



**ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES**

**THE EFFECT OF SERVICE QUALITY ON CUSTOMER SATISFACTION:
IN THE CASE OF AWASH BANK S.C, EAST ADDIS ABABA DISTRICT**

**BY
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SGS/0397/2014A
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**JUNE 2023
ADDIS ABABA, ETHIOPIA**

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**A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF
GRADUATE STUDIES, IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF ART IN
BUSINESS ADMINISTRATION**

**JUNE 2023
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Statement of Deceleration

I, Lidiya Awel, hereby declare that this thesis paper entitled – The effect of service quality on customer satisfaction in Awash bank, east Addis Ababa district is my original work and has not been used by others for any other requirements in any other university and all sources of the materials used for this thesis have been duly acknowledged. This research study is being submitted in partial fulfillment of the requirement for Master of Arts degree in Business Administration.

Lidiya Awel

Signature

Date: 15 June 2023

Statement of Certification

This is to certify that Lidiya Awel carried out this research work on the topic entitled “The effect of service quality on customer satisfaction in Awash bank, east Addis Ababa district” under my supervision. This work is original in nature and has not been presented for a degree in any University and it can be submitted for the partial fulfillment of the requirements for the award of the degree of Masters of Art in Business Administration.

Advisor: Dr. Habtamu Abebaw (phD)



Signature

Date: 15 June 2023

St. Mary's University, Addis Ababa

Acknowledgments

A lot of people have contributed to the successful completion of this proposal. As a result, I never would have been able to finalize this proposal without the intellectual and moral support of my instructors, families, and friends. First, I would like to thank my advisor Habtamu Abebaw (PhD) for his constructive advice from the inception to the end of this proposal. The general and specific comments, suggestions, and corrections that he gave also helped me to come up with the completion of this proposal and he deserves great credit for this.

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List of Acronyms

ATM: Automated Teller Machine

BPR: Business process re-engineering

DV: direct variable

E-PAYMENT: Electronic Payment

POS: Point of Sale

IV: Indirect Variable

SERVQUAL: Service Quality

SQ: Service Quality

STATA: Statistical Software

Abstract

This study was, therefore, conducted with the aim of examining the effect of quality service on customer satisfaction in the case of Awash Bank, east Addis Ababa district. Six customer satisfaction factors were examined namely tangibility, service reliability, service assurance, empathy, responsiveness and financial aspect. Customer satisfaction is affected by various factors and identifying and dealing with these factors accordingly should be the central premises of any service giving business especially banking industries. Mixed research approach with explanatory research design was used in the study by employing systematic sampling method to select the participants. The researcher has collected primary data through questionnaire and structured interview. The collected data were processed by using STATA14 software and multiple regression and correlations analyses to achieve the objectives. According to the study tangibility, service reliability, service assurance, empathy and responsiveness were found to be the determinant service quality factors that affect customer satisfaction. On the other hand, financial aspect has negative and insignificant relationship with customer satisfaction in the case of Awash bank, east Addis Ababa district. Based on this, in order to improve performance of the bank, the researcher suggested that, the bank should provide trainings to its employee regarding the concept of quality customer service and the bank should conduct continuous customer satisfaction survey in order to measure the level of customer satisfaction.

Keywords: Service quality, Customer satisfaction, service quality dimension.

CHAPTER ONE

1. INTRODUCTION

1.1 Background of the study

In today's world, the business environment is becoming more dynamic and challenging. As the world is drifting into globalization with attendant competition, organizations are forced to reengineer their services and products to improve the service quality and remain competitive in marketplace (Rodie & Martin, 2001). The issue of quality service is becoming a global concern that needs continuous improvement to fit the unstable environment and changing customer needs. It is a critical for all service industries worldwide as most of the business organizations attempt to sustain their competitive advantage in the marketplace using different strategies. Financial service providing companies like banks mostly differentiate themselves by providing quality services as service quality is the most competitive tool for banks (Almossawi, 2001). The quality of services offered will determine customer satisfaction and attitudinal loyalty. According to Kotler & Armstrong (2010) customer satisfaction is a person's feeling of pleasure or disappointment resulting from comparing a product's perceived performance or outcome in relation to his or her prior expectations.

Customer satisfaction is also crucial in the banking sector because of the special nature of the service which is characterized by intensive contact with customers who have different needs and require customized solutions and it is known to be one of the most important and serious issues towards success in today's competitive business environment, as it significantly affects the company market shares and customer loyalty (Clemes, 2008). It revolves around the state of mind that the customer has about a particular product or service. Therefore, customer satisfaction plays an important role in consumer buying behavior because a satisfied customer may repeat purchase the product or service which may eventually lead to customer retention or loyalty. As a result, service providers or marketers in general often handle customers in such a way that they can be satisfied with their services or product (Biradawa, 2019)

All Ethiopian commercial banks, whether private or public, compete on quality service to satisfy the customers to win and sustain in the competition. These days, there is stiff competition in banks and also other service provider's institutions in developed and developing countries. In

order to compete and survive in their respective market they focus on important activities to excel service quality and to maintain customer satisfaction. Quality spells superiority or excellence. A bank can differentiate itself from competitors by providing high quality customer service (Naeem, Asma & Iqbal, 2009). To realize these, banks need to know whether perceived service quality dimensions affect customer satisfaction or not. They also need to identify which service quality dimensions mostly affect customer satisfaction. Therefore, Therefore, it is of great importance to identify the effect of service quality on customer satisfaction in order to determine what products and services people will require and to meet customer demand. This is the issue that motivates the researcher to do so.

1.2 Background of the organization

Awash Bank, Ethiopia's pioneering private bank, was established on November 10, 1994 after the downfall of the socialist regime. The Bank was established by 486 founding shareholders with a paid-up capital of Birr 24.2 million and started banking operations on Feb. 13, 1995. Since embarking operation, the Bank has registered remarkable growth. Notwithstanding global and domestic challenges, Awash Bank has exhibited a superior operational and financial performances among private banks operating in Ethiopia. Awash Bank is currently working towards strengthening its capital base, technological capabilities, human resources and customer base.

One of the core values of our Awash bank is its accessibility. The bank always strives to improve our accessibility by means of different service delivery channels. Currently, awash bank is the most accessible private bank in the country, with a large footprint of extensive branch networks. In addition to branch networks, the bank provides customers the convenience of 24/7 service through ATMs, point of sale terminals, internet, mobile and agency banking.

The three main services offered by Awash Bank are domestic banking, international banking, and e-payment services. Deposit, credit, and local transfers are among the domestic banking services. International banking services include trade, foreign, and international money transfers via various money transfer agencies. Internet banking, ATM, POS, card banking, and mobile banking are among the e-payment services.

1.3 Statement of the problem

In most developed countries, the service sector, which includes the banking industry, plays an important role in economic growth and prosperity. In an increasingly global community and market place, banking service makes possible the rapid circulation of money throughout the world instantly. Banks are becoming more and more customer oriented with innovative ideas and approaches (Ostrom et al., 2010). Likewise, in Ethiopia, banks are an important tool for economic development; these financial institutions are continuously expanding and offering a wide range of financial services, investment opportunities within and outside the country leading to further economic growth (Khalid & Irshad, 2010).

Banks are playing lots of new roles and making life of common consumer as well as business men easy. In the past decade, the banking sector has undergone radical changes, resulting in a market place, which is characterized by intense competition, little growth in primary demand and increased deregulation. The government of Ethiopia increased deregulation, in order to encourage the investors to participate in the banking sectors, as a result the number of banks has been increased which further raises the competition and difficulty among the banks. In this competitive environment, each bank wants to attract the customers. This can be achieved through providing quality services to its customers.

Quality products or services are still crucial in business success and now a day, the success of every business organization hinges on how their customers are served and how the customers evaluate and perceive such services. One of the benefits of banks resulting from its services delivery is enhancing efficiency and effectiveness of their operations so that more transactions can be processed quickly and easily, which will have a fundamental effect on the overall performance of the banks. The customers on the other hand, stand to enjoy the benefit of quick service delivery, reduced frequency of going to banks physically and reduced cash handling, which will give rise to higher volume of turnover (Qadeer, 2014).

According to Ayenew (2014) most banks in Ethiopia are negatively affected by the network failure and system interruption which result delayed service delivery time, as a result customers are sometimes forced to stay long time in the premises of the bank. Banks have showed rapid improvement since the Implementation of BPR. But still there is customer compliant in network failure, power interruptions and low accessibility of ATM machines are still seen in the branches.

Wondmagegn (2019) conducted research on the effect of service quality on customer satisfaction in selected private banks (In Case of Wolaita Sodo Town). The study attempted to explore the effect of service quality of private banks on customer satisfaction. Data was collected through questionnaire from customers. The respondents were selected using simple random sampling method. The finding of this study also indicates that customers were most satisfied with the assurance dimensions of service quality. On the contrary, customers were less satisfied with reliability and empathy dimensions of service quality.

Another study conducted by Betelhem (2015) examined the impact of service quality on customer satisfaction the case of commercial bank of Ethiopia. the objective of the study was assessing the impact of service quality on customer satisfaction in five branches found under CBE, south Addis Ababa district. To attain the objective, questionnaire was designed categorized under five dimensions of the SERVEQUAL model based on convenience sampling procedure. The study used quantitative research design and both primary and secondary data. The correlation results indicate that there is a positive correlation between the dimensions of service quality and customer satisfaction.

Furthermore, a study conducted by Emebet (2021) tried to investigate the effect of service quality dimensions on customer satisfaction in case of Awash bank. the purpose of the study was investigating the effect of service quality dimensions on customer Satisfaction in the case of Awash Bank. Descriptive and explanatory research design was employed by using quantitative research approach to assess the service quality dimensions and their impacts on customer satisfaction. The researcher used questionnaire method to gather the primary data from the customers of the two main branches of awash bank (Finfine and Legahar) The regression output briefly shows that there was a statistically weighty link between service quality dimensions and customer satisfaction.

Recently, Natnael & Devulapalli (2022) conducted a research on the Effect of Service Quality on Customer Satisfaction in Commercial Bank of Ethiopia, Branches in Wolaita Sodo. The overall objective of the study was to investigate the effect of service quality on customers' satisfaction in the case of Commercial Bank of Ethiopia branches in Wolaita Sodo town by employing simple random sampling and adopting quantitative research approach; thus, further mixed methods studies by incorporating other factors are needed. The study finding indicated that there were

positive and significant relationship between all service quality dimensions: namely, empathy, responsiveness, reliability, and assurance and customers satisfaction and the tangibles dimension was insignificant for analyses.

Most studies conducted in this area are limited to single branch and they used descriptive statics to analyze their data. But this study conducted in district level and analyzed the effect of service quality on customer satisfaction by using both descriptive and inferential statistics. Furthermore, no published research done in this study area is available. For this purpose, it deemed necessary to conduct the study.

This study is different from previous researches by the type of research design and approach it adopts as well as by consideration of other determinant factors of customer satisfaction. As to the researcher's knowledge enough studies have not been carried out on the effect of service quality on customer satisfaction in Awash bank, East Addis Ababa district in particular and Ethiopia in general. Therefore, the purpose of this study was investigating the effect of service quality on customer satisfaction by employing mixed research approach to fill the above gap.

1.4 Objectives of the Study

1.4.1 General Objective

The general objective of the study was investigating the effect of service quality on customer satisfaction in Awash bank, East Addis Ababa district.

1.4.2 Specific Objectives

Specific objectives of the study were:

- To test the effect of tangibility on customer satisfaction in the case of Awash bank, east Addis Ababa district
- To examine the effect of reliability on the satisfaction in the case of Awash bank, East Addis Ababa district
- To find out the effect of assurance on the satisfaction in the case of Awash bank, East Addis Ababa district
- To determine the effect of empathy on the satisfaction in the case of Awash bank, East Addis Ababa district

- To investigate the effect of responsiveness on the satisfaction of customers of Awash bank, East Addis Ababa district
- To examine the effect of financial aspect on the satisfaction of customers of Awash bank, East Addis Ababa district

1.5 Significance of the Study

As the banking industry is growing rapidly, an understanding of the consumer behavior and satisfaction regarding the characteristics of consumers in influencing their buying behavior is crucial. By understanding the consumer behavior of customers, this study is very significant to a wide spectrum of many industries to bring a real-life change in the marketing mix and marketing strategy as per the characteristics of consumers to enhance their sales.

From the academic point of view, this research would initiate other researchers to carry out more extensive studies in the area and explore overlooked factors associated with customer satisfaction. Moreover, it may serve as a reference material for both academicians and practitioners to conduct further studies.

An awareness of the impact of service quality might ultimately guide or influence service providers in the factors to be considered in the delivery of service as well as in the marketing of the services. The researcher outcome would also be important to banks in Ethiopia especially Awash bank. It is important to do this paper as partial fulfillment for obtaining MBA and to have good knowledge about the study area.

1.6 Scope of the Study

The scope of the study comprises of four different dimensions. The dimensions include conceptual, methodological, geographical and time scopes. Customer satisfaction is a broad concept that comprises many variables. It is difficult to address all these issues in single research. In particular, the study mainly focused on the effect of service quality on customer satisfaction in Awash bank, Addis Ababa East district. Attempts were made to analyze the effect of six independent variables (service tangibility, service reliability, service assurance, service empathy, and service responsiveness) that determine customer satisfaction in Awash bank East Addis Ababa district. The study was conducted in Awash bank, East Addis Ababa district. The data collection of the study was from customers through structured schedule. The survey covered 385

respondents which was selected by using systematic sampling technique. Both descriptive and inferential analyses was employed to deal with the analysis of the data by using STATA14 software. This study was conducted in the time range of February- June 2023.

1.7 Limitations of the Study

No research study is free from limitation. Since primary data was collected from customers of Awash bank, some respondents were not interested to stay long to complete the schedule. As a result, some of the respondents were not willing to give the appropriate information during the data collection period of the study. The study was confined to the respondents at Awash bank. Although the banking industry is global, generalization of the findings of this research beyond Awash bank, East district is therefore not recommended. The study was also be conducted with short span of time and therefore it based on the available respondents. The details given by the respondents are considered as true and the study results will be based on this assumption.

1.8 Organization of the thesis

This study is organized into five chapters. The first chapter presents the introduction of the study which includes background of the study, statement of the problem, objective of the study, research hypothesis, and significance of the study, scope of the study and limitation of the study. The second chapter consists of only the literature review. The third chapter presents the methodology used for the study and gives a detailed overview of the description of study area, research design and approach, method of data collection, sampling design, and method of data analysis, variable presentation, model specification and conceptual framework. The fourth chapter focuses on the research results and analysis. Finally, conclusion, recommendations and directions for future research was presented under chapter five.

1.9. Definition of key terms

To avoid the difficulty in understanding the study, essential terms associated with the research is briefly defined as follows:

Service Quality: Refers to degree and direction of discrepancy between the consumer's perceptions and expectations, or the extent to which a service meets or exceeds customer expectations.

Customer Satisfaction: Defined as the result of a cognitive and affective evaluation, where some comparison standard is compared to the actually perceived performance.

Tangibles: The appearance of physical facilities, equipment, personnel, and communication.

Reliability: The ability to perform the promised service dependably and accurately

Responsiveness: The willingness to help customers and to provide prompt service

Assurance: The employees' knowledge and courtesy, and the ability of the service to inspire trust

and confidence

Empathy: The caring, individualized attention the service provides its customers.

Financial aspect: It refers to the organization's profit, which is subjectively measured through profit in recent years, the profit increment ratio, the effectiveness of financial management, the achievement of financial goals and the effectiveness of financial measures

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE REVIEW

This chapter is based on the recently given introduction, the research topic stated in the introduction, and the earlier investigations conducted within these constructs. It offers a review of previous studies in the field of study for the reader. In the areas of service quality and customer happiness, numerous research has been carried out. There are numerous authors who have helpful things to say regarding service quality dimensions, tangibles, reliability, responsiveness, assurance, and empathy as crucial components of quality service delivery. The definitions of customer service, service quality, characteristics of service, dimensions of service quality, various customer listening methods, customer satisfaction, and differentiation between service quality and customer satisfaction literature will be covered.

