

The Effect of Digital banking service quality on Customers' Satisfaction: The Mediating Role of Brand Image in the Case of Commercial Bank of Ethiopia

Yohannes Tesfaye

Addis Ababa University
College of Business and Economics
School of Commerce
Department of Marketing Management.

Abstract -The study aimed to examine the effect of digital banking services on customers' satisfaction: the mediating role of brand image in the case of Commercial Bank of Ethiopia. The study employed an explanatory research design and a quantitative research approach. A survey was conducted on 250 customers of Commercial Bank of Ethiopia who is using digital banking services using a convenience sampling method. A Structural equation model (SEM) is employed to estimate the theoretical model and hypotheses are empirically tested by the use of Partial Least Squares (PLS) through Smart PLS software. The findings of the study showed that ease of use and efficiency, responsiveness, security and privacy, and website and web design had a positive and statistically significant effect on brand image and customer satisfaction. Website design has a strong effect on brand image. Reliability has no statistical significance in determining brand image and responsiveness has no statistical significance in customer satisfaction. The study also discovered that brand image plays a role in mediating the relationship between website design and customer satisfaction. Additionally, brand image has a mediation role in the relationship between security and privacy and customer satisfaction. Finally, the study recommends that the CBE should incorporate personalized digital banking features, increase the quality of digital banking channels, and establish a complaint tracking system to identify service recovery and measure customer satisfaction at each transaction and update the drawbacks as possible.

Key Words: Digital banking, Brand image, Customer satisfaction, CBE.

1. Introduction

The banking industry has taken the lead position in the e-business world for years (Chavana and Jayshree, 2013). The emergence of new opportunities and the scaling of borders by the e-banking revolution has significantly altered the banking industry. Banking, to put it simply, refers to the distribution of banking goods or services via electronic means. Electronic banking has been considered, sometimes in the form of automatic teller machines (ATMs) and telephone transactions. Recently, it has been transformed by the internet. The new delivery channel facilitates banking transactions for both banks and customers. The internet offers faster access to bank services for customers that is more suitable and available around the clock irrespective of the customer's location (Chavana and Jayshree, 2013) The rise of Digital banking service has changed the way people do their banking and provided new strategic directions for those who want to invest in banking information and communication technology. (Sabi, Humphrey, and Muki, 2014). And the existence of the technology is to serve customers and be profitable through cost reduction and expanding market share by designing a relevant strategy.

The obvious reason for every business's existence is the client; hence, satisfying customers is a key goal of any business plan and mission. This idea must be understood for an organization to succeed and develop. It is sufficient to say that organizational profitability is influenced by consumer satisfaction. An emotional condition is customer contentment. (Oliver and Richard L., 1997). noted that satisfaction is a general psychological state which is about the expectation of emotions and experience from shopping behavior. Y and Yi (1990) discovered that customer satisfaction is influenced by two factors, which are experienced and expectations of service performance. Operationally, satisfaction is similar to an attitude, as it can be assessed as the sum of satisfaction with the various attributes of the product or service. According to Hansemark, & Albinson, (2004), "satisfaction is an overall customer attitude towards a service provider, or an emotional reaction to the difference between what customers expect and what they receive, regarding the fulfillment of some needs or desires". The expectation is a pre-purchase idea that diverts toward ideas that a good or service with particular characteristics will result in particular outcomes. In cases where performance exceeds expectations, the buyer will be delighted. Expectations are usually not fulfilled when they reflect unanticipated service attributes or are unrealistically high. (Kotler and Keller, 2012). I believe that in today's world, smart companies aim to delight customers

by promising only what they can deliver, and then delivering more than what they promise. Customers usually share their experiences, either good or bad, with a product and/or company with those within their social circles. (Biljana and Jusuf, 2011) suggest that satisfied customers are likely to tell six people, while dissatisfied customers will relate their negative experiences to at least ten people. (Bridgett, Joseph, Ameenah, Williams, and Roger, 2012) It is assumed that when customers are unsatisfied, they could complain, indulge in negative word of mouth, or, in extreme cases, choose not to defect, especially when they feel the substitute firm/product won't offer something better.

