



**EFFECTS OF NEW PRODUCT DEVELOPEMENT ON
CUSTOMER SATISFACTION: A CASE STUDY OF
COMMERCIAL BANK OF ETHIOPIA HAWASSA CITY,
ETHIOPIA**

MBA THESIS

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Effects of New Product Development on Customer Satisfaction: A Case Study of Commercial Bank of Ethiopia in Hawassa City, Ethiopia

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This is to certify that the thesis entitled “**Assessing the Effects of New Product Development on Customer satisfaction :(A case of CBE in Hawassa City)**” submitted in partial fulfillment of the requirements for the degree of Master of **business administration in marketing management**, the Graduate Program of the Department of Management and has been carried out by **Tesema Tarihu** under our supervision. Therefore we recommend that the student has fulfilled the requirements and hence hereby can submit the thesis to the Department of management.

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I hereby declare that all the corrections and recommendation suggested by the Board of Examiners are incorporated into the final Thesis entitled “The Effect of New product development on customer satisfaction” by -----

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List of Acronomy

ANOVA	Analysis of Variance
ATM	Automated Teller Machine
CS	Customer Satisfaction
CSF	Critical success factor
EFT	Electronic fund transfer
EU	Perceived Ease of use
ICT	Information communication technology
NPD	New Product Development
NPDSF	New product development success factor
POS	Point Of Sale
RA	Relative advantage
RL	Reliability
ROA	Return on assets
SPSS	Statistical package for social science
TAM	Technology acceptance model
UF	Usefulness

Abstract

In today's dynamic and highly competitive market, new product development has become one of the primary activities towards survival of any businesses. New product development has become potentially valuable way of securing competitive advantage by improving organizational performances and improving customer satisfaction through quality service. The general objective of the thesis was to identify the effect of new product development on customer satisfaction in CBE (Tabor, Fura and Geburial branch). It conceptualized and developed by five independent variables (reliability, trust, perceived ease of use, perceived usefulness and relative advantage) and dependent variable (on customer satisfaction). The study has theoretical and methodological scope. This study used both descriptive and explanatory research designs. The total population for the study was 45,550 and the sample size for this figure was 396. Those Sample respondents for this study were selected by using non probability, convenience sampling method. Data were collected from primary sources through closed structured questionnaire and analyzed through both descriptive and inferential methods. For the sake of achieving the objectives of this study, questionnaires were analyzed using descriptive and inferential analyses with the help of SPSS version 21 statistical software program. The descriptive analysis was conducted by using (frequency, percentage, mean and standard deviation). On the other hand, inferential analysis was conducted by using Pearson correlation method and linear multiple regression method. The study reveals that all new product development dimensions such as reliability, trust, perceived ease of use, perceived usefulness and relative advantage have statistically significant relationship and statistically positive and significant effects on CBE 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 and the bank should evaluate its performance so as to understand customers' need and to get continuous competitive advantage in the banking industry.

Key Terms: *New product development, dimensions, customer satisfaction, Hawassa City*

CHAPTER ONE

1. 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.

New Product development is described as the transformation of a market operation into a product available for Sale. 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 innovation 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 innovation 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.

The Banking sector acts as the life blood of modern trade and commerce to provide them with a major source of finance. This increasing phenomenon of globalization has made the concept of efficiency more important both for the non-financial and financial institutions and banks are the part of them. Banks largely depends on competitive marketing strategy that determines their success and growth. The modalities of the banking business have changed a lot in the new millennium compared to the way they used to be in the years by gone (Hussain & Bahatti, 2010). Regarding to this study conducting area, CBE plays an important role in the country's economy and dominates the market in terms of asset, deposit, capital, and customer base and branch network. It was legally established shape as a share company in 1963, which over the commercial banking activity of the state bank of Ethiopia. Currently CBE has more than 35 million account holders and the number of Mobile, internet-banking users also reached more than 5.9 million, and Active ATM cardholders reached more than 8 million as (CBE, June 30th 2022). The total asset of the bank as of June 30, 2022 is 1.1 trillion birr asset. Currently, the bank has more than 1824 branches all over the country and it still takes the lead contributing lion share in the country's economy than other private competitor (CBE MIS department June 30th 2022).

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 innovation, 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 to Orji & Garvey(2017) shows the inability of banks to actively involved 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 effects of new products innovation on customer satisfaction specifically in the case of Commercial Bank of Ethiopia, Hawassa City.

1.2 Statement of the Problem

Business organizations are striving to realize greater profits by delivering quality services according to customers' expectations. Satisfying customer is one of the main objectives of every business. Business recognize that keeping the current customer is more profitable than having to win new ones to replace those lost (Gantasala ,and Prabnaker,2010) Providing a good service quality is a major issue for all businesses. Customer satisfaction may determine the success or the failure of the business. In order to remain competitive in the market place, banks need to satisfy their customers' needs which in turn will help them ensure a high market share and substantial return (Khali, 2010).

The introduction of new products in banking business is one of the important factors to be competitive in the industry. According to Philip Kotler and Kevin Lane (2013) in an economy of rapid change continuous innovation is a necessity in product development.

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 innovation 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. 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.

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 Mwanja & Muganda (2011) analyzed 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 innovation on 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 innovation 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 innovation view point. To the knowledge of the researcher there are no studies conducted in identifying effects of new product innovation on customer satisfaction specifically in the case of commercial bank of Ethiopia.

Therefore the researcher intends to fill this literature gap by identifying effects of new product innovation in commercial bank of Ethiopia in the study area.

1.3 Research Objectives

1.3.1 General Objective

General objective of this study is identifying the effect of new product innovation on customer satisfaction in a case of customers of commercial bank of Ethiopia in Hawassa city.

1.3.2 Specific objectives

- i. To identify the effects of 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 effects of trust of new products on customer satisfaction.
- iv. To analyze effect of relative advantage of new products on customer satisfaction.
- v. To analyze effect of reliability of new products on customer satisfaction.

1.4 Research hypothesis

Ha1: Perceived Ease of Use has significant positive effect on customer satisfaction.

Ha2: Reliability has significant positive effect on customer satisfaction.

Ha3: Trust has significant positive effect on customer satisfaction.

Ha4: Perceived Usefulness has significant positive effect on customer satisfaction.

Ha5: Relative Advantages has significant positive effect on customer satisfaction.

1.5 Significance of the study

This study was to identify effects of new product innovation on customer satisfaction in Commercial Bank of Ethiopia. The true finding of this study will be expected to be a good source of input to the organization under study area and to initiate further research in the area of new product innovation and customer satisfaction in banking industry of Ethiopia. It would also assist those engaged in Banking business (Bankers) to pinpoint how new product development adds value to banking business. This will help management of the bank in giving information about effect of new product innovation 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 and also used as source for further studies.

1.6 Scope of the study

This study has an objective of identifying the effect of new product development on customer satisfaction. Despite the 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 Hawassa City selected branches and the study geographical limited at Hawassa city. Although there are number of users in the country, this study is delimited to users of new products in Hawassa city. Customer satisfaction differs depending on the situation and the product or service. In addition, the research analyzes the casual relations between the dependent variable (customer satisfaction) and the independent Variables (perceived ease of use, Reliability, Trust, perceived usefulness and relative advantage) as conceptual framework. A customer may be satisfied with a product or service, an experience, purchase decision, a sales person, store, service provider, or an attribute or any of these. However, this study was only emphasizing on new product development and customer satisfaction.

The researcher has chosen a research method which is within the limits of time, money, feasibility and availability to measure the study are considered. Primary and secondary data were used, and the researcher uses Convenience sampling method which is inherently a non-probability sampling method. Because of convenience sampling method is used to obtain large number of completed questionnaires quickly and economically within a period the study conducted in Hawassa city.

1.7. Limitation of the study

The limitation of the study is lack of clear awareness of participants in new product innovation concepts. The period of time was not sufficient for the researcher to observe large respondents from different areas of the city; research can be further conducted in other cities of Ethiopia also but, it only focused mainly on one city, Hawassa. Some other limitations the researcher faced some respondents were not willing to cooperate for the questionnaire and some others lack of knowledge to the questionnaire. Methodologically, implementation of the data collection method may be the other limitation of this study and also CBE customers' are in million, the sample of this study is relatively small, only 396 respondents involved in this study. Although this sample size meets the minimum requirement according to some statistical formula large samples are able to inflate statistical power.

1.8 Organization of the study

The organization of this paper is five chapters Chapter one contain is introductory part of the study which includes background of the study, statement of the problem, objectives of the study, research hypothesis, and significance of the study, scope of the study and limitations of the study. Chapter two is about literatures review which includes theoretical literature, empirical literatures and conceptual frame work.

Chapter three deals with methodology which includes description of the study area, research approach, research design, target population and sample, data sources and type, data collection procedures, method of data analysis, model specification, validity, reliability and ethical consideration. Chapter four is about data presentation and analysis and Chapter Five is about summary of findings, conclusion and recommendations.

CHAPTER TWO

2. Review of Related Literature

2.1 Introduction

This chapter discuss about New Product innovation 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.

2.1.2 Theoretical Review

2.1.2.1 Overview of new product development

New product development is the development of original products, product improvements, product modifications, and new brands through the firm's own product development efforts.

Product development is a marketing strategy in which new goods and services are developed and then added to current lines and marketed to existing customers. Product diversification occurs when new goods and services are created for new market segments not currently being served by the company (Kenneth, E . and Donald, B ,(2009.

New products are the lifeblood of a company. As old products mature and fade away, companies must develop new ones to take their place(Philip, K. and Gary, A (2016), Marketing : an introduction . USA : Pearson) - Companies that excel at developing and managing new products reap big rewards. Every product seems to go through a life cycle; It is born, goes through several phases and eventually dies as newer products come along that create new or greater value for customers. - The product life cycle present two major challenges. First, because all products eventually decline a firm must be good at development new products to replace aging ones (the challenge of new product development). Second , a firm must be good adapting its marketing in the face of changing tastes, technologies, and competition as products pass through stages (the challenge of product life cycle strategies) - As per Maylor and Pisano(1997) effective new product development has become the focal point of competitiveness in many industries particularly those where product life has shortened, competition increased on a global basis and customer demand for greater product variety has grown. The most successful companies consider some form of customer information in designing their products and services.

After repeated examples of problems with product introductions, it is still striking that actual customer ideas are not usually the first step in the new product development process.

In the age of marketing concept and market orientation, even successful organizations work on a set of assumptions about customer wants, needs and circumstances. Thus they tend to use distilled and derived information in creating new product offerings.(

Dennis, A. and Frank ,F(1996) ‘ Refining new product development team’ , learning to actualize consumer contributions, volume 5, no. 6)

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).