2.1 Theoretical Literature review

2.1.1 concept of customer service

According to Kotler (2000) satisfaction is defines as a person's sentiments of pleasure or disappointment arising from assessing a product's perceived performance (or outcome) in accordance to his or her expectations. Benefits-costs+ competitive, according to Philip Kotler, equals customer satisfaction. Customer retention is directly related to customer pleasure. "satisfaction is an overall customer attitude toward a service provide, or an emotion reaction to the difference between what customers and what they receive, regarding the fulfillment of some need, objective, or desire, "claim Hansemark and Albinsson in 2004. Organizations must be able to meet the demand and desires of their customers in order to achieve customer satisfaction (La Barbera and Mazurky, 1983). customers' requirements express their sense of being deprived (Kotler, 2020). according to Kotler (2020) customers' demands, however, refers to "the form taken by human needs as they are molded by culture and individual personality.

2.1.2 Attributes of service

According to Kotler and keller (2007) there are four characteristics of service: intangibility, inseparability, variability and perishability

Intangibility of Services

Regan (1963) introduced the notion that services are actions, advantages, or pleasures offered for purchase or delivered in conjunction with the purchase of goods. It has been proposed to distinguish between services and tangible things according to their level of intangibility.

The fact that services are frequently described as being intangible because their result is thought of as an action rather than a physical object draws attention to the fact that the level of tangibility has an impact on how easily consumers can evaluate services and products (Zeithmal et al. 1985).

Inseparability of Services

The simultaneous distribution and consumption of services is understood to demonstrate inseparability, and it is thought that this allows customers to influence or mold the effectiveness and quality of the service (Zeithmal et al. 1985).

variability of Services

The degree of high variability in service delivery is revealed by heterogeneity. This is a particular issue for services with heavy labor participation since multiple people perform the service delivery and those people's performance can change from day to day as well as from person to person. Additionally, it provides the chance for great levels of customization and flexibility of the service, which can be used as a perk and point of difference (Wolak et al., 1998).

Perishability of Services

The idea of perishability implies that services cannot be saved and carried over to a future time frame and suggests that services are time-sensitive and crucial, making them extremely perishable. The service provider is primarily concerned with the perishability issue, and the consumer only becomes aware of the problem when there is a shortage and they must wait for the service (Bitner et al.,1993).

2.1.3 concept of service quality

The success of every corporation depends on the delivery of high-quality services in the today's fiercely competitive business environment. An major factor influencing corporate competitiveness is service quality. Since there is no guarantee that the current exceptional service will still be appropriate in the future, banks should constantly improve the quality of their services. Therefore, banks should create innovative strategies to satisfy their customers and should offer excellent service to outperform rivals (Siddiqi, 2011).

In the fight to set itself apart from its rivals, service quality is seen as a crucial strategy (Ladhari, 2009). The importance of service quality to businesses is highlighted, particularly the fact that it grants those businesses a competitive edge who work to increase it and hence increase customer satisfaction. The difficulty in describing service quality is that, like beauty, it is a personal idea. Based on their unique experiences, each person defines it differently. Service quality is described as the total evaluation of a service by the client, and it has attracted significant interest from academicians, practitioners, and the literature on services marketing. According to the researcher, by defining service quality, businesses will be able to provide services with a greater level of quality, which should boost consumer happiness. Recognizing the intangibility, heterogeneity, and inseparability of services is essential to comprehending service quality. That would make gauging service quality simple (Negi et al., 2009).

In Crosby (1984). Quality is described as meeting requirements. According to this notion, businesses need to set requirements and specifications. The many functions of an organization's quality purpose is to adhere precisely to these standards and specifications after they have been defined. From many perspectives, quality is also defined. From the perspective of the consumer, quality is defined as being suitable for use and satisfying the needs of the customer, while from the perspective of the process, it is described as conforming to the process design, standards, and requirements. From a product standpoint, quality may also be described as the level of perfection at a reasonable cost, and from a cost perspective, it refers to the optimum balance of features and prices. In the middle of the 1980s, Gronroos (1984) and Parasuraman et al. (1985) established a strong framework for defining and measuring service quality. They were some of the first academics to lay the groundwork for the definitions and advancement of service quality.

Service quality is described as the amount and direction of misalignment between consumers' perceptions and expectations for many but crucial service quality parameters, which may have an impact on consumers' future purchase decisions. This definition makes it abundantly obvious that customers evaluate the quality of a service experience based on their expectations and impressions of it. Customers' views of service quality are the consequence of a comparison between what they anticipated from the service and what they actually received.

Based on a comparison between what the client believes should be delivered and what is actually provided, service quality is determined (Parasuraman et al., 1985).

The company is seen as providing superior service quality if the customer's expectations are met or exceeded. On the other side, if customers' expectations are not met, the business will have to deal with angry and hostile clients, which will eventually cause them to defect to rivals. The foundation for measuring service quality is the customer's expectation since quality is high when performance exceeds expectation and low when performance falls short of their expectation. In literature on service quality, expectations are seen as the consumer's preferences or wants, or what they believe a service provider should offer rather than would offer (Parasuraman et al., 1988).

Gronroos, (1984) and Parasuraman et al., (1988) define perceived quality as a form of attitude that is related but not identical to satisfaction and results from a consumption of expectations with perceptions of performance. Perceived service is the outcome of the consumer's view of the service dimensions, which are both technical and functional in nature. Therefore, knowing how consumers view the level of service provided by banks will allow businesses to tailor their responses.

Both the service procedure and the service result will contribute to quality assessments. There are two categories of service quality, according to Gronroos (1982). These categories include technical quality and functional quality. Functional quality refers to how the service is given, whereas technical quality refers to what the consumer really receives from the service (result) (process). Telling a service contact representative what specific qualities service quality encompasses, like responsiveness, is probably going to be far more effective. Management may claim that by increasing responsiveness, quality would rise (Asubonteng et al., 1996)

2.1.4 Determinants of service quality

Services have high levels of experience and credence features as a result of their distinctive intangibility, heterogeneity, and inseparability traits, which makes them harder to evaluate than tangible items (Bitner and Zeithaml 1985). In order to define, measure, control, and enhance customer perception of service quality, it is required to identify the factors that influence service quality. (1995, Johnston)

A researcher can use SERVQUAL to "better understand the service expectations and perceptions of consumers and, as a result, enhance service" because it is a short, multiple-item scale with strong reliability and validity (Parasuraman et al., 1988). Additionally, SERVQUAL was chosen because, according to Parasuraman et al. (1985), it is crucial when used infrequently to monitor service quality trends and when combined with other types of service quality instrument.

Ten factors for determining service quality are identified by Parasuraman et al. (1985) as follows: tangibility, dependability, responsiveness, communication, access, competence, courtesies, credibility, security, and understanding/knowledge of consumers. Later, to measure service quality, these ten qualities were further refined and evolved into five dimensions: tangibility, dependability, responsiveness, assurance, and empathy. SERVQUAL Parasuraman and others (1988). The following are these five dimensions:

Tangibility: - relates to the surroundings, tools, and personnel's outward look. (2003) Jabnoun and Al-Tamimi Customers in the banking sector have been shown to choose tangibility as a criterion for service quality. "Bank could establish client relationships by supplying added tangible and intangibility parts of the main products" (Zineldin, 2005).

Reliability: - means having the ability to accurately and dependably provide the promised service. Along with outstanding customer service, staff attitude, expertise, and abilities, reliability is a crucial component of product quality (Walker, 1990). Managers should seize every chance to foster a "do-it-right-first" attitude because it has been discovered that service reliability is the "core" of the service for the majority of customers (Berry et al., 1990).

Responsiveness: - signifies a customer's willingness to receive prompt service. The working conditions of employees in service firms are very sensitive to by customers (Brown and Mitchell,

1993). According to (Gollway and Ho, 1996), achieving the right balance between employees' talents and customers' expectations produced outstanding customer service.

Assurance: - It shows that staff members are courteous, knowledgeable, and have the ability to instill confidence in others. (Parasuraman et al., 1988) discovered that assurance, along with dependability and responsiveness to client needs, is a crucial component of service quality.

The largest influence on customer satisfaction that results in favorable word-of-mouth is assurance (Arasli et al., 2005).

Empathy: - refers to the kind of attentive care that the company gives each of its clients (Jabnoun and Al-Tamimi, 2003) discovered that bank clients saw empathy as a crucial component of high-quality service. "It is indicated that employees' dedication to providing high-quality services, tactful resolution of problems, and effective service provision produced delighted consumers for long-term advantages." (2005) Nelson and Chan

2.1.5 SERVQUAL

Parasuraman, Zeithmal, and Berry developed a survey instrument in 1988 to measure customer satisfaction with regard to various areas of service quality and to address issues brought on by the disconnect between management and customers. The device is known as SERVQUAL. The fundamental premise of the measurement was that customers could assess a company's level of customer service by contrasting their impression with their actual experiences. It is intended to gauge customer perceptions of service quality.

The SERVQUAL model has been widely used to assess and manage service quality in a variety of service contexts and across a wide range of cultural backgrounds, although it has received a number of theoretical and practical criticisms (Buttle, 1996).

2.1.6 Customer satisfaction

An appraisal of a service's after-purchase value is called customer satisfaction. In the past, customer satisfaction was defined in terms of consumer dissatisfaction, with the idea being that pre- and post-purchase expectations and evaluations interact to determine whether a customer is satisfied or dissatisfied.

Customer satisfaction, according to Rigopoulou et al. (2008), is the attitude that customers have toward a business when their expectations have been fulfilled or exceeded over the course of the product or service. Recently, service businesses have put more of an emphasis on the client to increase competition. One of the key results of marketing effort is customer happiness.

Customer satisfaction is regarded as the cornerstone of success in the cutthroat banking sector. Customer satisfaction is one of every company's primary goals. Businesses understand that retaining current clients is more profitable than having to acquire new clients to make up for those that were lost because it cost the firm a lot of money. Customers' contentment is crucial for a company's performance, according to management and marketing theorists (Kennedy and Schneider, 2000).

The profitability of almost every firm is impacted by high customer satisfaction.

For instance, each consumer will normally notify nine to ten individuals when they receive good service. However, clients who experience poor service frequently share their displeasure with fifteen to twenty other customers. "Naik et al" (2010). As a result, much like any physical asset, client happiness is an asset that needs to be managed and tracked.

The evaluation of customer satisfaction is based on all interactions with a particular company, including those involving its offered items, the sales procedure, and the post-purchase support. The performance of the offer in comparison to the customer's expectations also affects whether the client is satisfied after making a purchase. Customers create their expectations based on previous purchasing experiences, recommendations from friends and associates, and marketers. Information and promises made by rivals (Kotler; 2010).

Greater client loyalty results from higher customer happiness, which in turn future income increases. Because of this, it is discovered that many industry leaders have excellent customer service orientation. High income and client retention have also been given to them as rewards. Because of this, businesses operating in the same market sector are under pressure to evaluate the quality of the services they offer in order to draw in and keep clients. Because long-term business performance depends on having happy customers (Zeithaml et al., 1996).

The consumer's response to fulfillment is customer satisfaction. A determination that a feature of a good or service or the good or service itself offered (or continues to offer) a gratifying degree of consumption-related fulfillment, including a lack of or excessive fulfillment (Oliver, 1997)

2.1.7 Relationship between Service Quality and Customer Satisfaction

According to (Kotler and Armstrong, 2012), satisfaction is the appraisal of goods or services after a purchase that takes into account expectations. The causes of service quality and customer satisfaction are a topic of debate among researchers.

While some consider that customer pleasure is correlated with service quality, others disagree. Numerous academics' investigations have found a connection between customer happiness and service excellence. Since service quality is typically regarded as an antecedent of customer satisfaction, they advise that a high level of service quality should be provided by the service provider in order to attain a high level of customer satisfaction (Mesay, 2012).

Customer satisfaction is more likely as service quality improves. Satisfaction was based on numerous factors, including quality, and could have an impact on how people perceive quality in the future (Clemes, 2008).

According to Parasuraman et al. (1988), the distinction between service quality and customer satisfaction is that the former refers to an overall assessment of the superiority of the provided service, whereas the latter relates to a particular transaction. Service quality refers to a comprehensive assessment of a company's service delivery system, whereas satisfaction is a post-consumption experience that contrasts perceived quality with desired quality (Parasuraman et al., 1985).

According to Siddiqi (2011), in retail banking environments, all service quality parameters are strongly correlated with customer happiness, and customer satisfaction is favorably correlated with customer loyalty. A good level of service will also boost client loyalty and happiness, according to Daniel O. Auka (2012).

2.2 Theoretical foundation of the study

The theory of service quality is based on product quality and customers satisfaction (Brady & Cronin, 2001a). In 1988, Zeithaml defined service quality as “an assessment of customers from the overall excellence of services”. Although researchers have general agreement on the significant role of service quality on customers’ satisfaction and performance of the firms, there is no unanimous notion on the model of service quality measurement. Service quality is multidimensional (Brady & Cronin, 2001a; Parasuraman et al., 1988) and dimensions can vary according to the different service industries (Pollack, 2009). Nevertheless, service quality measurement enables managers to identify the problem in the service provided to the customers to enhance the efficiency and quality for the purpose of customers’ satisfaction and fulfilling desire.

Service quality has been studied wildly from the early of 1980 when Gronroos introduced the first model for measuring service quality called the Nordic model. He believes in distinguishing technical qualities as an outcome for the service performance and functional qualities as a subjective perception of the service provided. After that Parasuraman, Zeithaml, and Berry introduced a new model called SERVQUAL in 1985 which is the most famous and used model in service quality. At first, they suggested ten dimensions for their model but in the new version of this model in 1988 they reduced the dimensions into five. The basis of this model was on measuring the differences between expectation and perception of the customers on the service provided through five suggested dimensions.

Gronroos Model

The early conceptualization of service quality model is formed by Gronroos (1982, 1984). He believed that if a firm wants to be successful, it is vital for the business operator to understand the customers’ perception on the service provided. Service quality management means matching the perceived quality with expected quality and keeping this distance as small as possible in order to reach customers’ satisfaction. He suggested three dimensions of service quality. The first dimension, Technical (outcome) means what customers received as a result of interaction with a service firm. The other component is Functional (process) which means how a technical service received by customer. The way of service process is very important in customers’

evaluation on the service quality. However, the service outcome received by the customers is upon their desire and the process of receiving service has influence onto the customers' evaluation and view of the service. By comparing these two factors of service the quality expected and received by the customers, we can get the perceived service quality. The third dimension of service quality in this model is Corporate Image which is the customers' view of corporate or brand. The customers' expectation is influenced by their view of the firm and it is the result of how customers perceived firm services. Therefore, the image is built up by the technical quality and functional quality. There are other less important factors that can affect image such as: traditional marketing activities (i.e., advertising, pricing, and public relations), ideology, tradition, and word-of-mouth. It was the first attempt to introduce a real model for measuring perceived service quality. The main problem of this model was the lack of explanation for measuring technical quality and functional quality. In the years after, Rust and Oliver (1994) developed this model by adding one more dimension to Gronroos' (1984) model that is Service Environment. The other two dimensions suggested by them were called service product (i.e., technical quality) and service delivery (i.e., functional quality) but they did not test their model and a few supports were found using and testing this model.

Service Quality GAP model

Gronroos model was based on disconfirmation model that puts perceived service against expected service. Disconfirmation model is based on product quality literature which is the base of service quality. Based on disconfirmation model, Parasuraman, Zeithaml, and Berry (1985) suggested a new model for service quality measurement by measuring the gap between perceived service and expected service. The construction of their theory for using the gap analysis in service quality is shown in Figure 3. In this exploratory study, they found five gaps between expectation and perception in service quality to be measured. They proposed the gap analysis for service quality by measuring the difference between expectation and service performance. In this model they found five gaps to be measured:

Gap 1: The difference between consumers' expectations and management perceptions of the customers' expectations

Gap 2: The difference between management perceptions of consumers' expectation and service specifications

Gap 3: The difference between service quality specifications and service provided

Gap 4: The difference between service provided and external communications to the customers

Gap 5: The difference between customers' expectation and consumers' perception of the service.