Brand image is essential to marketing because it allows clients to determine the quality of products and further influences their purchasing behavior. (Ronnie, Anne, and Karinna N., 2006) defined brand image as the material property associated with the brand, such as the product name and the packaging, which could make profits or sense for customers and help or increase the brand's visibility. (Ronnie, Anne, and Karinna, 2006) proposed reducing conceptual model verification with the effects of brand image and brand attitude. Three routes in the model were proposed to connect to the brand directly through the brand image and the brand attitude, and indirectly from the brand attitude through the brand image. (Dawn and George, 1990) defined brand image as the brand concept that customers held; and (Robert and Patrick, 2009) stated that most brand images were subjectively perceived images that were interpreted by customers' rationality or sensitivity. In addition, the brand image did not exist in the technology, the function, and the product but was affected by relevant marketing programs, campaign context, and the characters of the acceptors. Wu and Fu (2009) supposedly, while referring to a brand image, the perception presented by the fact would be more important than the fact itself.

The perception of banking services by local customers has significantly changed in recent years. Many of the banks' competitive initiatives are geared around assisting customers with their purchasing decisions. Services to meet their needs for financing and saving are also taken into consideration. Customers' banking service purchases get more sophisticated as they gather and analyze more reference data. In other words, customers become pickier about their purchases.

They are easily dissatisfied and ready to voice their complaints whenever the bank causes service failures, e.g., long service delivery processes, failure to provide proper product information, unprofessional staff, and so on. Consequently, if the bank brings about satisfactory recovery outcomes for the failures, customers may revisit the bank for another purchase and have good words about the bank with others. Otherwise, customers may detect other banks' signals and negatively comment on them. As pointed out above, the student researcher learned from a preliminary investigation that was conducted that major service failures of the bank emanate from redundant network off, failure of ATM withdrawal, failure of mobile banking, long service delivery time, weak customer handling system, and ineffective customer complaint handling system.

Customer satisfaction increases as a result of the brands' excellent reputations. If a customer is satisfied with a brand after learning about it and using it, the brand's reputation is enhanced. A positive brand image improves customer satisfaction. Customer satisfaction helps to construct the image of the brand.

Silshi and Abels (2019), conducted a study on the impact of electronic banking on customers' satisfaction: the case of the commercial bank of Ethiopia, (Neeraj, Abebe & Waktole, 2020) studies the impact of e-banking services on customer satisfaction: the case of the commercial bank of Ethiopia in Nekemte. The study aims at identifying the electronic banking service dimensions that have an impact on customer satisfaction in the Commercial Bank of Ethiopia. G/Hiwot(2018) conducted a study on the role of e-banking service quality on customer satisfaction in the case of a commercial bank in Ethiopia and was to examine the role of e-banking service quality on customers' satisfaction in the commercial bank of Ethiopia.

Teketel and Dipak (2022) examined the impact of electronic banking on customer satisfaction in the case of Ethiopia's Hossana town branches, and the study aimed to measure the service quality in electronic banking to improve customer satisfaction and to examine the different dimensions of service quality to relate them with the expectations of customers. Additionally (Adisu, 2018), he has conducted a study on the effect of e-banking on customer satisfaction The study examines the effect of the electronic banking system on customer satisfaction in some selected banks

Mekdes, (2019) study looks at the effect of e-banking attributes on customer satisfaction. Some scholars attempt to demonstrate the connection between brand image and customer satisfaction in their research paper findings.

Sara, (2021) has researched the effect of brand image benefit on customer satisfaction: the case of Ethio-telecom. The research examines brand image benefits on customer satisfaction. studied the effect of brand image on building customer satisfaction and loyalty in the case of Hilton Hotel Addis Ababa, Ethiopia to examine the effect of brand image on building customer satisfaction and loyalty.

These problems motivate the researchers to examine the effect of Digital banking service quality on customer satisfaction and brand image. Several studies have been done about Digital banking service quality, customer satisfaction, and brand image.

While earlier studies looked into each perspective separately, none of these studies, as per the knowledge of the researcher, put both explanations to the test at the same time. So, due to these factors, customer satisfaction is not a direct result of Digital banking service. However, we need to study the indirect relationship between Digital banking service, customer satisfaction, and brand image.

Future research on customer satisfaction with banking services is necessary on both a national and international level, given the significance of e-banking services in the overall assessment of satisfaction with banking services and the impact of customer satisfaction in the increasingly competitive banking sector. (Andreea & Cristina, 2018).

Therefore, this study tried to fill the gap by empirically examining the effect of Digital banking service quality on customer satisfaction and brand image in the Commercial Bank of Ethiopia. In particular, how the dimensions of Digital banking service quality (Reliability, Ease of Use Efficiency, Website Design, Privacy, and Responsiveness) affect customers' satisfaction and how brand image outcomes affect customers' satisfaction will be examined.

