THE EFFECT OF NEW PRODUCT DEVELOPMENT ON CUSTOMER SATISFACTION: THE CASE OF COMMERCIAL BANK OF ETHIOPIA

By: Etsegenet Muhe

Addis Ababa University School of Commerce

Marketing Management Graduate program

May, 2018

THE EFFECT OF NEW PRODUCT DEVELOPMENT ON CUSTOMER SATISFACTION: THE CASE OF COMMERCIAL BANK OF ETHIOPIA

By: **Etsegenet Muhe**

Advisor: **Tewodros Mesfin (PhD)**

A Thesis Submitted To Addis Ababa University School of Commerce Department of Marketing Management in Partial Fulfillment of The Requirement For The Degree of Master of Arts in Marketing Management.

May, 2018

Addis Ababa, Ethiopia

THE EFFECT OF NEW PRODUCT DEVELOPMENT ON CUSTOMER SATISFACTION: THE CASE OF COMMERCIAL BANK OF ETHIOPIA

BY: ETSEGENET MUHE

APPROVAL BY BOARD OF EXAMINERS

_____	_____
NAME OF INTERNAL EXAMINER	**SIGNATURE**
_____	_____
NAME OF EXTERNAL EXAMINER	**SIGNATURE**

STATEMENT OF CIRTIFICATION

This is to certify that Etsegenet Muhe has carried out her thesis on the topic entitled ‘The Effect of New Product Development on Customer Satisfaction: The Case of Commercial Bank of Ethiopia’. This work is original in nature and suitable for the award of Masters of Arts (MA) in Marketing Management.

Certified by:

Tewodros Mesfin (PhD) _____ _____

Signature Date

STATEMENT OF DECLARATION

I, the undersigned, declare that this research is my original work, prepared under the guidance of Tewodros Mesfin (PhD). All sources of materials used for this research have been duly acknowledged, the researcher further confirm that the research has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

_____

Etsegenet Muhe

Table of contents **Page No**

Acknowledgement

Firstly I would like to thank the Almighty God. Secondly, I express my deepest gratitude to my advisor Tewodros Mesfin (PhD) for his unreserved follow up, valuable comments and constructive guidance throughout conducting this research.

Finally, I would also like to thank my Family and friends who has been supporting me on the preparation of this research.

List of Acronyms

ANOVA	Analysis of Variance
ATM	Automated Teller Machine
POS	Point Of Sale
NPD	New Product Development
TAM	Technology acceptance model

List of Tables

List of Figures

Abstract

New product development has become potentially valuable way of securing competitive advantage by improving organizational performances and improving customer satisfaction through quality service. This study was conducted with an objective of identifying effect of new product development on customer satisfaction in commercial bank of Ethiopia. It conceptualized and developed five dimensions of new product development: reliability, trust, perceived ease of use, perceived usefulness and relative advantage. The new products included in this study were mobile banking, internet banking and POS machines. This study used both descriptive and explanatory research designs. The total population for the study was 360,008 and the sample size for this figure was 400. Those Sample respondents for this study are selected by using Non probability convenience sampling method. Data were collected from primary sources through questionnaire and analyzed through both descriptive and inferential methods. The descriptive analysis was conducted by using mean and standard deviation. On the other hand, inferential analysis was conducted by using Pearson correlation method and linear multiple regressions method. The result indicated that new product development and its attributes (reliability, trust, perceived ease of use, perceived usefulness and relative advantage) have significant effect on customer satisfaction. All independent variables significantly affect dependent variable (customer satisfaction). Based on the findings, the researcher recommends that management of the bank has to improve reliability of the products, trust, easiness to use, perceived usefulness and relative advantage of the products.

Key Terms: New product development, reliability, trust, perceived ease of use, perceived usefulness, relative advantage, customer satisfaction

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

The success of any business organization is highly dependent upon the degree to which it is able to satisfy the user of its products. The way to ensure this satisfaction is to see that the preferences of the users. To satisfy, attract new customers and retain the existing different customers organizations modifies existing products or develop new products. An organization's product policy is fundamental to the whole operation of the business. When an organization determines to produce a specific product or group of products, it is the decision which dictates the industry to which it will belong, the market it will serve and the nature and extent of the resources, methods, and techniques it will employ. New product development is mainly focuses on users of the products (Akpan, 2002).

Alabi (2005) stated that banking is the business of providing services to its customers and businesses. The basic services a bank provides are checking accounts, which can be used like money to make payments and purchase goods and services; savings accounts and time deposits that can be used to save money for future use, loans that customers and businesses can use to purchase goods and services; and basic cash management services such as check cashing and foreign currency exchange. According to Falegan (2006) and Ejiogu (2012) a bank is any financial institution that receives, collects, transfers, pays, exchanges, lends, invests, or safeguards money for its customers. To win the competition in the industry and provide quality service banks develop new products for their customers.

New product development (NPD) is the complete process of bringing a new product to market (Wong & Tong, 2012). Companies typically see new product development as the first stage in generating and commercializing new product within the overall strategic process of product life cycle management used to maintain or grow their market share. This study focuses on effect of new products development in providing quality service which results in customer satisfaction. According to this study main objective of new product is increasing market share through attracting new customers and retaining satisfied customers. Successful new product development results in customer satisfaction and competitive

advantage. Csillag (2015) shows new product development increase customer satisfaction in Brazilian Banks by improving service quality.

While reviewing new product development, Onalo(2004) highlighted the following benefits which are attributed to the growing trend among banks: Enhancement of individual banks corporate image, bringing banking services nearer to people, showing up capital base of banks due to increased deposits. The various strategies being adopted by the new banks for survival are as many as there are bankers. These include provision of qualitative and prompt services to customers, employing state of the art technology and highly motivated employees in addition to spontaneous response to change in the economy. Others include specialization in specific areas and the packaging of new product and services, opening of branches in strategic locations, training and retraining of staff, maintaining contended staff and movement of assets quality through strict control policy. The survival strategies of the deposit money banks have also been reflected in the array of differentiated products and the strong marketing strategies which some have adopted.

According to Ejiogu (2012), introduction of electronic banking products is significantly increasing efficiency in service delivery. Quite a number of them are now in the market and the list includes computers networks, credit cards, smart cards, electronic fund transfer (EFT), internet banking, mobile banking and automated teller machines (ATM). According Orji & Garvey(2017) shows the inability of banks to actively involve in marketing research hampers their new product innovation and development efforts. Many marketing researches fail to address perceptions of customers for new products. And the poor knowledge of the benefits derived from new product innovation is responsible for low rate of customer satisfaction in commercial banks in Kenya.

Commercial Banks in Ethiopia are recently developing new products especially electronic banking products such as mobile banking, internet banking, Automated teller machines, point of sales terminals, and different accounts categories to increase customer satisfaction, service quality, improving competitive advantage and mobilize deposits. These have an ultimate objective of increasing bank performance through satisfied customers. Commercial bank of Ethiopia is prominent in adopting these products.

Therefore, this study intends to identify role of new products development on satisfaction of customers specifically in the case of Commercial Bank of Ethiopia.

1.2 Statement of the Problem

Commercial banks play a significant role in the financial system of a country. They offer a wide range of corporate financial services that address the specific needs of both private and public enterprises. By collecting deposit they improve economic stability, by providing loan they stimulate investment and by providing trade facilities they significantly involve in both international and local trades (Magutu, 2009). They have higher role in macroeconomic environment of nations through implementing monetary policy and fostering the liquidity, solvency and proper functioning of the financial system. As a service providing industry performance of banks highly depends on number and quality of the customer they have. Banks set different strategies to attract and satisfy customers. Among these strategies currently new product development is taking biggest share. Banks are competing with new products they develop. New product is successful when it is satisfying intended group. The researcher found that studying effect of new product development on customer satisfaction is important.

Commercial bank of Ethiopia plays a number of roles in the financial stability and cash flows in the country. This bank is main policy implementing and development financing commercial bank of the country. Like other commercial banks in the country, it participates in different business activities. The bank processes payments through a variety of means including telegraphic transfer, card banking, mobile banking, internet banking and electronic funds transfers. It also issues bank cheques and CPOs, as well as accept money on term deposits. It acts as money lender, by way of installment loans and overdrafts. Loan options include secured loans, unsecured loans and mortgage loans. In general to improve its performance and specifically to improve service quality, increase customer satisfaction, attain competitive edge, and reduce operating costs, the bank has implemented different new products especially electronic banking system. Among commercial banks in the country, it is pioneer in developing new products. Commercial bank of Ethiopia has continued to deploy huge investments in technology based products and training of manpower to handle the new technologies. The bank is providing new products such as internet banking, mobile

banking and point of sales terminals. Therefore, the researcher found that commercial bank of Ethiopia is appropriate company to conduct the study.

Previous studies like that of Pooja & Singh (2009), Batiz-Lazo & Woldesenbet (2006) and Mwania & Muganda (2011) analysed effect of new product development on performace of banks including service quality. Orji & Garvey(2017) and Moghli et, al. (2012) identified role of online banking on financial performances. These studies gave attention to financial performance not customers satisfaction which is precondition to for financial performance. But these studies fail to give attention to effect of new products customer satisfaction. When the customers are satisfied with new product, they use the product and prefer the company. This results on competitive advantage of the company which in turn results on strong financial and non-financial performance. Therefore, the researcher argues that effect of new product development on customer satisfaction comes first to financial performance.

In Ethiopia there are few studies that are related to e-banking. These studies include Ayana (2014), Worku (2016), and Tsion (2016) but they are not conducted on concern of new products. E-banking in commercial bank of Ethiopia is highly dominated by ATM service which is not new product to the bank. Tsion (2016) and Ayana (2016) identified factors that affect satisfaction of e-banking users. Worku (2016) found out effect of mobile banking on satisfaction of customers. This study fails to include other new products of bank. These studies focused on e-banking concept not new products view point. To the knowledge of the researcher there are no studies conducted in identifying effects of new product development on customer satisfaction specifically in the case of commercial bank of Ethiopia. There for the researcher intends to fill this literature gap by identifying effects of new product development in commercial bank of Ethiopia in the case of customer in Addis Ababa.

1.3 Research Questions

1.3.1 Main Question

What is effect of new product development on customer satisfaction?

1.3.2 Sub Questions

i. How usefulness of new products affects customer satisfaction in commercial bank of Ethiopia?
ii. How perceived ease of use of new products affects customer satisfaction in commercial bank of Ethiopia?
iii. How trust of using new products affects customer satisfaction for the product?
iv. How relative advantage of new products and customer satisfaction are related?
v. How reliability of new products affects customer satisfaction?

1.4 Research Objectives

1.4.1 General Objective

General objective of this study is identifying effect of new product development on customer satisfaction in a case of customers of commercial bank of Ethiopia in Addis Ababa.

1.4.2 Specific Objectives

i. To identify the relationship between usefulness of new products on customer satisfaction.
ii. To analyze the effect of perceived ease of use of new products on customer satisfaction.
iii. To examine the relationship between trust of new products on customer satisfaction.
iv. To identify effect of relative advantage of new products on customer satisfaction.
v. To identify impact of reliability of new products on customer satisfaction.

1.5 Scope of the study

This study has an objective of identifying effect of new product development on customer satisfaction. Despite number of banks developing similar new products, due to number of users and implementation status of the products the study used only Commercial Bank of Ethiopia. Although there are number of users in the country, this study is delimited to users

of new products in Addis Ababa. The bank has different electronic banking products that include automated teller machine, mobile banking, internet banking and point of sales (POS). It is more than 6 years since the bank has started properly providing service of ATM. Therefore, there researcher did not consider this product as a new product and delimited to study to internet banking, mobile banking, and POS terminals. The researcher used only questionnaire to collect data. The researcher used variables such as perceived ease of use, perceived usefulness, reliability, trust and relative advantage based on common attributes of products used for the study although different studies identified different factors affecting new technological products use.

1.6 Significance of the study

This study will identify effects of new product development on customer satisfaction in Commercial Bank of Ethiopia. This will help management of the bank in giving information about effect of new product development on the customers' satisfaction of the bank and giving direction on how properly to use the products. This study will also help management of other banks by identifying practices in Commercial Bank of Ethiopia and their importance. This study will also be used as source for further studies.

1.7 Definition of Terms

i. **New product development:**

According to Wong & Tong, (2012) new product development (NPD) in business and engineering is the complete process of bringing a new product to market.

ii. **Internet banking:**

It refers to the use of the internet as a delivery channel for banking services, which includes all traditional services such as balance enquiry, printing statement, fund transfer to other accounts, bills payment and new banking services such as electronic bill presentment and payment (Furst, Lang, & Nolle, 2010), without visiting a bank (Mukherjee & Nath, 2010).

iii. **Mobile Banking:**

It is a set of applications that enable people to use their mobile telephones to manipulate their bank accounts, store value in an account linked to their handsets,

transfer funds; m-banking or even access credit or insurance products (Mukherjee & Nath, 2010).

iv. **Point of Sale Terminals (POS):**

Point of Sales (POS) terminals are special electronic machines that electronic cards issued for customers can be slotted in order to effect payments (Azeez, 2011).

v. **Perceived Ease of Use:**

Perceived Ease of use refers to the extent to which it is easy for customers to interact with a new product (Chau, 2007). An individual's perception of perceived ease of use refers to the degree to which they believe that little mental effort is needed in order to learn how to use and work with a specific system.

vi. **Reliability:**

Reliability refers to the degree to which customers rely upon new products in terms of appropriate and timely provision of services. This includes proper technical functioning (accessibility and usability), and fulfillment of promises (Chan, Hung, & Wen, 2013).

vii. **Trust:**

Users' trust is defined as intention to trust a business partner who is reliable. Trust involves security and privacy protection and refers to trust of customers in a new product in terms of lack of risks during the interaction process with that website (Chan, Hung, & Wen, 2013).

viii. **Perceived Usefulness:**

An individual's perceptions on usefulness of an informative technology depend on the extent to which they believe that using a specific technology leads to the improvement of their professional performance within an organization or helps better performance of tasks (Azeez, 2011).

ix. **Relative Advantage:**

It is the degree to which an innovation is perceived as being better than its precursor (Ajzen & Fishbein, 1980).

1.8 Organization of the study

This study has five chapters. The first chapter is about introductory part of the study which includes background of the study, statement of the problem, research questions, objectives of the study, scope of the study, limitations of the study, and definitions of terms. The second chapter is about literatures review which includes theoretical literature, empirical literatures and conceptual frame work. The third chapter deals with methodology which includes description of the study area, research approach, research design, population and sample, data sources and type, data collection procedures, and ethical consideration. The fourth chapter is about data presentation and analysis. The last chapter, fifth chapter is about summary of findings, conclusion and recommendations.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

This chapter discuss about New Product Development and customers satisfaction in order to familiarize readers with the subject matter. Both theoretical and empirical articles are reviewed and finally the conceptual framework of the study is presented.

2.1 Theoretical Review

2.1.1 New Product Development

According to Wong & Tong, (2012) new product development (NPD) in business and engineering is the complete process of bringing a new product to market. It can be development of original products, product improvements, product modifications, and new brands (Kotler & Armstrong, 2010).

2.1.2 New Product Categories

Booz & Hamuton (2005) have identified approximate percentages of new product types and they are outlined and discussed as follows:

1. **New-to-the-world Products:**

   Products that are innovations "New-to-the-world products revolutionize existing product categories, or define wholly new ones" (Crawford & Benedetto, 2003). These new products may include an innovative technology and require consumer instruction. (Cooper, 2009) states that these new products are the first of their kind and create an utterly new market. This category represents only 10 percent of all new products.