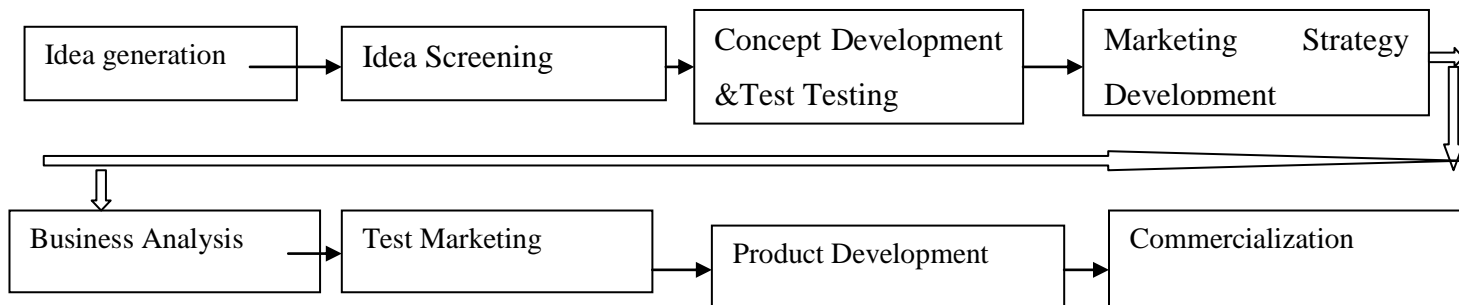
2.1.3 New product Development Strategy

A firm can obtain new products in two ways. One is through acquisition- By buying a whole company a patent, or license to produce someone else's product. The other is through the firm's own new product development efforts. New products are important to both customers and the marketer who serve them. They bring new solutions and variety to growth for companies. In today's fast changing environment, many companies rely on new products for the majority of their growth. Yet innovation can be very expensive and very risky. New products face tough odds. Why do so many new products fail? There are several reasons, although an idea may be good, the company may over statement market size. The actual product may be poorly designed. or it might in correctly positioned, launched at the wrong time, priced too high or poorly advertised so, companies face a problem : They must develop new products, but the odds weigh heavily against success.

To create successful new products, a company must understand its consumers markets, and competitors and develop products that deliver superior value to customers, - Companies cannot just hope that they will stumble across good new products. Instead, they must develop a systematic new product development process (Philip, K. and Gary, A, (2016), Principles of marketing : Pearson)

2.1.4 The new product development process

Rather than leaving new products to chance, a company must carry out strong new product planning and set up a systematic, customer- driven new product development process for finding and growing new products.



Source: Paulo, A. and Cauchick, M (2005)

Figure 1.1 Major stages in new product Development

1. Idea Generation

New product development starts with idea generation- The systematic search for new product ideas.

Major sources of new product ideas include internal sources and external sources such as customer's competitors, distributors and suppliers, and others,

✓ Internal Idea Sources

Using internal sources, we can find new ideas through formal research and development. - Beyond its internal R & D process, a company can pick the brains of its own people

✓ External Idea sources

Companies can also obtain good new product ideas from any of a number of external sources. For example, distributors are close to the market and can pass along information about consumer problems and new product possibilities – suppliers can tell the company about new concepts, technique, and materials that can be used to develop new products. competitors are another important source. Companies watch competitors ads to get clues about their new products. Perhaps the most important sources of new product ideas are customers themselves. The company can analyze customer questions and complaints to find new product that better solve consumer problems.

2. Idea Screening

The purpose of idea generation is to create large number of ideas. Not all ideas are used in new product development. The purpose of idea screening is to reduce the number of ideas.

Hence the first idea pruning stage is screening. Idea Screening is screening new product ideas to spot good ones and drop poor ones as soon as possible.

3. Concept Development & Testing

A product concept is a detailed version of the new product idea stated in meaningful consumer terms. An attractive idea must be developed into a product concept. It is important to distinguish between a product idea, a product concept and a product image. A product idea is an idea for a possible product that the company can see itself offering to the market. A product image is the way consumers perceive an actual or potential product.

4. Concept Testing

This is testing new product concepts with a group of target consumers to find out if the concepts have strong consumer appeal. Many firms routinely test new product concepts with consumers before attempting to turn them in to actual new products. For some concept tests, a word or picture description might be sufficient. However, a more concrete and physical presentation of the concept will increase the reliability of the concept test. The case of concept testing, a company will decide on the concept which has the strongest appeal. Product and services deliver their benefits interactively with users. At the concept generation stage, companies design their offerings as a list of component benefits. However, products and services are anything consumers think they are. Even if vendors have articulated product benefits accurately, few consumers will value them all. Most will concentrate only on components that are particularly important to them. The best method of creating quality products and services is to involve the customer in each step. Early and ongoing customer input distinguishes successful from unsuccessful products. Research supports involving customers at the idea generation stage ,and from product development on.(Journal of product and Brand Management,vol.5 No.6 1996).

Customers not only demand higher levels of quality in new products, but also demand the latest innovations. (Paulo, A. and Cauchick, M (2005) ‘Innovative new product development’ , a study of selected QFD case studies , volume 22, pp 72-82)

5. Marketing Strategy development

This is designing of an initial marketing strategy for a new product based on the product concept. Marketers have paid particular attention to the important role of innovation for successful product development.

Clearly innovation can be the core of competitive advantage for some firms and can be the vehicle for assaulting the market position of rivals. (Journal of product and Brand management,vol 5 No. 6 1996 pp 48-60)

6. Business Analysis

Business Analysis involves a review of the sales cost and profit projections for a new product to find out whether these factors satisfy the company's objectives. After management develops the product concept and marketing strategy, it can evaluate the proposals' attractiveness. Management needs to prepare sales, cost, and profit projections to determine whether they can satisfy the company's objectives.

7. Product development

Developing the product concept into the physical product to ensure that the product idea can be turned in to workable market offering. This stage is the actual product development stage. If the product concept passes the business test, it moves to R&D and/ or engineering to be developed into physical product. Up to this point of time, it has existed only as a word description, a drawing or a prototype. Prototype product is physical product that is manufactured as per the idea of new product to test it in the market. It is to get feedback about the reaction of consumers, dealers, competitors, and so on. If the image on the new product is good, then the next step is to launch the product as per to the plan. At this stage, the company will determine whether the product idea will be translated into a technically and commercially feasible product.

8. Test Marketing

Test marketing is the stage of new product development in which the product and its proposed marketing program are tasted in realistic market setting. Test marketing gives the marketer experience with marketing a product before going to the great expense of full introduction. It lets the company test the product and its entire marketing program.

Test marketing costs can be high, and testing takes time that may allow market opportunities to slip by or competitors to gain advantages.

A company may do little or no test marketing when the costs of developing and introducing a new product are low, or when management is already confident about the new product.

9. Commercialization

Commercialization is introducing a new product into the market - A company launching a new product must first decide on introduction timing-for example, if the new product will eat into the sales of other company products, the introduction may be delayed. Next, the company must decide where to launch the new product-in a single location, a region, the national market, or the international market.(Ibid)

2.1.5 Managing New Product Development

New product development involves more than just going through a set of steps. Successful new product development requires a customer oriented, team based, and systematic effort.

Customer centered new product development - New product development must be customer centered. When looking for and developing new products, companies often rely too heavily on technical research in their R & D laboratories.

But like everything else in marketing, successful new product development begins with a thorough understanding of what consumers need and value.

(Philip, K. and Gary, A, (2016) - Customer centered new product development focus on finding new ways to solve customer problems and create more customer- satisfying experiences.

Team based new product Development - Good new product development also requires a total- company, cross- functional effort. - To get their new products to market more quickly, many companies use a team- based new product development approach.

Systematic New Product Development - The New product development process should be holistic and systematic rather than compartmentalized and haphazard. Otherwise few new ideas will surface, and many good ideas will sputter and die

2.1.6 Roles of New Product innovation

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 innovation 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 innovation 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.

2.1.7 New Products innovation in commercial Banks

While reviewing new product innovation, 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).

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).

2.1.8 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.

2.1.9 Customer Satisfaction

Customers' satisfaction refers to the 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 such perceived ease of use, perceived 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.

Ha1: 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 hours 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).

Ha2: Reliability has 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.

Ha3: Trust has significant positive effect on customer satisfaction.

Perceived Usefulness

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).

Ha4: Perceived Usefulness has significant positive effect on customer satisfaction.

Relative Advantages

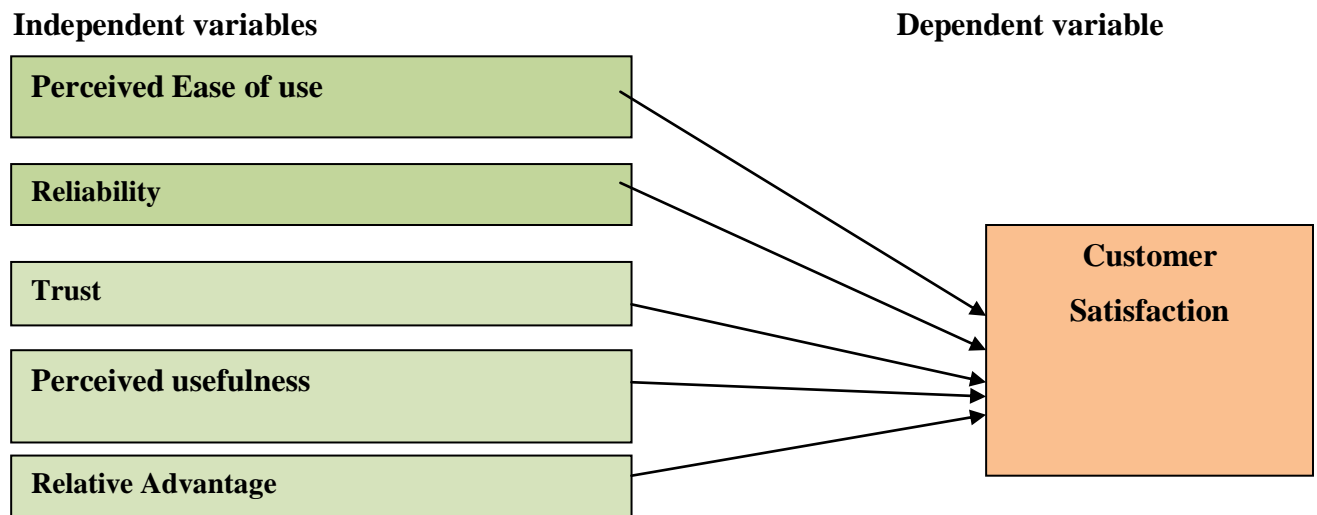
Relative advantages are the identified merits of using a particular product or service. As compared to other banking channels, new products offer convenient benefits in terms of mobility, which are not availed by traditional off-line banking.

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).

Ha5: Relative Advantages has significant positive effect on customer satisfaction.

2.3 conceptual framework

A conceptual framework was used to illustrate what we expect to find through our research, including how the variables we are considering might relate to each other. I have read scientific articles regarding customer centric banking practices and innovativeness and price sensitivity to generate the conceptual framework of the thesis. Accordingly, the following conceptual framework was developed.



