International Bank of Somalia) which fall under Mogadishu, Somalia. Since they are the major banks in Somalia and source of information to analyze my topic

Table: 3.1 Sources: Researcher 2015

four Commercial Banks	**Target Population**
Dahabshiil International Bank	16
Salaam Somali Bank	12
Premier Bank	8
International Bank of Somalia	7
Total Target Population	**43**

3.4 Sample frame

The researcher will decide this sampling frame which refers to a list of study objects from which the sample will be drawn. The sample subjects are comprised from fourmajor banks in Somalia those are (Dahabshill International bank, Salaam Somali bank, and Premier bank and International Bank of Somalia) which work in Mogadishu, Somalia

3.5 Sample Size and sampling technique

The sample size of 39 members will be the total of respondents who willing to participate in the research and who meet the sampling criteria during the period of data collection.Slovan'sformula was used to take into account confidence levels and margins of error. When taking statistical samples, sometimes a lot is known about a population, sometimes a little and sometimes nothing at all (John Smith, 2009).

Slovin's formula is written as:
n = N / (1 + Ne^2)
n = Number of samples N = Total population e = Error tolerance

The sample will be included 12Salaama Somali Bank management members, 15 Dahabshiil International Bank,8 Premier Bank and 7 members International Bank of Somalia. Available respondents was entered into the study until a sample size of 39 was reached. Respondents who meet the sample criteria will be identified by the researcher at their centers of the bank and any other suitable to meet them.

Non-probability sampling provides a range of alternative techniques to select samples based on researcher's subjective judgment (Saunders, &et al, 2009). The researcher will use judgmental sampling techniques of non-probability sampling because the researcher cannot obtain management dependent decision from banks' employees. Therefore, data were collected from those people who are conveniently available, willing to co-operate and able to provide exactly information. Purposive sampling was also convenient because the sample selected was small and the ideas of the population was needed in a shorter period.

Table: 3.1 Sources: Researcher 2015

Four Commercial Banks	**Target Population**	**Percentage %**	**Sample size**
Dahabshiil International Bank	16	37	15
Salaam Somali Bank	12	28	11
Premier Bank	8	19	7
International bank of Somalia	**7**	16	6
Total Target Population	**43**	**91**	**39**

3.6 Research instrument

A questionnaire was used as data collection instrument. A questionnaire is a printed self-report form designed to elicit information that can be obtained through the written responses of the subjects. The information obtained through a questionnaire is similar to that obtained by an interview, but the questions tend to have less depth (Burns & Grove

1993:368).

Data was collected with the aid of questionnaires to evaluate the bank's management and employees' knowledge and views on factors contribute to adopt their banks internet banking.

Closed-ended questions was used because they are easier to administer and to analyse. They are also more efficient in the sense that a respondent is able to complete more closed-ended items than open-ended items in a given period of time (Polit&Hungler 1993:203).

3.7 Data collection procedure

Questionnaires will be personally distributed by the researcher to the target respondent members to complete. Primary data was collected through self-administrator of questionnaires to four commercial banks members next months. Some of the respondents were met outside of their department together with their friends and family members, and others at bank centers. Yang (2008) states that the questions in a study are directly will relate to the research questions. Burns and Grove (2003) define data collection as the precise, systematic gathering of information relevant to the research problem, using methods such as participant observations, distribution of questionnaire, narratives and case histories. Kothari (2004) describes primary data as those which was collected afresh and for the first time, and thus will happen to be original in character. Morrison et,al. (2007).(Saadilaah, 2007)(Christopher, 2006)(Haque Ahasanul, 2009)(Pikkarainen K., 2006) (DiDio, 1998)

3.8 Pilot Study

An important component in the data collection process is that of the pilot study, which is " a small-scale trial run of all the procedures planned for use in the main study" (Monette et al., 2002, 9). Subsequently, a pilot test, adapted to the individual needs of each state will

occur and a larger scale test will happen in individual states. Pilot testing of an instrument (e.g., questionnaire) administered for research purposes is the standard in social sciences. While self-evident on one level, researchers enumerate their obvious benefits. 1) an opportunity to test hypotheses; 2) allowance for checking statistical and analytical procedures; 3) a chance to reduce problems and mistakes in the study; 4) the reduction of costs incurred by inaccurate instruments (Isaac and Michael, 1995, 38).

The issue of validity and reliability is one important aspect that is worth to be considered .thus the study should have to be aware of to threats of reliability and validity of the resultin this study.(Saunders et al 2009), defined reliability as the extent to which data collection techniques will yield consistent findings. To increase reliability, the study adopted relevant questionnaire and slightly modified. While validity refers to extent to which data collection method accurately measure what it was intended to measure or the extent to which a researcher findings are about what they are claimed to be about.