The general objective of this research is to identify the effect of digital banking on customer satisfaction with a mediation effect on product image. The case of the commercial bank of Ethiopia and the specifics of the study were To determine the impact of digital banking on customer satisfaction, determine the impact of digital banking on brand image. To determine the impact of brand image on customer satisfaction, determine the impact of digital banking on customer satisfaction through brand image.

2. Conceptual frame

The effect of Digital Bankingservice quality On Customer Satisfaction

Customer satisfaction is more important in the case of electronic service because it's hard to maintain customers in the virtual world and get their loyalty (Zavareh, 2012). Electronic satisfaction can be defined as 'the outcome of previous experience with the services provided by the website and allows this experience to assess the effectiveness of the distribution channel of the Web and determine how he satisfied about the website' (AlHawari, 2012). The importance of customer satisfaction for e-service as a mission to achieve financial performance as it is possible customer loss if he could not access the website or if the website is unsatisfactory (Heskett, 1994). In banks—where traditional electronic service — lack of direct interaction in Internet banks requires the need to test the role of technology in building electronic customer service (Schaupp, 2005). Accordingly, the Bank must obtain information on how to satisfy the e-service customers and Internet banks. Accordingly, the Bank must obtain information on how to satisfy the Digital banking customer.

(Parasuraman, 1985) noted that receiving high-quality service will lead to a rise in customer satisfaction, (Palmer, 2005) says that 'the distinction between quality and customer satisfaction is important for all managers and researchers alike where the service provider needs to know whether their goal should draw consumers satisfied with their performance or to deliver the highest level of quality service. Arguably, service quality and customer satisfaction have been instrumental in the success and continuation of work (Daniel, 2010; Tarawneh, 2011) referred to the effect of electronic service quality collectively and individually on customer satisfaction.

(Zavareh, 2012) referred that electronic service quality dimensions need to reinterpret especially when used in online banking service quality, in addition to a positive relationship between electronic service quality and customer satisfaction in online banking. (Sheng, 2010) found that efficiency; achieve privacy requirement have a positive impact on customer loyalty. (Carlson, 2010) Study results indicated that electronic service quality positively impacts consumer satisfaction and attitudes towards websites and behavior about a particular service provided by a website with central content in the field of sports and professional services. (Lee, Gow, Lin, and Hsiu, 2005) referred that the dimensions of electronic service quality affect overall service quality and customer satisfaction, and customer satisfaction is significantly associated with purchase intention, and the customization dimension is not linked to overall service quality and customer satisfaction.

E-banking (Sardana and Singhania, 2018) plays a more critical role in the development of the banking industry by boosting customer satisfaction levels through reliability and tenability (Al-Zadjali, 2015). Customer satisfaction is associated with high-tech electronic banking, business performance, and customer intentions. When the customer is satisfied, business performance is enhanced, and hence the business can be flourished. Satisfaction has a strong connection to the quality of service. Online banks must seem to be more concerned about the customer perception of online banking services because the advantages of competitive services can easily be measured (Santos, 2003).

The effect of brand image on Customer Satisfaction

There is a consensus in branding literature that a positive brand image influences consumer satisfaction, In evaluating the service, brand image was thought to be crucial. There is plenty of data to suggest that image has an impact on customers' evaluative judgments, including their opinions of quality. Graeff (1996) mentioned that, when the customer's self-image was more similar to the brand image, customer satisfaction would be affected. (Romaniuk & Sharp, 2003) found a positive relationship between brand image and customer satisfaction. Many scholars, such as (XD, Su, 2005; SW, Lin, 2005; YR, 2006; YY, Shi, 2006; Ren, Yang Yu, 2006 and ZJ, Zhang, 2007), also confirmed the positive relations between brand image and customer satisfaction. (Ren, and Yang, 2006) proposed that customer satisfaction referred to the pleasant attitude when a customer accepts a certain deal or service; and, customer satisfaction and brand value appeared notably positive relation. (QY, Gu, 2005) suggested that customer satisfaction and brand characteristics presented a significantly positive relation that customer satisfaction was the provided service higher than the expectation of the customer so that the customer was satisfied (Sang, 2009). Whereas, if the provided service was lower than the

service expectation of the customer, he/she would then feel very dissatisfied. The schema memory of a brand included the interpretation

Likewise, (DaSilva, 2006) suggested that brand image correlates with customer satisfaction. Brand image has been recognized as an important antecedent of customer satisfaction. Hence, a positive bank brand image will tend to generate high customer satisfaction in the bank. (Aaker, 1991 and Morgan, 2000) pointed out that, with the construction of a good brand image, customers were likely to increase their satisfaction with usage, and would like to recommend it to others. (Gensch, 1978) Considered brand image as having more influence on the purchase intention and the satisfaction of customers while the product attribute was not easily defined