Frost and Kumar (2000) have developed an internal service quality gap model based on the concept of GAP model (Parasuraman et al., 1985). The purpose of this model is to evaluate the dimensions, and their relationships that determine service quality among internal customers (front-line staff) and internal suppliers (support staff) within a large service organization. Gap 1 shows the difference between support staff's perception (internal supplier) and the front-line staff's expectation (internal customers). Gap 2 is the significant difference between service quality specifications and the service actually delivered resulting in an internal service performance gap. Gap 3 focuses on the front-line staff (internal customers). The gap is based on the difference between front-line staff's expectations and perceptions of support staff's (internal supplier) service quality.

Moreover, Luk and Layton (Luk & Layton, 2002) developed the traditional GAP model of Parasuraman et al. (1985) by adding two more gaps. They believe employees are also involved separately from managers to the measurement. As a result, they add the employees' perceptions of consumers' expectation and found the gap between expected services by consumers and employees' perceptions of consumers' expectation. The second gap added was the difference between employees' perceptions of consumers' expectation and the management perceptions of consumers' expectations. Based on the gap between expectations and perceptions of the consumers, Parasuraman et al., (1985) suggested 10 dimensions for measuring the gaps in their service quality model; reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding, and tangibles. In 1988 they refined their finding and model but the construction of the model and theory remains the same with the dimensions reduced into five, reliability, responsiveness, assurance (which contains communication, competence, credibility, courtesy, and security), tangibles, and empathy (which contains access and understanding). They named the refined model as SERVQUAL. This model was revised in 1991

and 1994, but its construction and dimensions remain the same with the five suggested dimensions.

Parasuraman et al., (1985; 1988) attempted to take the advantage of comparing with Gronroos model by suggesting the measurement for service quality. SERVQUAL model is a useful tool for managers to identify the gaps in their service (Seth, Deshmukh, & Vrat, 2005). This model is the most used by scholars and practitioners. Although SERVQUAL is the most famous model in service quality after years of researching in this model, scientists noted that the method offered in this model for measuring gaps in different levels is not clear (Brady & Cronin, 2001a; Seth et al., 2005). Some researchers believe that measuring the gap between expectation and perception is not psychometrically able to obtain superior assessment of service quality (Brady & Cronin, 2001a).

SERVPERF Model

Although SERVQUAL model is a good measurement for many industries, researchers reported that this model is not suitable for some areas like retail store environment (Dabholkar, Thorp, & Rentz, 1996). By years of study on this model and more debates among scientists, some stated that this model is not comprehensive in different applications (Brady & Cronin, 2001a; Dabholkar et al., 1996; Shahin & Samea, 2010). In 1992, Cronin and Taylor suggested the refined model by considering performance as the only factor needs to be measured for service quality. They argued that service quality is a consumers' attitude and the performance (perceived service) of the service is the only measurement for service quality. Investigating service quality relationship with consumers' satisfaction and purchase intention was their study; they believe service quality is an antecedent of consumers' satisfaction. They suggested a new model for service quality based on SERVQUAL with respect to the conceptualization and measurement of service quality which used performance as the only measurement for service quality model called SERVPERF. In this new model, Cronin and Taylor (1992) proceeded to measuring performance (perceived service) with the same dimensions as reliability, responsiveness, assurance, tangibles, and empathy for service quality measurement instead of "expectation-perception" difference. The research finding showed SERVQUAL factors are inconsistent, and SERVPERF is a more accurate measurement for service quality in comparison with SERVQUAL (Cronin & Taylor, 1994; Seth et al., 2005).

Hierarchical model

Though SERVQUAL has the validity by testing in different service sectors (e.g., banking, telephone service, credit card service) there is no adapted and valid for some sectors like retail store environment (Dabholkar et al., 1996). This measurement has developed during the years and is the base for many other suggested service quality models, e.g. (Cronin & Taylor, 1992; Parasuraman, Zeithaml, & Malhotra, 2005). Researchers found that it needs to be more clear and specific in dimensions of SERVQUAL and some development in the structure of this method (Brady & Cronin, 2001a; Cronin & Taylor, 1992, 1994; Dabholkar, 1996; Dabholkar et al., 1996). Dabholkar found that the construction of SERVQUAL is not adopted for retail store environment. Therefore, Dabholkar, Thorpe, and Rentz (1996) suggested and tested a new model for service quality to develop dimensions and construction based on SERVQUAL and SERVPERF. In this new model they suggested a hierarchical structural model for service quality based on previous literature with dimension and sub-dimension level. In their suggested model they introduced three stages; service quality (retail service quality), primary dimensions (physical aspects, reliability, personal interaction, problem solving, and policy), and the subdimensions for three dimensions are appearance and convenience for physical aspect dimension, promises and doing it right for reliability dimension, inspiring confidence and courteous/helpful for personal interaction dimension. For testing the model and construct validity of the model, they just measured and analyzed the perception of customers to avoid psychometric problems with different scores. However, the construction of model and factors is based on disconfirmation method to determine the gaps in service quality. Validity of this model accepted and showed better structure with more precise factors. However, this model also needs more evidence and some development for generalizing and making it applicable in other service industries. Some researchers in the years after tested and suggested some development for this model in other industries than retail store industry.

Industry-specific service quality models

Although some of the proposed models have strong validity and are applicable for measuring service quality in many service industries, researchers found that most of them have lack of generalizability for all businesses (Seth et al., 2005). Some of those models have support for applying and testing in different businesses like SERVQUAL, but even that famous

measurement has some lack of application for some specific businesses such as retail store (Dabholkar et al., 1996). Models evaluated in previous parts were generic, but the hierarchical model suggested by Dabholkar et al., (1996) was based on retail store environment. Some researchers believe that businesses need to use a context-specific service quality measurement for the best understanding of consumers' perception on service quality (Dagger et al., 2007). Therefore, researchers suggested some models based on specific service businesses. For example, in the information technology (IT) based services, Berkley and Gupta (1994) suggested IT alignment model, Dabholkar (1996) proposed attribute and overall affect model, Zhu, Wymer, and Chen (2002) suggested IT-based model, Santos (2003) suggested model of e-service quality, and Broderick and Vachirapornpuk (2002) proposed internet banking model. Dagger, Sweeney, and Johnson (2007) developed the Hierarchical model in healthcare industry with some special dimensions and sub-dimensions related to health care services. Akter, D'Ambra, and Ray proposed a new model based on the hierarchical model for mobile health services. However, the base of this model was the hierarchical-multilevel model, one of the dimensions (physical environment quality to platform quality) with new sub-dimensions specifically for mobile health services. Tsaur, Chang, and Yen (2002) evaluated a specific model for the airline industry based on SERVQUAL with several attributes based on airline services by using the fuzzy set theory. Other researchers proposed a new model for the airline industry in 2002 with the specific criteria category and evaluated criteria for this industry by fuzzy set (Chang & Yeh, 2002). Based on previous studies in airline service quality, a new model proposed by Liou and Tzeng (2007) for airline services with factors suggested and specific for this service business. In 2002 Cunningham, Young, and Moonkyu suggested a new model based on previous studies in airline specific models of service quality for measuring service quality in airline businesses.

2.3 Empirical literature review

Marketing researchers are currently paying particular attention to study on service quality. Numerous studies have been conducted that are relevant to this subject. However, the researcher makes an effort to choose three of those that are more pertinent to the subject. To gain more knowledge about this research, the names are mentioned below along with their main findings and objectives.

As the main aim of this research is to investigate latest customer service quality delivery and its impact on customer satisfaction in Awash bank, east Addis Ababa district, different authors and researcher's idea and recommendations regarding the related topic are analyzed and presented.

According to Natnael & Devulapalli (2022) conducted a study on the effect of service quality on Customer Satisfaction in Commercial Bank of Ethiopia, Branches in Wolaita Sodo. The overall objective of this study was to investigate the effect of service quality on customers' satisfaction in the case of Commercial Bank of Ethiopia branches in Wolaita Sodo town. For this purpose, 383

respondents were selected from target population using simple random sampling method and 22 item Likert scaled SERVPERF instrument questionnaires were distributed and 344 valid responses were analyzed. The correlation analysis result indicated that there were positive and significant relationship between all service quality dimensions and customer satisfaction. Regression analysis which was performed to study the effect of service quality on customer satisfaction found that four service quality dimensions: namely, empathy, responsiveness, reliability, and assurance were positively and significantly affect customers' satisfaction and the tangibles dimension was insignificant for analyses. Compared with other quality dimensions in SERVPERF instrument, empathy has high effect on customers' satisfaction. It can be concluded that the service quality has significant effect on customer satisfaction in the bank. The bank is recommended to work hard in all quality aspects and give more personal attention to customers, understand the interest of customers, care for their customers, and give prompt service as these will result in customers' retention, positive word of mouth and increased profitability.

Nushrat (2018) attempts to determine the effect of service quality on customer satisfaction both from public and private banks in Tangail city. To measure the service quality, an extensive survey of bank clients has been performed with a structured questionnaire. Respondents are chosen from different demographic features. The 200 sample clients were selected from the branches of different public and private banks located in Tangail City. The sample clients were selected randomly at the banks while interviewing. Both descriptive and inferential statistics were used in the analysis. To explore the relationship between service quality and overall customer satisfaction, frequency distribution, descriptive statistics, correlation and regression analysis was performed. From the overall analysis, the most important service quality factor of

banks is personal attention to the clients followed by error-free records, safety in transaction, and tangible physical facilities of the bank. A significant correlation between the performance of promises in time and professions of the clients are observed. Perceived service quality factors have significant relationship with the overall service quality of the banks located in Tangail City which indicates that the service quality dimension have strong influence on the overall customer satisfaction. After all, findings indicate that service quality and all its dimensions have significant and positive association with customer satisfaction.

Dachyar & Rusyidina (2015) conducted a study on customer satisfaction and the link between customer satisfaction and service quality in Jakarta's taxi industry in Indonesia. It was found that customer satisfaction is greatly affected by 6 factors; company image, perceived value and perceived quality, customer expectations, customer trust, and customer complaints. They concluded that company image has the greatest effect on customer satisfaction. The study focused on three taxi companies and not the entire industry.

Jalal, et al, (2012) established the significant impact of all the dimensions of service quality on user satisfaction in libraries in Malaysian universities. All the dimensions tested greatly affected user satisfaction. Mburu (2013) conducted a study to establish factors that determine customer satisfaction in the banking industry in Kenya. He found out quality of service, pricing, relationship, and value with the service provider's staff to significantly determine customer satisfaction, Musyoka (2013) in his study of service quality and satisfaction among the Kenyan Public Universities Libraries documented that, libraries that offered better customers services were more preferred by library users compared to libraries that offered poor costumers services. In addition, more than 70% of the respondents valued libraries that focused on continuous improvement of service quality and were more likely to visit that library again.

Hellen (2014) investigated service quality and customer satisfaction in certified public accounting learning institutions in Nairobi. The study concluded that an increase in service quality will lead to a higher level of student satisfaction. All the quality dimensions affected customer satisfaction except empathy. It was recommended that training institutions should focus on improving all five dimensions to achieve high customer satisfaction.

Anu (2021) conducted study on examining customer satisfaction towards service quality of Nepalese commercial banks. The study is based on the primary data. The data obtained from the questionnaires survey are analyzed through SPSS. The instruments are descriptive statistics and inferential statistics. To analyze the reliability and validity of the data Cronbach's alpha (α) is used. Frequencies, percent, mean, medium, standard deviation, correlation and test of significance are used in this study to measure the determinants of customer satisfaction. To achieve the purpose of the study, structured questionnaire was prepared. Out of 235 questionnaires, only 182 numbers of customers' response were received. Subjects were asked to assess their perceptions of various items representing customer satisfaction towards service quality of Nepalese commercial banks. The study reveals that all the service quality variables (reliability, responsiveness, empathy, assurance and communication) and customer satisfaction is positively related. It means an increase in service quality variables will lead to an increase in customer satisfaction. The study also concludes that empathy is ranked in first position on the basis of calculated mean value. Similarly, reliability, assurance, responsiveness and communication are ranked second, third, fourth and fifth position respectively as far as factors affecting customer satisfaction is concerned. Service quality is an essential aspect that satisfy customers.

Betelhem (2015) conducted study on the impact of service quality on customer satisfaction the case of commercial bank of Ethiopia. The major objective of this study was assessing the impact of service quality on customer satisfaction in five branches found under CBE, south Addis Ababa district. To attain this objective, questionnaire was designed categorized under five dimensions of the SERVEQUAL model. The sample consists of 400 respondents selected based on convenience sampling procedure. This study used quantitative research design and both primary and secondary data. The collected data was analyzed with the help of SPSS version 20. Correlation and multiple regressions were used to investigate the relationship between dependent and independent variables. The correlation results indicate that there is a positive correlation between the dimensions of service quality and customer satisfaction. The results of the regression test showed that offering quality service have positive impact on overall customer satisfaction. Moreover, the highest correlation is between responsiveness and customer satisfaction followed by reliability. The finding of the analysis showed that, the performance of CBE in providing quality service is not in a position to meet the expectation of the customer. Low service quality

leads low customer satisfaction. Based on this, in order to improve performance of the bank, the researcher suggested that, the bank should prepare complaint handling mechanisms, relevant training for its front-line employees.

Tan & Maran (2014) examined the relationship between service quality and customer satisfaction in the Malaysian banking industry. The paper uses SERVQUAL instrument questionnaire. The variables include in the paper was Service Quality as independent variable and Customer Satisfaction as dependent variable. The questionnaire includes 22 items of service expectations, 22 items of service performance perceptions, two different single items of service quality and customer satisfaction. A sample size of 200 respondents is conducted in Klang Valley Cities, Malaysia. A multivariate regression analysis is performed to study the impact of banking service quality on customer satisfaction in Malaysian banking industry. The results reveal that the expectations of Malaysian banks are higher than perceptions in terms of service quality. Their expectations are not met and that the largest gap is found in Reliability dimension. The findings from regression analysis suggest that banking service quality significantly influenced by customer satisfaction. In addition, the results from multiple regressions analysis show that the Tangible dimension has the largest influence on customer satisfaction.

Atikur, Julfikar, Zhang, Rupali, & Zahidur (2020) investigated the effect of various dimensions of service quality of banking service on customer satisfaction in a developing country, Bangladesh. A total of 212 walking Bangladeshi banking customers participated in this research. A structured questionnaire was developed based on past research. SPSS is utilized for analysis and Likert scale was used in this study. Internal consistency of all items was found correct and a total of seven hypotheses were proposed. For testing, a 5% significance level is considered for acceptance of hypothesis. The findings show that, except employee competency, all other variables such as reliability, assurance, tangibles, responsiveness, empathy, and access to service have positive influence on customer satisfaction. The study provides policy implications for the management boards of the banking sectors.

Gezahegn (2018) found that customers were most satisfied with the empathy dimensions of service quality. however, customers were less satisfied with the reliability and tangibility dimensions of service quality. The correlation result showed that except reliability the four service quality dimensions are positively and significantly related with customer satisfaction.

Messay (2012) found that all service quality parameters are positively linked with customer satisfaction, accounting for 90.7% of the variance in customer satisfaction in the Ethiopian banking sector. The level of service quality provided by private banks can be used to predict customer happiness. The study's findings also demonstrate a strong correlation between customer loyalty and satisfaction, which accounts for 62% of the variance.

2.4 Conceptual Frameworks

A key factor in determining whether a customer is satisfied is service quality (Cronin & Taylor, 1992). Customer satisfaction thus thought to influence perception after the sale as well as upcoming choices. The relationship between service quality characteristics and customer satisfaction can be illustrated as follows using the results of the preceding literature review. The conceptual framework highlights the critical step, which is helpful in indicating the study's path. The study demonstrates the connections between the five aspects of service excellence (reliability, responsiveness, assurance, empathy and tangible) which are in and customer satisfaction.