2. **New category entries (New product lines):**

   Products, not new to the world, that take a firm into a new category. The new category is an imitation of an existing product (me-too") and provides entrance into new markets for a company. Even though the product already exists in the market, if

a firm introduces the identical product into the market, it can be considered a new product. About 20 percent of all new products fit into this category (Cooper, 2009).

3. **Addition to product lines:**

   These are products that are line extensions. According to (Cooper, 2009), these categories are new items to the firm, but they fit within an existing product line that the firm already produces. These categories are the new products that supplement the firm's established product lines (Crawford & Benedetto, 2003). This category is one of the largest categories of new products and accounts for approximately 26 percent of all new product launches in the nineties (Cooper, 2009).

4. **Product improvements:**

   Current product made better: Practically, every product on the market today has been improved. These 'not-so- new" products can be replacements of existing products in a company's product line. However, they provide enhanced performance or greater perceived value over the old product (Crawford & Benedetto, 2003). These products make up 26 percent of all new products (Cooper, 2009)

5. **Repositioning:**

   Products that are targeted for a new use or a new application: Repositioning, a new application for an existing products, is selecting a new market place, solving a new problem and/or serving another market need. This repositioned category accounts for about 7 percent of all new products (Cooper, 2009).

6. **Cost Reductions:**

   Products that are designed to replace existing products at lower cost: New products that provide a cost reduction, can replace existing products in the line, but can offer similar benefits and performance at a lower cost. They represent 11 percent of all new product launches in the late nineties (Cooper, 2009).

2.1.3 Roles of New Product Development

From a strategic point of view, new products well attuned to the voice of the customer, with perceived technical superiority, developed within budget and launched ahead of the competition provide real competitive advantages for the firm (Nikolaos, Erik, & Susan, 2012).According to Akpan, (2002) product policy of an organization is fundamental to the whole operation of the business.

According to Ewah, Ekeng, & Umanta (2008) new products are the life blood of companies, large or small. Proficiency in new product development can contribute to the success of many companies. If companies can improve their efficiency at launching new products, they could double their bottom line. It is necessary that companies developed new products to replace those that have become outdated or introduce completely new products that will be captivating before larger market.

Marsh & Stock(2009) opined that new product development is a fundamental process for an enterprise and constitutes a basic source for revitalizing and improving firm's competitive advantage.

Udegbe (2014) analyzed that new product development plan is mainly related to the business strategy, the organizational culture, partly the personnel skills, while management involvement does not necessarily have a statistically significant positive effect on the new product development plan.

2.1.4 New Products Development in commercial Banks

While reviewing new product development, Onalo (2004) highlighted the benefits which are attributed to the growing trend among banks. These benefits include enhancement of individual banks corporate image, bringing banking services nearer to people, and showing up capital base of banks due to increased deposits. The various strategies being adopted by the new banks for survival are as many as there are bankers. These include provision of qualitative and prompt services to customers, employing state of the art technology and highly motivated employees in addition to spontaneous response to change in the economy. Others include specialization in specific areas and the packaging of new product and services, opening of branches in strategic locations, training and retraining of staff, maintaining contended staff and movement of assets quality through strict control policy. The survival strategies of the deposit money banks have also been reflected in the array of differentiated products and the strong marketing strategies which some have adopted. In fact, banking industry now abounds with very large new products and services, all packaged to attract customers (Ejiogu, 2012). Some of the banks have two or more of such schemes

either in operation or in the pipeline. They forms are designed to outwit even the most shrewd investors. In the same manner, there have been more activities in the money market as banks trade in attractive financial investments. The competition ahead no doubt will task the ingenuity of banks management. Apart from the obvious challenges of how to sustain the level of profits that are being declared, banks must give serious thought to improving both the range and quality of their service with the gradual shrinking of the deposit market, occasioned by low savings rates, the scrambles for deposits is on the upswing. A veritable instrument in this scramble is the introduction of electronic banking products believed to increase efficiency in delivery. Quite a number of them are now in the market and the list includes computers networks, credit cards, smart cards, electronic fund transfer (EFT) and automated teller machines (ATM).

In the financial services industry, new product development is viewed as innovations which the act of creating and popularizing new financial instruments, technologies, institutions and markets, which facilitate access to information, trading and means of payment. These technological innovations are the application of better solutions that meet new requirements, in articulated needs, or existing market needs. This is accomplished through more effective products, processes, services, technologies, or ideas that are readily available to markets, governments and society (Azeez, 2011).

The choice of target markets by a bank and its decision about developing a product more energetically or cutting a service will depend on profitability of the service or product. Profits depend on market demand, the price at which services can be sold, their cost and competition from other banks and organizations. Competition is a tool for survival and growth through customer satisfaction and product innovation in an economy where the customer has a choice among producers of goods and services. Another weapon of competition, which resulted from deregulation, includes the development and employment of various types of financial products and repackaging of existing ones in the same gap by the bankers. These are all aimed at increasing profit. In a nutshell, competition and new product development are the means of achieving bank profit. Although portrayed by developers as instruments of exhibiting they care for the growing fold of banking operators,

most banking products have been directed towards shoring up the liquidity base of the commercial banks (Ejiogu, 2012).

2.1.5 New Products in Commercial Banks

I. Point of Sale Terminals (POS):

There are different types of terminals: coin & note, credit card and payroll deduction terminals. The cards are simply inserted into the revaluation terminal and certain programmed instructions are followed, and money is added onto the electronic purse. This can then be used to pay for goods/services by inserting them into the POS terminals. This product is developed with the objective of facilitating trade. Holders of the card are not required to hold cash to purchase products. Instead, funds are transferred from buyer to seller. This product has additional objective of creating cashless society. Banks benefited from this product through retaining deposit because the fund is transferred from one customer to another customer from the bank (Olaegbe, 2011).

II. Mobile Banking:

According to Porteous (2016), though the mobile banking idea was initially born out of the intention to reach the unbanked poor, it has stretched its tentacles far and wide to captivate the interest of unimagined client segments. Even the prudential banks have joined the fray and are now acting as agents and outlets of Mobile service provider banking services. Mobile phone operators have identified m-banking / m-payments systems as a potential service to offer customers, increasing loyalty while generating fees and messaging charges. There is no universal form of mobile banking, rather, purpose and structures vary from country to country. The systems offer a variety of financial functions, including micropayments to merchants, bill payments to utilities, transfers between individuals and long distance remittances. Currently, different institutional and business models deliver these systems (Porteous, 2016). Objective of this product is reducing operational cost and improving service quality.

III. Internet Banking:

The rapid growth and popularity of the internet has created great opportunities as well as threats to companies in various business sectors, to endorse and deliver their products and services using internet as a distribution channel (Chan, Hung, & Wen, 2013). Beside opportunities of this channel, banks and financial institutions across the world face new

challenges to the ways they operate, deliver services and compete with each other in the financial sector. Driven by these challenges, banks and financial institutions have implemented services delivery using internet banking (Chan, Hung, & Wen, 2013). The objectives of launching internet banking include cost reduction, performance improvement, wider coverage, revenue growth, and customer convenience.

2.1.6 Bank Business Models

A wide spectrum of branchless banking models are evolving such as bank focused model and bank led model. However, no matter what business model, the business model will depend on banking agents, i.e. retail or postal outlets that process financial transactions on behalf telecoms or banks. The banking agent is an important part of the banking business model since customer care, service quality, and cash management will depend on them. These models differ primarily on the question that who will establish the relationship (account opening, deposit taking, lending etc.) to the end customer, the Bank or the Non-Bank/ telecom Company. The bank-focused model emerges when a traditional bank uses non-traditional low-cost delivery channels to provide banking services to its existing customers. Examples range from use of automatic teller machines (ATMs) to internet banking or mobile phone banking to provide certain limited banking services to banks' customers. This model is additive in nature and may be seen as a modest extension of conventional branch-based banking. The bank-led model offers a distinct alternative to conventional branch-based banking in that customer conducts financial transactions at a whole range of retail agents instead of at bank branches or through bank employees. This model promises the potential to substantially increase the financial services outreach by using a different delivery channel (retailers/ mobile phones), a different trade partner (telecom operators / chain store) having experience and target market distinct from traditional banks, and may be significantly cheaper than the bank-based alternatives. The bank-led model may be implemented by either using correspondent arrangements or by creating a JV between Bank and Telco/non-bank. In this model customer account relationship rests with the banks Non-bank-led Model. The non-bank-led model is where a bank does not come into the picture (except possibly as a safe-keeper of surplus funds) and the non-bank (e.g. telecom operators) performs all the functions (Magutu, 2009).

2.1.7 Technological Product Acceptance Models

Technology adoption is thus the process of beginning to use new technology or different technology by customers, organizations etc. As result of the dynamism of the information and communications technology innovative technological products are released. And the growth of nations, organizations and individuals is highly dependent on how best they adopt the technology in their operations. In order to understand how people can accept or adopt technology various models are developed and used. These models include;

- The Theory of Reasoned Action (TRA)
- Innovations Diffusion Theory
- Technology Acceptance Model (TAM)

The Theory of Reasoned Action (TRA)

According to The Theory of Reasoned Action (TRA), beliefs influence attitude and social norms which in turn shape a behavioral intention guiding or even dictating an individual's behavior (Ajzen & Fishbein, 1980). Intention is the cognitive representation of a person's readiness to perform a given behavior, and it is considered to be the immediate antecedent of behavior. TRA has two core constructs: (1) attitude toward behavior (ATB) and (2) subjective norm (SN) associated with that behavior.

The attitude toward the behavior (ATB) is the previous attitude of a person toward performing that behavior. It suggests that people think about their decisions and the possible outcomes of their actions before making any decision to be involved or not involved in a given behavior. This theory views the intention of an individual whether to perform a given behavior or not as the immediate determinant of action, and attitude is determined by the person's beliefs and evaluation of behavioral outcomes. So an individual, who strongly believes that positive outcomes will result from performing a particular behavior, will have positive attitudes towards that behavior. On the other hand, if a person strongly believes that a particular behavior will have a negative outcome, then there will be negative attitudes towards that behavior.

Subjective norm (SN) is the social pressure exerted on the person or the decision maker to perform the behavior. SN refers to an individual's perception about what other people think of his or her behavior in question (Ajzen & Fishbein 1980). What other individuals or groups will think, agree or disagree about the decision of a person to perform a given behavior and how important these other individuals or groups are to the decision maker play a vital role. So it is normal that sometimes people will consult others before making any decisions.

TRA is a general well-researched intention model that has been applied extensively in predicting and explaining behavior across many domains and virtually any human behavior (Ajzen & Fishbein, 1980). Information science researchers often use this theory to study the determinants of information technology innovation usage behavior. Although current models of technology acceptance have their roots in many diverse theoretical perspectives, much literature related to technology acceptance begins studies with the Theory of Reasoned action (TRA).

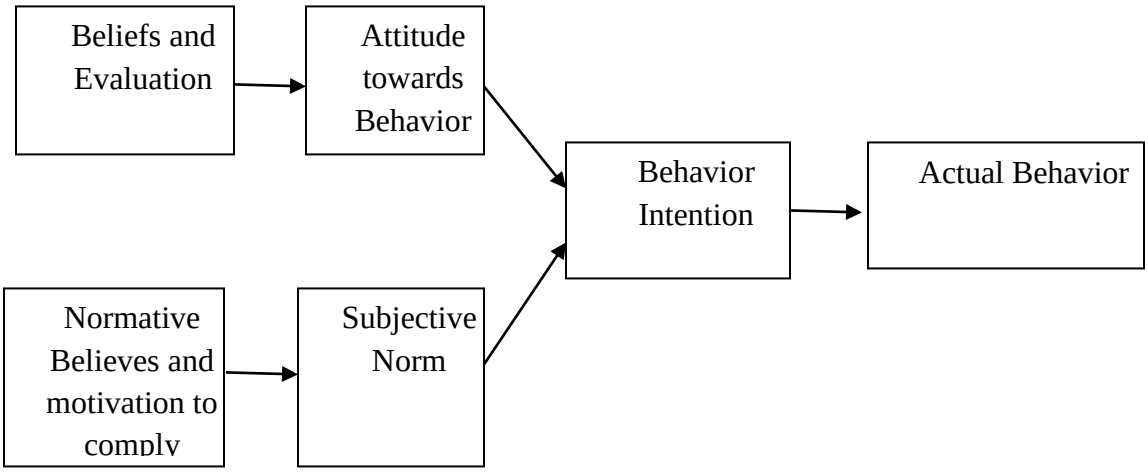


Figure 1:The theory of Reasoned Action Conceptual Model

Source: (Ajzen & Fishbein, 1980)

Innovations Diffusions Theory

The Innovation Diffusion Theory has been used to study a variety of innovations. Rogers identifies five attributes of an innovation that influence the adoption and acceptance behavior: relative advantage, complexity, compatibility, trial ability, and observe-ability. In

the Information Systems field, Ajzen & Fishbein, (1980) expand this attributes set to study information technology products acceptance. The set includes:

- **Relative Advantage**: the degree to which an innovation is perceived as being better than its precursor.
- **Ease of use**: the degree to which an innovation is perceived as being difficult to use".
- **Image**: The degree to which use of an innovation is perceived to enhance one's image or status in one's social system.
- **Visibility:** The degree to which one can see others using the system in the organization.
- **Reliability**: the degree to which an innovation is perceived as being consistent with the existing values, needs, and past experiences of potential adopters.
- **Results Demonstrability:** the tangibility of the results of using the innovation, including their observe-ability and communicability.
- **Voluntariness of Use:** the degree to which use of the innovation is perceived as being voluntary, or of free will.

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was developed from TRA by Davis (Davis 1985). He proposed that systems use is a response that can be explained or predicted by users' motivation which in turn is directly influenced by an external stimulus consisting of the actual systems features and capabilities.

Davis further developed his conceptual model to propose Technology Acceptance Model (TAM) as follows:

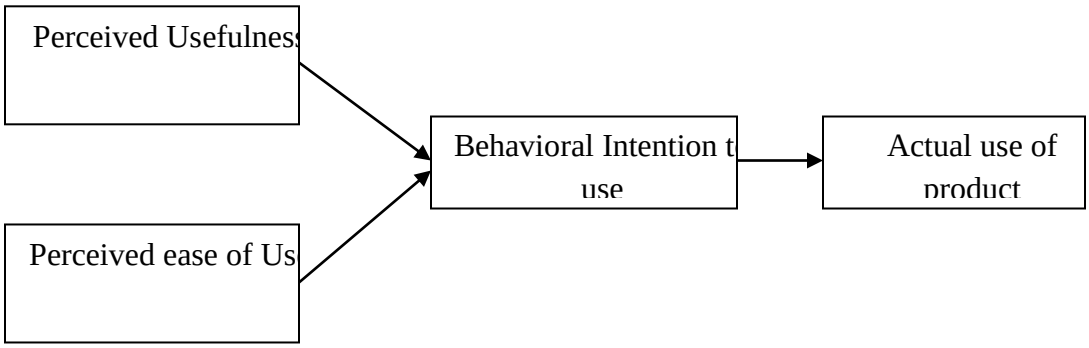


Figure 2: Technology Acceptance Model

Source: Davis 1985

In his conceptual model Davis suggest that users' motivation can be explained by three factors: perceived ease of use, Perceived Usefulness, and Attitude toward Using the System. Attitude towards using is a function of two major beliefs: perceived usefulness and perceived ease of use has causal effect on perceived usefulness. Design Features directly influence perceived usefulness and perceived ease of use and design features is an external variable hence it affects the attitude and behavior indirectly through perceived usefulness and perceived ease of use.