3.9 Data Analysis

Data analysis is a process of analyzing all the information and evaluating the relevant information that can be helpful in better decision making, Silvia and Skilling (2006). After the data collection it organized and analyzed. For analysis since it is closed-ended questions, a computer programme called Statistical Package for Social Sciences (SPSS) was used. Data analyzed by using descriptive statistics. Frequency tables will be drawn and from these the data was presented in diagrams and graphs like pie and bar charts.

Regression analysis is a statistical tool for the investigation of relationships between variables. Usually, the investigator seeks to ascertain the causal effect of one factor upon another.

In regression analysis, those factors are called variables. The researcher has dependent variable the main factor that he/she is trying to understand or predict. And then he/she has

independent variables the factors suspected have an impact on dependent variable.

$$\mathbf{Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon}$$

Where ***Y***: is the Adoption of E-banking in Somalia.

$\boldsymbol{X_1}$: is the Perceived Risk -The contribution of Perceived Risk on Adoption of E-banking in Somalia

$\boldsymbol{X_2}$: is the Transaction Cost - The effects of Transaction Cost on Adoption of E-banking in Somalia

$\boldsymbol{X_3}$: is the E-banking investment- The role of E-banking investment on Adoption of E-banking in Somalia

$\boldsymbol{\mathcal{E}}$**:** Error term.

α*:* Intercept.

βi: coefficient of the independent variable *i* which measures the responsiveness of ***Y*** to changes in *i*.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

In this chapter, raw data from the questionnaires was analyzed and interpreted. Various tests were used to test the relationship between variables, level of significance, reliability and random distribution of data. Specifically, we used Cronbach's alpha test, descriptive statistics test, Pearson Bivariate correlation and Multiple Regression analysis (standard and stepwise). The independent variables of the study were E-banking investment, transaction cost, bank's perceived risk, government regulation and how they affected the dependent variable which was adoption of E-banking services in Somalia

4.2 Response Rate

From the data collected, out of the 39 questionnaires administered, 38 were filled and returned, which represent 97% response rate. This response rate is considered satisfactory to make conclusions for the study. Mugenda and Mugenda (2003) observed that a 50% response rate is adequate, 60% is good, while 70% rated very good. This implies that based on this assertion, the response rate in this case of 97% is therefore very good. The recorded high response rate can be attributed to the data collection procedures for instance, the researcher pre-notified the potential participants for the survey, the researcher administered the questionnaire with the help of research assistants through drop and pick method and follow up calls were also made to clarify queries as well as to prompt the respondents to fill the questionnaire. These methods facilitated the whole process of data collection hence the high response rate.

Table 4.1 Response Rate

Response	Total	Percent
Non Responses	01	03
Responses	38	97
Total	**39**	**100**

4.3 Reliability and Validity

Prior to exploring and describing the relationship between E-banking investment, transaction cost, bank's perceived risk, government regulation and adoption of E-banking services in Somalia, the measures were examined and assessed to gauge reliability and validity.

4.3.1 Reliability analysis

Cronbach's alpha was used to determine the internal reliability of the questionnaire used in this study. Values range between 0 and 1.0; while 1.0 indicates perfect reliability, the value 0.70 is deemed to be the lower level of acceptability (Hair, Black, Barry, Anderson, & Tatham, 2006). The reliability statistic for identified factors is presented in

Table 4.2. It is evident from Table 4.2 that Cronbach's alpha for identified factors is well above the lower limit of acceptability of 0.70. The results indicate that the questionnaire used in this study had a high level of reliability. This table indicate that each of the items relates to the identified factor and that the coefficient alpha value of the identified factor will not increase if some of the items are left out. Basically, reliability coefficients of 0.7or more are considered adequate for studies (Hair, Black, Barry, Anderson, & Tatham, 2006; Malhotra, 2002).

Table 4.2: Reliability Statistics

Variables	Cronbach's Alpha	Comments
E-banking investment	0.819	Accepted
Transaction cost	0.721	Accepted
Bank's perceived risk	0.804	Accepted
Government regulation	0.747	Accepted

4.3.2 Validity

Factor analysis was used to check validity of the constructs. Kaiser-Mayor-Oklin measures of sampling adequacy (KMO) & Bartlett's Test of Sphericity is a measure of sampling adequacy that is recommended to check the case to variable ratio for the analysis being conducted. In most academic and business studies, KMO & Bartlett's test play an important role for accepting the sample adequacy. While the KMO ranges from 0 to 1, the world-over accepted index is over 0.5. Also, the Bartlett's Test of Sphericity relates to the significance of the study and thereby shows the validity and suitability of the responses collected to the problem being addressed through the study. For Factor Analysis to be recommended suitable, the Bartlett's Test of Sphericity must be less than 0.05.