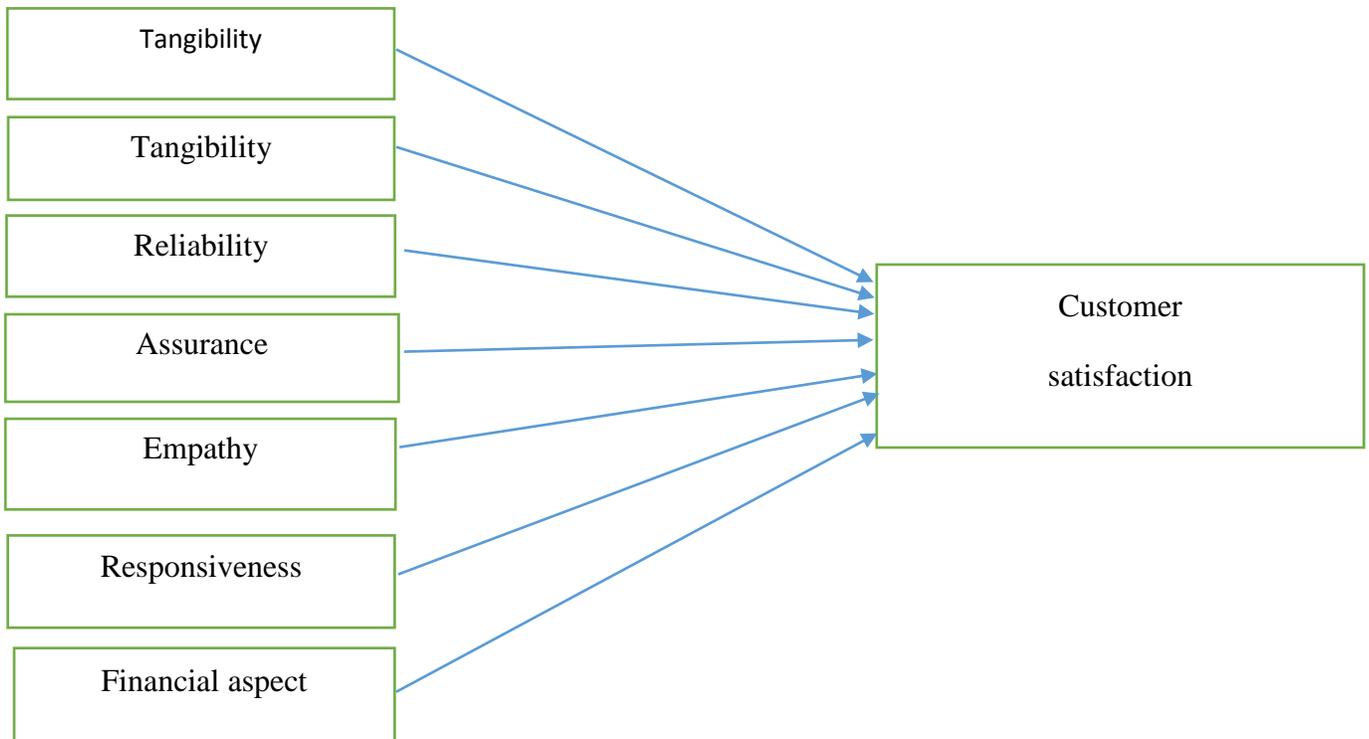


Figure 1: Conceptual framework of the effect of service quality on customer satisfaction.

Source: Modified from Parasuraman (1988)

1.4 Research hypothesis

In order to answer the research objectives/ questions of the effect of service quality on customer satisfaction in Awash bank, East Addis Ababa district, the following hypotheses was developed:

In the banking sector, the tangibility dimension becomes intrinsic in-service quality, according to the tangible facets of the services cape, such as equipment, physical facilities, and visual appeal (Parasuraman, Zeithaml, & Berry, 1985). Subsequently, in the banking sector, it can be said that there is a significant influence of tangibility on customer satisfaction (Kant & Jaiswa, 2017).

Parasuraman et al., (1985) have defined tangibility as the appearance of physical facilities, equipment, personnel, and communication materials. It may also be defined as the clear visibility of resources necessary for providing a service to customers, the appearance of the management team and professional employees, brochures and booklets, which will have an effect on customer satisfaction (Munusamy, Chelliah, & Mun, 2010). Ananth, Ramesh, & Prabakaran (2010) found that attractiveness, physical facility, and visual appeal could be considered positive indicators of tangibility on customer satisfaction in the banking sector. Furthermore, various researchers have found that there is a positive effect on the relationship between customer satisfaction and tangibility in the banking sector. Moreover, Krishnamurthy, SivaKumar, & Sellamuthu (2010) emphasized that tangibility has a positive impact on customer satisfaction in banking services. Ananth et al (2010) showed that in the banking sector sophisticated equipment and an attractive ambiance is viewed as the impact of tangibility on customer satisfaction. Thus, based on the above arguments, this leads to the development of the following hypothesis:

- *Ha1: Service tangibility has a positive and significant effect on customer satisfaction. of Awash bank, East Addis Ababa district*

Researchers have demonstrated that the reliability dimension of service quality has a positive impact on customer satisfaction (Parasuraman, Zeithaml, & Berry, 1985). Ennew, & Waite (2013) revealed that reliability could be considered the extent to which customers can rely on the service promised by the organization. Parasuraman et al. (1985) has defined reliability as the organization's capability to tool up the service, dependently and independently. As a standard of service quality, reliability has a significant impact on customer satisfaction. Ennew et al. (2013) defined reliability as the ability to do and perform the required service for customers dependably, accurately and as promised, and the capacity to treat problems faced by customers. Taking actions to solve problems, performing the required services right from the first occasion, or

providing services at the proper time are critical. Maintaining an error-free record is the paradigm of reliability in terms of service quality, and has an important impact on customer satisfaction.

Peng & Moghavvemi (2015) contend that the most important factors in retaining customers in banking services are accuracy in completing orders, maintaining precise records and quotations, accuracy in billing, and fulfilling promised services. These are the basic aspects of reliability. The extant literature has also revealed that reliability has a positive relationship with customer satisfaction in the banking sector. Therefore, based on the above arguments, the study reached the following hypothesis:

- ***Ha2: Service reliability has a positive and significant effect on customer satisfaction of Awash bank, East Addis Ababa district.***

The assurance dimension of service quality indicates employees' competence, knowledge and courtesy, and the ability to build bridges of trust with customers (Parasuraman, Zeithaml, & Berry, 1985). Assurance is defined as the knowledge and good manners or courtesy of employees Kant, & Jaiswal, (2017). Further, it is defined as the ability of employees, with the help of the knowledge they possess, to inspire the trust and confidence that will strongly influence the level of customer satisfaction. There is a positive relationship between assurance and customer satisfaction Shank, 2012). In the banking sector, assurance is related to the security that a customer feels when conducting his banking transactions. Providing customer assistance in a courteous manner, accuracy in completing orders, easy access to account details, convenience within the bank, maintaining precise records and quotations, employing an experienced professional team, and fulfilling promised services will have a positive impact on customer satisfaction Sadek, Zainal, Taher, Yahya, Shahrudin, Noordin,, Zakaria, & Jusoff, 2010). Based on the above discussion, the study reached the following hypothesis:

- ***Ha3: Service assurance has a positive and significant effect on customer satisfaction of Awash bank, East Addis Ababa district***

Ennew et al. (2014) point out that the empathy dimension of service quality means being attentive in communicative situations, understanding customer needs, showing friendly behavior, and taking care of a customer' s needs individually. Navaratnaseel & Periyathampy (2014) defined empathy as the ability to take care of customers and pay attention to them individually, especially while providing services. Moreover, Parasuraman et al. (1985) argued that

understanding customer expectations better than competitors and the provision of care and customized attention to customers strongly influences the level of customer satisfaction. Ananth et al. (2010) revealed that a positive impact on customer satisfaction is brought about by convenient working hours, individualized attention, a better understanding of customer's specific needs in the banking sector and the empathy dimension, all of which play a crucial role in customer satisfaction (Shank, 2012) According to the above reviews, the study proposed the following hypothesis:

- *Ha4: Service empathy has a positive and significant effect on customer satisfaction of Awash bank, East Addis Ababa district*

The responsiveness dimension of service quality is related to the organization's willingness and ability to help customers, and to provide quick service with proper timeliness (Parasuraman, Zeithaml, & Berry, 1985). The willingness of employees to provide the required service at any time without any inconvenience will have an impact on customer satisfaction (Parasuraman, Zeithaml, & Berry, 1988). Responsiveness is primarily concerned with how service firms respond to customers via their personnel. Individual attention will increase the customer's satisfaction and so will the attention paid by employees to the problems that face customers; when this happens, a radical shift occurs in their satisfaction. Arguably, banking sector responsiveness has a direct relationship with customer satisfaction (Kant & Jaiswal, 2017). Based on the above statements, we can state that the responsiveness dimension of service quality will strongly influence customer satisfaction in banking and therefore, the research proposes the following hypothesis.

- *Ha5: Service responsiveness has a positive and significant effect on customer satisfaction of Awash bank, East Addis Ababa district*

Sharma Naveen (2016) has modified the SEVQUAL model by adding the financial aspect. Significantly, the financial aspect is a new dimension, not similar to any of the original SERVQUAL scale dimensions. It refers to the organization's profit, which is subjectively measured through profit in recent years, the profit increment ratio, the effectiveness of financial management, the achievement of financial goals and the effectiveness of financial measures (Lakshmi, Sri, & Paramashivaiah 2013). The financial aspect dimension of service quality is attentive to the customer as a factor of financial benefits [16 ,58]. Many researchers have argued that financial aspect has a positive impact on customer satisfaction. Many researchers

(Haddad, , 2016) have stated that a competitive interest rate offered on different loans and deposits has a great impact. Moreover, customers compare the reasonableness of the charges among different banks, and choose the most suitable charge (Sharma, 2016) Based on the above publications, the following hypothesis is proposed:

- ***Ha6:** Financial aspect has a positive and significant effect on customer satisfaction of Awash bank, East Addis Ababa district*

CHAPTER THREE

3. RESEARCH METHODOLOGY

The methodology represents a crucial part in the research process. This is because it gives details to show how research activities are going to be carried out and its aim is to describe the research strategy and methods applied in this study, and to discuss their suitability within the context of various research philosophies, models and methodological approaches. This includes a general overview of the overall research philosophy employed in carrying out the research and justification of the chosen approach (Kothari, 2004).

3.1. Research Design

According to Kothari (2004) the formidable problem that follows the task of defining the research problem is the preparation of the design of the research project, popularly known as the research design. A research design used may vary from research to research. Explanatory research design was adopted because as the researcher is going to formulate the relationship between dependent variable (customer satisfaction) and independent variables. According to Saunders, Lewis, & Thronhill (2009), studies that establish causal relationships between variables may be termed explanatory research. The emphasis here was on studying a situation or a problem in order to explain the relationships between variables. If the problem calls for the identification of factors that influence an outcome, the utility of an intervention understanding the best predictors of outcomes, then a quantitative approach was best. It is also the best approach to use to test a theory or explanation. On the other hand, if a concept or phenomenon needs to be understood because little research has been done on it, then it merits a qualitative approach (Creswell, 2009). Thus, the type of research employed for this study was mixed research method because either qualitative or quantitative methods are inadequate to best understand a research problem or the strengths of both quantitative and qualitative research can provide the best understanding. This was because the researcher is trying to investigate the effect of service quality on customer satisfaction (where the use of quantitative method is best) and there are no enough researches done on the issue in Awash bank, East Addis Ababa district (which merits the use of qualitative research method). Therefore, it is better to use mixed research method. Creswell (2003) supports that mixed method approach is a model for social

research combining qualitative and quantitative methodologies which is adequately flexible, accessible and multilayered to interpret real meaning from the collected data.

3.2. Type and Sources of Data

According to the need of the research and the reliability of data, both qualitative and quantitative data was collected from both primary and secondary data sources. The primary data are those which are collected afresh and for the first time, and thus happen to be original in character (Kothari, 2004). Primary data was collected from Awash bank east Addis Ababa district customers through enumerator administered schedules; which comprises both open ended and close ended questions. The secondary data are those which have already been collected by someone else and which have already been passed through the statistical process (Kothari, 2004). Secondary data was collected from different journals, and publications for assessing the existing findings, internet, books and documents.

3.3. Population, Sampling Technique and Sample Size

3.3.1. Study Population

Mugenda and Mugenda (2003) defined target population as the entire group of individuals, events or objects having common observable characteristics to which the researcher wants to generalize the results of the study. The study population was mainly composed of all the Awash bank, east Addis Ababa district customers. However, since the number of customers is unknown and infinite, it is difficult to provide the appropriate figure of the population of the study. Therefore, the target population of the study was all Awash bank, east Addis Ababa district customers

3.3.2. Sampling Techniques

After identifying the target population, the researcher decided to take the sample. Accordingly, the researcher employed convenience sampling. It is a way of selecting participants from the target population based on the ease to access.

3.3.3. Sampling Size

According to Kothari (2004), sample size is the number of items to be selected from the universe to constitute a sample or Sample size is the determined total number of sampling units needed to be representative of the defined target population; that is the number of elements (people or objects) that have to be included in a drawn sample to ensure appropriate representation of the defined target population.

Saunders (2012) states that the size of the total population, the tolerable margin of error, confidence interval we expect in the data and the type of analysis are the main determinants of the sample size. Since the number of customers is infinite, the researcher used determination of size through the approach based on precision rate and confidence table. The representative number of samples has been specified by using the Cochran (1977) sample size determination formula:

$$n = \left(\frac{z}{e}\right)^2 pq = \left(\frac{1.96}{0.05}\right)^2 (0.5)(0.5) = 384.16 \approx 385$$

Where, n=sample size to be calculated

p= Percentage or presence of the study characteristics ($p = 0.5$, maximum variability), when it is not known a conservative value of $P = 0.5$ is assumed

$q = 1 - p$

e= accepted margin of error ($\pm 5\%$ of precision)

$z = 1.96$ (95% of confidence level)

Therefore, the representative number of respondents (customers) was 385.

3.4. Methods of Data Collection

Both primary and secondary data was collected from relevant sources that help to achieve the stated objectives. The primary data are those which are collected afresh and for the first time, and thus happen to be original in character (Kothari, 2004). For this study, primary data was collected from customers through enumerator administered schedule. The schedule will be

designed so as to make it easy to answer and to cover most of the common research questions and contains close ended and some open-ended questions. Schedule is very much like the collection of data through questionnaire, with little difference which lies in the fact that schedules (proforma containing a set of questions) are being filled in by the enumerators who are specially appointed for the purpose.

Moreover, the schedule was also designed firstly in English version and translated into Amharic. The translation of questionnaire makes the respondent familiar with the concept as well as easy understanding. The schedule was tested on 15 respondents to assess reliability or internal consistency. The test was conducted by Alpha (Cronbach) model. After checking each item in the schedule, the researcher has made some modifications. In order to collect relevant data from the respondent the researcher hired six enumerators. The schedule was distributed and collected from March 25 to April 25, 2015 E.C. The schedule was designed to collect necessary data on the effect of service quality on customer satisfaction towards Awash bank, East Addis Ababa district customers through 5-point Likert' scale from (1) strongly disagree to (5) strongly agree.

Secondary data are those which have already been collected by someone else and which have already been passed through the statistical process (Kothari, 2004). Secondary data was collected from different journals, and publications for assessing the existing findings, internet, books and documents.

3.5. Method of Data Analysis

Data analysis is the application of reasoning to understand the data that have been gathered. In its simplest form, analysis may involve determining consistent patterns and summarizing the relevant details revealed in the investigation. The appropriate analytical technique for data analysis was determined by management's information requirements, the characteristics of the research design, and the nature of the data gathered. Statistical analysis may range from portraying a simple frequency distribution to more complex multivariate analyses approaches, such as multiple regressions (Zikmund, et al., 2009). The responses of respondents collected using the above motioned data collection tools was organized, analyzed and interpreted in a sensible way. The analysis will be based on descriptive and inferential statistics to provide details regarding the demographic question and the factors that impacts customer satisfaction by

using STATA 11 software. In order to find answers to specific objectives of the study descriptive statistical tools (such as mean, standard deviation, frequency and percentage), and correlation analysis and multiple regression analysis have been done. Data collected from interview was interpreted qualitatively.

CHAPTER FOUR

4. DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The previous chapters have discussed appropriate methodologies and the adopted research method for the study along with its rationale. This chapter presents and discusses the results on the effect of service quality on customer satisfaction. The study provided two types of data analysis; namely descriptive analysis and inferential analysis. First, the results of descriptive statistics which shows the relevant phenomena of variables such as mean, standard deviation, minimum, maximum of variables used in the study were presented. For the inferential analysis, a regression result of the regression model which outlines an in-depth examination of the relationship between customer satisfaction and the various variables under consideration of the study were discussed and attempts to test the hypothesis.