According to Davis (1985):

Use: refers to an individual's actual direct usage of the given system in the context of his or her job.

Attitude: refers to the degree of evaluative affect that an individual associates with using the target system in his or her job

Perceived usefulness: is defined as the degree to which an individual believes that using a particular system would enhance his or her job performance.

Perceived ease of use: is defined as the degree to which an individual believes that using a particular system would be free of physical and mental effort. Perceived ease of use is hypothesized to have a significant direct effect on perceived usefulness, since all else being

equal a system which is easier to use will result in increased job performance (i.e., greater usefulness) for the user.

Refined TAM

Subsequent research by Davis (1989) refined the TAM suggesting that the mediating effect of attitude could be excluded as empirical evidence found that the attitude element did not fully mediate the effect of perceived usefulness on intention to use.

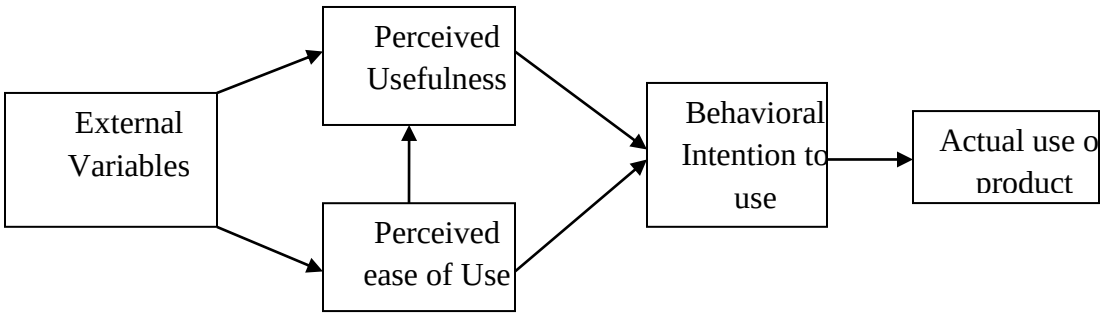


Figure 3: Refined Technology Acceptance Model Davis (1989) and Venkatesh (1996)

TAM is widely used popular technology adoption model with regard to information technology. It has proven to be a theoretical model in helping to explain and predict user behavior of information technology (Azeez, 2011). The TAM suggests that two beliefs – perceived usefulness and perceived ease of use – are instrumental in explaining the variance in users' intentions. However, Davis (1989) noted, future technology acceptance research must address how other variables affect usefulness, perceived ease of use and user acceptance. Therefore, perceived ease of use and perceived usefulness may not fully explain behavioral intentions towards the use of new products, necessitating a search for additional factors that can better predict the acceptance of the product.

2.1.8 Customer Satisfaction

Customers' satisfaction refers to their opinion and judgment on a specific purchase. Satisfaction refers to the customers' judgment of the value they have received. Customer satisfaction has many benefits for economic entities that increased satisfaction leads to reduced customer sensitivity towards price, reduced marketing costs, and increased effectiveness of advertisements and reputation. Customer satisfaction results from a customer's perception during a value-based deal or relation so that the price equals the ratio

of performed services to the customer costs and price (Hallowell, 1996). It should be noted that quality of goods/services plays the most essential role in client satisfaction/dissatisfaction. Therefore, pioneering and excellent organizations always try to ensure of their clients' satisfaction because the clients' higher satisfaction levels is some kind of insurance against organization's potential mistakes which are inevitable as a result of changes related to services production. Constant clients show higher indulgence when faced with such circumstances because, as a result of previous satisfactory experience are prone to easily ignore the organization's small faults. Thus, it is not surprising that clients' satisfaction achievement has become the organizations' most important task (Aali, 2002).

New product satisfaction refers to the customer's satisfaction of the support for receiving and sending orders for goods/services; after-sale services; price of goods and services; product content quality; new product loading time; product reliability; product ease of use; and security. That is, new product satisfaction refers to a customer's satisfaction with attention to their previous shopping experience at an in bank. Also, new product satisfaction has been defined as the preference for goods/services of a given bank over the competition when banking. Characters existing in the internet introduced the factors determining new product satisfaction as: information accessibility level, communication structure, individualization, integrated information and transactions. Ease of information downloading, ease of payment, website structure and alike, all influence new product satisfaction (Azizi & Negahdari, 2012).

2.2 Empirical Review

Sathya (2015) investigated effects of new product adoption on customer satisfaction in Odisha. This empirical study investigated the factors that influence consumer's satisfaction when they adopt new products by extending the renowned framework of Technology Acceptance Model (TAM). Results were subsequently analyzed by using multiple regression and correlation analysis. Factors such as Perceived Usefulness, perceived ease of use, Relative Advantages (RA) and Personal Innovativeness were found positively related with the affecting customer satisfaction. Perceived Risks was negatively associated with the satisfaction of customers by using new products.

Ludfi (2014) examined the relationship among new products, service quality, and relationship marketing on customer satisfaction and loyalty by using Partial Least Square (PLS) to analyze the data and the hypotheses. Results of this study indicate that new products in banks, service quality and relationship marketing significantly effected on customer satisfaction.

Ali (2010) found out how new product development affects customer satisfaction and brand loyalty in mobile phones used by its users in Pakistan. Results indicated that innovation has impact on customer satisfaction and brand loyalty.

Belghis (2013) identified the effects that the technological new products have on services users' satisfaction. Data were analyzed by Structural equation modeling (SEM). The research findings supported the positive and significant effect of the ease of use, trust, content and appearance of information and perceived usefulness on e-service users' satisfaction. However, no significant relationship was found between citizens support with the users' satisfaction of e-service quality.

On the other hand different studies identified that new product development has different benefits to customers. Molina, Jimenez, & Munuera (2011), Cheng, Chang, & Li, (2013) and Huang, Soutar, & Brown, (2014) new product development effect on customer satisfaction. These studies identified factors suchperceived ease of use, percieved usefulness, trust and quality have significant effect of satisfaction of customers for using new products by using structural equation model.

Ayana (2014) identified factors that affect satisfaction of customers of E-banking in the Ethiopian banking industry. The result of the study indicated that, the major barriers Ethiopian banking industry faces in the adoption of Electronic banking are: security risk, lack of trust, lack of legal and regulatory frame work, Lack of ICT infrastructure and absence of competition between local and foreign banks. Worku (2016) found out that perceived usefulness and perceived ease of use have positive relationship with the satisfaction of customers for new banks' products especially mobile banking whereas

perceived risk has negative relationship with the satisfaction of customers. Tsion (2016) indicated that reliability, transaction efficiency, customer support, service security, perceived ease of use & performance of e-banking products have significant effect on customer satisfaction using regression model.

Users' experience of technology application might be the major criteria for evaluation of customer's satisfaction of the services provided by a website. Technology acceptance factors are considered as valuable tools in predicting satisfaction, customer services improvement, and service quality improvement. Previous works was built on technology acceptance model and its extension in order to assess its application on the Internet. Demonstrated that technology model had many applications in assessing customer satisfaction of new products in banks in Malaysia. Technology acceptance factors greatly affected the customers' satisfaction of banks new products (Alsudary, 2005).

Perceived Ease of Use

Perceived ease of use refers to the extent to which it is easy for customers to interact with a new product. An individual's perception of ease of use refers to the degree to which they believe that little mental effort is needed in order to learn how to use and work with a specific system. Numerous researches on information systems revealed that ease of use affects the customer satisfaction. Ease of use new products in banks depends on various aspects such as ease of system management for the user, easy to keep basic operations in mind, product design efficiency level, error reduction percentage, and user's overall satisfaction in the management area (Chau, 2007).

In Information Systems literature, ease of use is recognized as a factor affecting customer satisfaction (Torkzadeh & Doll, 2008), service quality assessment and technology products acceptance (Davis, 1989). Ease of use appears frequently in studies examining the key dimensions of new product quality or the factors influencing customer satisfaction. Chang (2013) suggested that ease of use is an effective factor in customer satisfaction of e-banking. Thus, it might be said that ease of use is an effective factor in customer satisfaction of using new product.

H1: Perceived Ease of Use has significant positive effect on customer satisfaction.

HO 1: Perceived Ease of use has no significant positive effect on customer satisfaction.

Reliability

Reliability refers to the degree to which customers rely upon new products in terms of appropriate and timely provision of services. This includes proper technical functioning (accessibility and usability), and fulfillment of promises. Accessibility is a general term which mostly refers to the extent to which a system is usable for most users without need for modification. Usability refers to the extent to which a system is affected by problems or interference in providing service to citizens as a result of failures in one or more of its sections. Usability of new products can be improved by ensuring 24 h access, loading speed and transaction speed. Reliability of services refers to the capability of providing promised services in a correct, timely and reliable manner. Reliability means the ability to provide the promised services in a correct, reliable and continuous fashion. For instance, users of banks' new product expect to be provided with appropriate, timely and high-quality services. Reliability is measure of a new products ability to meet such expectations. Another significance of reliability is the fulfillment of primary commitments. That is, if a service bank makes promises towards customers, it should fulfill them (Mansoori & Baradaran, 2007).

H2: Reliability has significant positive effect on customer satisfaction.

HO 2: Reliability has no significant positive effect on customer satisfaction.

Trust

Users' trust is defined as intention to trust a business partner who is reliable. Trust involves security and privacy protection and refers to trust of customers in a new product in terms of lack of risks during the interaction process with that website (Das & Teng, 2011). Trust is a strategy which enables the individuals to adapt with a complex social environment thereby benefit from increasing opportunities. Trust is specifically associated with unawareness or uncertainty conditions and involves other individuals' actions' being unidentifiable. Trust consists of appropriate expectations of other individuals' actions that have commitment to select their actions, when they are able to monitor others' actions before selecting the action. Trust is introduced when reliable expectations bring disorders in decisions. Trust is a product of psychological intentions which are beyond immediate control of any public organization. Such permanent intentions are linked to long term social intention to believe in

social organizations and that if individuals trust others; better results will occur (Carter & Belanger, 2005). Since new products are based on Internet which is an open network, security is an important factor in functions of new product.

Despite various technical advancements such as message encoding, and digital signatures and certificates, customers are still concerned about the security of their transactions while using new products. Removing security concerns will lead to higher user satisfaction levels. Reliability is an important element in building relations. Customers are concerned with the security of their personal information when doing e-shopping. Information provided during e-shopping may be abused by hackers (Behjati et al., 2012). Security and privacy protection greatly affects customer satisfaction. Most researchers agree that security-related issues have a strong influence on e-transactions and customer satisfaction.

H3: Trust has significant positive effect on customer satisfaction.

HO 3: Trust has no significant positive effect on customer satisfaction.

Perceived Usefulness

An individual's perceptions on usefulness of an informative technology depend on the extent to which they believe that using a specific technology leads to the improvement of their professional performance within an organization or helps better performance of tasks. Such a help may be realized through reducing task performance time or timely provision of information (Doll et al., 2008).

This performance refers to the usefulness of user's interaction with the new product and benefits they achieve through this interaction. Horton et, al. (2011) believe that perceived usefulness positively affects the intention to use. Carter & Belanger (2005) examined the effects of three factors: perceived usefulness, perceived ease of use, trust, found that the perceived usefulness construct was the most powerful predictor of intention to use new product. Usefulness is important it influences user's satisfaction. The good design of a new products leads to increased profitability and influence the success of new product. Therefore, new products should provide different kinds of services and make needed information available to customers in order to attract them. The main reason why customers use the new product is the usefulness factor. Firms providing more varied products and services have the chance to have more customers. For those who are dissatisfied with the

products in real stores, provision of new products may prove satisfaction (Behjati et al., 2012).

H4: Perceived Usefulness has significant positive effect on customer satisfaction.

HO 4: Perceived Usefulness has no significant positive effect on customer satisfaction.

Relative Advantages

Relative advantages are the identified merits of using a particular product or service. As compared to other banking channels, new products offer convenient benefits in terms of mobility, which are not availed by traditional off-line banking. Innovations in the finance sector is the arrival of a new or better product and/or a process that lowers the cost of producing existing financial services (Nofie, 2011).

H5: Relative Advantages has significant positive effect on customer satisfaction.

HO 5: Relative Advantage has no significant positive effect on customer satisfaction.

2.3 Conceptual Framework

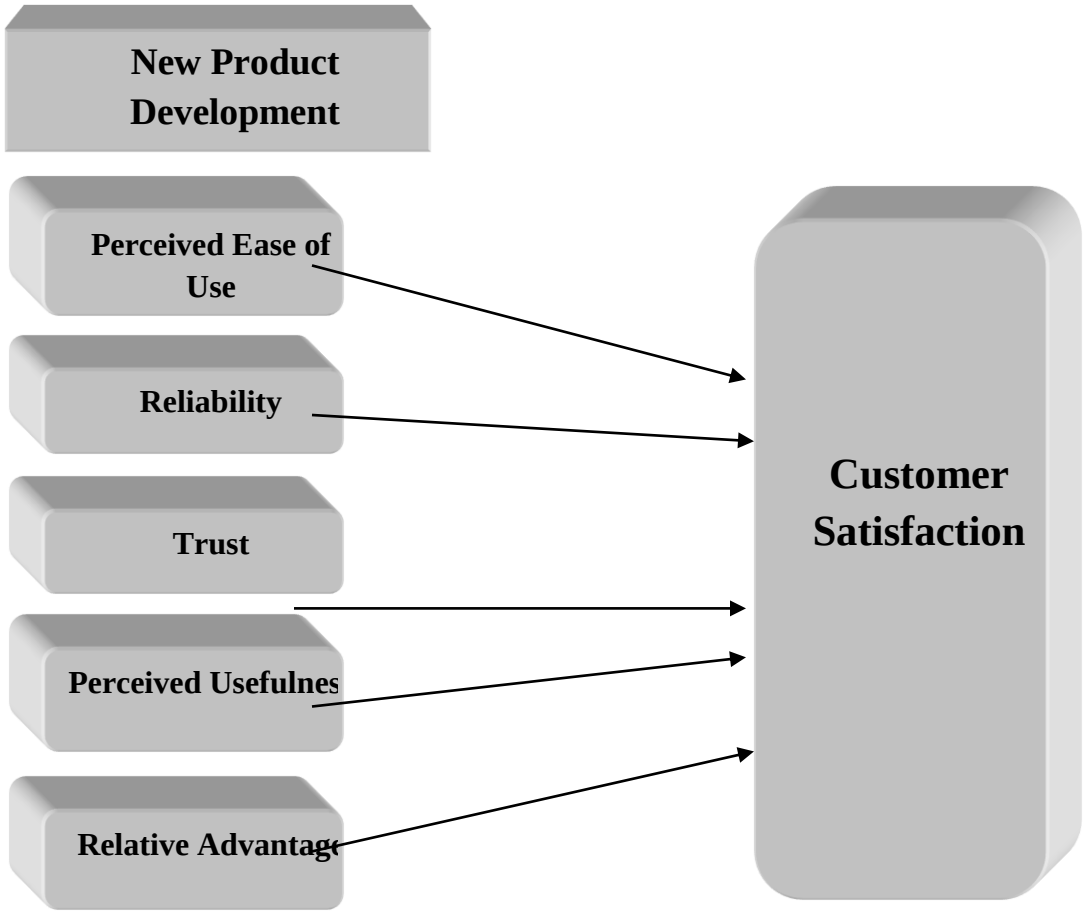


Figure 4: Conceptual Framework

Source: Research Design, 2018

CHAPTER THREE

METHODOLOGY

3.1 Description of Study Area

Commercial Bank of Ethiopia (CBE) has more than 1,200 branches stretched across the country. The leading African bank with assets of 384.6 billion Birr as on June 30th 2017. The bank has networked 95% of branches through core banking. It has deployed more than 6,000 POS terminals in different business units and 1,501 ATM machines across the country. Currently CBE has more than 15.9 million account holders, from those account holders 3.7 million are card holders and the number of active Mobile and Internet Banking users also reached 1.1 million and 28,683 respectively as of June 30, 2017. It has strong correspondent relationship with more than 50 renowned foreign banks like Commerz Bank A.G., Royal Bank of Canada, City Bank, and HSBC Bank. CBE has a SWIFT bilateral arrangement with more than 700 others banks across the world. CBE combines a wide capital base with more than 30,000 employees. Currently, it is working with other 20 money transfer agents like Western Union, Money Gram, Atlantic International (Bole), and Xpress Money. CBE has opened four branches in South Sudan and has been in the business since June 2009 (CBE, 2017).