The study applied the KMO measures of sampling adequacy and Bartlett's test of sphericity to test whether the relationship among the variables has been significant or not as shown in below in table 4.2. Factor 1 was based on four items that represented E-banking investment; Factor 2 was based on five items that represented transaction cost, Factor 3 was based on four items that represented bank's perceived risk, Factor 4 was based on v items that represented government regulation and Factor 5 with four items represented adoption of E-banking services. The Kaiser-Mayor-Oklin measures of sampling adequacy shows the value of test statistic as .743, which is greater than 0.5 hence an acceptable index. While Bartlett's test of sphericity shows the value of test statistic as 0.000 which is less than 0.05 acceptable indexes. This result indicates a highly significant relationship among variables.

Table 4.3: Factor analysis -KMO and Bart

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.678
Bartlett's Test of Sphericity	Approx. Chi-Square	77.534
	Df	10
	Sig.	.000

4.4 Descriptive Statistics

This section outlines the demographic data, gender, years of existence and key players in the industry.

4.4.1 Demographic data

The study required to establish the demographic data of the respondents. The researcher begun by a general analysis on the demographic data obtained from the respondents which included; the gender, Age, Level of education, Bank the respondent work for, Their knowledge about E-Banking. This research targeted 39 participants in regard to establishing the determinants of adoption of E-banking services in Somalia and 38 questionnaires were generated.

4.4.2 Response of Gender distribution

The descriptive statistics of the study indicated that 34 (89.5%) of the respondents were male while the remaining 4 (10.5%) were female, this clearly shows that the industry is male dominated as indicated in table 4.4.

Table 4.4 Gender of respondents

Gender	Frequency	Percent
Male	34	89.5
Female	04	10.5
Total	**38**	**100.0**

4.4.3 Response of age group

From the table 4.5, shows that 14 (36.8%) of respondents were at least 20-30 years old, 11 (29.0 %) were 31-40 years old, 08 (21.0%) were also 41-50 years old and 05(13.2%) were above age 50

Table 4.5 Response of age group

Duration	Frequency	Percentage
20-30	14	36.8
31-40	11	29
41-50	08	21
Above 50	05	13.2
Total	**38**	**100.0**

4.4.4 Response of level of education

The descriptive statistics of the study Table 4.6 indicated that there is numerous level of education in the banks. Most of the respondents 21 (55.3%) highlighted the Bachelor level, 16 (42.1%) of respondents were masters level, 01 (2.6%) indicated Secondary level, and there were not Diploma level respondents. These results show respondents' opinion and the level of education in the firm.

Table 4.6 level of education

level	Frequency	Percentage
Secondary	01	2.6
Diploma	0	00
Bachelor	21	55.3
Master	16	42.1
Total	**38**	**100.0**

4.4.5 Response of knowledge about E-Banking

From the Table 4.7, shows that 22(57.9%) have been Well Informed, 14 (36.8%) have been Enough/Little, while 02 (5.3%) have known Nothing at all about E-banking services. The findings imply that the respondents have had enough knowledge about E-banking in the hence accurate responses.

Table 4.7 Response of knowledge about E-Banking

Experience	Frequency	Percentage
Well Informed	22	57.9
Enough/Little	14	36.8
Nothing at all	02	5.3
Total	**38**	**100.0**

4.4.6 Bank respondent work for:

From the Table 4.8, shows that 15(39.5%) work for Dahabshiil International Bank, 10 (26%) work for Salaam Somali Bank, while 7 (18.4%) work for Premier Bank and 6 (15.8%) work for International Bank of Somalia.

Table 4.8 Bank respondent work for

Bank	Frequency	Percentage
Dahabshiil bank	15	39.5
Salaam Somali Bank	10	26.3
Premier Bank	07	18.4
Intentional bank of Somalia	06	15.8
Total	**38**	**100.0**

4.5 Study variables Findings

The following presents the findings on the various study variables.

4.5.1 E-Banking Investment on Adoption Of Electronic Banking Services

The study required to investigate the effects of Banking Investment on Adoption Of Electronic Banking. Table 4.8 summarizes respondents' level of agreement on how Electronic Banking Investment affects Adoption Of Electronic Banking. Most of the respondents agreed that the Cost of IT infrastructure prevent adoption of E-banking as shown by a mean of 1.87. Also most of the respondents agreed to the fact that limited of expertise contribute not adopted E-banking by the banks, reporting a mean of 2.16. The revenue coming from the online banking does not cross the expense made on online banking reported a mean of 2.34. Electronic banking is dependent to updated and useful technology reported a mean of . Electronic banking is dependent to updated and useful technology. Lots of are required in this regard at the same time like telecommunication, information technology, etc (Farshadhavasi et al, 2013).The influencing factors on electronic banking include: implement to web, internet speed, ISP centers, number and width o(BIS, 2003,) (Sheshunoff, (2000) (Sathye, (1999) (Farshad havasi1, 2013)f internet bands, IT and electronic banking experts, quality, ICI expansion, qualified electronic banking services, etc all these factors need huge investment that cannot adhere many banks.