4.2 Background information of respondents

The study has been done by participating 385 Awash bank, east Addis Ababa district employees. Questionnaire was distributed to those 385 Awash bank, east Addis Ababa district employees and only 340 of them responded. This shows that the response rate was around 88.3%. According to Mugenda and Mugenda (2003), 50 percent response rate is adequate, 60 percent good, above 70 percent is rated very good. Therefore, considering the difficulty of collecting data in developing countries such as Ethiopia, 88.3% response rate was reasonably good.

Table 1: Demographic Background of Respondents

No.	Type of Variables	Category	Frequency(n=340)	Percentage	Cumulative Percentage
1	Gender	Male	220	64.71	64.71
		Female	120	35.29	100.00
2	Age	Below 18	13	3.82	3.82
		18-28	93	27.35	31.18
		29-38	158	46.47	77.65
		39-48	65	19.12	96.76
		above 48	11	3.24	100.00
3	Level of Education	Below Grade 8	15	4.41	4.41
		Grade 8-12	27	7.94	12.35

		Certificate & diploma	94	27.65	40.00
		Bachelor Degree	163	47.94	87.94
		2 nd Degree and above	41	12.06	100.00
4	Occupation	Government Employee	112	32.94	32.94
		Private org,	84	24.71	57.65
		Student	48	14.12	71.76
		Self employed	60	17.65	89.41
		NGO Employee	36	10.59	100.00
5	Income per Month (br.)	Below 5000	43	12.65	12.65
		5,001-10,000	169	49.71	62.35
		10,001-15,000	85	25.00	87.35
		Above 15,000	43	12.65	100.00

Source: Survey Questionnaire, 2023

As shown in the table above, the gender composition was 64.71% males and 35.29% of female respondents. This implies that male customers were slightly higher than females.

Age profile of the respondents was 3.82 % (below 18 years old), 27.35% (18-28), 46.47% (29-38), 19.12 % (39-48) and 3.24% (above 48 years of age). As it is shown in the table above, the majority of the respondents fall in the working age group which accounted for 46.47 percent of the total population.

Referring to education level, 163 (47.94%) of respondents which are bachelor degree holders, and followed by 94(27.65 %), 41 (12.06 %), 27 (7.94 %) and 15(4.41%) with the level of education of certificate and diploma, master's degree and above, certificate, and grade 8-12 and below grade 8 respectively. From this, it can be understood that large numbers of respondents were individuals categorized under bachelor degree level of education.

Regarding to the occupation, Government employees constituted the large scale, which were 112 (32.94%) followed by private organization employees 84 (24.71%), self-employed/business men 60(17.65%) students 48 (14.12%), and 36 (10.59%) for those who work under NGO. Then, it is possible to say that the majority of customers are working in government sectors and private organization. Therefore, the number of customers varies in different occupation categories.

As it can be seen again from table 4.1 above, a large number of respondents, 169 (49.71%) of respondents who was the biggest group to getting income between 5,001-10,000 birr per month,

followed by 82 (23.43%) of respondents of income among 20,001-30,000 birr per month. The remaining 85 (25%) of respondents got income between 10,001-15,000 birr per month, and the last group got the income less than 5,000 birr per month and above 15,000 birr per month were 43(12.65%) of respondents. The implication of income factor under this paper is that most of respondents are within income category of 5,001-10,000 birr per month.

4.3. Results of Measures of Central Tendency and Dispersion

There are a number of factors that affect customer satisfaction. This part explains the descriptive statistics calculated on the basis of the factors that affect customer satisfaction in Awash bank east Addis Ababa district. The results for measures of central tendency and dispersion were obtained from 340 samples of respondents of Awash bank customers through 5-point Likert's scale (see Appendix I) are shown below.

Like Demis (2016), the researcher adopts an inherent assumption, which states that with the usage of any Likert scale that although the scale is truly ordinal in nature, it is assumed to be on an interval scale with which statistical properties such as the mean can be justifiably used. Mean is the most common measure of central tendency and may be defined as the value which we get by dividing the total of the values of various given items in a series by the total number of items (Kothari, 2004). Accordingly, the paper applies mean and standard deviation as the best measures for analysis based on the mean range developed by Al-Sayaad et al. (2006) cited in Demis (2013) of the following table:

Table 2: Five-Scaled Likert's Criterion

No.	Mean Range	Response Options
1	[1.00- 1.80)	Strongly Disagree
2	[1.80- 2.60)	Disagree
3	[2.60- 3.40)	Neutral
4	[3.40- 4.20)	Agree
5	[4.20- 5.00]	Strongly Agree

Source: Al-Sayaad et al. (2006) cited in Demis, (2016)

Standard deviation is most widely used measurement of variability or diversity used in statistics and probability theory. It shows how much variation or "dispersion" there is from the average

mean, or expected value (Kothari, 2004). A low standard deviation indicates that the data points tend to be very close to the mean, whereas high standard deviation indicates that the data are spread out over a large range of values. The minimum and maximum values are also considered to show that exact answers of the respondents of the questionnaire; because they are not all incorporated in that mean (average) value only. The sample mean is to show the majority of respondents as best predictors of the population and hence to infer for others (i.e., to the whole Awash bank, east district customers).

4.3.1. Descriptive Statistics on tangibility

In this sub-section, descriptive statistics with minimum and maximum response scales, mean and standard deviation are applied for analysis.

Table 3: Descriptive Statistics on tangibility

Item	N	Mean	SD	Mini- mum	Maxi- mum
Awash bank employees have well-groomed and professional appearance.	340	3.523529	1.227526	1.00	5.00
Awash bank has clean office and provides adequate space.	340	3.552941	1.352423	1.00	5.00
The bank has visually attractive facilities	340	3.579412	1.188509	1.00	5.00
The bank's layout design is appealing	340	3.508824	1.415229	1.00	5.00
The bank's printed materials such as forms and brochures are clear and simple.	340	2.932353	1.191717	1.00	5.00
Overall Mean	340	3.419412	.876827		

Source: Survey Questionnaire, 2023

From the above table, out of the five individual scale items, the constructs “The bank has visually attractive facilities” and “Awash bank has clean office and provides adequate space” have the highest mean score of 3.579412 and 3.552941 with a dispersion of 1.188509 and 1.352423 respectively. This mean value was categorized as a response scale of “agree” (see Table 4.5). It indicates that majority of the respondents have agreed to the statements provided regarding service tangibility and customer satisfaction. Respondents are also satisfied because

Awash bank employees have well-groomed and professional appearance (Mean 3.523529 & SD 1.227526) and the bank’s layout design is appealing (Mean 3.508824 & SD 1.415229). The minimum mean score of 2.932353 out of all was found for the question (sentence) “The bank’s printed materials such as forms and brochures are clear and simple.”. It has the equivalent 5-point Likert’s response scale of “neutral”, with the dispersion value of 1.191717. The overall mean of service tangibility is 3.419412 with the dispersion score of .876827 placed under the response option of “agree”. From this, one can say that service tangibility is the major factor that can be accounted for customer satisfaction in Awash bank, east Addis Ababa district.

4.3.2 Descriptive Statistics on reliability

Table 4: Descriptive Statistics on reliability

Item	N	Mean	SD	Minimum	Maximum
The bank provides service at the designed and promised time	340	3.838235	1.180099	1.00	5.00
The bank maintains timely and error-free records.	340	4.085294	1.168069	1.00	5.00
The bank provides accurate information to customers.	340	4.288235	1.035866	1.00	5.00
Employees show dependability in handling service problem.	340	4.138235	1.129522	1.00	5.00
The bank informs any delay and failure ahead of time	340	4.026471	1.272307	1.00	5.00
Overall mean	340	4.075294	.9698592		

Source: Survey Questionnaire, 2023

As it is indicated in table 4.7 above, the mean and standard deviation for the service reliability record was calculated. The table shows that respondents are satisfied because the bank provides accurate information to customers. with the highest Mean value of 4.288235 & SD 1.035866). Respondents are also satisfied because of employees show dependability in handling service problem (Mean 4.138235 & SD 1.129522), the bank maintains timely and error-free records. (Mean 4.085294 & SD 1.168069), The bank informs any delay and failure ahead of time

(Mean 4.026471 & SD 1.272307), and the bank provides service at the designed and promised time (Mean 3.838235 & 1.180099), The overall mean score of service reliability (4.075294) is placed in the mean range of 3.40, 4.20 i.e., agree response category with SD of .9698592. Therefore, service reliability has effect on customer satisfaction in Awash bank, east Addis Ababa district.

4.3.3 Descriptive Statistics on Assurance

In this sub-section, descriptive statistics with minimum and maximum response scales, mean and standard deviation are applied for analysis.

Table 5: Descriptive Statistics on assurance

Item	N	Mean	SD	Mini- mum	Maxi- mum
I feel safe in transaction with Awash bank.	340	3.352941	1.426309	1.00	5.00
Employees of the bank are knowledgeable and efficient	340	2.847059	1.185018	1.00	5.00
The bank keeps confidentiality of clients' information	340	4.291176	1.036464	1.00	5.00
Employees are consistently courteous.	340	4.144118	1.131395	1.00	5.00
Employees have the knowledge to answer customer questions.	340	3.861765	1.267361	1.00	5.00
Overall mean	340	3.699412	.6971494		

Source: Survey Questionnaire, 2023

From the above table, out of the five individual scale items, the constructs “The bank keeps confidentiality of clients’ information” and “Employees are consistently courteous.” have the highest mean score of 4.291176 & 4.144118 with a dispersion of 1.036464 & 1.131395 respectively. This mean value was categorized as a response scale of “strongly agree and agree” respectively (see Table 4.5). The remaining mean score was found for the question (sentence): “Employees have the knowledge to answer customer questions” (Mean 3.861765 & SD 1.267361), I feel safe in transaction with Awash bank (Mean 3.352941 & SD 1.426309), and Employees of the bank are knowledgeable and efficient (Mean 2.847059 & SD 1.185018). The

overall mean of service assurance is 1.185018 with .6971494 SD, placed under the mean range of (3.40- 4.20) means that service assurance is the major factor for customer satisfaction in Awash bank, east Addis Ababa district.

4.3.4 Descriptive Statistics on Empathy

Table 6: Descriptive Statistics on empathy

Item	N	Mean	SD	Minimum	Maximum
Employees deal customers with due care.	340	3.376471	1.157012	1.00	5.00
Employees give personal attention to the customers.	340	4.176471	1.19908	1.00	5.00
Employees understand the customer's specific needs.	340	3.905882	1.109078	1.00	5.00
Employees treat customer with great respect.	340	4.097059	1.009975	1.00	5.00
Employees have problem solving attitude	340	3.438235	1.201895	1.00	5.00
Overall mean		3.798824	.7241301		

Source: Survey Questionnaire, 2023

The result presented in table 4.8 shows that respondents agree with the statement “Employees give personal attention to the customers.” with greater mean score than other items (4.176471 mean and 1.19908 SD). As it can see from table 4.8 again, the statement that states "employees treat customer with great respect” and employees have problem solving attitude scored mean value of 4.097059 & 3.438235 with standard deviation of 1.118962 & 1.201895 respectively.

The item entitled “Employees deal customers with due care.” recorded least mean score (3.376471) and 1.157012 SD. The overall mean score of empathy (3.798824) is placed in the mean range of 3.40, 4.20 i.e. agree response category with SD of .7241301. Therefore, respondents agree on the role of empathy in making them to satisfy. in Awash bank, east Addis Ababa district.

4.3.5. Descriptive Statistics on responsiveness

Table 7: Descriptive Statistics on responsiveness

Item	N	Mean	SD	Mini- mum	Maxi- mum
The bank provides prompt service to customers	340	2.914706	1.175621	1.00	5.00
The bank employees are never too busy to respond to customer Requests	340	3.620588	1.091744	1.00	5.00
The bank employees are always willing to help customers	340	4.305882	.9958442	1.00	5.00
The bank keep customer informed about when services will be performed.	340	4.147059	1.111282	1.00	5.00
The bank has reduced waiting time in queue (8980 service line)	340	4.1	1.260472	1.00	5.00
Overall mean		3.817647	.704587		

Source: Survey Questionnaire, 2023

As illustrated from table 4.9, the item entitled “The bank employees are always willing to help customers” scored high mean value compared to other items i.e., 4.305882 & SD .9958442. According to the criterion set under table 4.5, the mean value falls to “strongly agree level” of the respondents followed by the statement’s states “The bank keep customer informed about when services will be performed” with mean score of 4.147059 and SD 1.111282. Respondents also agreed on the statements “The bank has reduced waiting time in queue (8980 service line) and the bank employees are never too busy to respond to customer Requests with mean 4.1 & SD 1.260472 and mean 3.620588 & SD 1.091744 respectively. While, the statement “the bank provides prompt service to customers” scored less mean value than others scale i.e. 2.914706 (SD=1.175621). The overall mean score of empathy is 3.817647 with .704587 SD, placed under the mean range of (3.40-4.20). Therefore, empathy determines the customer satisfaction towards Awash bank, east Addis Ababa district.

4.3.6. Descriptive Statistics on financial aspect

Table 8: Descriptive Statistics on financial aspect

Item	N	Mean	SD	Mini- mum	Maxi- mum
The bank offers attractive interest rate for deposits.	340	2.052941	.9548001	1.00	5.00
The bank offers competitive interest rate for loans.	340	2.164706	.9419375	1.00	5.00
The bank has reasonable service charges on transactions.	340	2.364706	1.119387	1.00	5.00
Overall mean	340	2.194118	.584598		

As shown in the table 4.10 above, financial aspect is consisted of three items. From these factors the item entitled “The bank has reasonable service charges on transactions” scored superior mean score compared to other items 2.364706 mean score and 1.119387 SD. The minimum mean score is 2.052941 with SD of .9548001 recorded on the item of “The bank offers attractive interest rate for deposits” also placed under “disagree” response scale. The aggregate mean value of financial aspect has become 2.194118 with .584598 of standard deviation. From this, one can say that financial aspect is not major factor in determining customer satisfaction towards Awash bank, east Addis Ababa district.

4.4.7 Descriptive Statistics on customer satisfaction

Table 9: Descriptive Statistics on customer satisfaction

Item	N	Mean	SD	Minimum	Maximum
I am satisfied by the bank updated facilities and technology.	340	3.694118	.998802	1.00	5.00
I am satisfied with the bank's professional competence and its complete range of services provided.	340	3.423529	1.37724	1.00	5.00
I am satisfied of being a client of the bank	340	3.5	1.232548	1.00	5.00
I am satisfied with the respectful behavior of employees	340	3.482353	1.441989	1.00	5.00
I am satisfied with the bank pricing, service charges and interest policy.	340	2.929412	1.197719	1.00	5.00
I am satisfied with the quick service of the bank	340	3.652941	1.084956	1.00	5.00
Overall mean	340	3.447059	.7947145		

Source: Survey Questionnaire, 2023

From the above table, out of the six individual scale items, the construct “I am satisfied by the bank updated facilities and technology.” has the highest mean score of 3.694118 with a dispersion of .998802. This mean value was categorized as a response scale of “agree” (see Table 4.5). The minimum mean score of 2.929412 out of all was found for the question (sentence): “I am satisfied with the bank pricing, service charges and interest policy.”. It has the equivalent 5-point Likert’s response scale of “neutral”, with the dispersion value of 1.197719. The overall mean of customer satisfaction is 3.447059 with the dispersion score of .7947145.

4.4 Analysis of Econometrics Model Regression

This section deals with analysis of data and interpretation of analytical findings. Initially, it is better to see the overall specification test of the model.

4.4.1 Diagnostics test

Diagnostic tests are robust statistical tests carried out to verify if the data used have met the assumptions underlying the ordinal logistic regression and where possible to remove problems associated with the data. Before estimating the order logistic regression model, it is necessary to check for different method of test such as reliability test, multicollinearity, heteroskedasticity, omitted variable bias, model specification error and outliers.