The study is conducted in Addis Ababa, the capital city of Ethiopia. According to secondary data obtained from MIS department of the bank it has been understood that there are 312,890 and 21,501 active mobile banking and internet banking users respectively in Addis Ababa. Also there are 314 deployed active POS machines with Merchants in the city. The sample respondents were selected from the above mentioned areas.

3.2 Research Approach

The three methods that are commonly implemented in a research are quantitative, qualitative and mixed, where one of them is not better than the others, all of this depends on how the researcher want to do a research of study (Creswell, 2005). Creswell (2005) asserted that quantitative research is a type of educational research in which the researcher decides what to study, asks specific, narrow questions, collects numeric (numbered) data from participants, analyzes these numbers using statistics, and conducts the inquiry in an

unbiased, objective manner. Variables can be defined as attributes or characteristics of individuals, groups, or sub-groups of individuals (Creswell, 2009). Quantitative approach is one in which the investigator primarily uses postpositive claims for developing knowledge, i.e., cause and effect relationship between known variables of interest or it employs strategies of inquiry such as experiments and surveys, and collect data on predetermined instruments that yield statistics data (Creswell, 2009). Therefore, In order to achieve the objective of this study, the research has followed a quantitative research method

3.3 Research Design

Designing a study helps the researcher to plan and implement the study in a way that will help the researcher to obtain intended results, thus increasing the chances of obtaining information that could be associated with the real situation (Burns & Grove, 2001). This study is an applied research which follows both descriptive and explanatory research designs in order to address the aforementioned objectives. It was conducted on Commercial bank of Ethiopia, users of the new products in Addis Ababa. The data for the study was quantitative in nature which was collected from primary sources. The researcher used the Cross-sectional field survey method to assess the relationship between new product development and customer satisfaction. In the cross-sectional field survey, independent and dependent variables will be measured at the same point in time by using a single questionnaire. In addition the study is also said to be associational in design because there is the intent to establish the relationship between independent and dependent variable of the study. The researcher selected the sample from the target population by using probability sampling. Correlational research aims to ascertain if there is a significant association between two variables (Reid, 1987). This study used both descriptive and explanatory research designs.

3.4 Population and Sample

According to Hair et al. (2010), target population is said to be a specified group of people or object for which questions can be asked or observed made to develop required data structures and information. The target populations of this study were users of new products of commercial bank of Ethiopia in Addis Ababa. According to Commercial Bank of Ethiopia (2017) there are 312,890 of mobile banking, and 21,501 internet banking users.

Mobile banking service is provided to individual customers of the bank. The corporate customers cannot use this product because the transactions are approved by multiple users. Therefore, corporate customers were not included in this study because they are not users of the service. On the other hand, internet banking is provided to both private and corporate customers. Corporate customers have more than one user on a single account. These users are initiators and authorizers. There is at least one initiator and one authorizer. Population of internet banking is private customers, and initiators and authorizers of corporate users. POS service is provided to card holders. But all card holders are not using the service. The population of the POS service is ATM card holders of the bank that use POS. 552 POS machines are deployed in 314 terminals. On average, 25,617 account holders use POS service per month.

According to Alreck & Settle (2005) the choice of sample size is normally made after considering statistical precision, practical issues and availability of resources. On the other hand, Tabachnick & Fidell(2001) noted that samples are selected on a random basis and those samples are considered as representative of the population. This study used non probability convenience sampling method.

A different sampling paradigm by Lowler (1984) noted that there is no a single precise way for the determinations of sample size hence there are a number of inadequacy for deciding on sample size. Malhotra & Peterson(2006) stated that, the larger the sampling size of a research, the more accurate the data generated.

However, to determine the sample size, the researcher used Yamane's (1967) formula. He provided a simplified formula to calculate the sample size. This formula is based on a 95% desired confidence level and a 5% desired level of precision.

$$n = \frac{N}{1 + N(e)^2}$$

Where: - n = Sample size

N = population size

e = level of precision

Table 3.1 Sample Size determination

New Product	Population	Sample
Mobile Banking	312,890	348
Internet Banking	21,501	24
POS	25,617	28
Total	360,008	400

Source: MIS Report and own computation, 2017

3.5 Data Type and Sources

The researcher used primary data that was collected through questionnaire from the users of the new products of Commercial bank of Ethiopia. According to (Biggam, 2008), primary data is the information that the researcher finds out by him/herself regarding a specific topic. The main advantage with this type of data is that it is collected with the research's purpose in mind. It implies that the information resulting from it is more consistent with the research questions and objectives.

3.6 Data Collection Procedures

There researcher collected data from mobile banking users in branches by drop and pick approach. Since the services given by the new products are standard and does not differ branch to branch, the researcher got the respondents by selected 10 branches based on the high level of customer transaction. So these branches are exposed to get respondents easily. For internet banking users the researcher used branches the same as mobile banking and in addition by directly going to the users especially in the case of corporate users. The researcher identified corporate users by the support of customer service marketing managers in branches. Since there are no customers categorized as users of POS, the researcher used users in merchants that are providing the POS service. The researchers choose three trade

centers randomly (fresh corner, shoa supermarket and Safeway supermarket) randomly merchants that are providing the POS service. Then the researcher used buyer respondents who use the POS service with the mentioned trade centers.

The primary data was gathered using questionnaire. The researcher distributed the questionnaire to sampled respondents. For the purpose of this study a quantitative methodology involving close-ended questioner were used as the measuring instrument. The close-ended questionnaires can be administered to groups of people simultaneously, since they are less costly and less time consuming than other measuring instruments. The Likert-type scale method will be used a range of responses: 'Strongly Disagree', 'Disagree', 'Neutral', 'Agree', and 'Strongly Agree', with a numeric value of 1-5, respectively. The usage of this particular scaling method ensures that the research study illustrates the ability to assess the responses and measure the responses quantifiably so that a pattern or trend may be produced in order to assess research hypotheses. As (Neuman, 2003) hypothesized, it is a process of asking many people the same questions and examining their answers. The questionnaire will help to cover larger target groups than the interview, given the quality and chance of no response.

3.7 Ethical consideration

Every person involved in the study was entitled to the right of privacy and dignity of treatment, and no personal harm were caused to subjects in the research. Information obtained was held in strict confidentiality by the researcher. All assistance, collaboration of others and sources from which information was drawn were acknowledged.

3.8 Method of Data Analysis

After the data are collected both descriptive and inferential statistical techniques were employed to analyze the data. The data was analyzed using SPSS computer software. The statistical tools were aligned with the objectives of the research. Inferential statistics is particularly the Pearson's correlation were used to show the relationship and the strength/degree as well as direction of associations between variables. The other inferential statistics used is regression analysis that shows interdependence of independent variables

and dependent variable. Thus, both the strength of the relationship between variables and the influence of independent on dependent variable and statistical significance are assessed.

3.9 Model Specification

This study used multiple linear regression model after testing relevance of structural equation model.

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots.. + \beta_n X_n + \varepsilon_i$

Where

Y is dependent variable which is explained by the independent variables

β_0 is constant

$\beta_1 \ldots \beta_n$ are the coefficient of the independent variables X_1 to X_n.

$\varepsilon_i$is an error term

Specifically, model for this study can be expressed as follows;

$CS = \beta_0 + \beta_1 UF + \beta_2 EU + \beta_3 AR + \beta_4 RA + \beta_5 RL + \varepsilon_i$

Where CS = Customer Satisfaction

UF= Usefulness

EU=Perceived Ease of use

TR=Trust

RA=Relative advantage

RL=Reliability

CHAPTER FOUR

ANALYSIS AND DISCUSSION OF RESULTS

4.1 Demographic Information

The researcher distributed 400 questionnaires to users of new product of commercial bank of Ethiopia in Addis Ababa. But 348 questionnaires were fully filled and returned with response rate of 87%.

Table 4.1 below presents demographic information of respondents.

Table 4.1: Demographic information of Respondents

Variable	Category	Frequency	Percent
Gender	Male	247	70.98
	Female	101	29.02
Age	18 to 30	57	16.37
	31 to 45	153	43.97
	46 to 60	105	30.17
	Above 60	33	9.5
Marital Status	Single	193	55.5
	Married	155	44.5
Education	High school	4	1.1
	Diploma	101	29.0
	University degree	157	45.1
	Master Degree and above	86	24.7
Employment	Employee	215	61.78
	Business man/woman	93	26.73
	Unemployed	40	11.49

Source: Survey, 2018

According to table 4.1 above, 70.98% of the respondents are males and 29.02% of the respondents are females. This implies the male users of new products are greater than

female users of the new products. 16.37% of the respondents are at age category of 18 years to 30 years. 43.97% and 30.17% of the respondents are at age category of 31 years to 45 years and 46 to 60 years respectively. These two categories comprise 74.14% of the respondents. But only 9.5% of the respondents have an age above 60 years.

55.5% of the respondents have marital status of single and remaining 44.5% of the respondents are married. This implies that unmarried customers are better than married in adopting new products of the bank. The possible reason is most of the time unmarried are younger than married that they are better in accepting technologies. According the educational level of the respondents, only 1.1% of the respondents have completed high school education. 29% of the respondents have diploma educational background. 45.1% of the respondents have university degree and remaining 24.7% of the respondents have educational qualification of masters' degree and above. To operate the new products of the bank it requires educational competency of at least reading and writing. The products are instructed in English language.

Finally, According to occupational status of respondents 61.78% of the respondents are employees of different companies. 26.73% of the respondents have their own business. But only 11.49% of the respondents are unemployed.

4.2 Descriptive Analysis

Table 4.2 below describes about accounts used for the products and the experience of customers with the products.

Table 4.2: Responses for products

Variable	Category	Frequency	Percent
Account type	Saving	299	85.92
	Current	49	14.08
product	Mobile	304	87.4
	Internet	21	6.0
	POS	23	6.6
Experience	Less than one year	72	20.7
	One year to three	171	49.1
	More than three	105	30.2

Source: Survey, 2018

According to table 4.2, 85.92% of the new product users are saving account holders and remaining 14.08% of the users are current account holders. This implies that new products of the bank are mainly used by the saving account holders. Possible reasons for this are the number of saving account customers are higher than the customers of current account and the new products better use for saving account holders than current account holders. 87.4% of the respondents are mobile banking users, 6% of the respondents are internet banking users and remaining 6.6% of the respondents are POS machine users suggesting mobile banking the highly used new product of the bank. 20.7% of the respondents have experience of less than a year with the product. 49.1% of respondents have experience with the product from 1 year to 3 years. This implies the bank aggressively recruited new product users during this period. But 30.2% of the respondents have more than 3 years. Cumulatively, the 79.3% of users have an experience with the product above one year.

Table 4.3 below presents descriptions about the responses of customers about a feature of reliability of the new products.

Table 4.3: Descriptive Analysis for reliability of the new products

Statement	N	Mean	Std. Deviation
The product completes a task accurately	348	3.7500	.95315
The product delivers the service exactly as promised	348	3.8333	.87937
The product Performs the service right at the first time	348	3.4799	.83314
The product Performs tasks without errors	348	3.9368	.87325
Reliability	348	3.7500	.70762

Source: Survey, 2018

According to table 4.3, Responses with mean value of 3.75 indicate that the products accurately complete the transaction. The standard deviation for this statement is 0.95 suggesting that there is slight variation in agreement of the respondents. This implies that accuracy of products varies from customer to customer and from product to product. Mean value for statement of 'products deliver the service exactly as promised' is 3.83 suggesting that products are successful in providing as expected by the bank. Mean value of 3.48 for

performance of product at first time suggests that the customers are not sure that the product performs right first time. The respondents agree that the products performance tasks without errors with mean value of 3.94. This implies that the products posts error free transactions. In overall, customers of the new products of the bank moderately agree that the new products are reliable. Mean value of 3.75 for reliability of the new products implies that the company implemented reliable new products.

Table 4.4 below presents descriptions about the responses of customers about trust of customers for the products.

Table 4.4: Description about trust for the products

Statement	N	Mean	Std. Deviation
The product keeps accurate record of transaction	348	3.7787	.74378
The product provide security for transaction data ar privacy	348	3.7874	.75969
I feel safe by using the product	348	3.9138	.79880
The product is secured	348	3.2787	.94513
Trust	348	3.6897	.59714

Source: Survey, 2018

According to table 4.4, Responses for accuracy of product in recording the transaction with mean value of 3.78 and standard deviation of 0.74 suggests that the products are successful in keeping records of transaction. This is meanly practiced in mobile banking and internet banking. But POS has not feature of showing transactions on the machine. In addition, mobile banking does not show more than 10 transactions. Responses with mean value of 3.79 and standard deviation of 0.76 suggest that the products provide security for transaction data and privacy. All products are security protection assigned and the securities are successful in protecting the data and transaction. POS transactions and mobile banking are PIN protected and Internet banking is password protected. The customers feel safe by using the products as indicated by the mean value of 3.91 and standard deviation of 0.79. This implies that the products are password and PIN protected. The mean value of 3.27 for statement of the product is secured indicates that the customers are not sure that security of

the products because the security of the product is an issue the bank. On overall, customers moderately agree that the products are trustworthy with mean value of 3.69 and standard deviation of 0.59.

Table 5 below presents descriptions about the responses of customers about perceived ease of use of the new products.

Table 4.5: Descriptions about perceived ease of use

Statement	N	Mean	Std. Deviation
Easy to find information in the product	348	3.8190	.55684
The product is easily usable	348	3.7213	.73989
The languages in the product displays easy t understand.	348	3.4741	.71373
Information and texts in the product are clear and eas to understand	348	3.8477	.78701
The product Provides clear instruction.	348	3.8161	.87262
Perceived Ease of use	348	3.7356	.51401

Source: Survey, 2018

According to table 4.5, the responses with mean value of 3.82 indicate that in the product it is easy to find information. Mobile banking provides different information like exchange rate, ATM location and account balance. Internet banking, in addition to showing balance, it shows long time statements. But POS have no this service packages. The standard deviation for this response is 0.74 suggesting that there is variation from mean response about the statement. This implies the products lack uniformity. Responses for easily using the products with mean value of 3.72 indicate that the products are easily usable. But the standard deviation indicates that the easiness varies from product to product and from customer to customer. The language the products currently provided is only English. The bank is not providing the service with different local languages. But the respondents moderately agree that the English easily displays the services. But standard deviation is high for this statement that agreement of the respondents significantly varies from mean.