Table 4.9 Electronic Banking Investment on Adoption Of Electronic Banking

Statement	n	Mean	S.D
Cost of IT infrastructure prevent adoption of E-banking	38	1.87	0.875
limited of expertise contribute not adopted E-banking by the banks	38	2.16	0.789
The revenue coming from the online banking does not cross the expense made on online banking	38	2.34	0.815
Electronic banking is dependent to updated and useful technology	38	2.32	1.141

4.5.2 Transaction Cost on Adoption Of Electronic Banking Services

The study required to establish the effects of Transaction Cost on Adoption Of Electronic Banking. From the findings indicated in table 4.9 most of the respondents agreed that the Some banks believe that E-banking services reduces transaction Cost and fees with a mean of 1.92 being obtained. The results also conquer with the findings on the question that was asked whether E-banking services Attract and retain consumers since it is cost favorable. The findings on this question obtained a mean of 2.05. E-banking transactions can be carried out more quickly reported a mean of 2.37. also respondents agree that Lower cost and fees will be the potential competitive advantage of electronic banking. At present, studies show that electronic banking has successfully reduced operating and administrative cost and fees (Migdadi, (2008); Suganthi, 2010 and Bankole et al, 2011) while at the same time research has proven that, cost and fees savings have helped e-based banks offer lower or no service cost/fees Mobile banking in developing countries.

Table 4.10 Transaction Cost on Adoption Of Electronic Banking

Statement	n	Mean	S.D
E-banking services reduces transaction Cost and fees.	38	1.92	0.818
E-banking services Attract and retain consumers since it is cost favorable	38	2.05	1.064
E-banking transactions can be carried out more quickly	38	2.37	1.149
Lower cost and fees will be the potential competitive advantage of electronic banking	38	1.89	1.008

4.5.3 Bank's Perceived Risk on Adoption Of Electronic Banking

The study sought to establish the effects of Bank's Perceived Risk on Adoption Of Electronic Banking. Respondents agreed that E-banking has high risk with high return as represented by a mean of 1.79, most of the respondents also agreed that Banks are more concern Compatibility of E-banking with existing systems as showed by a mean of 2.00. and a mean of 2.45 were obtained on the question whether Security of transactions of E-banking lower than traditional banking services.

The rapid development of e-banking capabilities carries risks as well as benefits. The Basel Committee on Banking Supervision expects such risks to be recognized, addressed and managed by banking institutions in a prudent manner according to the fundamental characteristics and challenges of e-banking services. (Basel committee on banking supervisor, 2003).

Table 4.11 Bank's Perceived Risk on Adoption Of Electronic Banking

Statement	n	Mean	S.D
E-banking has high risk with high return	38	1.79	0.777
Banks are more concern Compatibility of E-banking with existing systems	38	2.00	0.959
Security of transactions lower than traditional banking services	38	2.45	0.978
The rapid development of e-banking capabilities carries risks as well as benefits.	38	2.13	1.166

4.5.4 Government Regulation on Adoption Of Electronic Banking

A number of questions were asked to determine how Government Regulation effects Adoption of Electronic Banking. Respondents agreed that There is no Restriction from laws to adopt internet banking services obtaining a mean of 1.95. another question asked was Government should set policy supporting implementation of e-banking obtaining a mean of 2.29. A study conducted by Chong et al (2010) in Vietnam found out that a government's support in connection with bank and consumer's intention to use online banking is highly essential. another important question was Legal and Regulatory Framework Electronic payments are not currently covered in here and a mean of 2.45 were obtained. Study of (Gardachew, 2010) revealed that lack of legal frame work is one of the challenges for E-banking system in Ethiopia. In contrary the study of Wondwossen and Tsegai (2005) revealed that an adequate legal structure and security framework could encourage the use of E-Business in Ethiopia.

Table 4.12 Government Regulation on Adoption Of Electronic Banking

Statement	n	Mean	S.D
There is no Restriction from laws to adopt internet banking services	38	1.95	1.038
Government should set policy supporting implementation of e-banking	38	2.29	1.206
Government initiatives are the most significant factor determining the extent and deployment of E-banking adoption	38	2.11	1.060
Legal and Regulatory Framework Electronic payments are not currently covered in here	38	2.11	0.831

4.5.5 Adoption of Electronic Banking

A number of questions were asked to determine how Adoption of Electronic Banking was conducted in banks in Somalia. Respondents agreed that E-banking is more favorable than Branch banking obtaining a mean of 2.45. The respondent also agreed that E-banking considered Development of non-core business obtaining a mean of 2.47 and similarly a mean of 2.24 the question of E-banking reduces waiting time, errors and costs and improves customers' satisfaction. and last question asked was Customers prefer face-to-face banking service over internet banking services obtained a mean of 2.24. While the speed and convenience in the execution of banking transactions are the primary benefits for the customers (IAMAI's, 2006); reduced costs (Orr, 1999), enhanced capacity, wider reach and service efficiency are considered to be the important benefits to a bank (Mittal et al., 2004; Berger, 2003).