Additionally According to (Grace, Kavengi, and Onyancha, 2013) brand image to the users of banking services is a strength of mind for brand loyalty as well as customer satisfaction. The study (Nischay & Bhakar, 2014) concludes that such a manner that a strong relationship was found between customer satisfaction and brand image. According to (Hendra & Budi, 2014), the study found that brand image positively affects customer satisfaction. Customer satisfaction was also found to mediate the effect of brand image on brand loyalty. According to (Sadia, XuZhengliang & Hamid, 2020) E-banking series quality is the prime indicator of customer satisfaction that motivates the customer to stay with the banks and hold long-term and healthy relationships.

The effect of Digital Banking service quality on Brand image

In the concept of service marketing, the impact of service satisfaction and customer loyalty can lead to word-of-mouth communication, which has a significant effect on increasing new customers (Gronroos, 1996). The communication cycle consists of four parts: expectation/purchase, interaction, experience, and word of mouth, which is to manage communication in marketing and shape the company's image.

According to (Aaker, 1997) explain that brand is as important as the product itself, it differentiates the product from other products, a brand is an emblem and motivates the customer to buy the products, and a symbol may be called differently like a logo according to the easiness or trademark moreover the key role of a brand is to distinguish a product with other on behalf of quality or service, it creates trust between customer and manufacturer and give competitive advantages.

The Study conducted by (Kapferer, 2004) defines a brand as an identity of a product, there are many angles to seeing a brand for the customer including overall experience from their buying process. (Deruyter, Wetzels & Bloemer, 1998) narrate that for a successful brand image companies must observe the needs of the customer deeply and it must be relevant to what the customer want.

(Aaker et al, 1997) explain in detail about brand image, the research emphasizes the identity of your product if the product has unique qualities it will attract the customer and will create a good brand image, hence to maintain the brand identity it is important to maintain consistency about quality and services, research also explains that to attain customer attention via services and quality is the best tool to build a strong image in customer minds.

(Aaker et al, 1997) also narrate that if companies want a good brand image they must be excellent in providing services, and organizing, and must be anxious about product delivery, moreover if companies want an excellent brand image they must build brand identity.

(Ward, 1999) also enlighten that brand image is differentiated your product by making a promise with the customer to make product reliable, durable, and quality effective, moreover research shows that those companies who are committed with services and are providing distinctive product feature get a higher brand image like multinational companies mostly follow their rules and become famous in a couple of years, on the contrary, those companies who ignore product delivery and customer satisfaction have a lower brand image.

Companies can maintain their competitive advantage in the market if they understand the aspects of service quality expected by customers, thereby ultimately getting a good brand image compared to their competitors (Setyadi, 2017) Empirical findings show that the quality of a brand perceived by customers will provide value and lead customers to buy the brand (Aaker D. A., 2012) Some researchers also found a positive and significant relationship between service quality variables and brand image (Wu, 2011) positive company image will be formed when customers are satisfied with the quality of services provided (Yang, 2017) More specifically, (Alkhaldeh, 2020) found a positive effect of service quality on university brand image. Service quality is an essential factor that affects the overall brand image of the university (Panda, 2019) Based on previous empirical findings, the hypothesis proposed in this study is:

Hypothesis and Conceptual Framework

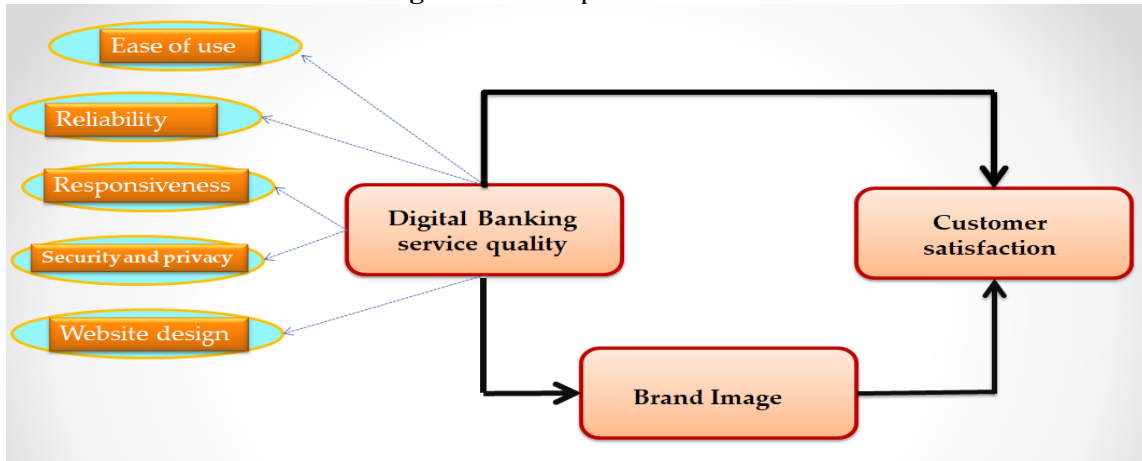
H1: There is a positive relationship between Digital banking and Customer Satisfaction