Source: Carter & Belanger (2005)

CHAPTER THREE

METHODOLOGY

3.1 Description of Study Area

Commercial Bank of Ethiopia (CBE) has more than 1824 branches stretched across the country. The leading African bank with assets of 1.1 trillion Birr asset as on June 30th 2022. Currently CBE has more than 35 million account holders, from those account holders active card holder reached more than 8 million and the number of active Mobile and Internet Banking users also reached 5.9 million. 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.. Currently, it is working with other more than 20 money transfer agents like Western Union, Money Gram, Atlantic International (Bole), Xpress Money, Dahabshiil money transfer, Golden money transfer and etc.

This study was conducted in Hawassa city, capital of Sidama Regional state. Hawassa is situated at eastern shore of Lake Hawassa in the Great Rift Valley. Geographically it lays between 7°3' latitude North and 38°28' longitude east. The altitude of the city is 1697m above sea level. Hawassa city is bounded by Lake Hawassa in the west, Oromia region in the north, Wondogenet wereda in the east and Shembedino wereda in the south.

The study is conducted in CBE Hawassa city ,currently CBE under Hawassa District there are 97 branches among this branches in Hawassa city there are 20 branches from these branches the researcher will be selected three braches (Tabor, Fura, and Geburial) to gather data by using a purposive and convenient sampling technique in order to assessing the effects of new product innovation on customer satisfaction.

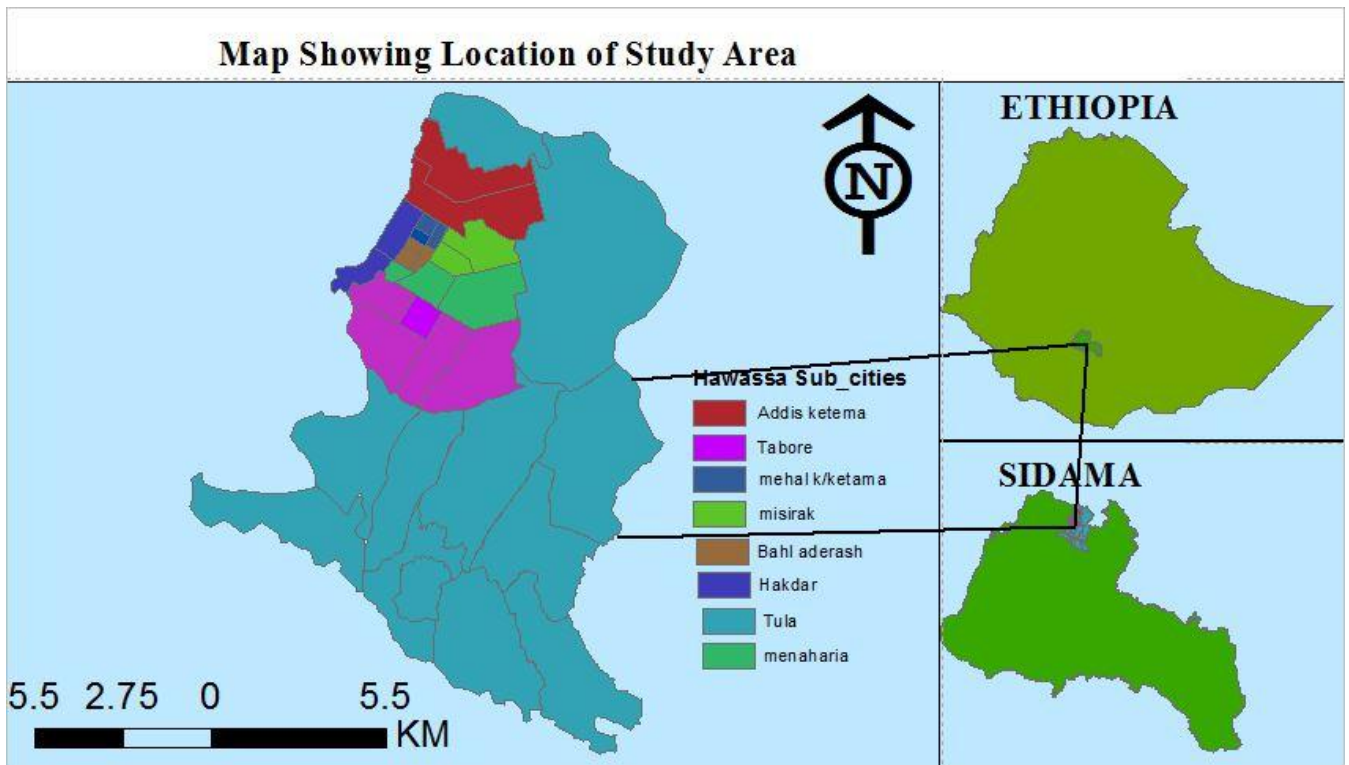


Figure 2.1 map showing study area

3.2. Research Design

Research design forms the blue-print or maps that details how the researcher collect data that is relevant to address the research questions. It is a general blue-print for the collection, measurement and analysis of data, with the central goal of solving the research problem. It includes the outline of what the research did, from writing the hypothesis and its operational application to final analysis of data (Creswell & Clark, 2007).

The research can be classified in to three as descriptive, explanatory and exploratory. Descriptive research sets out to describe & to interpret what is.

It aims to describe the state of affairs as it exists. It is concerned with conditions or relationships that exist, practices that prevail, beliefs, points of view or attitudes that are held, processes or that are developing.

The major purpose of descriptive research is describing the state of affairs as it exists at present. Explanatory research is conducted when we encounter an issue that is already known and have a description of it, we might begin to wonder why things are the way they are. The desire to know “why”, to explain, is the purpose of explanatory research. The researcher goes beyond merely describing the characteristics, to analyze and explain why and how something is happening.

Thus explanatory research aims to understand phenomena by discovering and measuring casual relations among them. Exploratory research is conducted when there are few or no earlier studies to which references can be made for information. It provides insights into and comprehension of an issue or situation for more rigorous investigation later. Exploratory research is a type of research conducted because a problem has not been clearly defined. Its purpose is to gain background information and better understand and clarify a problem.

The study was collected data on the effect of new product innovation on customer satisfaction so the study was used descriptive research for this purpose. In addition the research was analyze the casual relations between the dependent variable (customer satisfaction) and the independent Variables (perceived ease of use, Reliability, Trust, perceived usefulness and relative advantage) characteristics using correlation and regression, which makes the research explanatory. Therefore this study is both descriptive and explanatory.

3.3. Types and sources of Data

The main source of data for this study was primary and secondary data source. Primary data will be sourced through customer survey. As the researcher intends to investigate the effect of new product innovation on customer satisfaction the primary data was collected from primary sources via questionnaires, interviews and observation. The secondary data was collected from CBE, books, research papers, journals and other published material.

3.4. Target Population

Population refers to the entire group of people, events or things of interest that the researcher wishes to investigate (Sekaran, 2005). A study population can be defined as the entire collection of cases or units about which the researcher wishes to draw conclusions.

One of the major steps in formulating a research design is to define the population according to the objectives of the study.

The population of interest for this research is all customers of CBE in Hawassa city. Therefore, the study was used non-probability sampling approach particularly purposive and convenient sampling techniques because non –probability sampling approach enables the researcher to get some idea of the population and characteristics of the problem using well informed member in a short time.

Sampling units were the target population elements available for selection during the sampling process. The Sampling units for this study were all customers' serves as opening new account and existing customers using varies new bank products. The reason is that the

researcher believed that all customer of the bank knew or experienced the service of the organization due to some reasons that they have been served with this bank.

3.5. Sampling procedure

Sampling design is applied for this research is two stage sampling. Initially Purposive sampling is used to select branches of the bank based on the time duration and their level of business activities. The reason behind such sampling design is to get higher number of customers in a single place within short period of time.

Accordingly: Tabor, Fura, and Geburial branches are selected using purposive sampling technique. Convenience sampling is referred to the researching subjects of the population that are easily accessible to the researcher. Convenience samples are sometimes regarded as ‘accidental samples’ because elements may be selected in the sample simply as they just happen to be situated, spatially or administratively, near to where the researcher is conducting the data collection and also convenience sampling was used to select sample respondents from selected branches by way of approaching customers by visiting and interviewing the customers of the bank.

3.5.1. Sample Size

Sampling is the process of using a small or parts of a larger population to make conclusions about the whole population.

Sampling is one of the components of research design. Jankowicz(2005) defines sampling as the deliberate choice of a number of people; the sample provides data from which to draw conclusions about some larger group, the population, whom these people represent. This enables the research to be conducted economically feasible to use part of the population and also within the limited time frame. In light of this, the sampling techniques used to select samples from the given population were convenient sampling.

In this technique the sample selection process is continued until the required sample size has been reached. It involves selecting randomly those cases that are easiest to obtain the required sample (Zikmund, 2003). Hence, the researcher purposively selected three CBE which are found in Hawassa city; namely: Tabor, Fura, and Geburial branches. From three CBE to obtain representative samples, the study was used convenience sampling method to select the sample from the available population.

The researcher decided to employ convenience sampling method because there is no point in time during which all customers are available due to different reasons and it is not possible to

contact everyone who may be sampled. Sample sizes of respondents are three hundred ninety six (396) customers were selected 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.

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

$$n = \frac{45,550}{1+45,550(0.05)^2} \quad n=396$$

Thus, sample size of 396 customers were selected from the total population of 45,550

Where:

e =level of precision or margin of error which is 5%.

n= sample size.

N=the total number of population in the private Banks (in 3 Banks)

Therefore, each respondent was selected by using a convenience sampling method.

Proportional sample size from each stratum is calculated by using the following formula:

$$n_i = \frac{n_i * N_i}{N}$$

Where:

n_i= sample size for each Bank,

N_i= the total number of customers in each Bank,

N=the total number of customers in the private Banks (in 3 Banks),

n= the total sample size for the private Banks.

Accordingly, the table below shows the proportionate sampling for each Banks based on the above given formula.

Table 3.1 Number of sample respondents in each bank

Names of Bank	Total Numbers of customers in each bank	Sample size from each Bank	%
Tabor	22,527	$(396) * (22,527) / 45,550 = 196$	50%
Fura	13,364	$(396) * (13,364) / 45,550 = 116$	29%
Geburial	9,659	$(396) * (9,659) / 45,550 = 84$	21%
Total	45,550	396	100

Source: own survey (2023)

3.5.2. Sampling Technique

The sampling design that was employed for this study will be a non-probability sampling. A non-probability sampling provides with an information rich case study in which it enables to explore the research question and gain theoretical insight (Saunders, Lewis & Thornhil 2009). The sampling techniques used to select samples from the given population will purposive & convenient sampling.

3.6 Descriptions of variables

3.6. 1 Dependent variable

Dependent variable of the study is customer satisfaction.

3.6.2 Independent variables

Independent variables of the study are perceived ease of use, reliability, trust, perceived usefulness and relative advantage.