Table 4.13 Adoption of Electronic Banking

Statement	n	Mean	S.D
E-banking is more favorable than Branch banking	38	2.45	0.891
E-banking considered Development of non-core business	38	2.47	0.895
E-banking reduces waiting time, errors and costs and improves customers' satisfaction	38	2.24	1.076
Customers prefer face-to-face banking service over internet banking services	38	2.13	1.095

4.6 Multiple Regression Analysis

Multiple regression analysis was carried out to evaluate the relationship between the dependent variable (Adoption of Electronic Banking) and the independent variables (E-banking investment, transaction cost, bank's perceived risk, government regulation) and to test the research on the determinants of Adoption of Electronic Banking services in Somalia. While stepwise multiple regression analysis was conducted in order to establish the best combination of independent (predictor) variables would be to predict the dependent (predicted) variable and to establish the best model of the study (Cooper & Schindler, 2013). In this study, a multiple regression analysis was conducted to test the determinants of Adoption of Electronic Banking in Somalia. The research used statistical package for social sciences (SPSS V 20) to code, enter and compute the measurements of the multiple regressions.

4.6.1 Model Summary

Model summary is a summery that describes how far the independent variables explain the dependent variables that mean the greater R value has the great number the greater independent variables explain with dependent variable. In order to test the research, a standard multiple regression analysis was conducted using Adoption of Electronic Banking as the dependent variable, and the four determinants of Adoption of Electronic

Banking: E-banking investment, transaction cost, bank's perceived risk, government regulation as the predicting variables. Tables 4.14, 4.15 and 4.16 present the regression results. From the model summary in table 4.14, it is clear that the adjusted R2 was 0.665 indicating that a combination of E-banking investment, transaction cost, bank's perceived risk, government regulation explained 66.5% of the variation in the Adoption of Electronic Banking in Somalia.

Table 4.14 Model Summary

Model	R	R_2	Adjusted R_2
1	. 838	.701	.665

4.6.2 Analysis of Variance

Analysis of Variance (ANOVA), is intended to analyze variability in data in order to infer the inequality among population means. This may sound illogical, but there is more to this idea than just what the name implies. The ANOVA technique extends what an independent-samples t test can do to multiple means. The null hypothesis examined by the independent samples t test is that two population means are equal. If more than two means are compared, repeated use of the independent-samples t test will lead to a higher Type I error rate (the experiment-wise α level) than the α level set for each t test.

Table 4.15 Analysis of Variance

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	11.566	04	2.892	19.386	.000
Residual	4.922	33	.149		
Total	**16.488**	**37**			

From the ANOVA table 4.15, it is clear that the overall standard multiple regression model (the model involving constant, E-banking investment, transaction cost, bank's

perceived risk, government regulation) is significant in predicting how E-banking investment, transaction cost, bank's perceived risk, government regulation determine Adoption of Electronic Banking services in Somalia. The regression model achieves a high degree of fit as reflected by an R_2 of .701 (F = 19.386; P = 0.00 < 0.05).

4.6.3 Regression Coefficients

Table 4.16 presents the regression results on how E-banking investment, transaction cost, bank's perceived risk, government regulation determine Adoption of E-Banking in Somalia. The multiple regression equation was that: $Y= \beta 0+\beta 1X1+\beta 2X2+ \beta 3X3 + \varepsilon$ and the multiple regression equation became: Y = -.368+.449X1+.444X2+.391X3. As depicted above, there was positive and significant effects of E-banking investment on Adoption of E-Banking (β = .384; t = 3.798; p < 0.05). this result support literature review, The influencing factors on electronic banking include: implement to web, internet speed, ISP centers, number and width, IT and electronic banking experts, quality (BIS, 2003,) (Sheshunoff, (2000) (Sathye, (1999) (Farshad havasi1, 2013). Electronic banking is dependent to updated and useful technology, Lots of are required this this regard huge investment (Farshadhavasi et al, 2013).

There was positive and significant effects of transaction cost on Adoption of E-Banking (β = .410; t = 2.837; p < 0.05). (Farshadhavasi et al, 2013) found that offering high quality services to satisfy consumers" needs, at lower cost and fees, will be the potential competitive advantage of electronic banking sustainability and growth in the future (Farshadhavasi et al, 2013). At present, studies show that electronic banking has successfully reduced operating and administrative cost and fees (Migdadi, 2008; Suganthi, 2010 and Bankole et al, 2011)

There was positive and significant effects of government regulation on Adoption of E-Banking (β = .319; t = 2.621; p < 0.05). Study of Wondwossen and Tsegai (2005) revealed that an adequate legal structure and security framework could encourage the use of E-

Business in Ethiopia. A study conducted by Chong *et al* (2010) in Vietnam found out that a government's support in connection with bank and consumer's intention to use online banking is highly essential.