4.4.1.1 Cronbach's Alpha Test

Cronbach's Alpha is a statistical tool which is used to measure the reliability of a research conducted through the use of questionnaire. A higher alpha is always expected by researchers as it increases the reliability of the research. George and Mallery (2003) also stated that a reliability score of greater than 0.9 is excellent, greater than 0.8 is good, greater than 0.7 is acceptable, greater than 0.6 questionable, greater than 0.5 is poor and less than 0.5 is unacceptable. Therefore, it can be concluded that the questionnaire used in this research is reliable.

Table 10: Estimation of Cronbach's alpha

Variables	Cronbach's alpha
Customer satisfaction	0.8826
Tangibility	0.7279
Reliability	0.8644
Assurance	0.6590
Empathy	0.7812
Responsiveness	0.5586
Financial aspect	0.5756

Source: (Own computation, 2023)

4.4.1.2 Test of multicollinearity

Multicollinearity is the existence of a perfect or exact linear relationship among some or all explanatory or independent variables of the regression model. An important assumption in regression models is that independent variables should not perfectly collinear (one regressor should not be a linear function of another). As Gujarati (2004) noted, indicators of multicollinearity include R^2 is very high and none of regression coefficients is statistically significant on conventional t- test and low partial correlation, OLS estimators can have large variances and co-variances and making precise estimation is difficult. To test degree of multicollinearity among explanatory variables of customer satisfaction, test of VIF can be employed after running regression. A major problem with multicollinearity is that standard errors may be inflated. Thus, if $VIF > 10$ or $1/VIF < 0.10$ indicates trouble.

Table 11: Test of multicollinearity

Variable	VIF	1/VIF
meanres	1.22	0.820992
meantan	1.17	0.851467
meanrel	1.16	0.863041
meanass	1.15	0.867846
meanemp	1.10	0.906705
meanfa	1.01	0.988517
Mean VIF	1.14	

Source: (Own computation, 2023)

A tolerance level (1/VIF) less than 0.1 and variable inflation factor (VIF) greater than 10 indicates the existence of multicollinearity between the variables. From the above table, there is no problem of multicollinearity between study variables since, the VIF of all variables is less than 10 or 1/VIF is greater than 0.10.

4.4.1.3 Test of heteroscedasticity

Another important assumption is that the variance in the residuals has to be homoscedastic, which means constant. Residuals cannot vary for lower or higher values of independent variables. In laying out the standard regression model, the researcher made the assumption of homoskedasticity of the regression error term: that is variance is assumed to be constant in the population, conditional on the explanatory variables. The assumption of homoskedasticity fails when the variance changes in different segments of the population. By using Breusch-Pagan /

Cook-Weisberg test for heteroskedasticity, there is no any problem of heteroskedasticity since the chi-square is insignificant ($\chi^2(1) = 1.00$, $\text{Prob} > \chi^2 = 0.3183$) which the researcher failed to reject the null hypothesis and it can be conclude that there is no problem of heteroskedasticity (H_0 : Constant variance).

```
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of means

chi2(1)      =      1.00
Prob > chi2  =      0.3183
```

4.4.1.4 Test of omitted variable bias

Testing for omitted variable bias is important for our model since it is related to the assumption that the error term and independent variables in the model are not correlated ($E(e|X) = 0$). The null hypothesis is that the model does not have omitted variables bias. According to Ramsey RESET test $F(3, 42) = 1.06$, $\text{Prob} > F = 0.3653$, the p-value is higher than the usual threshold 0.05, so the researcher fails to reject the null hypothesis and conclude that the researcher does not need more variables. (H_0 : model has no omitted variables).

```
Ramsey RESET test using powers of the fitted values of means
Ho: model has no omitted variables
F(3, 330) =      1.06
Prob > F =      0.3653
```

4.4.1.5 Test of model specification error

It basically checks whether the researcher need more variables in the model by running a new regression with observed Y against \hat{Y} and \hat{Y}^2 as independent variables. The thing to look for here is the significance of $_hatsq$. The null hypothesis is there is no model specification error. The p-value of $_hatsq$ is not significant (0.800) then the researcher fails to reject the null hypothesis and conclude that our model is correctly specified.

Table 12: Test of model specification error

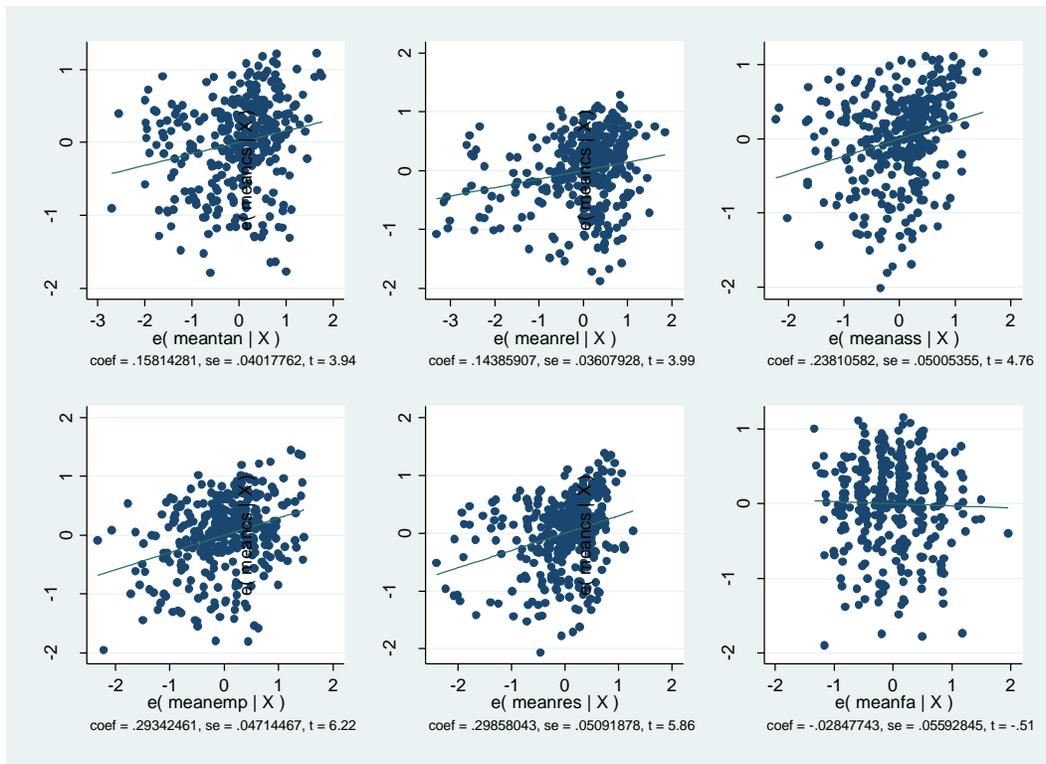
means	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
_hat	.8357185	.5359613	1.56	0.120	-.2185326 1.88997
_hatsq	.0252426	.081816	0.31	0.758	-.1356918 .186177
_cons	.2593114	.8670605	0.30	0.765	-1.446221 1.964844

Source: (Own computation, 2023)

4.4.1.6 Checking outliers

Outliers are data values that differ greatly from the majority of a set of data. These values fall outside of an overall trend that is present in the data. The common sources of outliers are measurement error, human error (errors in data entry and collection), participants intentional reporting of incorrect data, and sampling error. Outliers are data points with extreme values that could have a negative effect on our estimators. To check for outliers, the researcher uses the added variable plots command after running the regression.

Figure 2: Checking for outliers



Source: (Own computation, 2023)

The plots regress each variable against all others, notice the coefficients on each. All data points seem to be in range; thus, no outliers observed.

4.5 Correlation among variables

Pearson Correlation Coefficient is a method that measures the strength of the linear relationship between two variables. It also indicates the direction, the strength and significant of the relationship among all variables. This coefficient assumes that there is linear relationship between the two variables. Moreover, the two variables are casually related which means that one of the variables is independent and the other one is dependent; and a large number of independent causes are operating in both variables so as to produce a normal distribution (Kothari, 2004). The value for a Pearson’s correlation can fall between 0.00 and 1.00. The value of 0.00 means there is no correlation whereas 1.00 means that is a perfect correlation. To know the strength and type of correlation between variables, the following table is set as a rule of thumb for discussion of this thesis.

Table 13: Rules of Thumb about Correlation Coefficients

Coefficient Range	Strength of Association
±.81 to ±1.00	Very Strong
±.61 to ±.80	High
±.41 to ±.60	Moderate
±.21 to ±.40	Weak
±.00 to ±.20	None

Source: Bhattacharjee (2012) cited in Demis (2016)

The following table illustrates the Pearson correlation matrix for dependent and independent variables. Based on the table, all independent variables financial aspect were positively correlated with customer satisfaction. The highest correlation occurred between customer satisfaction and service responsiveness (0.4747*) followed by empathy, assurance, reliability and tangibility.

Table 14: Pearson correlation matrix for dependent, independent variables

	meancs	meantan	meanrel	meanass	meanemp	meanres	meanfa
meancs	1.0000						
meantan	0.3566 0.0000	1.0000					
meanrel	0.3709 0.0000	0.2161 0.0001	1.0000				
meanass	0.3778 0.0000	0.3242 0.0000	0.1194 0.0277	1.0000			
meanemp	0.4124 0.0000	0.0723 0.1834	0.1886 0.0005	0.1262 0.0199	1.0000		
meanres	0.4747 0.0000	0.2164 0.0001	0.3035 0.0000	0.2172 0.0001	0.2764 0.0000	1.0000	
meanfa	-0.0307 0.5723	0.0057 0.9170	-0.0928 0.0875	-0.0070 0.8983	0.0131 0.8100	0.0131 0.8092	1.0000

Source: (Own computation, 2023)

Scc- Pearson correlation coefficient

From table 4.16 the researcher started analysis of correlation results between service tangibility and customer satisfaction of Awash bank, east Addis Ababa district. The result of the correlation analysis shows a perfect positive coefficient of 0.3566. This positive coefficient indicates that when providing more tangible service features and amenities, the likelihood that respondents will satisfy by the bank increases.

Correlation results between customer satisfaction and service reliability have a positive coefficient of 0.3709. This result indicates that there is a direct relationship between service reliability and customer satisfaction. This positive coefficient indicates that when building reliability trust among customers, the likelihood that customers level of satisfaction to the bank will increases. This will bring a feel of belongingness which eventually builds long term relationships with customers and help to maintain loyal customers.

Similarly, the results of correlation analysis showed that there is perfect positive correlation between service assurance and customer satisfaction ($r= 0.3778$). This implies that the practice for feeling safe while making transactions with bank, politeness of employees in communications with customers and being knowledge to answer customer queries significantly affects customer satisfaction in Awash bank east Addis Ababa district.

The correlation analysis also showed that there is a perfect positive correlation between empathy and customer satisfaction ($r= 0.4124$). It indicates that the more the bank reinforces the level of empathy, the more customers are satisfied. Therefore, empathy significantly affects the customer satisfaction in Awash bank east Addis Ababa district.

Finally, the correlation analysis has showed a positive correlation between responsiveness and customer satisfaction ($r= 0.4747$). This means that responsiveness can be considered as a factor that affects the customer satisfaction in Awash bank east Addis Ababa district.

On the other hand, the results of correlation analysis showed that there was negative relationship between financial aspect and customer satisfaction ($r= -0.0307$). This correlation result indicates that the financial aspect affects Awash bank east Addis Ababa district negatively.

4.6 Multiple regression analysis and hypothesis testing

Table 15: Results of multiple regression

Source	SS	df	MS	Number of obs	=	340
Model	94.8114573	6	15.8019096	F(6, 333)	=	44.11
Residual	119.291153	333	.358231691	Prob > F	=	0.0000
Total	214.102611	339	.631571123	R-squared	=	0.4428
				Adj R-squared	=	0.4328
				Root MSE	=	.59852

meancs	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
meantan	.1581428	.0401776	3.94	0.000	.0791089	.2371768
meanrel	.1438591	.0360793	3.99	0.000	.072887	.2148311
meanass	.2381058	.0500535	4.76	0.000	.1396448	.3365668
meanemp	.2934246	.0471447	6.22	0.000	.2006857	.3861635
meanres	.2985804	.0509188	5.86	0.000	.1984174	.3987435
meanfa	-.0284774	.0559284	-0.51	0.611	-.138495	.0815402
_cons	-.7528763	.2952838	-2.55	0.011	-1.333733	-.1720195

The results presented in the table indicate that all the independent variables had significant regression coefficients except financial aspect. The regression model as a whole except financial aspect are statistically significant and all the variables are important in the model. Some factors (independent variables) are found to have significant correlation with the dependent variable (customer satisfaction). Particularly, the results show the existence of statistically significant relationship between service tangibility, reliability assurance, empathy and responsiveness of Awash bank east Addis Ababa district.

With regard to service tangibility, the result of regression shows positive and statistically significant relationship with customer satisfaction with a p value of 0.000. Thus, hypothesis one is accepted and this relationship between service tangibility and customer satisfaction is toward the argument that appearance of physical facilities, equipment, personnel, and communication materials will influence the customer satisfaction in Awash bank, east Addis Ababa district, which can support customers are more likely to be satisfied while there are new adding features such as well-groomed & professional appearance, clean office and adequate space, attractive facilities, layout design, and simple & clear printed materials (Udgam,2020).

With regard to service reliability, the result of regression shows positive and statistically significant relationship with customer satisfaction with a p value of 0.000. Thus, hypothesis two is accepted and this relationship between service reliability and customer satisfaction is toward the argument that strong organizational trust/reliability will influence the customers to be satisfied, which can support customer perception of a firm's trustworthiness is valuable not only in terms of satisfying and retaining existing customers but also in attracting new customers through word-of-mouth marketing (Mihidze, 2019). It also supported the research of Anggrahita (2018) that shows that relationship marketing variables like reliability have an influence on consumer satisfaction. Therefore, service reliability has significant relationship with customer satisfaction.

The result of the regression shows that there is a positive and statistically significant relationship between assurance and customer satisfaction. Therefore, the hypothesis, there is significant relationship between assurance and customer satisfaction is accepted. The result is consistent with the study by Nigist (2017) state that any change in understanding the needs and wants of customers, confidentiality of clients' information, individualized attention to solve customer's problem and safety will change customers' satisfaction.

The result of the regression shows a statistically positive and statistically significant relationship between empathy and customer satisfaction. It indicates the more the bank reinforces the level of empathy, the more customers are satisfied. Therefore, the hypothesis, empathy has a positive and significant effect on customer satisfaction is accepted. This indicates that empathy is considered as a factor for customer satisfaction in the study area.

The result of the regression shows that there is a positive and statistically significant relationship between responsiveness and customer satisfaction. Therefore, the hypothesis, there is positive

and significant relationship between responsiveness and customer satisfaction is accepted. The result is consistent with the study by Agarwal & Josh (2016) who suggest that private banks are good at responding to the request of the customers.

Finally, the result of regression shows a statistically negative and statistically insignificant relationship between financial aspect and customer satisfaction. Therefore, the hypothesis, financial aspect has a positive and significant effect on customer satisfaction is rejected. This indicates that the financial aspect is not considered as a factor for customer satisfaction in the study area.

4.7 Interview Results

As stated in the data collection methods part of the methodology section, unstructured interview to Awash bank, east Addis Ababa district higher officials were employed. This aims at obtaining the relationship between customer satisfaction and its determinant factors under consideration of the study. As far as the study is concerned with the issues of the effect of service quality on customer satisfaction, the interviewed higher officials have reflected different ideas.

- **What do you think about the factors that determine customer satisfaction in Awash bank, east Addis Ababa district??**

As per the interviewees' response, customer satisfaction is the key factor for successfulness and depends highly on the behaviors of frontline service providers. Customer satisfaction can be influenced by factors in the service sector such as friendliness of employees, courteousness of employees, knowledgeable of employees, helpfulness of employees, accuracy of billing, timeliness, competitive pricing, service quality, good value, billing clarity and quick service.

- **How does the tangibility and reliability of service affect customer satisfaction?**

With regard to the service tangibility and service reliability, as customers almost the same ideas are raised by higher officials. Customers are visual beings and what they see, touch feel or smell has an impression on their satisfaction of a product or service. Moreover, promised service must be performed dependably and accurately so as to meet customer satisfaction. Therefore, service tangibility and service reliability are the major factors that could significantly influence customer satisfaction.