Responses with mean value of 3.84 for information and texts in the product are clear and easy to understand. This suggests that the bank provides clear information for the services on the product. The standard deviation of 0.78 suggests there is significant variation from overall mean. Similarly, the respondents agree for clear instruction of the product. The mean value of 3.82 that the product provides clears instruction suggests the products have clear instruction when the customers use the service. On overall, the mean value of 3.74 for products is easy to use indicates customers are using the products easily. In addition to this, standard deviation of the 0.51 indicates that there is low variation from overall mean.

Table 4.6 below presents descriptions about the responses of customers about a usefulness of the new products.

Table 4.6: Descriptive analysis of perceived usefulness of the new products

Statement	N	Mean	Std. Deviation
The product gives 24 hours- 7 days service	348	3.7443	.98437
The product accomplish my tasks more quickly	348	3.7960	.82209
The product make Ease my tasks	348	3.7040	.89911
Perceived usefulness	348	3.7481	.75033

Source: Survey, 2018

According to table 4.6, Responses with mean value of 3.74 for the product gives 24/7 services suggest that customers are using whole the day through the week. But the standard deviation is highest with value of 0.98 suggesting that the products have no equal accessibility time. This may be because problem in accessibility in POS service. In addition, internet banking requires better connection and computers. Responses with mean value of 3.79 for performance of product in accomplishing the service quickly indicate that the products are efficient in quickly performing the transactions. Similar to previous response, standard deviation is significantly higher with value of 0.82 suggesting that there is variation in speed of accomplishing the transaction from product to product. Mean value of responses for performance of product in making tasks easy is 3.7 suggesting that the products are making easy other tasks.

Table 4.7 below presents descriptions about the responses of customers about relative advantage of the new products.

Table 4.7: descriptive analysis for relative advantage of new products

Statement	N	Mean	Std. Deviation
I use the product with lesser cost than the cost to us the service in the bank	348	3.8621	.95637
I get service from the product at the time the ban does not operate	348	3.8305	.82643
The product operate with better efficiency than th service provided in the bank	348	3.9971	.89668
The product is less riskier than using tradition banking service	348	3.7586	.91059
Relative advantage	348	3.8621	.67426

Source: Survey, 2018

According to table 4.7 below, Responses with mean value of 3.86 for statement of I use the product with lesser cost than the cost to use the service in the bank suggests that the new products are making the customers cost effective. POS transactions are discounted transactions with payback of 2%. In internet banking the customers do not pay service charge for printing the account statements. Mobile banking provides similar service to the services by the branches. The customers are not paying any transport cost to go to branches. But the standard deviation is higher with value of 0.96 suggesting that benefit varies from the user to user. The responses for the statement of 'I get service from the product at the time the bank does not operate' have a mean value of 3.83 suggesting that availability of the service through the day. The responses with mean value of 3.99 for statement that the product operate with better efficiency than the service provided in the bank suggests that new products are preferable to using bank. Respondents with mean value of 3.76 suggest that the new products are less risky than using traditional banking service. This is due to reduced cash holding. Standard deviation is 0.91 that the responses highly vary from mean

response suggesting that risk varies from product to product and experience of the customers. Generally, relative advantage of the new products development is significantly higher for the customers of the bank as it is indicated by the mean value of 3.86 and standard deviation of 0.67.

Table 4.8 below presents descriptions about the responses of customers about customer satisfaction.

Table 4.8: Assessment of Customer satisfaction

Statements	N	Mean	Std. Deviation
This is one of the best products I use	348	3.8190	.96270
This product is exactly what I need.	348	3.9138	.79880
I am satisfied with my decision to use this product	348	3.7213	.73989
I have truly enjoyed this Product	348	3.7443	.98437
Customer satisfaction	348	3.7996	.64017

Source: Survey, 2018

According to table 4.8, Customers are satisfied with the product they use as it is indicated by the mean value of 3.8. On the other hand standard deviation for this response is 0.96 suggesting that satisfaction of the customers significantly varies from product to product and customer to customer from mean response. Response with mean value of 3.91 for the statement that this product is exactly what I need shows that the customers have high need for the product. The standard deviation is 0.79 that there is significant variation from mean response suggesting the need for the product varies from product to product and customer to customer. Responses with mean value of 3.72 for satisfaction by decision of using the product indicate that customers moderately agree that they are satisfied with their decision. Standard deviation for this response is 0.74 suggesting that there is variation from mean response. As it is shown with mean value of 3.74 the respondents are enjoying the products. But the standard deviation of 0.98 indicates that satisfaction varies from product to product or customer to customer. Generally, customers are satisfied with new products of the bank as it is shown by the mean value of 3.799 and standard deviation of 0.64.

4.3 Correlation Analysis

In this section, the researcher tried to accomplish the goal of the study through applying Pearson's correlation as it is the most widely used method of measuring the degree of relationship between two variables.

This study used both descriptive and explanatory designs to reach at aforementioned objectives. Correlation analysis is one of explanatory design that is intended to identify the relationship between independent variables, new product development, and dependent variable, customer satisfaction. Based on assumption of linear relationship between the variables, Pearson correlation method is used to identify the relationship between the variables.

Table 4.9 presents the correlation coefficients and respective significance of the correlation.

Table 4.9: Correlation analysis

	CS	**RL**	**TR**	**EU**	**PU**	**RA**
CS	1					
RL	.608**	1				
TR	.714**	.498**	1			
EU	.841**	.476**	.643**	1		
PU	.754**	.415**	.369**	.637**	1	
RA	.428**	.237**	.273**	.419**	.357**	1

*Correlation is significant at the 0.01 level (2-tailed).***
Source: Own computations, 2018

As it shown in table 4.9 above all independent variables and dependent variables are positively and significantly correlated. The correlation coefficient between customer satisfaction and reliability is 0.608 and significance at significance level of 0.01 implying that increase reliability of the products improves customer satisfaction. Trust and customer satisfaction are positively correlated with the coefficient of 0.714 at significance level of 0.01. This implies that trust of the customer on the products is significantly increasing the satisfaction of the users of the product. The correlation between perceived ease of use and customer satisfaction is positive and significant at significance level of 0.01 and correlation

coefficient of 0.841. This suggests that when the products are more easy to use, the customers are more satisfied by using the product. Perceived usefulness and customer satisfaction are positively correlated with the coefficient of 0.754 and significance level of 0.01. This implies that when the new products of bank become more useful, the users become more satisfied. Relative advantage is positively correlated with customer satisfaction with correlation coefficient of 0.428 at significance level of 0.01. This the least correlation from the correlations used in the analysis.

4.4 Regression Analysis

This analysis is used to identify effect of new product development on customer satisfaction. Hypotheses are tested by using this analysis. The researcher identified both general and specific objects by using regression method. Multivariate linear regression method is used to run the regression analysis. All decisions are made at significance level of 0.05. Model is summarized by using adjusted R squared. ANOVA analysis is conducted by F-statistics. Significance of independent variables in explaining the dependent variable is decided by using both p-value and t-statistics. Before running the regression analysis, classical model assumptions were tested.

4.4.1 Diagnostic Tests

4.4.1.1 Validity

Bryman & Bell (2007) defined validity as how much any measuring instrument measures what it is intended to measure. They also suggest that the important issue of measurement validity relates to whether measures of concepts really measure the concept or not. There are several ways of establishing validity such as content validity; convergent validity concurrent; predictive validity; construct validity; and convergent validity. The validity of the research paper, as it was stated in the literature review part, all the variables are adopted from previous research works. This study addressed content validity through the review of literature and adapting instruments used in previous studies.

4.4.1.2 Reliability

Nunnaly (1978) stated that reliability is the consistency of a test, survey, observation, or another measuring device. The level of reliability of the instrument indicates the consistency of the variables. Cronbach‘s alpha is an index of reliability associated with the variation

accounted for the true score of the underlying construct and it can only be measured for variables which have more than one measurement question. 0.5 is a sufficient value, while 0.7 is a more reasonable value. Therefore, the reliability of the questionnaire is analyzed by using Cronbach's alpha statistics.

As it is indicated in the table 4.10 below, all Cronbach's alpha indexes are above 0.7 suggesting that the variables are consistent to measure new product development of the bank.

Table 4.10: Reliability Analysis

Variables	Cronbach's Alpha	N of Items
Reliability	.811	4
Trust	.711	4
Perceived ease of Use	.730	5
Perceived usefulness	.774	3
Relative Advantage	.741	4
Customer Satisfaction	.707	4

Source: Own computation, 2018

4.4.1.3 Multicollinearity Test

Gujarati (2004) states that multicollinearity problem arises when there is a linear relationship among explanatory variables that the result could not obtain estimates of all parameters. This causes large variance and standard error with a very low t- ratio and wide confidence interval. Different methods are often suggested to detect the existence of multicollinearity problem. Variance inflation factors (VIF) technique used for continuous explanatory variable and contingency coefficient (CC) method is used for dummy variables. For continuous variables, if the value of VIF is 10 and above, the variables are said to be collinear. Similarly, if the value of CC greater than 0.75, the variables said to be collinear.

To detect the problem of multicollinearity the VIF technique is used prior to executing the regression analysis. As presented in the table 4.11, the values of VIF are well below 10 and suggesting that there is no problem of multicollinearity among the study independent variables.

Table 4.11: Multicollinearity Test

Variables	Collinearity Statistics	
	Tolerance	VIF
Reliability	.684	1.463
Trust	.530	1.885
Perceived ease of Use	.381	2.628
Perceived usefulness	.561	1.783
Relative Advantage	.810	1.235

Source: Own computation, 2018

4.4.1.4 Normality Test

This study used bivariate correlation analysis through Pearson and multivariate linear regression method to identify the effect of new product development on customer satisfaction. These two methods assume normal distribution of data for both dependent and independent variables. Before analyzing the data in these methods the researcher conducted normality test by using Shapiro-Wilk test because the observations are only 348. The null hypothesis for this test is that data is normally distributed.

Table 4.12: Normality test

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Customer satisfaction	.297	348	.091	.795	348	.102
Reliability	.152	348	.156	.951	348	.231
Trust	.198	348	.161	.887	348	.184
Perceived ease of Use	.168	348	.122	.939	348	.171
Perceived usefulness	.154	348	.231	.935	348	.185
Relative Advantage	.198	348	.101	.882	348	.144

Source: Own computations, 2018

The result of normality tested in the table 4.12 above. Results are insignificant at significance level of both 0.05 and 0.01. The researcher cannot reject the null hypothesis of

data is normally distributed instead the researcher accepts the null hypothesis for all study variables.

4.4.1.5 Linearity Test

This test is conducted to identify linear relationship between dependent variable and independent variables with null hypothesis of linear relationship.

Table 4.13: Linearity Test

	Sum Squares	df	Mean Square	F	Sig.
Reliability	1.072	13	.134	1.338	.234
Trust	1.405	12	.117	1.401	.179
Perceived Ease of Use	1.890	14	.145	1.462	.147
Perceived usefulness	1.347	9	.135	1.292	.246
Relative Advantage	1.562	13	.390	1.438	.102

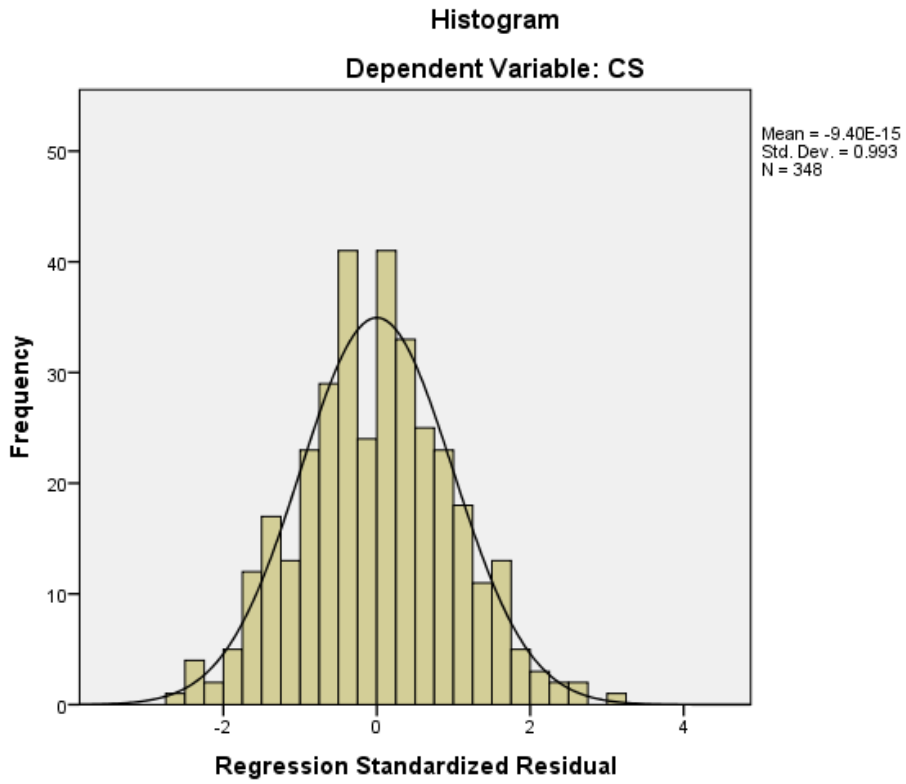
Source: own computation, 2018

The result of the linearity test is presented in the table 4.13 above. All variables are insignificant at both significance level of 0.05 and 0.01. Since the linearity between study variables is insignificant, the researcher cannot reject null hypothesis instead accepts null hypothesis of dependent and independent variables are linearly related. This implies that customer satisfaction and new product features have linear relationship.

4.4.1.6 Residual normality Test

One of the classical linear regression models assumptions is the error term should be normally distributed or expected value of the error term should be normally distributed or expected value of the errors terms should be zero (E(UT))=0).The researcher used histogram to identify normal distribution of residuals and the result indicates that standard residuals are a little bit far away from the curve, many of the residuals are fairly close more to the curve and the histogram is bell shaped. This implies that the majority of scores lie around the center of the distribution (so the largest bars on the histogram are all around the central value. Therefore, this indicates that the residuals are normally distributed.

Figure 5: Residual Normality test



Source: Own computation, 2018

4.4.2 Regression Results

Table 4.14 below summarizes model of the study by R-squared and Adjusted R squared.

Table 4.14: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.930[a]	.865	.863	.23686	1.227

Source: Own computations, 2018

The study model summary is presented in table 4.14 above. This summary is used to identify role of new product development dimension used in this study in explaining customer satisfaction. As it is shown in the table, R squared is 0.865 and adjusted R squared is 0.863 suggesting that that 86.3% variation in dependent variable is explained by independent variables used in the model. This implies that 86.3% variation in customer satisfaction in commercial bank of Ethiopia by using new products of the bank is affected by new product development.

Table 4.15: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	123.021	5	24.604	438.568	.000
Residual	19.187	342	.056		
Total	142.207	347			

Source: Own computation, 2018

ANOVA is presented in table 4.15. This analysis is used to address the general objective and main research question of the study. In addition, this analysis is used to identify appropriateness of the model in estimating effect of new product development on customer satisfaction. The researcher used multivariate linear regression method to run regression analysis. F-statistic is significant at 0.01 indicating that the model used is appropriate to explain effect of new product development on customer satisfaction. This implies that new product development in commercial bank of Ethiopia significantly affects customer satisfaction.