However, also there was negative and insignificant effects of bank's perceived risk on Adoption of E-Banking ($\beta = -.011$; $t = -.090$; $p > 0.05$). many reasons can cause this result and include: 1) type of respondents, respondents most likely risk takers so they ignore its influence. 2) their knowledge toward how risk associate with the outcome. An important and fundamental factor concerning peoples risk perceptions are their general attitudes towards nature (Thompson et al., 1990). According to cultural theory, thoughts about the nature and other people are interwoven with worldview and way of life. Thompson et al. (1990) used people's attitudes towards ecological systems as a basis for their analysis. Cultural theory draws focus away from concepts such as risk and safety, and towards social institutions. To deal with risk in a reasonable manner one must understand the underlying mechanisms. According to Thompson et al. (1990), people feel the need to justify their own way of life.

Table 4.16 Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.368	.361		-1.021	.315
E-banking investment	.449	.118	.384	3.798	.001
transaction cost	.444	.156	.410	2.837	.008
bank's perceived risk	-.014	.152	-.011	-.090	.929
government regulation	.391	.149	.319	2.621	.013

a. Dependent variable: Adoption of E-Banking

4.6.4 Correlation Analysis

Pearson Bivariate correlation coefficient was used to figure the correlation between the dependent variable (Adoption of E-Banking) and the independent variables (E-banking investment, transaction cost, bank's perceived risk, government regulation). According to Sekaran (2008), this relationship is assumed to be linear and the correlation coefficient ranges from -1.0 (perfect negative correlation) to +1.0 (perfect positive relationship). The correlation coefficient was calculated to determine the strength of the relationship between dependent and independent variables (Kothari, 2013). From table 4.14, the results generally indicate that independent variables (E-banking investment, transaction cost, government regulation) were found to have positive significant correlations on Adoption of E-Banking at 5% level of significance. However, also there was negative and insignificant correlations of bank's perceived risk on Adoption of E-Banking,

There was a strong positive and highly significant correlation between government regulation and Adoption of E-Banking($r = .679$, $P < 0.05$). There was a strong positive and highly significant correlation between transaction cost and Adoption of E-Banking ($r = .659$, $P < 0.05$). There was a strong positive and highly significant correlation between E-banking investment and Adoption of E-Banking ($r = .571$, $P < 0.05$).

However,There was a strong negative but insignificant correlation between bank's perceived risk and Adoption of E-Banking (r = .360, P > 0.05) The results imply that E-banking investment, transaction cost and government regulation significantly influenced Adoption of E-Banking services for banks in Somalia.

Table 4.15 Correlation

		E-banking investment	transaction cost	bank's perceived risk	government regulation	Adoption of E-Banking
E-banking investment	Pearson Correlation	1	.194	.075	.339*	.571**
	Sig. (2-tailed)		.244	.655	.037	.000
	N	38	38	38	38	38
transaction cost	Pearson Correlation	.194	1	.627**	.569**	.659**
	Sig. (2-tailed)	.244		.000	.000	.000
	N	38	38	38	38	38
bank's perceived risk	Pearson Correlation	.075	.627**	1	.268	.360*
	Sig. (2-tailed)	.655	.000		.103	.026
	N	38	38	38	38	38
government regulation	Pearson Correlation	.339*	.569**	.268	1	.679**
	Sig. (2-tailed)	.037	.000	.103		.000
	N	38	38	38	38	38
Adoption of E-Banking	Pearson Correlation	.571**	.659**	.360*	.679**	1
	Sig. (2-tailed)	.000	.000	.026	.000	
	N	38	38	38	38	38

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter accordingly summarizes the findings in line with the objectives, draws conclusions and makes the necessary recommendations. Areas of further study that may enrich the study area are also suggested.

5.2 Summary of Findings

The research aims at enriching the knowledge and understanding of factors influencing adoption of E-banking services in Somalia, specifically, the main objectives of this study were the influence of E-banking investment, transaction cost, bank's perceived risk, government regulation on adoption of E-banking services in Somalia. The study employed a survey research design in data collection. This research employed quantitative data collection method whereby data was gathered by the use of closed ended questionnaires which were self-administered. Factor analysis was used to assess the validity and Cronbach alpha to assess reliability of the questionnaire. Multiple regression analysis was performed to assess the relationship between the dependent variable adoption of E-banking services) and the independent variables (E-banking investment, transaction cost, bank's perceived risk, government regulation) and to test the research on the determinants of adoption of E-banking services with specific focus on the merchandise companies in Mogadishu, Somalia.

5.2.1 E-banking investment

Empirical evidence provides some indications that capital investments might be positively related to adoption of internet banking. Every alteration requires foundation, support and expertise. The possibility to have suitable foundations, updated equipment and support groups requires a considerable amount of money. In fundamental changes of the society

such as electronic banking this issue is of even more importance (Farshadhavasi et al, 2013).