3.7 Data Collection Procedure

There researcher was collect data from mobile banking users in branches by drop and pick approach. Since the services given by the new products are standard and do not differ branch to branch, the researcher will get the respondents in selected three branches (Tabor, Fura, and Geburial) based on the high level of customer transaction. So these branches are exposed to get respondents easily. For internet banking users the researcher was 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 was identify corporate users by support of customer service marketing managers in branches.

The primary data were gathered using questionnaire. The researcher were distribute the questionnaire to sampled respondents. For the purpose of this study a quantitative methodology involving close-ended questioner was 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 has 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 were help to cover larger target groups than the interview, given the quality and chance of no response.

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 by using SPSS computer software. The statistical tools were aligned with the objectives of the research.

Inferential statistics is particularly the Pearson"s correlation was used to show the relationship and the strength/degree as well as direction of associations between variables. The other inferential statistics that was used is the regression analysis that shows interdependence of independent and dependent variables.

3.9 Model Specification

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

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \dots + \beta_nX_n + \epsilon_i$$

Where

Y is dependent variable which is explained by the independent variables

β_0 is constant

$\beta_1 \dots \beta_n$ are the coefficient of the independent variables X1 to Xn.

ϵ_i is an error term

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

$$CS = \beta_0 + \beta_1 UF + \beta_2 EU + \beta_3 TR + \beta_4 RA + \beta_5 RL + \epsilon_i$$

Where CS = Customer Satisfaction

UF= Usefulness

EU=Perceived Ease of use

TR=Trust

RA=Relative advantage

RL=Reliability

3.10 Validity

Validity defined as the extent to which data collection method or Methods accurately measure what they will intended to measure (sounders et al., 2003).In order to achieve the objective, the researcher has been taken the following steps to ensure the validity of the study:

1. Survey questionnaire was prepared based on previous empirical review and literature review;
2. Pilot test of Survey questionnaire was distributed for 38 customers of various bank branches.
3. Data was collected from the reliable sources, (i.e. from those respondents who are customers of commercial banks in Hawassa city.

3.11 Reliability

Reliability estimates the consistency the measurement or more simply, the degree to which an instrument measures the same way each time it is used under the same condition with the same subjects. Reliability is essential about consistency, if we measure something many times & the result is always the same, then we can say that our measurement is reliable (John et al., 2010)

Reliability (internal consistency) Analysis: Reliability of data tested using the Cronbanch's alpha. The reliability and internal consistency of the data will be measured by cronbanch Alpha coefficient.

Gerge and Mallery (2003) provides the following rules of thumb: $\alpha > 0.9$, Excellent, $\alpha > 0.8$ Good, $\alpha > 0.7$ Acceptable, and $0.6 < \alpha < 0.7$ questionable $\alpha > 0.5$ poor and $\alpha < 0.5$ Unacceptable. Accordingly, to Field (2007) the reliability is regarded to be satisfactory when the Alpha Coefficient is equal to or exceeds 0.7) Reliability analysis was computed to test whether the

scale used in this study is internally consistent and consistently measures the criterion variable using the reliability procedure in SPSS (version 26). In this study Cronbach's Alpha was used in six scales namely: Reliability, Trust, perceived ease of use, perceived usefulness and Relative advantage and customer satisfaction with 38 respondents out of the sample. From data analysis the Cronbach's Alpha for this study is good according to the standard set by George and Mallery (2003) and it is over the acceptable limit of >0.70 . For all variable Cronbach's alpha is greater than 0.75, which is shown in the below **Table 3.2** that signifies greater internal consistency between the items and measures the intended dimension of the variables.

Table 3.0.1: *Cronbach Alpha Reliability Test of Instruments*

Variables	Cronbach's Alpha	Number of items
Reliability	.958	5
Trust	.811	5
Perceived Ease of use	.838	6
Perceived Usefulness	.862	5
Relative Advantage	.857	4
Customer Satisfaction	.807	6
Overall	.924	31

Source: Own survey, 2023

3.12 Ethical consideration

The goal of ethics in this research is to ensure that there was no one harmed or suffered adverse consequence from the research activities. The research was undertaken to protect the rights of the respondents by ensuring that none of the respondents was named during the research data collection, respondents are selected to participate without compulsion, a respondent were informed the reason and purpose of the research, informed consent was sought from the managers of the sample organization before the commitment of this research initiatives. So that the research was undertaken in ethically acceptable manner that no one is going to be affected as a result of participation in this research output.

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.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1. Introduction

This chapter emphasizes on the analysis of data and discusses of the findings of the study in relation to the effects of new product development on customer satisfaction in private bank at Hawassa city. The data collected from respondent were analyzed and interpreted, using specific objectives and hypotheses of the study, using descriptive analysis, correlation analysis and regression analysis.

Descriptive focusing on the description of the sample population and discussion of the findings as well as inferential statistics, which makes inferences about the population based on the data from the sampled population, are presented. The researcher distributed 396 questionnaires to users of new product of CBE at Hawassa city. But 373 questionnaires were fully filled and returned with response rate of 94.2%.

Table 4.1: *Questionnaire Survey Response Rate*

Items	Response Rate	
	No.	Percent
Sample size	396	100
Collected	373	94.2
Remain Uncollected	23	5.8

Source: Own survey data, 2023

4.2. General Background Characteristics of Respondents

Table 4.2: Distribution of Respondents by their Sex and Age

Variables	Categories	Frequency(n)	Percent (%)
Sex	Male	237	63.5
	Female	136	36.5
	Total	373	100
Age	18-26	43	11.5
	27-35	81	21.7
	36-44	152	40.8
	45-53	79	21.2
	54-62	18	4.8
	Total	373	100

Variables	Categories	Frequency(n)	Percent (%)
Marital status	Single	92	24.7
	Married	205	55.0
	Divorced	60	16.0
	Widowed	16	4.3
	Total	373	100
Education level	Primary school	14	3.8
	Secondary school	20	5.4
	Certificate/Diploma	36	9.7
	Degree	237	63.5
	Masters and above	66	17.7
	Total	373	100

Source: Own survey, 2023

According to **Table 4.2** above, 63.5% of the respondents are males and 35.5% of the respondents are females. This implies the male users of new products are greater than female users of the new products. 11.5% of the respondents are at age category of 18 years to 26 years. 21.7%, 40.8%, 21.2 and 4.8% of the respondents are at age category of 27 years to 35

years, 36 to 44 years, 45 to 53 years and above 54 years respectively. These that most of respondents are under 45 year's age. 24.7% of the respondents have marital status of single and remaining 55.1%, 16% and 4.3% of the respondents are married, Divorced, and widowed respectively.

This implies that more of respondent are married. According to the educational level of the respondents, 3.8% of the respondents have completed Elementary school education and 5.4% are high school students. 9.7% of the respondents have diploma level educational background and remaining 63.5 and 17.7% of the respondents have university degree and masters and above respectively. This shows that to understand the developed new product and to explain the bank offering service is well or not and they can understand the question prepared by researcher under this study.

Table 4.3: Respondents' Occupation, Account, type of product and duration of Usage

Variables	Categories	Frequency(n)	Percent (%)
Occupation	Government employee	19	5.1
	Private sector employee	40	10.7
	Own business	288	77.2
	Student	26	7.0
	Total	373	100
Account	Saving account	334	89.5%
	Current account	39	10.5
	Total	373	100
Type of new products service delivery	Mobile banking	293	78.6
	Internet banking	80	21.4
	Total	373	100
For how long have you been using the new product (in years)?	Less than one year	12	3.2
	1-3	97	26.0
	More than 3 years	264	70.8
	Total	373	100

Source: Own survey, 2023

According to **Table 4.3**, 89.5% of the new product users are saving account holders and remaining 10.5% 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. 78.6% of the respondents are mobile banking users, 21.4% of the respondents are internet banking users. Most of respondent uses mobile banking when they used new product of the bank. According to Experience of respondents with product 3.2% of the respondents have experience of less than a year with the product. 26% of respondents have experience with the product from 1 year to 3 years and 70.8 of respondents have experience more than 3 years. Cumulatively, the 96.8% of users have an experience with the product above one year. This shows that the experienced customer can explain about bank company service and their satisfaction on newly developed product usage.

4.2. Descriptive Summary of the Study Variables

Under this topic, the collected data, mean scores and standard deviations were calculated for all Five-Point Likert Scale items. Then to assess the effect of new product development on customer satisfaction, descriptive statistics, mean, and standard deviation were considered. According to Al-Sayaad, Rabea, and Samrah (2006) the calculated mean score of an item were classified in ranges to fit the five-scaled Likert's measure of responses (strongly disagree, disagree, neutral, agree, and strongly agree) as shown in the Table 4.4 below. In this case the researcher classified in ranges to fit the five-scaled Likert's measure of responses as (strongly disagree, disagree, neutral, agree, and strongly agree).

Table 4.4: Mean Score Range for Five Scale Likert's Response

Mean	Response
1.00 - 1.79	Strongly Disagree
1.80 - 2.59	Disagree
2.60 - 3.39	Neutral
3.40 - 4.19	Agree
4.20 - 5.00	Strongly Agree

Source: Al-Sayaad et al. (2006)

Table 4.5: Descriptive Analysis for reliability of the new product

Table 4.5: Perception of respondents on the Reliability

Descriptive Statistics			
<i>Reliability</i>	N	Mean	Std. Deviation
The product completes a task accurately	373	3.64	1.122
The product delivers the service exactly as promised	373	3.52	1.015
The product Performs the service right at the first time	373	3.34	.812
The product Performs tasks without errors	373	3.79	.847
The product offer good service as promised	373	3.53	1.071
Overall mean(SD)		3.563	0.550

Source: Survey data, 2023

According to **Table 4.5**, Responses with mean value of 3.64 indicate that the products accurately complete the transaction. The standard deviation for this statement is 1.122 suggesting that there is a 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 3.52 suggesting that products are successful in providing as expected by the bank. Mean value of 3.34 suggests that the products perform the service right at first time. The standard deviation for this statement is 0.812 it indicates that there is variation between customers to customers on their responses. The respondents agree that the products performance tasks without errors with mean value of 3.79. 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. The product offer good service as promised question the respondent rat shows the mean value of 3.53 which falls under agree leve. This implies that the bank offers good service as they are promised to the customers. The overall mean(3.563) for reliability of the new products implies that the company implemented reliable new products and the overall response rate falls under agree level. This implies that the banks new product development create customer satisfaction.