H2: There is a positive relationship between Brand Image and Customer Satisfaction

H3: There is a positive relationship between Digital banking affect brand images

H4: Brand Image positively mediates the positive relationship between Digital banking and Customer Satisfaction

Figure 1: Conceptual framework



Source: (Jamil, Rima, Ibrahim, 2018), and modified by the researcher

3. Method

Pre Study

The research design method that was adopted for this study is an explanatory method and a quantitative approach. The study covered Customers of commercial bank of Ethiopia customers using digital banking services. The population consists of an undefined population to whom the study was generalized. The sample size of 384 was determined by using Saunders, Lewis, and Thornhill,(2007) Formula.

Main study

Design, Sample, and Procedure

The convenience sampling method was applied for the study. close-ended self-administered questionnaires were the instrument employed in this study for data collection. To validate the instrument for data collection, the questionnaire was given to renowned experts in the field of marketing. To validate the instrument for data collection, the questionnaire was given to renowned experts in the field of marketing. This helped to establish the content validity of the instrument. To establish the reliability of the instrument, a test-retest method was employed. This pre-test enabled the researchers to detect certain irregularities that could have hampered the reliability of this research instrument. The data collected were analyzed using both descriptive and inferential statistical methods were employed. By employing frequency answers of the respondents were reported. To assure the reliability of measures Cronbach’s alpha test was performed. Lastly, structural equation modeling (SEM) was applied to confirm the validity of the proposed model. The AVE scores must be more than 0.5, and the Composite Reliability (CR) must be greater than 0.7 (Hair J. B., 2010)The AVE square root and correlations of the dependent variables are examined to determine discriminant validity.

4. Test for absence of series multicollinearity assumption

In PLS-SEM to analyze the inner VIF report to assess the collinearity among the constructs in a model, and values should be below 3.3,Kock (2015) suggests that the occurrence of a VIF greater than 3.3 is proposed as an indication of pathological collinearity, and also as an indication of common method bias (CMB)".And in our case VIF result indicates on table 4.5 shows that VIF is below 3.3, so we can conclude in this study that there is no problem of multicollinearity

Tabal 4: Collinearity statistics (VIF)

Variable	VIF
Brand image	2.138
Ease of use	2.269
Responsiveness	2.072
Reliability	2.120
Security	2.693
Website design	2.124

5. Result and discussion

The goal of this study was to look into the Effect of Digital Banking service on Customers’ Satisfaction: The Mediating Role of Brand Image in the Case of Commercial Bank of Ethiopia. In addition, the study investigates the function of Brand Image as a mediator in the link between – Digital banking (Reliability, Ease of Use Efficiency, Website Design, Privacy, Responsiveness) – and Customer satisfaction.

The study gathered 250 questionnaires from a total sample size of 384 for this purpose, and the data was entered into SPSS and Smart PLS 4. To fulfill the research's goal, the Structural Equation Model used a factor analysis called confirmatory factor analysis to reduce components that were not providing relevant results. As a result, the number of

measurement elements decreased from 41 to 27. Internal consistency measures such as Cronbach alpha reliability, composite reliability, discriminant validity, and convergence validity have been thoroughly addressed before hypothesis testing. All of the composite reliability and AVE values computed in this study appear to satisfy the suggested threshold levels. Finally, the statistical studies conducted here indicate that the model has acceptable convergent validity and reliability. Cross-validated redundancy was also used to assess the model's predictive significance.

The research findings show that 59.6 percent of the respondents were female, 41.6 percent of the Respondents were under the age of 30, 69.6 percent of the respondents had a college/university award, 30.8 percent of the respondents were workers/officers, and 41.2 percent of the respondents had a Used digital banking service six months to one year.