Table 4.16: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.709	.105		-6.741	.000
RL	.134	.022	.148	6.176	.000
TR	.289	.029	.270	9.887	.000
EU	.442	.040	.355	11.027	.000
PU	.299	.023	.351	13.221	.000
RA	.043	.021	.045	2.050	.041

Source: Own computation, 2018

The effect of individual dimension of new product development is presented in table 16 above. The researcher used unstandardized coefficients and their sign to analyze the effect on customer satisfaction. The specific objectives are addressed and research questions were answered based on this table. All variables used in the model are positive and statistically significance implying that they have significant positive effect on satisfaction of users of the products.

The researcher summarized the study hypotheses in table 4.17 based on results from table 4.15 and table 4.16 above. The researcher summarized hypotheses for alternative hypotheses. The researcher tested hypotheses by using p-value.

4.5 Hypothesis testing and discussion of results

Perceived Ease of use and Customer satisfaction

H1: Perceived ease of use has a significant positive effect on customer satisfaction.

The results in table shows that there is a positive effect of independent variable (ease of use) on dependent variable (Customer satisfaction) at (β= .355, p=.000). Beta value shows the strength and direction of independent variable (perceived ease of use) on dependent variable (Customer satisfaction). The significance value is shown by "p" value. So it is proved that the hypothesis H1 is accepted. Thus, the null hypothesis is rejected

Reliability and customer satisfaction

H2: Reliability has a significant positive effect on customer satisfaction.

Secondly the results in table shows that there is a positive impact of independent variable (reliability) on dependent variable (Customer satisfaction) at (β= .148, p<0.05). Beta value shows the strength and direction of independent variable (reliability) on dependent variable (Customer satisfaction). The significance value is shown by "p" value. So it is proved that the hypothesis H2 is accepted. Thus, the null hypothesis is rejected.

Trust and customer satisfaction

H3: Trust has a significant positive effect on customer satisfaction.

Third the results in table shows that there is a positive impact of independent variable (trust) on dependent variable (Customer satisfaction) at (β= .270, p<0.05). Beta value shows the strength and direction of independent variable (trust) on dependent variable (Customer

satisfaction). The significance value is shown by "p" value. So it is proved that hypothesis H3 is accepted. Thus, the null hypothesis is rejected.

Perceived usefulness and customer satisfaction

H4: Perceived usefulness has a significant positive effect on customer satisfaction.

The results in table shows that there is a positive impact of independent variable (perceived usefulness) on dependent variable (Customer satisfaction) at (β= .351, $p<0.05$). Beta value shows the strength and direction of independent variable (perceived usefulness) on dependent variable (Customer satisfaction). The significance value is shown by "p" value. So it is proved that the hypothesis H4 is accepted. Thus, the null hypothesis is rejected.

Relative advantage and customer satisfaction

H5: relative advantage has a significant positive effect on customer satisfaction.

The results in table shows that there is a positive impact of independent variable (relative advantage) on dependent variable (Customer satisfaction) at (β= .045, $p<0.05$). Beta value shows the strength and direction of independent variable (relative advantage) on dependent variable (Customer satisfaction). The significance value is shown by "p" value. So it is proved that the hypothesis H5 is accepted. Thus, the null hypothesis is rejected.

Table 4.17: Hypothesis Summary

No	Hypotheses	Sig	Decision
Hypothesis 1	Perceived ease of use of new products ha positive significant effect customer satisfactior	0.000	Accepted
Hypothesis 2	Reliability of new products has positiv significant effect customer satisfaction	0.000	Accepted
Hypothesis 3	Trust of new products has positive significa effect customer satisfaction	0.000	Accepted
Hypothesis 4	Perceived usefulness of new products ha positive significant effect customer satisfactior	0.000	Accepted

Hypothesis 5	Relative advantage new products has positiv significant effect customer satisfaction	0.041	Accepted

Source: Own computations, 2018

The hypotheses are summarized based on table 4.17. This has identified positive effect of new product development on customer satisfaction. The effect is significant at significance level of 0.01. This finding is similar to findings of Ludfi (2014) and Ali (2010) that new products development by banks significantly effects the customer satisfaction. Molina, Jimenez, & Munuera (2011); Cheng, Chang, & Li, (2013) and Huang, Soutar, & Brown, (2014) new product development effect on customer satisfaction. These studies identified factors such Perceived ease of use, percieved usefulness, trust and quality have significant effect of satisfaction of customers.

Coefficient of reliability is positive and significant at significance level of 0.01 p-value and t-statistics of 6.176. The positive coefficient indicates reliability of the products improves customer satisfaction and vice versa holding other factors constant. This implies that reliability of new products of CBE has significant positive effect on user satisfaction. Finding of this study has similar result with findings of Cheng, Chang, & Li, (2013) that the reliability of new product has positive and significant effect on customer satisfaction.

Coefficient of trust is positive and significant at 0.01 indicating that trust on product has positive effect on customer satisfaction. Positive sign of the coefficient of the trust indicates that increasing trust increases customer satisfaction and vice versa holding other factors constant. This implies that trust of new products of CBE positively contributes customer satisfaction. This study identified similar result with finding of Belghis (2013) and Molina, Jimenez, & Munuera (2011) that trust has significant effect on e-service users' satisfaction.

Coefficient of perceived ease of use is positive and significant at p value of 0.01 and t-statistics of 11.027. It is the second highly significant feature next to perceived usefulness. Positive sign of the coefficient suggests that when new products of the bank become more easy to use, the customer satisfaction by using the product improves and vice versa holding other factors constant. This implies that users of new products of CBE satisfied since the

products are easy to use. This finding is in line with finding of Sathya (2015) and Belghis (2013) perceived ease of use positively affects customer satisfaction.

Perceived usefulness of new product has positive and significant effect on customer satisfaction at significance level of 0.01 suggesting that users of new product are highly satisfied with the usefulness of the products. Usefulness of the new products has highest effect with t-value of 13.22 on satisfaction of users when compared to other features. The study by Sathya (2015) identified similar result that perceived usefulness positively affects customer satisfaction.

Relative advantage of the new products to using the branch has statistically significant positive effect on satisfaction of users of the new products at significance level of 0.05. This suggests that users of new products of the bank are highly satisfied with the advantage they receive relative to using the services in branches. Compared to other dimensions of the new products relative advantage has lowest effect on customer satisfaction. This study has similar finding of Huang, Soutar, & Brown, (2014) and Sathya (2015) relative Advantages new products development in banks positively affects customer satisfaction.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSSIONS AND RECOMMENDATIONS

This chapter presents summary of major findings, conclusions and recommendations. The researcher addressed the developed research questions and reached at conclusion and provided recommendations.

5.1 Summary of Major Findings

This study was conducted with an objective of identifying effect of new product development on customer satisfaction in commercial bank of Ethiopia.

By investigating the relationships between selected dimension of New Product Development and customer satisfaction and also by quantitatively testing the effect of variables such as perceived usefulness, reliability, trust, perceived ease of use and relative advantage the following findings were reached.

- The demographic result of the study indicates that 70.98% (247) were males and the remaining 29.02% (101) were females. Regarding the respondents` age category16.37% of the respondents are at age category of 18 years to 30 years. 43.97% and 30.17% of the respondents are at age category of 31 years to 45 years and 46 to 60 years respectively. But only 9.5% of the respondents have an age above 60 years. Regarding marital status of respondents, 55.5% of the respondents are single and remaining 44.5% of the respondents are married.
- According the educational level of the respondents only 1.1% of the respondents have completed high school education. 29% of the respondents have diploma educational background. 45.1% of the respondents have university degree and remaining 24.7% of the respondents have educational qualification of masters' degree and above.

- The other result observed from the study shows the type of the product used by the respondents and year of experience. Accordingly, 87.4% of the respondents are mobile banking users, 6% of the respondents are internet banking users and remaining 6.6% of the respondents are POS machine users suggesting mobile banking the highly used new product of the bank. 20.7% of the respondents have experience of less than a year with the product. 49.1% of respondents have experience with the product from 1 year to 3 years. But 30.2% of the respondents have more than 3 years.
- Descriptive statistics is used to indicate the means for perceived ease of use, reliability, trust, perceived usefulness and relative advantage. These are perceived ease of use (3.74), reliability (3.75), trust (3.69), perceived usefulness(3.7) and relative advantage (3.86) .the result has shown that relative advantage has the highest mean and the lowest mean was observed for trust from the five dimensions of NPD.

- Correlation coefficient was computed for the purpose of determining the relationship between the independent variables and the dependent variable i.e. customer satisfaction. There was a positive and statistically significant relationship between the variables mentioned above. For perceived ease of use ($r=.841$, $p<0.01$), reliability ($r=.608$, $p<0.01$), trust ($r=.714$, $p<0.01$), perceived usefulness ($r=.754$, $p<0.01$) and relative advantage ($r=.428$, $p<0.01$).all variables show positive and significant relationship with customer satisfaction.

- The regression analysis was done to ascertain the extent to which the variables mentioned explain the variance in customer satisfaction. Using the regression output the developed hypotheses were tested and all of the hypotheses were accepted. From the results above it was seen that there is a strong positive relationship between New Product Development and Customer satisfaction. The value of Adjusted R squared=.863suggesting that that 86.3% variation in dependent variable is explained by independent variables used in the model. This implies that 86.3% variation in customer satisfaction in commercial bank of Ethiopia by using new products of the bank is affected by new product development.

5.2 Conclusions

Based on findings about effect of new product development on customer satisfaction in CBE, the researcher provides the following conclusions.

- It is very important to realize that New Product Development has a direct and positive effect on Customer Satisfaction and they are interrelated and interdependence. This means that if the new products are suitable and have the mentioned variables the customer satisfaction will be also high. This is the reason to more emphasize on increasing new products quality and features in order to increase customer satisfaction. New product development of CBE strongly and positively affects customer satisfaction by proving quality, reliable, trustful, and easy service. New products of the commercial bank of Ethiopia are well developed to satisfy the users of the products.

- Reliability of new products has positive effect on user satisfaction by containing toughs such as committing complete and error free transactions. New products of the bank are reliable that are satisfying the users expectation.

- Users of new products of commercial bank of Ethiopia are satisfied with trustfulness of the product. Secured service provided by the products is positively affecting satisfaction of the customers. Being more secured products is improving the customer satisfaction by using the products.

- New products of the bank are easy to use and this feature has significant positive effect on satisfaction of the customers. Customers are highly satisfied with the easiness of new products to use.

- Customers are satisfied with usefulness of the products. They perceived that the products are useful. Making the product more useful is positively affecting the users. The bank has developed the products that are useful for the customers and they are highly satisfied by using the products.

- Relative advantages of new products of the bank have positive and strong effect on customer satisfaction. The products are relatively more advantageous than the using the service in the bank. Customers are highly satisfied with the better advantage they earn from using the branches.

5.3 Recommendations

From the findings of this study it was observed that there is a direct and positive relationship between New Product Development and customer satisfaction which means that NPD is directly proportional to customer satisfaction. Based on the finding and analysis of the study, the following recommendations are proposed:-

- Since the study confirm the adopted dimensions of NPD: perceived ease of use, reliability, trust, perceived usefulness and relative advantage have significant effect on customer's satisfaction, banks should give strong emphasis to each dimensions in order to increase and maintain customer satisfaction. In addition, since the users are satisfied with the use of new products the bank is recommended to create awareness and to recruit more customers. Also it is necessary to make continuous follow up regarding the effectiveness of the new products.

- Reliability of new products has significant effect on customer satisfaction. Therefore, the management is recommended to improve reliability of the products through better network size and proper technical functioning (accessibility and usability), and fulfillment of promises.

- Trust on new products of the bank has significant effect on customer satisfaction. To improve satisfaction of the users and make the product the more secured, the bank has to improve security features of the products like stronger passwords that are not easily breakable.

- The easiness of the products to use is significantly affecting the satisfaction of users of new products of the bank. Therefore, the management of the bank is recommended to make the products easier by adding more suitable languages and make length of committing transactions shorter.

- Perceived usefulness has significant positive effect on satisfaction of the customers. The researcher recommends the management of the bank to give emphasize on the task accomplishment status of the products and also to increase more packages on the services offered by the products.

- Relatively new products have better advantage than using at branches. Since relative advantage has positive significant effect on customer satisfaction therefore, it is recommended to make the services provided by the products competitive to the services provided in the branches and to let the customers get better services than the ordinary banking service.

- The bank should also look at all the other dimensions along with their respective measurement indicators to improve and work on the current level of satisfaction.

5.4 Limitations and Further Studies

- Since this study is confined to the evaluation of identifying effect of new product development on customer satisfaction in customers only in Addis Ababa, interested researchers in the field can take up this issue and investigate it in another part of the country. The researcher recommends further studies to include remaining districts out of Addis Ababa.

- This study used only questionnaire to reach at aforementioned objectives. Therefore, further studies are recommended to include other data collection techniques such as interview.

- This study is conducted only from the side of the customers. It is also recommended to include responsible organs of the bank.

REFERENCE LIST

Aali, S. (2002), "Customer satisfaction", *Tadbeer Magazine* .

Abaenewe, Z., Ogbulu, O., & Ndugbu, M. (2013), "core banking and bank performance in Nigeria", *West African Journal of Industrial & Academic Research* .

Acharya, V., & Subramanian, K. (2009). Bankruptcy codes and innovation. . *Review of Financial Studies* .

Adeoti, J. (2011), "Automated Teller Machine (ATM) Frauds in Nigeria: The Way Out", *Journal of Social Sciences* .

Ajzen, I., & Fishbein, M. (1980), "*Understanding Attitudes and Predicting Social Behaviour"* Englewood Cliffs: Prentice Hall.

Akpan, B. (2002), "*Marketing Strategy Concept and Application"* Isola Ola and Sons Zaria.

Alabi, T.A. (2005), "Marketing of banking services in Nigeria. *University Press Ilorin*", pp.131-139.

Ali, M. (2010), "Effects of Technology Acceptance Factors on Users' Satisfaction" *International journal of applied research* .

Alsudary, B. (2005), "Determining the factors affecting e-customer satisfaction" *fifth international conference on industrial engineering* .

Alreck, P., & Settle, R. (2005), "*The survey research handbook (2nd ed.)"* Chicago: Irwin.

Amu, C. (2016), "E-Banking and Commercial Bank Performance in Nigeria", *International Journal of e-Education, e-Business, e-Management and e-Learning* .

Ayana, B. (2014), "factors affecting satisfaction of customers of E-banking in the Ethiopian banking industry", *Unpiblished MBA thesis Addis Ababa University* .

Azaze, A., & Jublee, E. (2010), "Market orientation and enw product performance: the mediating role of product advantage", *African journal of marketing management* .

Azeez, K. (2011), "Fresh hurdles for CBN cashless economy plan".

Azizi, S., & Negahdari, A. (2012), "Factors affecting e-satisfaction, an experience from Germany", *Modiriat Fanavari Ettelaat Magazine* .

Balboutin, A., Yuzdani, B., Cooper, R., & Souder, W. (2010), "New Product development practices in American and British firms" *Technovation* .

Batiz-Lazo, B., & Woldesenbet, K. (2006), "The dynamics of product and process innovation in UK banking", *International Journal of Financial Services Management* , pp. 400-421.

Behjati, S., Nahich, M., & Othaman, S. (2012), "Interrelation between e-service quality and e-satisfaction and loyalty", *European Journal of Business and Management* .