Table 4.6: Descriptive Analysis for trust of the new product

Descriptive Statistics			
TRUST	N	Mean	Std. Deviation
The product keeps accurate record of transaction	373	3.77	1.091
I feel trust about their new product	373	3.82	1.348
The product provide security for transaction data and privacy	373	3.79	1.090
I feel safe by using the product	373	3.57	.932
The product is secured	373	3.53	.943
Overall mean(SD)		3.698	0.547

Source: Own survey data, 2023

According to **Table 4.6**, Responses for accuracy of product in recording the transaction with mean value of 3.77 and standard deviation of 1.091 suggests that the products are successful in keeping records of transaction. This is mainly practiced in mobile banking, internet banking and Automated teller machine. In addition, mobile banking does not show more than 10 transactions. Responses with mean value of 3.79 and standard deviation of 1.090 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 and Automated teller machine is password protected. The customers feel safe by using the products as indicated by the mean value of 3.57 and standard deviation of 0.932. This implies that the products are password and PIN protected. The mean value of 3.74 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. The mean value 3.53 for the statement implies the products are adding value to customers. On overall, customers moderately agree that the products are trustworthy with mean value of 3.698 and standard deviation of 0.547.

Table 4.7: Descriptions about perceived ease of use

perceived ease of use	N	Mean	S.D
Easy to find information in the product	373	3.46	.951
Their product is well to use instruction	373	3.53	1.066 2
The product is easily usable	373	3.73	1.249
The languages in the product displays easy to understand.	373	3.81	1.003
Information and texts in the product are clear and easy to understand	373	3.40	1.095
Overall mean(SD)		3.597	0.489

Source: Own survey data, 2023

According to **Table 4.7**, the responses with mean value of 3.46 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. The standard deviation for this response is 0.951 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 3.73 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 3.40 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 for this response is 1.095 suggests there is significant variation from overall mean. Similarly, the respondents agree that products provide clear instruction of the product with the mean value of 3.53 that the product provides clear instruction suggests the products have clear instruction when the customers use the service of the new products.

On overall, the mean value of 3.597 for products is easy to use indicates customers are using the products easily. In addition to this, standard deviation 0.489 indicates that there is low variation from overall mean.

Table 4.8: Descriptive analysis of perceived usefulness of the new products

Descriptive Statistics			
perceived usefulness	N	Mean	S.D
The product gives 24 hours- 7 days service	373	3.82	1.044
The product accomplish my tasks more quickly	373	3.72	.960
The product make Ease my tasks	373	3.73	1.080
The product save my time	373	3.38	.931
The product help me to send and receive mony without limitation	373	3.94	.856
Overall mean(SD)		3.718	0.437

Source: Own survey data, 2023

According to **Table 4.8**, Responses with mean value of 3.82 for the product gives 24 hours/7 day service suggest that customers are using whole the day through the week. But the standard deviation is highest with value of 1.04 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 3.72 for performance of product in accomplishing the tasks more quickly indicate that the products are efficient in quickly performing the transactions. Similar to previous response, standard deviation is significantly higher with value of 0.96 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 3.73 suggesting that the products are making easy other tasks. Mean value of response for product assisted to save time 3.38 suggesting products are helps to save time and standard deviation is significantly with value of 0.931. Responses rates with mean value of 3.94 suggest that the products are attractive to send and receive money without limitation. Standard deviations for this statement are 0.856 it indicate that there is a variation in agreement of the respondents. This implies that perceived usefulness of products varies from customer to customer and

from product to product. On overall, customers moderately agree that the products are useful with mean value of 3.718 and standard deviation of 0.477

Table 4.9: Descriptive analysis of relative advantage of the new products

Descriptive Statistics			
Relative advantage	N	Mean	S.D
I use the product with lesser cost than the cost I incur to use the service in the bank	373	3.53	1.041
I get service from the product at the time the bank does not operate	373	3.72	.921
The product operate with better efficiency than the service provided in the bank	373	3.54	.875
The product is less riskier than using traditional banking service	373	3.67	1.040
Overall mean(SD)		3.616	0.437

Source: Own survey data, 2023

According to **Table 4.9** Above, Responses with mean value of 3.53 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. 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 1.04 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 3.72 suggesting that availability of the service through the day.

The responses with mean value of 3.54 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 3.67 suggest that the new products are less risky than using traditional banking service. This is due to reduced cash holding. Standard deviation for this statement is 0.97 suggests that the responses highly vary from mean response suggesting that risk varies from product to product and experience of the customers..

On overall, customers moderately agree that the products have relative advantages compared to service provided in the bank and traditional banking systems as it is indicated by the mean

value of 3.616 and standard deviation of 0.437. This indicates that relative advantages creates or increase customer satisfaction on bank customers.

Table 4.10: Descriptive Analysis of Customer satisfaction

Customer Satisfaction			
Customer satisfaction	N	Mean	S.D
This is one of the best products I use	373	3.94	.879
This product is exactly what I need.	373	3.66	.775
I am satisfied with my decision to use this product	373	3.58	1.061
I have truly enjoyed this Product.	373	3.18	.914
Banks product is well to me to get best service	373	3.76	.798
I am happy being customer of this bank	373	4.03	.918
Overall mean(SD)		3.689	0.323

Source: Own survey data, 2023

According to **Table 4.10** Customers are satisfied with the product they use as it is indicated by the mean value of 3.94. On the other hand standard deviation for this response is 0.879 suggesting that satisfaction of the customers significantly varies from product to product and customer to customer from response. Response with mean value of 3.66 for the statement that this product is exactly what I need shows that the customers have high need for the product. The standard deviation for this response is 0.775 indicates that there is significant variation from response suggesting the need for the product varies from product to product and customer to customer. Responses with mean value of 3.58 for satisfaction by decision of using the product indicate that customers moderately agree that they are satisfied with their decision by using the new products. Standard deviation for this response is 1.06 suggesting that there is variation from mean response. As it is shown with mean value of 3.18 the respondents are enjoying the products. But the standard deviation of 0.914 indicates that satisfaction varies from product to product or customer to customer.

Customers are satisfied by being customer of new product indicated by mean value of 4.03. On the other hand standard deviation for this response is 0.918 suggesting that satisfaction of the customers significantly varies from product to product and customer to customer from mean response. The response rate of Banks product is well to me to get best service with its

mean 3.76 with SD 0.798 shows agree level this indicate that the customers get well service from the bank. Generally, customers are satisfied with new products of the bank as it is shown by the mean value of 3.50 and standard deviation of 0.17. Overall mean and standard deviation of new product development on customer satisfaction shows agree level. This indicate that new product development create customer satisfaction in bank industry.

4.3. Correlation Analysis

Correlation is a statistical technique that can show whether and how strongly pairs of variables are related. Correlation analysis is one of the most widely used analysis test in research. It is also a very useful means to measure the relationships between the variables with a single number that falls between -1 and +1 (Taylor, 2009).

A correlation analysis with Pearson’s correlation coefficient (r) was conducted on all variables in this study to explore the relationships between the dependent and independent variables. The correlation coefficient r is statics used to measure the degree or strength of this type of relationship (Taylor, 1990). According to Geoffreyet al. (2005) the results of correlation studies simply provide researchers with information regarding the relationship between two or more variables. When interpreting correlation coefficient ‘r’ value ranging from 0-0.3 indicates weak positive relationship while 0.3-0.7 indicates moderately positive relationship r (Ratner, 2009).

Therefore, the research finding indicates that all the five independent variables (Reliability, Trust, perceived ease of use, perceived usefulness and Relative advantage) have moderately positive correlation with the dependent variable (customer satisfaction).

Table .4.11: Correlation Analysis Result

Variables		R	T	PEU	PU	RAD	CS
Reliability (R)	Correlation	1	.476**	.530**	.358**	.412**	.647**
	Sig.		.000	.000	.000	.000	.000
Trust (T)	Correlation	.476**	1	.415**	.408**	.383**	.624**
	Sig.	.000		.000	.000	.000	.000
Perceived Ease of use (PEU)	Correlation	.530**	.415**	1	.342**	.340**	.605**
	Sig.	.000	.000		.000	.000	.000
Perceived Usefulness (PU)	Correlation	.358**	.408**	.342**	1	.438**	.617**
	Sig.	.000	.000	.000		.000	.000
Relative Advantage (RAD)	Correlation	.412**	.383**	.340**	.438**	1	.589**
	Sig.	.000	.000	.000	.000		.000
Customer satisfaction (CS)	Correlation	.647**	.624**	.605**	.617**	.589**	1
	Sig.	.000	.000	.000	.000	.000	

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

Source: Model output, 2023

As shown above (**Table 4.11**) to investigate the relationship between the independent variables (Reliability, Trust, Perceived ease of use, Perceived usefulness and Relative advantage) with the dependent variable (Customer satisfaction) as the result shown above all dimensions of new product development has moderate to strong positively and significantly correlated at 95 percent confidence level ($P < 0.05$).

The correlation coefficient between customer satisfaction and reliability is 0.647 and significance at significance level of 0.00 implying that increase reliability of the products improves customer satisfaction. Trust and customer satisfaction are positively correlated with the coefficient of 0.624 at significance level of 0.00. 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 0.00 and correlation coefficient of 0.605. 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 0.617 and significance level of 0.00. 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 0.589 at significance level of 0.00. The highest positive correlation is signified by reliability, Trust, Perceived usefulness, perceived ease of use and Relative advantage, with the $r =$ value 0.647, 0.624, 0.617, 0.605, and 0.589 are correlated respectively. The Relative advantage is the least and Trust is highest 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.

4.4.1 Diagnostic Tests

4.4.1.1. Multicollinearity Test

The basic assumptions should be satisfied in order to maintain data validity and robustness of the regressed result of the research under the multiple regression models. Hence, this study has conducted the assumption tests such as, multi-collinearity, and normality.

This regression is conducted to know how much the independent variable explains the dependent variable. It is also used to understand by how much each independent variable (Reliability, Trust, Perceived ease of use, Perceived usefulness and Relative advantage) explains the dependent variable, which is Customer satisfaction. The results of the regression analysis are presented as follows in **Table 4.12**.

To have good results, the independent variables should not be highly correlated with each other. In multiple regression analysis, collinearity refers to the correlation among the independent variables (Pallant, 2007). Therefore, to make sure that there is low collinearity, the values of Tolerance and VIF (Variance Inflation Factor) should be checked. According to Pallant (2007), tolerance indicates to what extent the independent variables do not explain much of the variability of a specified independent variable and the value should not be small (more than 0.10) to indicate the absence of collinearity. In addition to that, VIF, the inverse of tolerance value, should have a value of less than 10 to avoid any concerns of collinearity (Pallant, 2007). Hence, the values in the table 4.12 below indicate low collinearity because all Tolerance values are above 0.1 and all VIF values are less than 10.

Therefore, these tests reflect that the variables used in the study are free from multicollinearity.