From the model, the relationship between brand image and customer satisfaction was supported and significant with the original sample $\beta = 0.122$, statistics (t) = 2.201, and significant value (p) < 0.05 indicating that brand image Influences customer satisfaction directly and positively. The link between responsiveness and brand image was also supported and significant with the original sample (β) = 0.138, statistics (t) = 2.131, and significant value (p) < 0.05 indicating that responsiveness influences brand image directly and favorably. The relationship between ease of use and customer satisfaction was supported and significant with the original sample (β) = 0.240, statistics (t) = 4.045, and significant value (p) < 0.05 indicating that customer satisfaction are influenced directly and positively by the ease of use. The relationship between reliability and customer satisfaction was supported and significant with the original sample (β) = 0.131, statistics (t) = 2.191, and significant value (p) < 0.05 indicating that customer satisfaction are influenced directly and positively by reliability.

The relationship between Service security and privacy with brand image was supported and significant with the original sample (β) = 0.282, statistics (t) = 3.842, and significant value (p) < 0.01 indicating that brand image is influenced directly and positively by Service security and privacy.

The link between service security and privacy with customer satisfaction was supported and significant with the original sample (β) = 0.356, statistics (t) = 4.714, and significant value (p) < 0.01 indicating that customer satisfaction is influenced directly and positively by Service security and privacy.

And the research finding shows that the relationship between website design and brand image was supported and significant with the original sample (β) = 0.344, statistics (t) = 5.067, and significant value (p) < 0.01, Similar relation between website design and customer satisfaction image which was supported and significant with the original sample (β) = 0.374, statistics (t) = 5.820, and significant value (p) < 0.01 indicating that website design influenced directly and positively by brand image and customer satisfaction.

However, the relationship between Responsiveness and Customer satisfaction was not supported and insignificant with $\beta = -0.035$ and t = 0.262 indicating that Responsiveness has not much significance with customer satisfaction. It is also indicated that the relationship between reliability and brand image was not supported and insignificant with $\beta = -0.054$ and t = 2.211 indicating that the reliability has not much significance with customer satisfaction.

The brand image also mediates the link between Web design and customer satisfaction, as well as the relationship between security and privacy and customer satisfaction.

Finally, the research found that security and website design can boost brand image and ultimately create customer satisfaction. The meaning behind that statement is that customers are an important part of this discussion. The fact shows that the quality of website design and security issues have become an option to increase customer satisfaction. However, in the commercial bank of Ethiopia, security and website design were not the only factors that affected customer satisfaction. Instead, when the quality, ease of use, and reliability are as per the customer's expectations, the customer will be satisfied without examining the brand image perception. This means that the functional value of the digital banking service is not enough to be a proper major consideration in satisfying the customers of digital banking. At the same time, it is precisely the quality of the digital banking service itself that creates satisfaction in advance.

6. Conclusion

The purpose of this study was to evaluate the influence of the Effect of Digital Banking service on brand image and customer satisfaction using the digital banking service measurement parameters and studying Commercial Bank of Ethiopia clients. The aspects of digital banking services are used to assess perceived fairness. The findings in chapter four indicate that ease of use, security and privacy, website, and web-based mobile application had a positive effect on brand image.

The study result also established that Reliability, Ease of Use and Efficiency, Website Design, security & Privacy, and brand image had a positive and significant influence on customer satisfaction. However, Responsiveness showed an insignificant relationship with customer satisfaction.

The study also confirmed a theory that brand image with digital banking service positively affects customer satisfaction and positively mediates the relationship between Website Design and security & Privacy and customer satisfaction. The study result indicated that brand image does not affect mediating ease of use, reliability, and responsiveness with customer satisfaction.

Based on the sample responses and data analysis findings, the study concluded that the effect of digital banking service dimensions on brand image is found to be positive, indicating that customers of Commercial Bank of Ethiopia have shown that digital service positively affected customer brand image. Customers' satisfaction at Commercial Bank of Ethiopia is also influenced by their level of brand image. According to Commercial Bank of Ethiopia customers, Website Design and web base mobile applications are the most essential of the digital banking service.