- **How do you evaluate the assurance and empathy with respect to customer satisfaction?**

Quality assurance is a key consideration in determining the level of customer satisfaction. Creating a customer service quality assurance process helps you identify recurring issues in customer interactions and provides your associates with the tools they need to improve their quality of service. In addition, customer-centric companies consider empathy as the process of knowing the customer. Empathy means listening to the customer's pains and understanding the situation from their point of view. Therefore, service quality assurance and empathy are the important factors that could impact the customer satisfaction in the study area.

- **Could there be a relationship between responsiveness and financial aspect and customer satisfaction? Please, explain the relationship.**

Customer responsiveness is a critical factor in providing a positive customer experience. Furthermore, responsiveness is expected from service giving business especially from private banks like Awash bank. The bank has already opened a contact center (8980) which functions 24/7 in order to increase customer satisfaction. Therefore, accurately measuring responsiveness can help businesses improve customer service and deliver a great customer experience and meet customer satisfaction. Regarding the financial aspect, the bank is market oriented. The service charge it imposes is based on the standard of service it provides. Therefore, the financial aspect is comparable to these and other quality products and services. In nutshell, financial aspect has positive and significant effect on customer satisfaction in the study area.

- **What are the problems faced in providing services to the customers?**

As per the interviewee, the major problem faced in providing services to customers is lack of advanced technology, skilled staff and non-alignment of customer service workflows with the customer's journey, dealing angry customers and lack of accessibility might affect in providing good customer service

- **What has to be done by the bank (possible measures) to improve customer satisfaction?**

In relation to the possible measures that has to be taken by the bank, the interviewee responded that reducing problems which are encountered in the overall customer service work requires much more drastic and perhaps unpopular decisions and actions. Moreover, it needs a very

cohesive and decisive group of imaginative leaders as well as time to fundamentally transform the bank and its image. For the short term, however, what is important is to put the right intelligent staff at the right place and demand them to start to take some good, bold, and concrete steps in the right direction. It is clear that bringing about fundamental change and transformation in any institution and society is a much more difficult and complex matter that requires many factors including transparency, accountability, visionary, committed, independent and dedicated leadership at all levels of the bank. Moreover, interviewee replied that the bank must use advanced technology, improve its service provision mechanism and make ease, collect customer feedback to use is a handy solution to reduce these problems. The other point raised by interviewee was that conducting continuous training which focuses on awareness creation and enhances the smooth relationships with the customers, focusing on changing individuals' attitudes can improve customer satisfaction.

4.8. Discussion

In this part of the research, major findings of chapter four with other relevant theoretical and empirical concepts are discussed in order to validate the research objectives and hypotheses. The general purpose of this study was to assess the effect of service quality on customer satisfaction in Awash Bank, east Addis Ababa district. And to this end, the study sought to identify the most important factors that affect consumer satisfaction.

The first way is the ANOVA test that produced a P-value of 0.000 which is below the alpha level, i.e. 0.05. It indicates that there is a statistically significant effect between the independent variables (tangibility, reliability, assurance, responsiveness and empathy) except financial aspect and dependent variable (customer satisfaction).

As it can be inferred from above table, the value of adjusted R square (Coefficient of Determination) is 0.44, meaning, 44 percent of the variation in customer satisfaction is explained by the linear relationship with all the independent variables. The remaining 54 percent of the variation in customer satisfaction accounts for other variables not mentioned under this study. Thus, when adjusted R square is high it means that the independent variables included in the study play an important part in affecting the dependent variable.

The individual effects of the independent variables can be explained by their respective standardized beta coefficients. As per the regression result table 4.18, strong positive relationship was found between responsiveness and customer satisfaction.

With regard to service tangibility, the result of regression shows positive and statistically significant relationship with customer satisfaction with a p value of 0.000. According to previous researches' tangibility is positively related to customer satisfaction, **Ha1** is fully supported. and this relationship between service tangibility and customer satisfaction is toward the argument that appearance of physical facilities, equipment, personnel, and communication materials will influence the customer satisfaction in Awash bank, east Addis Ababa district, which can support customers are more likely to be satisfied while there are new adding features such as well-groomed & professional appearance, clean office and adequate space, attractive facilities, layout design, and simple & clear printed materials (Udgam,2020).

The result of regression shows positive and statistically significant relationship between reliability and customer satisfaction with a p value of 0.000. Thus, **Ha2** is accepted and this relationship between service reliability and customer satisfaction is toward the argument that strong organizational trust/reliability will influence the customers to be satisfied. It is supported the research of Anggrahita (2018) that shows that relationship marketing variables like reliability have an influence on consumer satisfaction. Therefore, service reliability has significant relationship with customer satisfaction.

The result of the regression shows that there is a positive and statistically significant relationship between assurance and customer satisfaction with p value of 0.000. Therefore, **Ha3** is accepted. The result is consistent with the study by Nigist (2017) state that any change in understanding the needs and wants of customers, confidentiality of clients' information, individualized attention to solve customer's problem and safety will change customers' satisfaction.

The result of the regression shows a statistically positive and statistically significant relationship between empathy and customer satisfaction with p value of 0.000. Therefore, the hypothesis, empathy has a positive and significant effect on customer satisfaction is accepted. This indicates that empathy is considered as a factor for customer satisfaction in the study area.

The result of the regression shows that there is a positive and statistically significant relationship between responsiveness and customer satisfaction. Therefore, the **Ha5** is fully supported. The result is consistent with the study by Agarwal & Josh (2016) who suggest that private banks are good at responding to the request of the customers.

CHAPTER FIVE

5. CONCLUSION AND RECOMMENDATION

This chapter presents conclusions drawn from the overall overviews of the research and its main findings of the analysis part. Then recommendations have been forwarded by the researcher based on the findings made.

5.1 Conclusion

The banking sector has become the most imperative segment in the economic development of a nation. It is obvious that discovering the customer satisfaction represents a vital action to pursue the most convenient strategy. Customer satisfaction depends, among other things, tangibility, service reliability, service assurance, empathy, responsiveness and financial aspect.

The main objective of this study is to identify the effect of service quality on customer satisfaction in Awash bank, east Addis Ababa district. To achieve this objective, the study adopted mixed research approach. The results of the questionnaire coupled with data obtained from in-depth interviews with higher officials of Awash bank were jointly used in analyzing the relationship between customer satisfaction and different explanatory variables. The study develops six factors influencing customer satisfaction. The six explanatory variables were tangibility, service reliability, service assurance, empathy, responsiveness and financial aspect. Through these variables, six hypotheses were formulated and tested using regression analysis model. The results of regression models revealed a statistical relationship between customer satisfaction and some of the factors that are considered in the study. Accordingly, the findings of this study are presented below.

With regard to service tangibility, the result of regression shows positive and statistically significant relationship with customer satisfaction. This positive coefficient indicates that appearance of physical facilities, equipment, personnel, and communication materials will influence the customer satisfaction in Awash bank, east Addis Ababa district. Likewise, the result of the regression shows that there is positive and statistically significant relationship between reliability and customer satisfaction. This positive coefficient indicates that when building reliability trust among customers, the likelihood that customers level of satisfaction to the bank will increase. This will bring a feel of belongingness which eventually builds long term relationships with customers and help to maintain loyal customers. In addition, the finding shows

assurance has a positive and statistically significant influence on customer satisfaction. This implies that the practice for feeling safe while making transactions with bank, politeness of employees in communications with customers and being knowledge to answer customer queries significantly affects customer satisfaction in Awash bank east Addis Ababa district.

The result of the regression shows a statistically positive and statistically significant relationship between empathy and customer satisfaction. It indicates the more the bank reinforces the level of empathy, the more customers are satisfied. This indicates that empathy is considered as a factor for customer satisfaction in the study area.

As the regression analysis result revealed that there is a positive and statistically significant relationship between responsiveness and customer satisfaction. The result indicates that private banks are good at responding to the request of the customers. This means that responsiveness can be considered as a factor that affects the customer satisfaction in Awash bank east Addis Ababa district.

Finally, the study finding on the relationship between financial aspect and customer satisfaction acknowledges that there is a negative and statistically insignificance relationship between them. This indicates that the financial aspect is not considered as a factor for customer satisfaction in the study area.

5.2 Recommendations

In competitive market, understanding customer service quality factors and take care for their satisfaction is the secret of being competitive and successful in the market. This study will provide some significant knowledge and information to Awash bank as well as marketers to uncover customers' intention in order to anticipate customers' satisfaction and surmount the banking industry

In this study five independent variables were identified that affect customer satisfaction in Awash bank, east Addis Ababa district. However, not necessarily all the variables influence customers in the same extent. Based on the findings of the study the following recommendations are forwarded that may help the bank and other policy makers to improve customer satisfaction.

- ✚ Based on the research result responsiveness is ranked as the leading factor that affects customer satisfaction. The bank should focus on customer experience to be more

customer centric. The bank should be proactive and responsive to the customers before customers had bad experience approach

- ✚ With regard to tangibility, the bank should exert efforts to improve its branches to have up-to-date equipment, create conducive environment for customers so as to improve the level of customer satisfaction
- ✚ According to the result of the study service reliability significantly impacts the customer satisfaction. Therefore, the bank should strengthen relationship marketing by creating a trustworthy enough environment for the customers because reliability has a positive and significant effect on customer satisfaction. In other words, the bank should prioritize the security of customer transactions, keep their promises to customers, and consistently provide superior service and value to key customers.
- ✚ In nutshell, the bank should provide trainings to its employee regarding the concept of quality customer service and the bank should conduct continuous customer satisfaction survey in order to measure the level of customer satisfaction of customers

5.3 Directions for future research

The research has more rooms for improvements. As discussed in different literatures, there are a number of customer relationship factors that affect customer satisfaction. But this study has been done by incorporating only six factors to check whether these variables affect the customer satisfaction in Awash bank, east Addis Ababa district. Further research could be conducted by comparing customer satisfaction among the different banks. Expanding the current study to a larger sample size or geographical area may also turn the result to reflect the actual considerations of customers in choosing among different banks. Moreover, gathering the data by using different qualitative methods such as in- depth interview, or focus group discussion and string questionnaires. Therefore, future studies could be conducted in the areas where limitations have been identified.

Reference

- Almossawi, M. (2001). Bank selection criteria employed by college students in Bahrain: An empirical analysis. *Int. J. Bank. Mark.* 2001; 19: 115-125.
- Ayenu, N. (2014). Improving customer satisfaction and quality in the banking industry CBE SAAD district management trainee program.
- Betelhem, t. (2015). The impact of service quality on customer satisfaction the case of commercial bank of Ethiopia.
- Cochran, W. G. (1977). *Sampling Techniques* (3rd ed.). New York: John Wiley & Sons.
- Cooper, D. R., & Schindle, P. S. (2008). *Business research methods* (10th ed.). British: Mc Graw Hill.
- Creswell, J. W. (2003). *Research Design: Qualitative, Quantitative, and Mixed Method Approaches* (2nd ed.). California: Sage Publications.
- Emebet, A. (2021). The effect of service quality dimensions on customer satisfaction in case of Awash bank
- Khalid, S., & Irshad, M. (2010). Job satisfaction among bank employees in Punjab, Pakistan: A comparative study. *European Journal of Social Sciences*, 17(4), 570-577.
- Kothari, C., R. (2004). *Research Methodology: Methods and Techniques* (2nd Revised Ed.). India: New Age International Publishers.
- Kotler P & Armstrong G. *Principles of marketing*. Pearson education. 2010.
- Mugenda, O M. & Mugenda, A. G. (2003). *Research methods: Quantitative & qualitative approaches*. Nairobi: Acts Press.
- Natnael, S. & Devulapalli, R. (2022). Effect of Service Quality on Customer Satisfaction in Commercial Bank of Ethiopia, Branches in Wolaita Sodo

- Ostrom, A. L., Bitner, M. J., Brown, S. W., Burkhard, K. A., Goul, M., Smith-Daniels, V & Rabinovich, E. (2010). Moving forward and making a difference: research priorities for the science of service. *Journal of service research*, 13(1), 4-36.
- Qadeer S. Service quality & customer satisfaction: A case study in banking sector. 2014
- Rodie, A. & Martin, C. (2001). Competing in the service sector: The entrepreneurial challenge. *International Journal of Entrepreneurial Behavior & Research*. 2001; 7: 5-21.
- Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research Methods for Business Students* (6th ed.). Harlow: Pearson Education Limited.
- Wondmagegn, U. (2019). The Effect of Service Quality on Customer Satisfaction in Selected Private Banks (In Case of Wolaita Sodo Town)
- Yasin, M., Alavi, J., Kunt, M. & Zimmerer, T. (2004). TQM practices in service organizations: An exploratory study into the implementation, outcome and effectiveness. *Managing Service Quality*. 2004; 14: 377-389.
- Zikmund, W.G. (2003). *Business Research Methods* (5th ed.). Mason OH: The Dryden Press.

Appendix I



ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
MASTER OF ARTS IN BUSINESS ADMINISTRATION

Dear respondents,

My name is Lidya, a postgraduate student at St Mary University, and currently conducting research leading to MBA degree at the university. The title of the research is “**The impact of service quality on customer satisfaction: In the case of Awash International Bank S.C, east Addis Ababa district**”

The general objective of the study is to assess the impact of service quality on customer satisfaction in Awash International Bank S.C, east Addis Ababa district. The finding of the study may have wider applications in the market and other researchers, as well as those companies that have been engaged in banking industry to bring a real-life change in the marketing mix and marketing strategy as per the characteristics of consumers to enhance their sales.

The successful completion of the study and the realization of its objectives however considerably depend on your willingness and cooperation to provide necessary data for the research. The information you provide is solely for research and academic purpose. Participation in the study is based on your freewill and consent; you are not obliged to do so. There is no penalty or loss of benefit for non-participation. You are free to withdraw any time and without giving a reason as well. There are no foreseen risks of participation (and/or no research related adverse event expected) in the study; the information you provide will not bring any harm or injury whatsoever.

General Instructions

- Do not write your name in any part of the questionnaire
- Your honest response is vital for the success of the study
- Please put a tick mark (✓) your choices
- Give a short and precise answers for questions followed by a blank space
- For any query, you contact me via +251980187195

I thank you so much for your cooperation!!

	3	The bank provides accurate information to customers.						
	4	Employees show dependability in handling service problem.						
	5	The bank informs any delay and failure ahead of time						
Assurance	1	I feel safe in transaction with Awash bank.						
	2	Employees of the bank are knowledgeable and efficient						
	3	The bank keeps confidentiality of clients' information						
	4	Employees are consistently courteous.						
	5	Employees have the knowledge to answer customer questions.						
Empathy	1	Employees deal customers with due care.						
	2	Employees give personal attention to the customers.						
	3	Employees understand the customer's specific needs.						
	4	Employees treat customer with great respect.						
	5	Employees have problem solving attitude						
Responsiveness	1	The bank provides prompt service to customers						
	1	The bank employees are never too busy to respond to customer Requests						
	3	The bank employees are always willing to help customers						
	4	The bank keep customer informed about when services will be performed.						
	5	The bank has reduced waiting time in queue (8980 service line)						
Financial aspect	1	The bank offers attractive interest rate for deposits.						
	2	The bank offers competitive interest rate for loans.						
	3	The bank has reasonable service charges on transactions.						

Part IV: Customer Satisfaction

This section is seeking your opinion regarding the impact of service quality on customer satisfaction in Awash International Bank S.C, east Addis Ababa district. Please indicate to what level you agree or disagree with each statement using 5 Likert scale [(1) = strongly disagree; (2) = disagree; (3) = neutral; (4) = agree and (5) = strongly agree] response framework. Please put a tick mark (√) in front of the boxes of your choice once only.

Customer satisfaction	No.	Description	Response options				
			1	2	3	4	5
	1	I am satisfied by the bank updated facilities and technology.					
	2	I am satisfied with the bank’s professional competence and its complete range of services provided.					
	3	I am satisfied of being a client of the bank					
	4	I am satisfied with the respectful behavior of employees					
	5	I am satisfied with the quick service of the bank					
	6	I am satisfied with the bank pricing, service charges and interest policy.					

Finally, write any ideas or comment about your satisfaction on Awash international bank, east Addis Ababa district that you feel:

-----End of Questionnaire-----

Thank you again for your cooperation!!