Table 4.12: Multicollinearity analysis

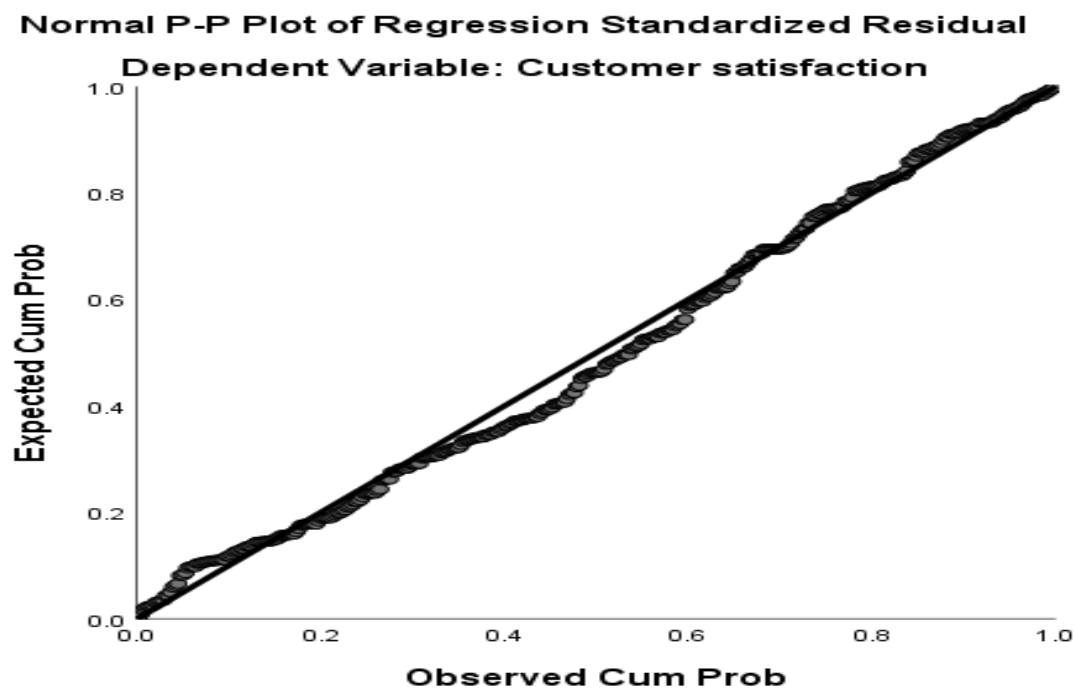
Independent variables	Collinearity Statistics	
	Tolerance	VIF
Reliability	.607	1.648
Trust	.675	1.481
Perceived Ease of use	.668	1.496
Perceived Usefulness	.713	1.403
Relative Advantage	.721	1.388

Source: Model output, 2023

4.4.1.2 Linearity Test

Multiple regressions assume a linear relationship between the independent and dependent variables. The points should be symmetrically distributed around a diagonal line, with a roughly constant variance. Hence using visual inspection of the scatter plot, it can be suggested about the linearity. This test is conducted to identify linear relationship between dependent variable and independent variables with null hypothesis of linear relationship.

Figure 4.1: The Linearity test of Standardized Residual



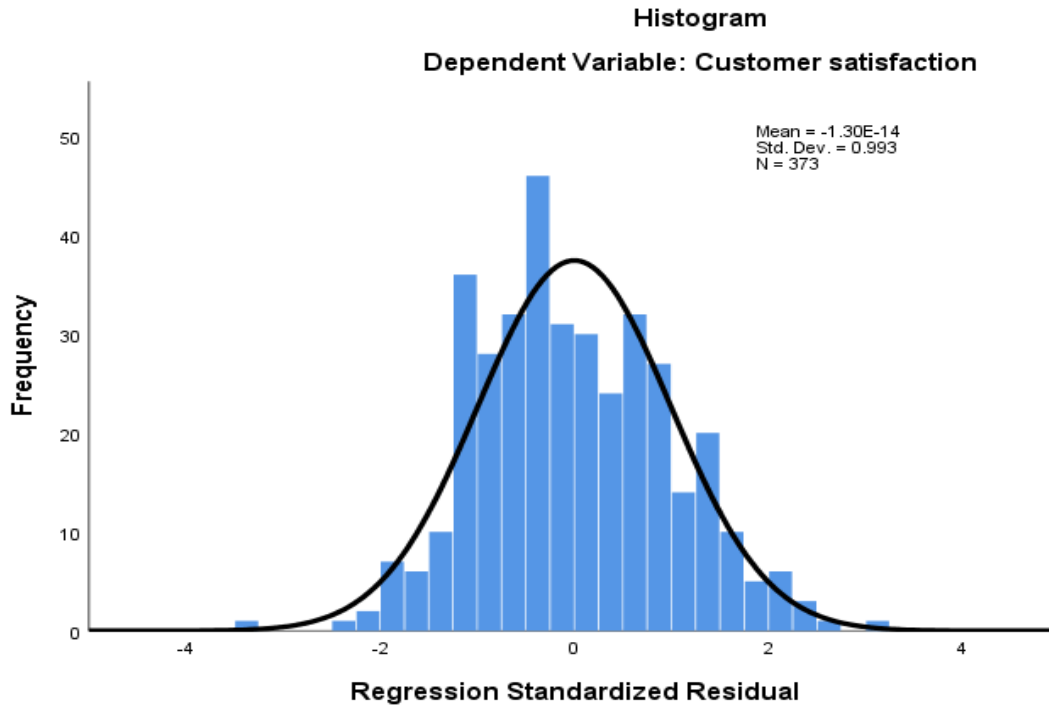
Source: Model output, 2023

4.4.1.3 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 4.2: Frequency Distribution of Standardized Residual



Source: Model output, 2023

4.4.2 Regression Results

Table 4.13 below summarizes model of the study by R-squared and Adjusted R squared.

Table 4.13: Results of Regression Analysis Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.849	.721	.717	.17224

Source: Model output, 2023

The R Square value in the model summary showed that the amount of variance in the dependent variable that can be explained by the independent variables.

The above **Table 4.13**, showed that the estimation of multiple regression customer satisfaction. It specifies that the correlation between the calculated value of independent variables i.e. Reliability, Trust, Perceived usefulness, perceived ease of use and Relative advantage. And dependent variable i.e. customer satisfaction is $R = 0.849$. And also the R

Square value = 0.721 and the adjusted R Square is 0.717. Therefore, this showed 72.1% of customer satisfaction can be predicted by the variables like, Reliability, Trust, Perceived usefulness, perceived ease of use and Relative advantage while the remaining 27.9% variation of customer satisfaction can be expected to be other variables that are not included in this study but helps for further research to find out those variables for researchers in the same concept.

Table 4.14: Results of ANOVA Output

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.128	5	5.626	189.637	.000
	Residual	10.887	367	.030		
	Total	39.015	372			

a. Dependent Variable: Customer satisfaction

b. Predictors: (Constant), Relative advantage, Perceived usefulness, Perceived ease of use, Reliability, Trust

Source: Model output, 2023

ANOVA is presented in table 4.14. 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 0.00 indicating that the model used is appropriate to explain effect of new product development on customer satisfaction. This implies that new product development in CBE significantly affects customer satisfaction.

Table 4.15: Results of Multiple Linear Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	SE	Beta		
1	(Constant)	.919	.093		9.875	.000
	Reliability	.140	.021	.237	6.703	.000
	Trust	.135	.020	.228	6.793	.000
	Perceived Ease of use	.146	.022	.221	6.549	.000
	Relative Advantage	.156	.024	.210	6.431	.000
	Perceived Usefulness	.184	.022	.272	8.365	.000

Note: B= Regression coefficient (Estimate), SE = Standard Error, Dependent variable = Customer satisfaction

Source: Model output, 2023

The effect of individual dimension of new product development is presented in **Table 4.15** 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 significant implying that they have significant positive effect on the satisfaction of users of the products. The researcher summarized the study hypotheses in **Table 4.16** based on results from **Table 4.14** and **Table 4.15** above.

4.5 Hypothesis testing

Reliability and customer satisfaction

Ha1: Reliability has a significant positive effect on customer satisfaction. The results in **Table 4.15** shows that there is a positive impact of independent variable (reliability) on dependent variable (Customer satisfaction) at ($\beta = .237$, $p < 0.01$). 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 Ha1 is accepted.

Ha2: Trust has a significant positive effect on customer satisfaction. The results in **Table 4.15** shows that there is a positive impact of independent variable (trust) on dependent variable (Customer satisfaction) at ($\beta = .228$, $p < 0.01$). 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 Ha2 is accepted.

Ha3: Perceived ease of use has a significant positive effect on customer satisfaction. The results in table 4.15 shows that there is a positive effect of independent variable (ease of use) on dependent variable (Customer satisfaction) at ($\beta = .221$, $p < 0.01$). 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 Ha3 is accepted.

Ha4: 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 ($\beta = .272$, $p < 0.01$). 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 Ha4 is accepted.

Ha5: relative advantage has a significant positive effect on customer satisfaction. The results in table 4.15 shows that there is a positive impact of independent variable (relative advantage) on dependent variable (Customer satisfaction) at ($\beta = .210$, $p < 0.01$). 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 Ha5 is accepted.

Table 4.16: Hypothesis Summary

NO	Hypothesis	Sig	Decision
Ha1	Reliability of new products has positive significant effect on customer satisfaction	.000	Accepted
Ha2	Trust of new products has positive significant effect on customer satisfaction	.000	Accepted

Ha3	Perceived ease of use of new products has positive significant effect on customer satisfaction	.000	Accepted
Ha4	Perceived usefulness of new products has positive significant effect on customer satisfaction	.000	Accepted
Ha5	Relative advantage new products has positive significant effect on customer satisfaction	.000	Accepted

Source: own survey (2023).

The hypotheses are summarized based on **Table 4.16**. This has identified positive effect of new product development on customer satisfaction. The effect is significant at significance level of 0.00. This finding is similar to findings of Ludfi (2014) and Ali (2010) that new products development by banks significantly affects customer satisfaction. Molina, Jimenez, & Munuera (2011); Cheng, Chang, & Li, (2013) and Huang, Soutar, & Brown (2014) These studies identified factors such as Perceived ease of use, perceived usefulness, trust, and quality has significant effect on satisfaction of customers. Coefficient of reliability is positive and significant at significance level of 0.00 p-value and t-statistics of 10.949. 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 private bank has significant positive effect on customer 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 has positive and significant effect at significance level of 0.01 p-value and t-statistics of 9.774 and indicating that trust on product has positive effect on customer satisfaction. Positive sign of the coefficient of trust indicates that increase in trust increases customer satisfaction and vice versa holding other factors constant.

This implies that trust of new products of private bank positively contributes customer satisfaction. This study identified that similar result with findings 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 9.501. 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 private bank 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 9.383 on satisfaction of users when compared to other features.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents summary of major findings, conclusions and recommendations. The study addressed the research questions and reached at conclusion and provides 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 CBE. The study investigates the relationships between selected dimension of New Product Development and customer satisfaction by using quantitative 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 63.5% were males and the remaining 36.5% were females. Regarding the respondents' age category more than 65% of the respondents are at age category above 36 years old. Regarding marital status of respondents, 24.7% of the respondents are single and 55% of the respondents

are married. The remaining respondents 16% and 2.3% are divorced and widowed respectively.