Electronic banking is dependent to updated and useful technology. Lots of are required in this regard at the same time like telecommunication, information technology, etc (Farshadhavasi et al, 2013).The influencing factors on electronic banking include: implement to web, internet speed, ISP centers, number and width o(BIS, 2003,) (Sheshunoff, (2000) (Sathye, (1999) (Farshad havasi1, 2013)f internet bands, IT and electronic banking experts, quality, ICI expansion, qualified electronic banking services, etc all these factors need huge investment that cannot adhere many banks.

5.2.2 Transaction Cost

The beginning of new technologies has completely transformed banking transactions. Internet conveyed venue with which customers could do banking, reducing the need for physical transactions. Online banking allowed customers to do financial transactions from their PCs at home via Internet. Therefore, offering high quality services to satisfy consumers‟ needs, at lower cost and fees, will be the potential competitive advantage of electronic banking sustainability and growth in the future (Farshadhavasi et al, 2013). At present, studies show that electronic banking has successfully reduced operating and administrative cost and fees (Migdadi, 2008; Suganthi, 2010 and Bankole et al, 2011)

Prior research has empirically found a positive relationship between cost/fees and customer service delivery as a critical factor with the use of electronic banking (Ching et al, 2011 ad Khumbula, 2010).

5.2.3 Bank's Perceived Risk

The rapid development of e-banking capabilities carries risks as well as benefits. The Basel Committee on Banking Supervision expects such risks to be recognized, addressed and managed by banking institutions in a prudent manner according to the fundamental characteristics and challenges of e-banking services.

Perceived risk can cause bank to reject new Electronic banking services. Perceived risk is related to reliability and system failure. Banks are also worried that technology-based service delivery systems will not work as expected, and lack confidence that problems can be solved quickly (Walker, 2002). Westland (2002)found that transaction risk occurs when online markets fail to assure that service will be delivered with adequate quality

5.2.4 Government Regulation

Study of (Gardachew, 2010) revealed that lack of legal frame work is one of the challenges for E-banking system in Ethiopia. In contrary the study of Wondwossen and Tsegai (2005) revealed that an adequate legal structure and security framework could encourage the use of E-Business in Ethiopia. A study conducted by Chong *et al* (2010) in Vietnam found out that a government's support in connection with bank and consumer's intention to use online banking is highly essential.

The government of Ghana has created an enabling policy and regulatory environment to expand and investment in mobile and online banking in the banking sector (Perkins, 2013). In addition to the competitive pressure, the study of Chong and Pervan's (2007) survey of Australian SME suggest that, government initiatives are the most significant factor determining the extent and deployment of E-business adoption. Similarly the study of Sherah et al (2009) noted that government support is the major driver for the adoption of E-banking in china.

5.3 Conclusions

Despite the limitations, this research and its findings form a useful contribution to the body of knowledge regarding the adoption of E-Banking in Somalia. This research findings are in accordance with many research studies already conducted. Thus, it confers and substantiate with other studies. E-banking investment is considered to be a major factor for promoting adoption of E-Banking in Somalia. The E-banking investment is vital because every alteration requires foundation, support and expertise. The possibility to have suitable foundations, updated equipment and support groups requires a considerable amount of

money. In fundamental changes of the society such as electronic banking this issue is of even more importance (Farshadhavasi et al, 2013). The influencing factors on electronic banking include: implement to web, internet speed, ISP centers, number and width of internet bands, IT and electronic banking experts, quality, ICI expansion, qualified electronic banking services, etc all these factors need huge investment that cannot adhere many banks (Sheshunoff, (2000) (Sathye, (1999) (Farshad havasi1, 2013).

This research also has proved the importance of Transaction Cost in E-Banking usage. According to this research offering high quality services to satisfy consumers‟ needs, at lower cost and fees, major sources of pleasure, which have significantly affected banks' and consumers' satisfaction also confirmed by the study of (Farshadhavasi et al, 2013). Also this research revealed that Government Regulation has an impact on the E-Banking usage as identified before (Gardachew, 2010); Wondwossen and Tsegai (2005). the study revealed that lack of legal frame work is one of the challenges for E-banking system.

however the results also shows that bank’s perceived risk doesn't influence Adoption of E-Banking services in Somalia. many reasons can cause this result and include: 1) type of respondents, respondents most likely risk takers so may be that they ignore its influence. 2) their knowledge toward how risk associate with the outcome. The results reveal that E-banking investment, transaction cost, government regulation is significant in predicting determinant of Adoption of Electronic Banking services in Somalia. while bank’s perceived risk have insignificant effects on Adoption of Electronic Banking services in Somalia.

5.4 Recommendations

From this study, the following recommendations can be made; being in the digital era internet banking should be adopted by both individuals and cooperates since it is inevitable in the 21st Century.

1. The possibility to have suitable foundations, updated equipment and support groups requires a considerable amount of money. In fundamental changes of the society such as electronic banking this issue is of even more importance
2. offering high quality services to satisfy consumers‟ needs, at lower cost and fees, will be the potential competitive advantage of electronic banking sustainability and growth in the future.
3. adequate legal structure and security framework could encourage the use of E-Business in Somalia.
4. The cost of accessing physical/traditional financial services has been found to be higher and thus internet banking can cut costs for both the customers and service providers.