Belghis, B. (2013). A Study of the Effects of Technology AcceptanceFactors on Users' Satisfaction of E-Government Services . *World Applied Programming jouurnal* .

Booz, A., & Hamuton, A. (2005). *New Product Management for the Lagos.* . New York: Addison Wesley.

Bryman, A., & Bell, E. (2007). *Business Research Methods.* New York: Oxford University Press.

Burns, N., & Grove, S. (2001). . *(2001). The Practice of Nursing Research Conduct, Critique and Utilization (4th ed.).* Philadelphia: W.B. Sounders Company.

Carter, L., & Belanger, F. (2005). The utilization of e-government services: citizen trust, innovation and acceptance factors. *Information Systems Journal* .

CBE. (2017). *Anual Report.* Addis Ababa: CBE.

Chan, H., Hung, C., & Wen, C. (2013). An Evaluation of Key Factors for Bancassurance Success. *International Journal of Application and Innovation in Engineering and Management* .

Chau, P. (2007). Reexamining a model for evaluating information center success using a structural equation modeling approach. *Journal of Decision Science* .

Cheng, C., Chang, M., & Li, C. (2013). Configural paths to successful product innovation. *Journal of Business Research* .

Cooper, R. (2009, March/April). Effective Gating: make Product Innovation more Productive by using Gates with Teeth". *Marketing Management Magazine* , pp. 12-17.

Crawford, M., & Benedetto, A. (2003). *New Product Management" (7th edition).* . New York: Mc Graw-Hill.

Creswell, ,. J. (2009). *Educational research: Planning, conducting and evaluating quantitative and qualitativresearch (2nd ed.).* Upper Saddle River, N.J: Pearson Merrill Prentice Hall.

Creswell, W. (2005). *Research design: qualitative, quantitative, and mixed methods Approaches: 3rd edition.* Thousand Oaks, California: Sage Publications.

Csillag, J. (2015). The Role of Product Development at International Banks in Brazil. *Journal of Information and Management* , 271-282.

Das, T., & Teng, B. (2011). Trust, control and risk in strategic alliances: An integrated framework. *Organization Studies* .

Davis, F. (1995). *Perceived Usefulness, Perceived Ease of Use and User Acceptance of Information Technology.*

Doll, W., Hendrickson, A., & Xiandong, D. (2008). Using Davis's perceived usefulness and ease of use instruments for decision making: A confirmatory and multi-group invariance analysis. *Decision Sciences* .

Ejiogu, O. (2012). Assessment of the influence of new product development on profitability in Nigerian Banks. *Unpublished MBA project* , 53-69.

Ewah, S., Ekeng, A., & Umanta, U. (2008). Synthesis of new product development success. *Global Journal of social sciences* .

Falegan, S. B. (2006). edesigning Nigeria's Financial System. *University Press PLC, Ibadan* , 142-150.

Hair, Joseph, F., William, C., Black, S., Barry, J., & Babin, A. (2010). *Multivariate Data Analysis: Seventh Edition.* Pearson Education.

Hallowell, R. (1996). The relationship of customer satisfaction, customer loyalty and profitability. *International Journal of Service Industry Management* .

Horton, R., Buck, T., Waterson, P., & Clegg, C. (2011). Explaining internet use the technology acceptance model. *Journal of Information Technology* .

Huang, X., Soutar, G., & Brown, A. (2014). Measuring new product success: An empirical investigation of Australian. *Journal of Industrial Marketing Management* .

Kotler, P., & Armstrong, G. (2010). *Principles of Marketing: 13th Edition Pearson Education.* Saddle River, New Jersey U.S.A.: Inc Upper.

Lowler, H. (1984). *Basic Marketing Research Method (2nd Ed.).* New Jersey: Pearson Education, Inc.

Ludfi, G. (2014). Assessment of the influence of new product development on profitability in Nigerian Banks. *Unpublished MBA project*, 53-69.

Magutu, R. (2009). Financial Innovation and the Management and Regulation of Financial Institutions. *Journal of Banking and Finance* , 461-482.

Malhotra, S., & Peterson, M. (2006). *Basic Marketing Research A Decision-Making Approach (2nd Ed.).* New Jersey: Pearson Education, Inc.

Mansoori, E., & Baradaran, R. (2007). "Determining the factors affecting e-customer satisfaction. *fifth international conference on industrial engineering* .

Marsh, J., & Stock, N. (2009). Building dynamic capabilities in new product development through inter temporal integration. *journal of product innovation management* .

Moghli, A., Abdallah, G., & Muala, A. (2012). Impact of Innovation on Realizing Competitive Advantage in Banking Sector in Jordan. *American Academic & Scholarly Research Journal* .

Molina, C., Jimenez, D., & Munuera, J. (2011). Product competence exploitation and exploration strategies: The impact on new product performance through quality and innovativeness. *Industrial Marketing Management* .

Mukherjee, A., & Nath, P. (2010). A model trust in online relationship banking:Performance at Community Banks. *International Journal of Bank new information technologies* .

Mwania, A., & Muganda, B. (2011). The impact of internet-banking on bank profitability The case of Turkey. *Oxford Business & Economics Conference Program* , 50-62.

Neuman, W. (2003). *Social research methods: quantitative and qualitative approaches, 5th ed.* USA: Pearson Education,Inc.

Nikolaos, T., Erik, J., & Susan, H. (2012). Navigating the New Product Development Process. *Journal of Industrial Marketing Management*.

Nunnaly, J. (1978). *Psychometric Theory.* New York: McGraw Hill.

Olaegbe, R. (2011). Road to Cashless Lagos.

Onalo, J. (2004). Effects and Roles of Marketing Concepts on Corporate Performance; A study of some financial Institutions in Nigeria. *Department of business Administration* , 56-62.

Orji, E., & Garvey, M. (2017). Impact of New Products Development on the Profitability of Nigerian Deposit Money Banks. *International Journal of Economics, Finance and Management Sciences* , 213-221.

Pooja, M., & Singh, B. (2009). The impact of internet banking on bank performance and risk: The Indian experience. *Eurasian Journal of Business and Economics* , 161-173.

Porteous, D. (2016). *The Enabling Environment for Mobile Banking in Africa, London: DFID.* Retrieved December 2017, from http://www.bankablefrontier.com/assets/ee.mobil.ban king.report.v3.1.pdf

Reid, S. (1987). *working with Statistics: an introduction to quantitative method for social scientist.* London: London: Polity.

Sathya, S., & Sabyasachi, D. (2015). Factors Affecting Adoption of Mobile Banking. Empirical Study in the State of Odisha. *International Journal of Management and Business Studies* .

Tabachnick, B., & Fidell, L. (2001). *Using Multivariate Statistics (4th Ed.).* Boston:

Torkzadeh, G., & Doll, W. (2008). "The measurement of end-user computing satisfaction. *MIS Quarterly* .

Tsion, G. (2016). The Effect of E - Banking Services on Customer Satisfaction: The Case of Selected Commercial Banks in Ethiopia. *Unpublished MA thesis Addis Ababa University* .

Udegbe, S. (2014). New product development process and its impact on business performance in Nigeria. *The Business & Management Review* .

Wong, S. K., & Tong, C. (2012). The influence of market orientation on new product success . *European Journal of Innovation Management* , 99-121.

Worku, M. (2016). Factors Affecting Adoption Of Mobile Banking: The Case Of Commercial Bank Of Ethiopia Addis Ababa City Customers. Unpublished Emba Ethsis, Addis Ababa University .

APPENDICES

A1: QUESTIONNAIRE (ENGLISH)

Addis Ababa University

School of commerce Marketing Management

Graduate program

Dear respondents,

REQUEST FOR PARTICIPATION IN A RESEARCH STUDY

I am a Postgraduate student at Addis Ababa University. As partial fulfillment for the Masters of Marketing Management, I am conducting a research study on effect of new product development on customer satisfaction in a case of users of new products of commercial bank of Ethiopia in Addis Ababa.

Therefore, I would appreciate if you could spare a few minutes of your time to answer the following questions. All the information provided will be purely used for academic purposes and your identity will be treated with utmost confidentiality.

Your assistance will be highly appreciated and thank you in advance.

Regards!

Etsegent Muhe

Part I: **General Information of Respondents**

Please provide your best response for all questions and put "X"or "√" mark inside the box to your response.

1. Gender
   - □ Male
   - □ Female
2. Age
   - □ 18 up to 30
   - □ 31 up to 45
   - □ 46 up to 60
   - □ Above 60

3. Marital status:
   - □ Single
   - □ Married

4. Education level:
   - □ Primary
   - □ High school
   - □ Diploma
   - □ University degree
   - □ Master Degree and above

5. Occupation:
   - □ Unemployed
   - □ Student
   - □ Salaried
   - □ Business man/woman
   - □ Other

6. What kind of account do you have in the bank?
   - □ Saving account
   - □ Current account

7. Which type of new products service delivery do you use?
   - □ Mobile banking
   - □ Internet banking

- POS machine

8. For how long have you been using the new product (in years)?
   - Less than one year
   - One year to three
   - More than three

Part 2: **For response of your feeling about the question provided**

Please provide your best response for all questions and put "X"or "√" mark inside the box to your response.

To what extent do you agree with following statements for the product you are using?

Reliability							
#	Code	Statement	SD	D	N	A	SA
9	RL1	The product completes a task accurately					
10	RL2	The product delivers the service exactly as promised					
11	RL3	The product Performs the service right at the first time					
12	RL4	The product Performs tasks without errors					

Trust							
#	Code	Statement	SD	D	N	A	SA
13	TR1	The product keeps accurate record of transaction					
14	TR2	The product provide security for transaction da and privacy					
15	TR3	I feel safe by using the product					
16	TR4	The product is secured					

Perceived Ease of use							
#	Code	Statement	SD	D	N	A	SA
17	EU1	Easy to find information in the product					
18	EU2	The product is easily usable					

19	EU3	The languages in the product displays easy t understand.					
20	EU4	Information and texts in the product are clear ar easy to understand					
21	EU5	The product Provides clear instruction.					

Perceived Usefulness							
#	Code	Statement	SD	D	N	A	SA
22	PU1	The product gives 24 hours- 7 days service					
23	PU2	The product accomplish my tasks more quickly					
24	PU3	The product make Ease my tasks					

Relative Advantage							
#	Code	Statement	SD	D	N	A	SA
25	RA1	I use the product with lesser cost than the cost incur to use the service in the bank					
26	RA2	I get service from the product at the time the bar does not operate					
27	RA3	The product operate with better efficiency than th service provided in the bank					
28	RA4	The product is less riskier than using tradition banking service					

Part 3: For response of your satisfaction level

Please provide your best response for all questions and put "X"or "√" mark inside the box to your response.

Please indicate your level of satisfaction for using this product.

Customer Satisfaction							
#	Code	Statement	SD	D	N	A	SA
29	CS1	This is one of the best products I use					
30	CS2	This product is exactly what I need.					

31	CS3	I am satisfied with my decision to use this product					
32	CS4	I have truly enjoyed this Product.					

A2: QUESTIONNAIRE (AMHARIC)

ለደንበኞች የቀረበ የፅሁፍ መጠይቅ

አዲስ አበባ ዩንቨርስቲ ንግድ ስራ ት/ቤት
ማርኬቲንግ ማናጅመንት የድሕረ ምረቃ ፕሮግራም

በአዲስ አበባ ዩንቨርሲቲ ንግድ ስራ ት/ቤት የድህረ ምረቃ ተማሪ ስሆን የ ኢተዮጵያ ንግድ ባንክ ለደንበኞች አገልግሎት ጥቅም ላይ ያዋላቸው አገልግሎቶች (ሞባይል ባንኪንግ፡ ኢንተርኔት ባንኪንግኘ እና ፖስ ማሽን) በደንበኞች እርካታ ላይ ያላቸውን ተፅእኖ የሚመለከት የመመረቂያ ጥናታዊ ፅሁፍ እየሰራሁ እገኛለሁ።

በዚሁ መሰረት ከዚህ በመቀጠል የደንበኞችን እርካታ ለመለካት ያዘጋጀሁዋቸውን ጥያቄዎች እንዲሞሉልኝ ስጠይቅ ለሚያደርጉልኝ ትብብር በቅድሚያ እያመሰገንኩ ነው። የትኛውም የምትሰጡት መረጃ ሚስጥራዊነቱ የተጠበቀና ለትምህርት አላማ ብቻ የሚውል መሆኑን ከወዲሁ ለመግለፅ እወዳለሁ።

ከምስጋና ጋር

እፀገነት ሙሄ

ክፍል ፡ የደንበኞች የድህረ ታሪክ መረጃ
ሀሳቤን ይገልፅልኛል በሚሉት የመልስ መስጫ ሳጥን ውስጥ ምልክት “X“ ወይም “√“ ያድርጉ

1. ፆታ

- ሴት
- ወንድ

2. እድሜ

- ከ18 እስከ 30
- ከ31 እስከ 45
- ከ46 እስከ 60
- ከ 60 በላይ

3. የትዳር ሁኔታ

- ያላገባ
- ያገባ

4. የትምህርት ደረጃ:

- የመጀመሪያ ደረጃ ያጠናቀቀ
- ሁለተኛ ደረጃ ያጠናቀቀ
- ዲፕሎማ ምሩቅ
- ዩንቨርሲቲ ዲግሪ
- ሁለተኛ ዲግሪ እና በላይ

5. የሰራ መስክ

- የሌለው
- ተማሪ
- ደሞዝተኛ
- ነጋዴ
- ሌላ

6. በባንኩ የትኛውን አይነት ሂሳብ ተጠቃሚ ኖት?

- የቁጠባ ሂሳብ
- ተንቀሳቃሽ ሂሳብ

7. የትኛውን አይነት የባንኩን አዲስ አገልግሎት ተጠቃሚ ኖት?