- According to the educational level of respondents more than 80% of the respondents have degree and above. This implies that most of the respondent can answer the question well and they can comment about the service of bank based on new product development.
- The other result observed from the study shows that the type of the product used by the respondents and year of experience. Accordingly, 78.6% the respondents are mobile banking users, 21.4% of the respondents are internet banking users. 3.2% of the respondents have experience of less than one year with the product. 26% of respondents have experience with the product from 1 year to 3 years. But 70.8% 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 (3.59), reliability (3.563), trust (3.698), perceived usefulness (3.718) and relative advantage (3.616) and customer satisfaction (3.689) . The result has shown that Perceived usefulness has the highest mean and the lowest mean was observed for relative advantage 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 ($r=.605$, $p<0.01$), reliability ($r=.647$, $p<0.01$), trust ($r=.624$, $p<0.01$), perceived usefulness ($r=.617$, $p<0.01$) and relative advantage ($r=.589$, $p<0.01$.) All independent variables show positive and significant relationship with independent variable (customer satisfaction).
- The regression analysis was done to ascertain the extent to which the variables mentioned in this study are perceived ease of use, reliability, trust, perceived usefulness, and relative advantage to explain the variance in customer satisfaction. Using the regression output the developed hypotheses were tested and all alternative hypotheses were accepted. From the results above, it was seen that there is a moderate to strong positive relationship between New Product Development and Customer satisfaction.
- The value of Adjusted R square=.721 suggested that that 72.1% of the variation in dependent variable is explained by independent variables used in the model. This

implies that 72.1% of respondent rate in customer satisfaction in CBE is affected by new product development.

5.2 Conclusions

Based on the 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 moderate to stronger. 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 CBE 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 CBE 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 affects 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

The basic objective of the study was to make relevant recommendations on customer satisfaction towards new product development of CBE. Therefore considering the findings of the study, the following recommendations are made.

Currently, the banking industry competition in Ethiopia is getting stiffer. Therefore, to control easily switching behavior of customers to competitor's bank, it is advisable for banks to design their coping mechanisms for better retention of their customers and attraction of new potential customers. Therefore, based on this fact and findings of the study, the following recommendations are proposed in order to increase customer satisfaction at CBE towards new product development. 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 new product development is directly proportional to customer satisfaction.

Based on the findings and analysis of the study, the following recommendations are proposed:-

- ❖ Since the study confirm the adopted dimensions of new product development: 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 more secured, the bank should 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.
 - ❖ The bank should maintain the higher mean scores to retain the existing customers and to work on lower mean scores so as to meet customer satisfaction towards new product development.
 - ❖ The bank should allocate sufficient resource to the creation of new ideas (procreation) and the nurture of business and truly care for the new ideas.
 - ❖ The bank should work on pricing innovation as a tool for competitive differentiation and increased profitability.
 - ❖ The bank should actively work on young customers to speed up its new product market share.
 - ❖ The bank should give due attention in addressing of its senior and educated customers towards new product development in order to satisfy and retain them.
- This study is conducted only from the side of the customers. It is also recommended to include responsible organs of the bank.
- ❖ The bank should continuously work on product development to maximize customer's satisfaction.
 - ❖ The bank should work on satisfying of its customers having longtime relationship with the bank by addressing and meeting their banking need.
 - ❖ Finally, in relation to new product development, the bank should work hard and evaluate its performance so as to understand customers' need and to get continuous and competitive advantage in the banking industry.

5.4 Further Research Directions

This study is confined to the evaluation of identifying the effect of new product development on customer satisfaction in Hawassa city in CBE, interested researchers in the field can take up this issue and investigate it in another part of the country by taking Larger and more diverse samples are needed in future studies.. The researcher recommends further studies to include remaining other banks and out of Hawassa city. This study used only closed

structured questionnaire to reach at aforementioned objectives. Therefore, further studies are recommended to include other data collection techniques such as interview.

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APPENDIX 1



School of Graduate Studies

College of Business and Economics

Department of management in marketing management

Questionnaires to be filled by individual customers

Dear respondent,

I am a graduate student in the department of Department of management in marketing management. Currently, I am undertaking a research entitled ‘The Effect of New Product Development on Customer Satisfaction: The Case of Commercial Bank of Ethiopia in Hawassa branch. You are one of the respondents selected to participate on this study. Your participation is entirely voluntary and the questionnaire is completely anonymous.

Finally, I confirm you that the information that you share with me will be kept confidential and only used for the academic purpose. No individual’s responses will be identified as such and the identity of persons responding will not be published or released to anyone. All information will be used for academic purposes only. A copy of the final report will be availed to you upon request. Thank you in advance for your kind cooperation and dedicating your time.

Sincerely

Tesema Tariku

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

3. Marital status:

Single Relationship

Married divorce

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

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.

Please indicate to what extent you can agree with the following statements concerning **RELIABILITY**.

	RELIABILITY	SDA	DA	N	A	SA
1	The product completes a task accurately					
2	The product delivers the service exactly as promised					
3	The product Performs the service right at the first time					
4	The product Performs tasks without errors					
5	The product offer good service as promised					

Please indicate to what extent you can agree with the following statements concerning **Trust**

	TRUST	SDA	DA	N	A	SA
1	The product keeps accurate record of transaction					
2	I feel trust about their new product					
3	The product provide security for transaction data and privacy					
4	I feel safe by using the product					
5	The product is secured					

Please indicate to what extent you can agree with the following statements concerning

Perceived Ease of use

	Perceived Ease of use	SDA	DA	N	A	SA
1	Easy to find information in the product					
2	Their product is well to use					
3	The product is easily usable					
4	The languages in the product displays easy to understand.					
5	Information and texts in the product are clear and easy to understand					
6	The product Provides clear instruction.					

Please indicate to what extent you can agree with the following statements concerning

Perceived Usefulness

	Perceived Usefulness	SDA	DA	N	A	SA
1	The product gives 24 hours- 7 days service					
2	The product accomplish my tasks more quickly					
3	The product make Ease my tasks					
4	The product save my time					
5	The product help me to accomplish my task					

Please indicate to what extent you can agree with the following statements concerning

Relative Advantage

	Relative Advantage	SDA	DA	N	A	SA
1	I use the product with lesser cost than the cost I incur to use the service in the bank					
2	I get service from the product at the time the bank does not operate					
3	The product operate with better efficiency than the service provided in the bank					
4	The product is less riskier than using traditional banking service					

Please indicate to what extent you can agree with the following statements concerning

Customer Satisfaction

	Customer Satisfaction	SDA	DA	N	A	SA
1	This is one of the best products I use					
2	This product is exactly what I need.					
3	I am satisfied with my decision to use this product					
4	I have truly enjoyed this Product.					
5	Banks product is well to me to get best service					
6	I am happy being customer of this bank					

Dear respondent in case if you want more explanation about the above questions you can communicate through Tariktesema@gmail.com and 0916361850

Thank you in advance for your utmost cooperation!

APPENDIX- II

RESULTS AND DISCUSSION

4.1. Response Rate

Table 4.0.1: *Questionnaire Survey Response Rate*

Items	Response Rate	
	No.	Percent
Sample size	396	100
Collected	373	94.2
Remain Uncollected	23	5.8

Source: Own survey data, 2023

4.2. General Background Characteristics of Respondents

Table 4.0.2: *Distribution of Respondents by their Sex and Age*

Variables	Categories	Frequency(n)	Percent (%)
Sex	Male	237	63.5
	Female	136	36.5
	Total	373	100
Age	18-26	43	11.5
	27-35	81	21.7
	36-44	79	21.2
	45-53	152	40.8
	54-62	18	4.8
	Total	373	100

Source: Own survey, 2023

Table 4.0.3: *Sample Respondents' Marital status and Education level*

Variables	Categories	Frequency(n)	Percent (%)
Marital status	Single	60	16.1
	Married	205	55.0
	Divorced	92	24.7
	Widowed	16	4.3
	Total	373	100
Education level	Primary school	14	3.8
	Secondary school	20	5.4
	Certificate/Diploma	36	9.7

	Degree	237	63.5
	Masters and above	66	17.7
	Total	373	100

Source: Own survey, 2023

Table 4.0.4: *Respondents' Occupation, Account, type of product and duration of Usage*

Variables	Categories	Frequency(n)	Percent (%)
Occupation	Government employee	19	5.1
	Private sector employee	40	10.7
	Own business	288	77.2
	Student	26	7.0
	Total	373	100
Account	Saving account	195	52.3
	Current account	178	47.7
	Total	373	100
Type of new products	Mobile banking	293	78.6

service delivery	Internet banking	80	21.4
	Total	373	100
For how long have you been using the new product (in years)?	Less than one year	78	20.9
	1-3	97	26.0
	More than 3 years	198	53.1
	Total	373	100

Source: Own survey, 2023

4.3. Descriptive Summary of Study Variables

Table 4.0.5: Perception of respondents on the Reliability

Item no	Statements	SDA		DA		N		A		SA	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1	The product completes a task accurately	24	6.4	55	14.7	18	4.8	212	56.8	64	17.2
2	The product delivers the service exactly as promised	4	1.1	94	25.2	17	4.6	219	58.7	39	10.5
3	The product Performs the service right at the first time	12	3.2	36	9.7	148	39.7	168	45.0	9	2.4
4	The product Performs tasks without errors	8	2.1	10	2.7	102	27.3	184	49.3	69	18.5
5	The product offer good service as promised	11	2.9	87	23.3	17	4.6	211	56.6	47	12.6
Overall mean (SD)		3.56(.550)									

Note: SDA= Strongly disagree, DA= Disagree, N= Neutral, A= Agree, SA= Strongly agree, SD = Standard Deviation

Source: Survey data, 2023

Table 4.0.6: Perception of respondents on the Trust

Item no	Statements	SDA		DA		N		A		SA	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1	The product keeps accurate record of transaction	21	5.6	28	7.5	63	16.9	163	43.7	98	26.3

2	I feel trust about their new product	30	8.0	48	12.9	53	14.2	69	18.5	173	46.4
3	The product provide security for transaction data and privacy	17	4.6	46	12.3	29	7.8	188	50.4	93	24.9
4	I feel safe by using the product	7	1.9	46	12.3	96	25.7	175	46.9	49	13.1
5	The product is secured	7	1.9	49	13.1	104	27.9	164	44.0	49	13.1
	Overall mean (SD)	3.70(.547)									

Note: SDA= Strongly disagree, DA= Disagree, N= Neutral, A= Agree, SA= Strongly agree, SD = Standard Deviation