7. Recommendation

Based on the results of the analysis and the conclusion made, the following recommendations are forwarded:

As per the finding of the study, digital banking services have a positive and direct relationship with customer satisfaction, so To ensure the integrity of online transactions, security must be constantly improved because doing so will boost consumer confidence. To boost the trustworthiness and image of banks, security provisions should be made available on their websites in a clear way. The kinds of services offered by digital banking should be expanded, such as accepting deposits, and banks should take advantage of the chances to grow digital banking by addressing the issues. Since the study indicates that responsiveness has a direct and positive effect on customer satisfaction, when a digital banking service failure happens, if a disgruntled customer is recovered after receiving appropriate compensation, he or she is far more likely to actively express grievances to the bank for the goal of building a recovery delivery system, which is a wonderful method to collect information about the banks' performance. A complaint tracking system, which includes a comment box, a customer complaint website, and a complaint management staff, is critical in allowing consumers to provide feedback about the bank. As a result, CBE's customers may opt to complain rather than defect to another bank. To achieve these goals, CBE should spend time developing and enhancing the CBE digital banking team that assists managers in tracking consumer complaints and the recovery process across the CBE, and there should be a way to measure the effectiveness and efficiency of the services of the digital banking services for users at the time of performing the transaction.

As the study shows that digital banking services have a positive effect on brand image and customer satisfaction, the management of Commercial Bank of Ethiopia must develop (in the area of digital banking services) a digital banking service that incorporates personalized digital banking features rather than standardized ones. As per the research finding, most digital banking service measurements have a positive and direct effect on brand image, so Commercial Bank of Ethiopia's digital banking services initiatives should include more components of the digital banking service to create a persuasive brand in the market. CBE management should also consider spending additional effort to increase the quality of digital services. The more satisfied clients are with excellent digital banking service, the more they disseminate positive comments about the bank and the more financial services they use. It should be noted that retaining a current client is more cost-efficient than acquiring a new one; thus, CBE should reconsider their respective budget delivery. According to the research findings, brand image has a direct positive effect on customer satisfaction, so Ethiopian commercial banks should work hard to be easily identified, top of mind in the banking industry, and the most competent bank in the eyes of the customer.

Commercial Bank of Ethiopia must constantly revise and update its digital banking services activities to increase digital banking transactions so that customers will be satisfied and advocate customers to the bank brand. This is because the research finding indicates that brand image has a mediation role on digital banking and customer satisfaction. The campaign to expand the availability of digital banking services should encourage customers to use them. To satisfy customers, the digital bank service should go through the process of building a persuasive brand. To do this, the bank should collaborate with all stakeholders to create a digital society and a digital market that would avoid physical banking complications and the cost of service delivery through conducting digital campaigns.

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Appendix

Questioner
Addis Ababa University
School of Commerce
Department of Marketing Management
(Questionnaire to be filled by Digital banking service quality Service Users)
Informed Consent Form

Researcher Name: Yohannes Tesfaye

Organization: Addis Ababa University, School of Commerce, Department Of Marketing management
Sir/Madam,

Background: You have been identified as one of the key persons for this study on **“The Effect of Digital banking service quality on Customer Satisfaction: The Mediating Role of the Brand image in the Case of Commercial Bank of Ethiopia”**. This study is being carried out with permission from Addis Ababa University School of Commerce. Before you decide to take part in this study, you must understand why it's being conducted and what you'll be doing. Please take the time to thoroughly read the following information. If there is anything unclear to you, feel free to question the researcher. This research is part of the requirements for a Master's degree in Marketing Management. The study will be used purely for academic purposes and thus it does not affect you in any case. You're genuine, frank, and timely response is vital for the success of the study. Therefore, I kindly request you to respond to each question item carefully

Instruction:

- No need of writing your name.
- Use √ upon given choices alternatives.
- Please return the completed questionnaire in time, thank you in advance for your cooperation and timely response.
- The researcher assures you that the responses you provide will be kept confidential.

For further comments and information, you may contact me at - tesfayeyohannes42@gmail.com

Yours sincerely

Yohannes Tesfaye

Tell: 0911.44.27.05

General instruction: - please select the appropriate choice with a tick mark (√) or write your answer in the space provided.

Section I: Respondents' Characteristics

1. What is your age bracket?
 - ✚ From 18 to under 22 []
 - ✚ From 22 to under 30 []
 - ✚ From 30 to under 50 []
 - ✚ Over 50 []
2. What is your gender?
 - ✚ Male []
 - ✚ Female []
3. What is your highest level of education?
 - ✚ High School []
 - ✚ College/University []
 - ✚ Postgraduate []

- Other []
- 4. What is your Job?
 - Worker/Officer []
 - Businessman/Entrepreneur []
 - Housewife []
 - Student []
 - Other []
- 5. Length of Digital banking service Usage.
 - Under 6 months []
 - From 6 months to under 1 year []
 - From 1 year to 3 years []
 - Over 3 years []
- 6. Frequency of Digital banking service usage
 - Never []
 - Once per month []
 - Twice per month []
 - 3 + times Per Month []

Part II Dimension to measure Digital banking service quality

What is your level of agreement with the following statements relating to Digital banking service quality service in CBE (1- strongly disagree, 2- Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree)?