- ሞባይል ባንኪንግ
- ኢንተርኔት ባንኪንግ
- ፖስ ማሽን

8. ለምን ያህል ጊዜ የባንኩን አዲስ አገልግሎት ተጠቅመዋል

- ከ ነ አመት ያነሰ
- ከ ነ አመት እስከ 3 አመት
- ከ 3 አመት በላይ

ክፍል 2: የባንኩን አዳዲስ አገልግሎቶች የተመለከተ የደንበኞች እይታ

ከስር በተጠቀሱት አረፍተ ነገሮች ላይ ያሎትን የመስማማት ደረጃ ይገልፅልኛል በሚሉት የመልስ መስጫ ሳጥን ውስጥ ምልክት "X" ወይም "√" ያድርጉ

		ፈፅሞ አልስማማ	አልስማማ	አልወሰንኩ	እስማማለ	በጣም እስማማለ
አስተማማኝነት						
9.	የምጠቀመው አገልግሎት ስራን በተገቢው ሁኔታ ይፈፅማል					
10.	የምጠቀመው አገልግሎት ስራን በባንኩ በተገባው ቃል መሰረ ይፈፅማል					
11.	የምጠቀመው አገልግሎት በመጀመሪያ ጊዜ በትክክል አገልግሎ ይፈፅማል					
12.	የምጠቀመው አገልግሎት ያለ ስህተት አገልግሎቱን ይፈፅማል					
ታማኝነት						
13.	የምጠቀመው አገልግሎት ትክክልኛ የሆነ የልውውጥ ማህ አለው					
14.	የምጠቀመው አገልግሎት የመረጃ ልውውጥ እና የግል ማህ ደህንነት ይሰራል					
15.	አገልግሎቱን ስጠቀም ደህንነት ይሰማኛል					

16.	አገልግሎቱን ስጠቀመው ደህንነቱ የተጠበቀ ነው					
ቀላል አጠቃቀም						
17.	በምጠቀመው አገልግሎት መረጃ ለማግኘት ቀላል ነው					
18.	የአገልግሎቱ ጠቅላላ አጠቃቀም ቀላል ነው					
19.	የአገልግሎቱ **ቋንቋ** አጠቃቀም ለመረዳት ቀላል ነው					
20.	የአገልግሎቱ መልእክቶችና መረጃዎች ቀላልና ግልፅ ናቸው					
21.	አገልግሎቱ ግልፅ መመሪያ የያዘ ነው					
ጠቃሚነት						
22.	አገልግሎቱን ከሳምንት እስከ ሳምንት ለ 24 ሰአት አገኛለሁ					
23.	አገልግሎቱ በፈጠነ ሁኔታ ስራዎችን ያጠናቅቅልኛል					
24.	አገልግሎቱ ስራዬን ያቀልልኛል					
አንፃራዊ ጠቀሜታ						
25.	አገልግሎቱን ስጠቀም የማወጣው ጊዜ እና ወጪ መደበኛ ባ ላይ ስጠቀም ከማወጣው ጊዜ እና ወጪ ያነሰ ነው					
26.	አገልግሎቱን ከ ባንኩ መደበኛ የስራ ሰአት ውጪ አገኛለሁ					
27.	አገልግሎቱ መደበኛ ባንክ ውስጥ ከሚሰጠው አገልግሎት የተ ቅልጥፍና አለው					
28.	አገልግሎቱ ያለው ለችግር አጋላጭነት ከ መደበኛው የባ አገልግሎት ለችግር አጋላጭነት ያነሰ ነው					

ክፍል 3: የደንበኞችን የእርካታ ደረጃ የተመለከቱ ጥያቄዎች

ከእርስዎ እይታ አቅጣጫ ጋር በሚስማማ የመልስ መስጫ ሳጥን ውስጥ ምልክት "X" ወይም "√"ያስቀምጡ

		ፈፅሞ አልስማማም	አልስማማም	አልወሰንኩም	እስማማለ	በጣም እስማማለ
29.	አገልግሎቱ ምርጥ አገልግሎት ነው					
30.	አገልግሎቱ በትክክል የምፈልገው አይነ ነው					

31.	አገልግሎቱን ለመጠቀም በመወሰኔ እርካ ይሰማኛል.					
32.	በአገልግሎቱ ደስተኛ ነኝ					

A3: Frequency Table

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	207	59.5	59.5	59.5
	Female	141	40.5	40.5	100.0
	Total	348	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 to 30	33	9.5	9.5	9.5
	31 to 45	123	35.3	35.3	44.8
	46 to 60	135	38.8	38.8	83.6
	Above 60	57	16.4	16.4	100.0
	Total	348	100.0	100.0	

Marital_Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	193	55.5	55.5	55.5
	Married	155	44.5	44.5	100.0
	Total	348	100.0	100.0	

Education

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	High school	4	1.1	1.1	1.1
	Diploma	101	29.0	29.0	30.2
	University degree	157	45.1	45.1	75.3
	Master Degree and above	86	24.7	24.7	100.0
	Total	348	100.0	100.0	

Employement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	2	.6	.6	.6
	Salaried	213	61.2	61.2	61.8
	Business man/woman	133	38.2	38.2	100.0
	Total	348	100.0	100.0	

Account_type

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Saving	199	57.2	57.2	57.2
	Current	149	42.8	42.8	100.0
	Total	348	100.0	100.0	

Product

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mobile	304	87.4	87.4	87.4
	Internet	21	6.0	6.0	93.4
	POS	23	6.6	6.6	100.0
	Total	348	100.0	100.0	

Experience_product

	Frequency	Percent	Valid Percent	Cumulative Percent

	Less than one year	72	20.7	20.7	20.7
Valid	One year to three	171	49.1	49.1	69.8
	More than three	105	30.2	30.2	100.0
	Total	348	100.0	100.0	

The product completes a task accurately

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	5	1.4	1.4	1.4
	Disagree	36	10.3	10.3	11.8
Valid	Neutral	74	21.3	21.3	33.0
	Agree	159	45.7	45.7	78.7
	Strongly Agree	74	21.3	21.3	100.0
	Total	348	100.0	100.0	

The product delivers the service exactly as promised

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	3	.9	.9	.9
	Disagree	25	7.2	7.2	8.0
Valid	Neutral	75	21.6	21.6	29.6
	Agree	169	48.6	48.6	78.2
	Strongly Agree	76	21.8	21.8	100.0
	Total	348	100.0	100.0	

The product Performs the service right at the first time

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	5	1.4	1.4	1.4
	Disagree	30	8.6	8.6	10.1

	Neutral	138	39.7	39.7	49.7
	Agree	143	41.1	41.1	90.8
	Strongly Agree	32	9.2	9.2	100.0
	Total	348	100.0	100.0	

The product Performs tasks without errors

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	5	1.4	1.4	1.4
	Disagree	16	4.6	4.6	6.0
	Neutral	66	19.0	19.0	25.0
	Agree	170	48.9	48.9	73.9
	Strongly Agree	91	26.1	26.1	100.0
	Total	348	100.0	100.0	

The product keeps accurate record of transaction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	5	1.4	1.4	1.4
	Disagree	14	4.0	4.0	5.5
	Neutral	71	20.4	20.4	25.9
	Agree	221	63.5	63.5	89.4
	Strongly Agree	37	10.6	10.6	100.0
	Total	348	100.0	100.0	

The product provide security for transaction data and privacy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.3	.3	.3
	Disagree	20	5.7	5.7	6.0
	Neutral	79	22.7	22.7	28.7
	Agree	200	57.5	57.5	86.2
	Strongly Agree	48	13.8	13.8	100.0
	Total	348	100.0	100.0	

I feel safe by using the product

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.3	.3	.3
	Disagree	17	4.9	4.9	5.2
	Neutral	70	20.1	20.1	25.3
	Agree	183	52.6	52.6	77.9
	Strongly Agree	77	22.1	22.1	100.0
	Total	348	100.0	100.0	

The product is secured

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	93	26.7	26.7	26.7
	Neutral	92	26.4	26.4	53.2
	Agree	136	39.1	39.1	92.2
	Strongly Agree	27	7.8	7.8	100.0
	Total	348	100.0	100.0	

Easy to find information in the product

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.3	.3	.3
	Disagree	5	1.4	1.4	1.7
	Neutral	70	20.1	20.1	21.8
	Agree	252	72.4	72.4	94.3
	Strongly Agree	20	5.7	5.7	100.0
	Total	348	100.0	100.0	

The product is easily usable

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	35	10.1	10.1	10.1
	Neutral	52	14.9	14.9	25.0
	Agree	236	67.8	67.8	92.8
	Strongly Agree	25	7.2	7.2	100.0
	Total	348	100.0	100.0	

The languages in the product displays easy to understand.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	.6	.6	.6
	Disagree	29	8.3	8.3	8.9
	Neutral	129	37.1	37.1	46.0

	Agree	178	51.1	51.1	97.1
	Strongly Agree	10	2.9	2.9	100.0
	Total	348	100.0	100.0	

Information and texts in the product are clear and easy to understand

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	.9	.9	.9
	Disagree	34	9.8	9.8	10.6
	Neutral	18	5.2	5.2	15.8
	Agree	251	72.1	72.1	87.9
	Strongly Agree	42	12.1	12.1	100.0
	Total	348	100.0	100.0	

The product Provides clear instruction.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	6	1.7	1.7	1.7
	Disagree	16	4.6	4.6	6.3
	Neutral	86	24.7	24.7	31.0
	Agree	168	48.3	48.3	79.3
	Strongly Agree	72	20.7	20.7	100.0
	Total	348	100.0	100.0	

The product gives 24 hours- 7 days service

	Frequency	Percent	Valid Percent	Cumulative Percent

	Strongly Disagree	11	3.2	3.2	3.2
	Disagree	29	8.3	8.3	11.5
Valid	Neutral	71	20.4	20.4	31.9
	Agree	164	47.1	47.1	79.0
	Strongly Agree	73	21.0	21.0	100.0
	Total	348	100.0	100.0	

The product accomplish my tasks more quickly

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	2	.6	.6	.6
	Disagree	21	6.0	6.0	6.6
Valid	Neutral	85	24.4	24.4	31.0
	Agree	178	51.1	51.1	82.2
	Strongly Agree	62	17.8	17.8	100.0
	Total	348	100.0	100.0	

The product make Ease my tasks

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly Disagree	4	1.1	1.1	1.1
	Disagree	29	8.3	8.3	9.5
Valid	Neutral	96	27.6	27.6	37.1
	Agree	156	44.8	44.8	81.9
	Strongly Agree	63	18.1	18.1	100.0
	Total	348	100.0	100.0	

I use the product with lesser cost than the cost I incur to use the service in the bank

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	5	1.4	1.4	1.4
	Disagree	18	5.2	5.2	6.6
	Neutral	102	29.3	29.3	35.9
	Agree	118	33.9	33.9	69.8
	Strongly Agree	105	30.2	30.2	100.0
	Total	348	100.0	100.0	

I get service from the product at the time the bank does not operate

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	.9	.9	.9
	Disagree	11	3.2	3.2	4.0
	Neutral	102	29.3	29.3	33.3
	Agree	158	45.4	45.4	78.7
	Strongly Agree	74	21.3	21.3	100.0
	Total	348	100.0	100.0	

The product operate with better efficiency than the service provided in the bank

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	5	1.4	1.4	1.4
	Disagree	19	5.5	5.5	6.9
	Neutral	53	15.2	15.2	22.1
	Agree	166	47.7	47.7	69.8
	Strongly Agree	105	30.2	30.2	100.0
	Total	348	100.0	100.0	

The product is less riskier than using traditional banking service

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.3	.3	.3
	Disagree	39	11.2	11.2	11.5
	Neutral	73	21.0	21.0	32.5
	Agree	165	47.4	47.4	79.9
	Strongly Agree	70	20.1	20.1	100.0
	Total	348	100.0	100.0	

This is one of the best products I use

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	1.1	1.1	1.1
	Disagree	19	5.5	5.5	6.6
	Neutral	117	33.6	33.6	40.2
	Agree	104	29.9	29.9	70.1
	Strongly Agree	104	29.9	29.9	100.0
	Total	348	100.0	100.0	

This product is exactly what I need.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	.3	.3	.3
	Disagree	17	4.9	4.9	5.2
	Neutral	70	20.1	20.1	25.3

	Agree	183	52.6	52.6	77.9
	Strongly Agree	77	22.1	22.1	100.0
	Total	348	100.0	100.0	

I am satisfied with my decision to use this product.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	35	10.1	10.1	10.1
	Neutral	52	14.9	14.9	25.0
	Agree	236	67.8	67.8	92.8
	Strongly Agree	25	7.2	7.2	100.0
	Total	348	100.0	100.0	

I have truly enjoyed this Product.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	11	3.2	3.2	3.2
	Disagree	29	8.3	8.3	11.5
	Neutral	71	20.4	20.4	31.9
	Agree	164	47.1	47.1	79.0
	Strongly Agree	73	21.0	21.0	100.0
	Total	348	100.0	100.0	

A4: Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation

The product completes a task accurately	348	1.00	5.00	3.7500	.95315
The product delivers the service exactly as promised	348	1.00	5.00	3.8333	.87937
The product Performs the service right at the first time	348	1.00	5.00	3.4799	.83314
The product Performs tasks without errors	348	1.00	5.00	3.9368	.87325
Valid N (listwise)	348				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
The product keeps accurate record of transaction	348	1.00	5.00	3.7787	.74378
The product provide security for transaction data and privacy	348	1.00	5.00	3.7874	.75969
I feel safe by using the product	348	1.00	5.00	3.9138	.79880
The product is secured	348	2.00	5.00	3.2787	.94513
Valid N (listwise)	348				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Easy to find information in the product	348	1.00	5.00	3.8190	.55684
The product is easily usable	348	2.00	5.00	3.7213	.73989

The languages in the product displays easy to understand.	348	1.00	5.00	3.4741	.71373
Information and texts in the product are clear and easy to understand	348	1.00	5.00	3.8477	.78701
The product Provides clear instruction.	348	1.00	5.00	3.8161	.87262
Valid N (listwise)	348				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
The product gives 24 hours- 7 days service	348	1.00	5.00	3.7443	.98437
The product accomplish my tasks more quickly	348	1.00	5.00	3.7960	.82209
The product make Ease my tasks	348	1.00	5.00	3.7040	.89911
Valid N (listwise)	348				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I use the product with lesser cost than the cost I incur to use the service in the bank	348	1.00	5.00	3.8621	.95637
I get service from the product at the time the bank does not operate	348	1.00	5.00	3.8305	.82643
The product operate with better efficiency than the service provided in the bank	348	1.00	5.00	3.9971	.89668

The product is less riskier than using traditional banking service	348	1.00	5.00	3.7586	.91059
Valid N (listwise)	348				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
This is one of the best products I use	348	1.00	5.00	3.8190	.96270
This product is exactly what I need.	348	1.00	5.00	3.9138	.79880
I am satisfied with my decision to use this product.	348	2.00	5.00	3.7213	.73989
I have truly enjoyed this Product.	348	1.00	5.00	3.7443	.98437
Valid N (listwise)	348				

A5: Correlations

Correlations

		CS	RL	TR	EU	PU	RA
CS	Pearson Correlation	1	.608**	.714**	.841**	.754**	.428**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	348	348	348	348	348	348

RL	Pearson Correlation	.608**	1	.498**	.476**	.415**	.237**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	348	348	348	348	348	348
TR	Pearson Correlation	.714**	.498**	1	.643**	.369**	.273**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	348	348	348	348	348	348
EU	Pearson Correlation	.841**	.476**	.643**	1	.637**	.419**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	348	348	348	348	348	348
PU	Pearson Correlation	.754**	.415**	.369**	.637**	1	.357**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	348	348	348	348	348	348
RA	Pearson Correlation	.428**	.237**	.273**	.419**	.357**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	348	348	348	348	348	348

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

A6: Reliability Statistics

Reliability Statistics

Cronbach's Alpha	N of Items
.811	4

Reliability Statistics

Cronbach's Alpha	N of Items
.711	4

Reliability Statistics

Cronbach's Alpha	N of Items
.774	3

Reliability Statistics

Cronbach's Alpha	N of Items
.741	4

Reliability Statistics

Cronbach's Alpha	N of Items
.707	4

A7: Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	RA, RL, PU, TR, EU[b]	.	Enter

a. Dependent Variable: CS

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.930[a]	.865	.863	.23686

a. Predictors: (Constant), RA, RL, PU, TR, EU

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	123.021	5	24.604	438.568	.000[b]
	Residual	19.187	342	.056		
	Total	142.207	347			

a. Dependent Variable: CS

b. Predictors: (Constant), RA, RL, PU, TR, EU

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.709	.105		-6.741	.000		
	RL	.134	.022	.148	6.176	.000	.684	1.463
	TR	.289	.029	.270	9.887	.000	.530	1.885
	EU	.442	.040	.355	11.027	.000	.381	2.628
	PU	.299	.023	.351	13.221	.000	.561	1.783
	RA	.043	.021	.045	2.050	.041	.810	1.235

a. Dependent Variable: CS