Interview Questions

1. What do you think about the factors that determine customer satisfaction in Awash bank, east Addis Ababa district?
2. How does the tangibility and reliability of service affect customer satisfaction?
3. How do you evaluate the assurance and empathy with respect to customer satisfaction?
4. Could there be a relationship between responsiveness and financial aspect and customer satisfaction? Please, explain the relationship.
5. What are the problems faced in providing services to the customers?
6. What has to be done by the bank (possible measures) to improve customer satisfaction?
7. Do you have any ideas, opinions and suggestions that have not been included in the aforementioned questions?

የቢዝነስ እና ኢኮኖሚክስ ኮሌጅ

የቢዝነስ አድሚንስትሬሽን ዲፓርትመንት

ውድ ምላሽ ሰጪዎች፡

ልድያ አወል እባላለሁ። በቅድስተ ማርያም ዩኒቨርሲቲ የድንገረ ምረቃ ተማሪ ነኝ፤ እና በዚህ ጊዜ በዩኒቨርሲቲው ውስጥ ወደ MBA ዲግሪ የሚያመራ ጥናት እያደረኩ እገኛለሁ። የጥናቱ ርዕስ፡ “በአዋሽ ኢንተርናሽናል ባንክ ኢ.ማ በምሥራቅ አዲስ አበባ አውራጃ፤ የአገልግሎት ጥራት በደንበኞች እርካታ ላይ የሚያሳድረው ተጽእኖ” የሚል ነው።

የጥናቱ አጠቃላይ ዐላማ፡ በምሥራቅ አዲስ አበባ አውራጃ በሚገኘው አዋሽ ኢንተርናሽናል ባንክ ኢ.ማ፤ የአገልግሎት ጥራት በደንበኞች እርካታ ላይ የሚያሳድረውን ተጽእኖ መገምገም ነው። የጥናቱ ግኝት፡ በገበያው እና በሌሎች ተመራማሪዎች ላይ እንዲሁም እንደ ሽማግሌቶች ባህሪ ሽያጮቻቸውን በማሳደግ በገበያ ቅይዋ እና በግብይት ስልት ላይ ተጨባጭ ለውጥ ለማምጣት በባንክ ኢንዱስትሪ ውስጥ በተሰማሩ ኩባንያዎች ላይ፤ ሰፊ ትግበራዎች ሊኖሩት ይችላል። ነገር ግን ጥናቱ በተሳካ ሁኔታ መጠናቀቁ እና ዐላማዎቹን ማሳካቱ፤ ለምርምሩ አስፈላጊ የሆኑ መርጃዎችን ለማቅረብ ባሎት ፍላጎት እና ትብብር ላይ የተመረከዘ ነው። የሚያቀርቡት መረጃ፤ ለምርምር እና ለትምህርት ዐላማ ብቻ የሚውል ይሆናል። በጥናቱ ውስጥ መሳተፍ በእናንተ ፈቃደኝነት እና ስምምነት ላይ የተመሠረተ ነው፤ ይህን ለማድረግ አይገደዱም። ስላልተሳተፉ የሚመጣ ቅጣት ሆነ ጥቅም ማጣት የለም። በጥናቱ ውስጥ በመሳተፍዎ ምንም ዓይነት የተገመቱ አደጋዎች የሉም (እና/ወይም ከምርምሩ ጋር የተዛመደ መጥፎ ክስተት አይጠበቅም)፤ የሚያቀርቡትም መረጃ ምንም ዓይነት ጥፋት ወይም አደጋ አያመጣም።

አጠቃላይ መመሪያዎች

- በይትኛውም የመጠይቁ ክፍል ውስጥ ስምዎትን አይጻፉ
- የእርስዎ ታማኝ ምላሽ ለጥናቱ ስኬት ወሳኝ ነው
- እባክዎን በምርጫዎት ላይ ምልክት (✓) ያድርጉ
- ባዶ ቦታን ተከትለው ለሚመጡ ጥያቄዎች፤ ዐጭር እና ትክክለኛ መልስ ይስጡ
- ለማንኛውም ጥያቄ፤ በ +21980187195 ያግኙኝ

ስለ ትብብርዎ በጣም አመሰግናለሁ!!

ተግዳሮቶች	ተ.ቁ	መግለጫ	የመልስ አማራጮች				
			1	2	3	4	5
ተጨማሪ ነገሮች	1	የአዋጅ ባንክ ሠራተኞች በደንብ የጸዳ እና ሙያዊ የሆነ ገጽታ አላቸው					
	2	አዋጅ ባንክ ንጹሕ ቢሮ ያለው ሲሆን በቂ ቦታ ይሰጣል					
	3	ባንኩ ለዕይታ የሚሰጡ መገልገያዎች አሉት					
	4	የባንኩ አቀማመጥ ዲዛይን ማራኪ ነው					
	5	እንደ ቅጾች እና ብሮሹሮች ያሉ የባንኩ የታተሙ ቍሳቍሶች ግልጽ እና ቀላል ናቸው					
አስተማማኝ ነገሮች	1	ባንኩ ባቀደው እና ቃል በገባው ጊዜ አገልግሎት ይሰጣል					
	2	ባንኩ ወቅታዊ እና ከስህተት የጸዱ መዝገቦችን ይይዛል					
	3	ባንኩ ለደንበኞች ትክክለኛ የሆነ መረጃ ይሰጣል					
	4	ሠራተኞች የአገልግሎት ችግርን በማስተናገድ ረገድ ታማኝነትን ያሳያሉ					
	5	ባንኩ ማንኛውንም መዘግየት እና ብልሽት አስቀድሞ ያሳውቃል					
ዋስትና	1	በአዋጅ ባንክ በመገበያየቴ ደህንነት የሰማኛል					
	2	የባንኩ ሠራተኞች ዐዋቂዎችና ቀልጣፋፎች ናቸው					
	3	ባንኩ የደንበኞችን መረጃ ሚስጥራዊነት ይጠብቃል					
	4	ሠራተኞች ትሑታን ናቸው					
	5	ሠራተኞች የደንበኛ ጥያቄዎችን ለመመለስ ዕውቀቱ አላቸው					

ርገራዊ	1	ሠራተኞች ደንበኞችን በተገቢው እንክብካቤ ያስተናግዳሉ					
	2	ሠራተኞች ለደንበኞች የግል ትኩረት ይሰጣሉ					
	3	ሠራተኞች የደንበኛውን ልዩ ፍላጎቶች ያስተውላሉ					
	4	ሠራተኞች ደንበኛን በታላቅ አክብሮት ያስተናግዳሉ					
	5	ሠራተኞች ችግር ፈቺ አመለካከት አላቸው					
ምላሽ ሰጪነት	1	ባንኩ ለደንበኞች ፈጣን አገልግሎት ይሰጣል					
	2	የባንኩ ሠራተኞች ለደንበኛ ጥያቄዎች ምላሽ ለመስጠት በሥራ ተጨናንቀው (ጊዜ አጥተው) አያውቁም					
	3	የባንኩ ሠራተኞች ሁል ጊዜ ደንበኞችን ለመርዳት ፈቃደኞች ናቸው					
	5	ባንኩ አገልግሎቶች መቼ እንደሚከናወኑ ለደንበኛ ያሳውቃል					
	6	ባንኩ የወረፋ ጊዜን ቀንሷል (8980 የአገልግሎት መስመር)					
የፋይናንስ ገጽታ	ተ.ቁ	መግለጫ	የመልስ አማራጮች				
			1	2	3	4	5
	1	ባንኩ ለተቀማጭ ገንዘብ ማራኪ የወለድ ተምን ያቀርባል					
	2	ባንኩ ለብድር ተወዳዳሪ የወለድ ተምን ያቀርባል					
3	ባንኩ በግብይቶች ላይ መጠነኛ የአገልግሎት ክፍያዎች አሉት						

ክፍል ፫- የደንበኛ እርካታ

ይህ ክፍል፣ በምሥራቅ አዲስ አበባ አውራጃ አዋሽ ኢንተርናሽናል ባንክ አ.ማ፣ የአገልግሎት ጥራት በደንበኞች እርካታ ላይ የሚያሳድረውን ተጽእኖ በተመለከተ አስተያየትዎን ይፈልጋል። እባክዎን አምስቱን የሊከርት (lickert) ልኬቶችን በመጠቀም [(1) =ፈጽሞ አልሰማማም፣ (2) = አልሰማማም፣ (3) = ገለልተኛ ነኝ፣ (4) = እስማማለሁ፣ (5) = በደንብ እስማማለሁ] በእያንዳንዱ መግለጫ ላይ፣ በምን ደረጃ እንደሚሰማሙ ወይም እንደማይሰማሙ ያመልክቱ። እባክዎን ከሚመርጡት ሣጥኖች ፊት በአንዱ ብቻ ምልክት (√) ያድርጉ።

የደንበኛ እርካታ	ተራ ቁጥር	መግለጫ	የመልስ አማራጮች			
			1 5	2	3	4
	1	በባንኩ በተሻሻሉ መገልገያዎች እና ቴክኖሎጂ ረክቻለሁ				
	2	በባንኩ ሙያዊ ብቃት እና በሚሰጠው የተግባር አገልግሎት ረክቻለሁ				
	3	የባንኩ ደንበኛ በመሆኔ ረክቻለሁ				
	4	በሠራተኞች ትሕትና በተሞላበት ባህሪ ረክቻለሁ				
	5	በባንኩ ፈጣን አገልግሎት ረክቻለሁ				
	6	በባንኩ የዋጋ ግምት፣ በአገልግሎት ክፍያዎቹ እና በወለድ ፖሊሲው ረክቻለሁ				

በመጨረሻም፣ በአዋሽ ኢንተርናሽናል ባንክ ምሥራቅ አዲስ አበባ አውራጃ፣ ስላሎት እርካታ ማንኛውንም ዐሳብ ወይም አስተያየት ይጻፉ።

-----መጠይቁ ተጠናቀቀ-----

በድጋሚ ስለ ትብብርዎ አመሰግናለሁ!!

የቃለ መጠይቅ ጥያቄዎች

1. በምሥራቅ አዲስ አበባ አውራጃ አዋሽ ባንክ፣ የደንበኞችን እርካታ ስለሚወስኑ ጉዳዮች ምን ያስባሉ?
2. የአገልግሎት ተጨባጭነትና አስተማማኝነት፣ የደንበኞችን እርካታ እንዴት ይጎዳል?
3. የደንበኞችን እርካታ በተመለከተ፣ ዋስትናን እና ርኅራኄን እንዴት ይገመግማሉ?
4. በምላሽ ሰጪነት፣ በፋይናንስ ገጽታ እና በደንበኛ እርካታ መካከል ግንኙነት ሊኖር ይችላል? እባክዎን ግንኙነቱን ያብራሩ።
5. ለደንበኞች አገልግሎት በመስጠት ረገድ የሚያጋጥሙ ችግሮች ምን ምን ናቸው?
6. የደንበኞችን እርካታ ለማሻሻል በባንኩ ምን መደረግ አለበት (ሊወሰዱ የሚችሉ እርምጃዎች)?
7. ከላይ በተጠቀሱት ጥያቄዎች ላይ ያልተካተቱ ዐሳሶች፣ አስተያየቶች እና ጥቁማዎች አልዎት?

በድጋሚ ስለ ትብብርዎ አመሰግናለሁ!!

Appendix 3- STATA output

```
Test scale = mean(unstandardized items)

Average interitem covariance:    .4904898
Number of items in the scale:    5
Scale reliability coefficient:    0.7969

. alpha cs1 cs2 cs3 cs4 cs5 cs6 meancs

Test scale = mean(unstandardized items)

Average interitem covariance:    .7677454
Number of items in the scale:    7
Scale reliability coefficient:    0.8826

. alpha tan1 tan2 tan3 tan4 tan5 meantan

Test scale = mean(unstandardized items)

Average interitem covariance:    .4102639
Number of items in the scale:    6
Scale reliability coefficient:    0.7279

. alpha rel1 rel2 rel3 rel4 rel5 meanrel

Test scale = mean(unstandardized items)

Average interitem covariance:    .5321633
Number of items in the scale:    6
Scale reliability coefficient:    0.8646
```

```
. alpha ass1 ass2 ass3 ass4 ass5 meanass

Test scale = mean(unstandardized items)

Average interitem covariance:    .2980408
Number of items in the scale:    6
Scale reliability coefficient:    0.6590

. alpha emp1 emp2 emp3 emp4 emp5 meanemp

Test scale = mean(unstandardized items)

Average interitem covariance:    .4568979
Number of items in the scale:    6
Scale reliability coefficient:    0.7812

. alpha res1 res2 res3 res4 res5 meanres

Test scale = mean(unstandardized items)

Average interitem covariance:    .179151
Number of items in the scale:    6
Scale reliability coefficient:    0.5586

. alpha fa1 fa2 fa3 meanfa

Test scale = mean(unstandardized items)

Average interitem covariance:    .1927438
Number of items in the scale:    4
Scale reliability coefficient:    0.5756
```

```
. vif
```

Variable	VIF	1/VIF
meanres	1.22	0.820992
meantan	1.17	0.851467
meanrel	1.16	0.863041
meanass	1.15	0.867846
meanemp	1.10	0.906705
meanfa	1.01	0.988517
Mean VIF	1.14	

```
. hettest
```

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of meancs

chi2(1) = 1.00

Prob > chi2 = 0.3183

```
. ovtest
```

Ramsey RESET test using powers of the fitted values of meancs

Ho: model has no omitted variables

F(3, 330) = 1.06

Prob > F = 0.3653

```
. linktest
```

Source	SS	df	MS	Number of obs	=	340
Model	94.8451458	2	47.4225729	F(2, 337)	=	134.01
Residual	119.257465	337	.353879717	Prob > F	=	0.0000
				R-squared	=	0.4430
				Adj R-squared	=	0.4397
Total	214.102611	339	.631571123	Root MSE	=	.59488

meancs	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
_hat	.8357185	.5359613	1.56	0.120	-.2185326 1.88997
_hatsq	.0252426	.081816	0.31	0.758	-.1356918 .186177
_cons	.2593114	.8670605	0.30	0.765	-1.446221 1.964844

```
. corr meancs meantan meanrel meanass meanemp meanres meanfa
```

(obs=340)

	meancs	meantan	meanrel	meanass	meanemp	meanres	meanfa
meancs	1.0000						
meantan	0.3566	1.0000					
meanrel	0.3709	0.2161	1.0000				
meanass	0.3778	0.3242	0.1194	1.0000			
meanemp	0.4134	0.0723	0.1886	0.1262	1.0000		
meanres	0.4747	0.2164	0.3035	0.2172	0.2764	1.0000	
meanfa	-0.0307	0.0057	-0.0928	-0.0070	0.0131	0.0131	1.0000

```

. ologit meancs meantan meanrel meanass meanemp meanres meanfa

Iteration 0:  log likelihood = -964.13775
Iteration 1:  log likelihood = -872.74513
Iteration 2:  log likelihood = -864.36746
Iteration 3:  log likelihood = -864.27634
Iteration 4:  log likelihood = -864.27626

Ordered logistic regression      Number of obs   =       340
                                LR chi2(6)        =       199.72
                                Prob > chi2         =       0.0000
Log likelihood = -864.27626      Pseudo R2       =       0.1036

```

meancs	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
meantan	.4764786	.123989	3.84	0.000	.2334646 .7194926
meanrel	.4409486	.1067431	4.13	0.000	.2317359 .6501613
meanass	.7768332	.1598284	4.86	0.000	.4635753 1.090091
meanemp	.8826146	.1461806	6.04	0.000	.5961058 1.169123
meanres	.8458129	.1610755	5.25	0.000	.5301107 1.161516
meanfa	-.0926889	.1608967	-0.58	0.565	-.4080408 .2226629

	meancs	meantan	meanrel	meanass	meanemp	meanres	meanfa
meancs	1.0000						
meantan	0.3566	1.0000					
meanrel	0.3709	0.2161	1.0000				
meanass	0.3778	0.3242	0.1194	1.0000			
meanemp	0.4124	0.0723	0.1886	0.1262	1.0000		
meanres	0.4747	0.2164	0.3035	0.2172	0.2764	1.0000	
meanfa	-0.0307	0.0057	-0.0928	-0.0070	0.0131	0.0131	1.0000