Part III Dimensions to Measure Customer Satisfaction

What is your level of agreement with the following statements relating to Customer satisfaction in CBE (1- strongly disagree, 2- Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree)?

Cod e	Dimension	1	2	3	4	5
Ease of use and Efficiency						
EuE 1	You can easily find documentation on how to use Digital banking services.					
EuE 2	The application process is very clear, quick, and easy to understand.					
EuE 3	You can use Digital banking services easily.					
EuE 4	I find the e-banking system to be flexible to interact with.					
EuE 5	Learning to operate the E-Banking system is easy for me.					
EuE 6	Digital banking services are provided in various languages.					
Reliability						
Rel1	I have high confidence in the Digital banking services of the bank.					
Rel2	The Digital banking service is reliable.					
Rel3	Digital banking services perform the service right the first time.					
Rel4	I have always found Digital banking service channels in working order.					
Rel5	I prefer using Digital banking services instead of visiting the branch to do my transactions.					
Security and Privacy						
Sap1	Digital banking services do not allow others to access my accounts.					
Sap2	Digital banking service provides high protection for my banking transactions.					
Sap3	Digital banking services are safe from fraud and hacking.					
Sap4	The security devices of the Digital banking services protect the data that is sent by me.					
Sap5	Digital banking services offer secure personal privacy.					
Sap6	I feel secure while making transactions over the Internet.					
Sap7	My Digital banking site does not share my personal information with other sites.					
Responsiveness						
Rac1	Digital banking services are available 24/7.					
Rac2	Digital banking services respond immediately to clients' requests.					
Rac3	If there is any problem, help is immediately available.					
Rac4	Digital banking services provide answers to your banking questions.					
Rac5	The bank deals gently with customer complaints about electronic service.					
Website						
Wd1	The bank website works properly using different screen settings.					
Wd2	The bank website has Clear design.					
Wd3	The bank website has an effective internal search tool.					
Wd4	The bank's website Tailoring content to the needs of specific users					
Wd5	The bank website has a short download speed.					
Wd6	The bank website provides feedback between users and the website (email, chat, online community, and suggested forms).					

		Dimension				
Customer Satisfaction		1	2	3	4	5
Cs1	I am satisfied with the transaction processing via Digital banking services.					
Cs2	I think I made the correct decision to use Digital banking service quality.					
Cs3	My satisfaction with Digital banking services is high.					
Cs4	I am satisfied with the bank's e-services quality.					
Cs5	Overall, the Digital banking services quality is better than I expected.					
Cs6	I am satisfied with the accuracy of data in Digital banking.					
Cs7	Digital banking service quality provides me with up-to-date information.					

Part IV Dimensions to Measure Brand Image

What is your level of agreement with the following statements relating to Brand Image in CBE (1- strongly disagree, 2- Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree)?

		Dimension				
Brand Image		1	2	3	4	5
Bri1	It makes me attractive and dependable for good impressions.					
Bri2	CBE Brand provides a solution to my expectations.					
Bri3	I feel delighted and feel the good frequency of use.					
Bri4	CBE brand looking for a cheap, desirable lifestyle gives me pleasure.					
Bri5	CBE is perceived by others, it promises to make me feel accepted in my social group.					

Thank You for Your Cooperation!!!

Table 1: Discriminant Validity

Variables	Bri	Cs	Eou	Rac	Rel	Sap	Wd
Brand Image	0.796						
Customer Satisfaction	0.645	0.731					
Ease of use and Efficiency	0.442	0.529	0.778				
Responsiveness	0.575	0.561	0.389	0.759			
Reliability	0.348	0.38	0.717	0.306	0.828		
Security and Privacy	0.659	0.730	0.477	0.703	0.411	0.734	
Website	0.66	0.731	0.459	0.592	0.429	0.695	0.771

Table 2: Reliability and Internal Validity

Independent Variable	Cronbach's alpha	CR	AVE
Brand Image	0.708	0.71	0.838
Customer satisfaction	0.71	0.715	0.821
Ease of use	0.775	0.815	0.852
Responsiveness	0.631	0.645	0.802
Reliability	0.851	0.896	0.897
Security and privacy	0.786	0.788	0.854
Website design	0.772	0.774	0.854

Table 3: Predictive relevance

Dependent Variable	Cross validated redundancy Q ² predict	R Square
Customer Satisfaction	0.648	0.673