5.5 Areas for further research

The general objective of this study was to investigate factors influencing adoption of E-banking services in Somalia. Specifically; this study investigated the influence of E-banking investment, transaction cost , bank's perceived risk and government regulation on adoption of E-banking services in Somalia.

However, further research is required to investigate consumer' perspective determinants of the services like privacy, security, ease of use and web features other than that bank's perspective features of Adoption of the E-banking services.

Also, further studies need to be carried out to identify industry based challenges that these industrial banking companies face and how best these challenges can be deal with to enhance growth and performance of the banking sector.

5.6 Limitation

There were few researches conducted on E-banking in Somalia so the information on the subject certainly came from the research conducted in other countries. Thus, the study might represent national influences of different countries and not particularly common in

Somalia, the researcher give consider mostly researches conducted neighbor countries at least to mitigate differences.

Due to limited time and resources, and security, information could not be collected from all over the country Somalia, so the researcher conducted his research capital city Mogadishu since it holds all banks operate in Somalia.

Given that the researcher targeted presidents and directors of the banks, there was a kind of bias on information provided as they tried to respond positively on all the research questions. However researcher tried to meet anyhow/any situation those think could give most reliable information.

The last but not least barrier was to get better research's scope researcher would like to capture Central bank of Somalia directors to participate this study. But unfortunately it did not work the main reason was they didn't give any attention to see them, because fear of their security, less time, and government offices were always restricted from civilians. instead of Central Bank of Somalia the researcher used commercial banks operate in Somalia

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APPENDIX

APPENDIX 1 QUESTIONNAIRE

Dear respondent

I am a student at jomo Kenyatta University of agriculture and technology carrying out a research on factors affecting adoption of E-banking services in Somalia. You are kindly Requested to participate in the study and give your opinion as honesty as possible and spare a few minutes and fill this questionnaire. Please answer by ticking the appropriate answer in the space provided. This research is purely academic and any Information provided will be treated with at most confidentiality.

Please choose the suitable answer and circle on the appropriate answer given for the each question.

Section One: Demographic, Tick the appropriate box:

1. Gender male ☐ emale ☐ Other ☐

2**. Marital status** married ☐ single ☐

3. Age 20-30 ☐ 31-40 ☐ 41+ ☐

4**. Level of education:**

Bachelor ☐ MasterPH ☐ Other ☐ ☐

5**. Bank you work for:**

Dahabshiil Bank ☐ Salaam Somali bank ☐

Premier bank ☐ International bank of Somalia ☐

6. Your knowledge about E-Banking:

Well Informed/Much ☐ Enough/Little: ☐ Nothing at all ☐

Section two:

Based on your experiences as a management of your bank, please show the extent to which you believe that you bank should possess the feature described by each statement below. Each statement was accompanied by five point of scale. From “strong disagree” =1 to” strongly agree” = 5. Please tick the appropriate answer cell

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Electronic Banking Investment	1	2	3	4	5
Cost of IT infrastructure preventadoption of E-banking					
limited of expertise contribute not adopted E-banking by the banks					
The revenue coming from the online banking does not cross the expense made on online banking					

Transaction Cost	1	2	3	4	5
E-banking services reduces transaction Cost and fees					
E-banking services Attract and retain consumers since it is cost favorable					
E-banking transactions can be carried out more quickly					

Bank’s Perceived Risk	1	2	3	4	5
E-banking has high risk with low return					
Banks are more concern Compatibility of E-banking with existing systems					
Security of transactions lower than traditional banking services					

Government Regulation	1	2	3	4	5
There Restriction from laws to adopt internet banking services					
Government should set policy supporting implementation of e-banking					
Legal and Regulatory Framework Electronic payments are not currently covered in here					

Adoption Of Electronic Banking	1	2	3	4	5
E-banking is more favorable than Branch banking					
Development of non-core business					
Customersprefer face-to-face banking service over internet banking services					

APPENDIX 2 LIST OF BANKS

Salaam Somali Bank

Dahabshiil International Bank

International Bank of Somalia

Premier Bank

APPENDIX 3: WORK PLAN

TIME	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG
ACTIVITIES	2015	2015	2015	2015	2016	2016	2016	2016	2016	2016	2016	2016
Identifying research topic												
Proposal writing												
Reviews with supervisor												
Proposal submission												
Proposal presentation												
Correction and amendments												
Data collection												
Data analysis												
Preparation of final report												
Printing of final report												
Submission of project												
Presentation of project												

APPENDIX4: BUDGET FOR REVIEW

Item	**Cost**
Internet fee	$488
Online books	450
Transportation fee	$645
Printer machine	$275
Papers(A4)	$ 180
Coffee and tea	$155
Total	**$2193**