Source: Survey data, 2023

Table 4.0.7: Perception of respondents on Perceived Ease of Use

Item no	Statements	SDA		DA		N		A		SA	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1	Easy to find information in the product	8	2.1	74	19.8	54	14.5	213	57.1	24	6.4
2	Their product is well to use	8	2.1	96	25.7	4	1.1	220	59.0	45	12.1
3	The product is easily usable	22	5.9	57	15.3	50	13.4	113	30.3	131	35.1
4	The languages in the product displays easy to understand.	13	3.5	38	10.2	38	10.2	203	54.4	81	21.7
5	Information and texts in the product are clear and easy to understand	7	1.9	98	26.3	64	17.2	145	38.9	59	15.8
6	The product Provides clear instruction.	9	2.4	47	12.6	72	19.3	183	49.1	62	16.6
	Overall mean (SD)	3.60(.480)									

Note: SDA= Strongly disagree, DA= Disagree, N= Neutral, A= Agree, SA= Strongly agree, SD = Standard Deviation

Source: Survey data, 2023

Table 4.0.8: Perception of respondents on Perceived Usefulness

Item no	Statements	SDA		DA		N		A		SA	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1	The product gives 24 hours- 7 days service	12	3.2	49	13.1	24	6.4	198	53.1	12	3.2
2	The product accomplish my tasks more quickly	9	2.4	44	11.8	52	13.9	205	55.0	9	2.4
3	The product make Ease my tasks	12	3.2	45	12.1	74	19.8	143	38.3	12	3.2
4	The product save my time	9	2.4	62	16.6	107	28.7	167	44.8	9	2.4
5	The product help me to accomplish my task	8	2.1	30	8.0	10	2.7	253	67.8	8	2.1
Overall mean (SD)		3.62(.437)									

Note: SDA= Strongly disagree, DA= Disagree, N= Neutral, A= Agree, SA= Strongly agree, SD = Standard Deviation

Source: Survey data, 2023

Table 4.0.9: Perception of respondents on Relative Advantage

Item no	Statements	SDA		DA		N		A		SA	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1	I use the product with lesser cost than the cost I incur to use the service in the bank	6	1.6	70	18.8	83	22.3	147	39.4	67	18.0
2	I get service from the product at the time the bank does not operate	3	0.8	50	13.4	58	15.5	201	53.9	61	16.4
3	The product operate with better efficiency than the	7	1.9	56	15.0	56	15.0	235	63.0	19	5.1

	service provided in the bank										
4	The product is less riskier than using traditional banking service	4	1.1	64	17.2	67	18.0	154	41.3	84	22.5
Overall mean (SD)		3.62(.437)									

Note: SDA= Strongly disagree, DA= Disagree, N= Neutral, A= Agree, SA= Strongly agree, SD = Standard Deviation

Source: Survey data, 2023

Table 4.0.10: Perception of respondents on Customer satisfaction

Item no	Statements	SDA		DA		N		A		SA	
		n	%	n	%	n	%	n	%	n	%
1	This is one of the best products I use	8	2.1	33	8.8	9	2.4	247	66.2	76	20.4
2	This product is exactly what I need.	3	0.8	28	7.5	94	25.2	215	57.6	33	8.8
3	I am satisfied with my decision to use this product	16	4.3	65	17.4	31	8.3	210	56.3	51	13.7
4	I have truly enjoyed this Product.	7	1.9	77	20.6	161	43.2	98	26.3	30	8.0
5	Banks product is well to me to get best service	7	1.9	24	6.4	61	16.4	242	64.9	39	10.5
6	I am happy being customer of this bank	16	4.3	9	2.4	29	7.8	214	57.4	105	28.2
Overall mean (SD)		3.69(.324)									

Note: SDA= Strongly disagree, DA= Disagree, N= Neutral, A= Agree, SA= Strongly agree, SD = Standard Deviation

Source: Survey data, 2023

4.4. Correlation Analysis

Table 4.0.11: Correlation Analysis Result

Variables		R	T	PEU	PU	RAD	CS
Reliability (R)	Correlation	1	.476**	.530**	.358**	.412**	.647**
	Sig.		.000	.000	.000	.000	.000
Trust (T)	Correlation	.476**	1	.415**	.408**	.383**	.624**
	Sig.	.000		.000	.000	.000	.000
Perceived Ease of use (PEU)	Correlation	.530**	.415**	1	.342**	.340**	.605**
	Sig.	.000	.000		.000	.000	.000
Perceived Usefulness (PU)	Correlation	.358**	.408**	.342**	1	.438**	.617**
	Sig.	.000	.000	.000		.000	.000
Relative Advantage (RAD)	Correlation	.412**	.383**	.340**	.438**	1	.589**
	Sig.	.000	.000	.000	.000		.000
Customer satisfaction (CS)	Correlation	.647**	.624**	.605**	.617**	.589**	1
	Sig.	.000	.000	.000	.000	.000	

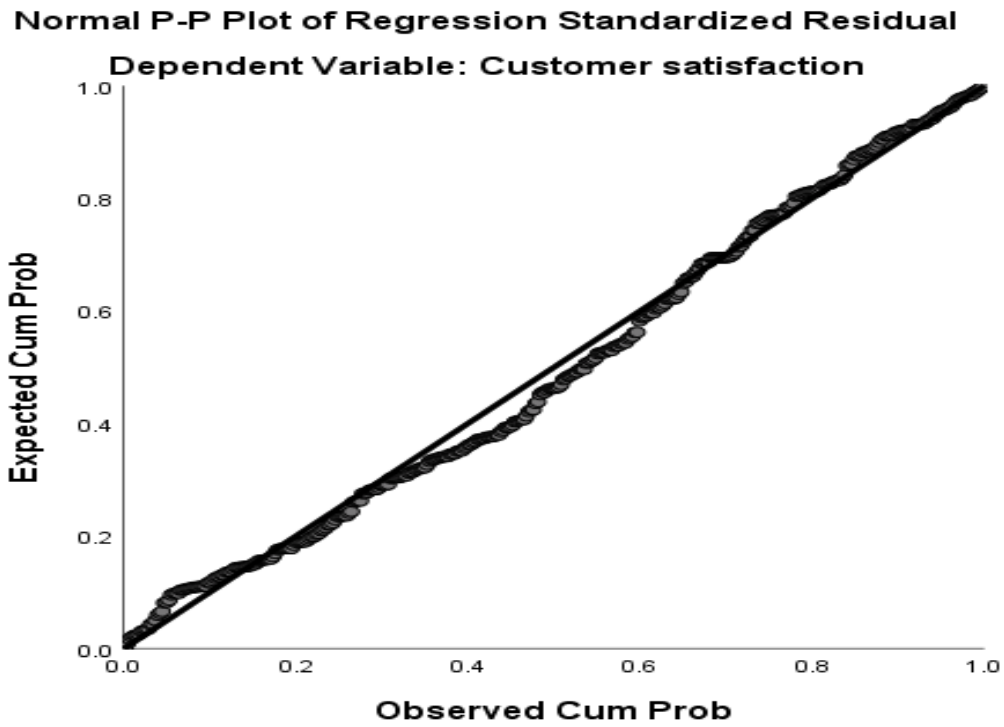
** . Correlation is significant at the 0.01 level (2-tailed).

Source: Model output, 2023

4.5. The Effect of New Product Development on Customer Satisfaction

4.5.1. Linearity Test

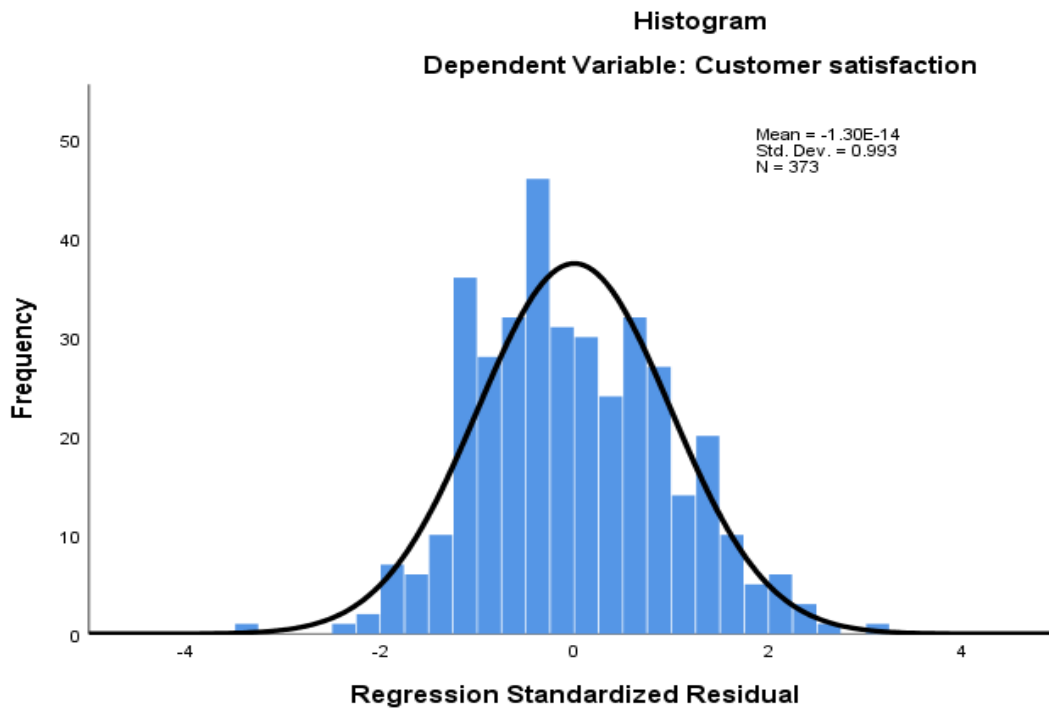
Figure 4.1: The Linearity test of standardized residual



Source: Model Output, 2023

4.5.2. Normality Test

Figure 4.2: Frequency Distribution of Standardized Residual



Source: Model Output, 2023

4.5.3. Multicollinearity Test

Table 4.0.12: Multicollinearity assumption

Independent variables	Collinearity Statistics	
	Tolerance	VIF
Reliability	.607	1.648
Trust	.675	1.481
Perceived Ease of use	.668	1.496
Perceived Usefulness	.713	1.403
Relative Advantage	.721	1.388

Source: Model Output, 2023

4.5.4. Regression analysis

Table 4.0.13: Results of Regression Analysis Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.849	.721	.717	.17224

Source: Model output, 2023

Table 4.0.14: Results of ANOVA Output

Model	Sum of Squares	df	Mean Square	F	Sig.
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1	Regression	28.128	5	5.626	189.637	.000
	Residual	10.887	367	.030		
	Total	39.015	372			

Source: Model output, 2023

Table 4.0.15: *Results of Multiple Linear Regression Analysis*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	SE	Beta		
1	(Constant)	.919	.093		9.875	.000
	Reliability	.140	.021	.237	6.703	.000
	Trust	.135	.020	.228	6.793	.000
	Perceived Ease of use	.146	.022	.221	6.549	.000
	Relative Advantage	.156	.024	.210	6.431	.000
	Perceived Usefulness	.184	.022	.272	8.365	.000

Note: B= Regression coefficient (Estimate), SE = Standard Error, Dependent variable = Customer satisfaction

Source: Model output, 2023