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An Analysis of the Impact of Online Banking on Customer Satisfaction in Commercial Banks Based on the TRA Model (A Case Study of Stanbic Bank Lusaka Main Branch)

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Abstract

The convenience, easy access, and acceptable means of transacting in the customers day-to-day business operations is making more banks' customers satisfied with their service delivery. However, about 65% of Stanbic bank's customers do not use the bank's internet banking services and are dissatisfied with the bank's customer service delivery. This study analyzed the impact of online banking on customer satisfaction in commercial banks based on the TRA model using Stanbic Bank as a case study. This study employed the cross-sectional study design conducted at Stanbic Bank's headquarters in Lusaka district targeting bank customers. The sample size for the study was 196. Stratified Sampling was employed, respondents were selected by circular systematic random sampling, and a questionnaire was used to collect data. Kendall's tau-b correlation was used to determine the relationship between online banking and customer satisfaction of banking services. Binary logistic regression was used to determine the influence of online banking on the outcome variable (customer satisfaction). A weak positive correlation between the use of online banking and customer satisfaction was established [(τb = .169, p = .012)]. Interacting gender of "being male", having secondary education or below, negative behavioral belief, negative attitude, negative behavioral intention, and none usage of online banking reduces customer satisfaction [(p = .046); (CI: 95%)], [(p = .039); (CI: 95%)], [(p = .019); (CI: 95%)], [(p = .018); (CI: 95%)], [(p = .036); (CI: 95%)] respectively. Therefore, in the quest increase to increase customer satisfaction, the bank needs to consider

these parameters in their strategic planning if it is to maintain or grow its customer base.

Keywords

Customer Satisfaction, Internet Banking, Theory of Reasoned Action (TRA)

1. Introduction

The Internet is changing the banking and financial industry as far as the idea of core products/services is concerned and the way these are bundled, proposed, conveyed and expended (Phillips et al., 2017). It is a priceless and an incredible asset in driving development, supporting growth, promoting innovation and enhancing competitiveness (Phillips et al., 2017). Banks and different organizations are going to Information Technology (IT) to improve business proficiency, service quality and draw in new clients (Li et al., 2021). Technological advancements have been recognized to add to the dispersion channels of banks and these electronic conveyance channels are aggregately alluded to as electronic banking (Teshome, 2019). The development of banking innovation has been driven by changes in distribution channels as through the Automated teller machine (ATM), Phone-banking, Tele-banking, PC-banking and most recently Internet banking (Hussain et al., 2017). Across the globe, the banking industry has evolved over the past decades in the areas of technology and one of such areas is online banking. Online banking helps businesses and individuals to access banking services from the luxury offices and homes on their personal computer. Internet banking innovations have made it easy for the bank to attract many corporate and retail customers. In Zambia, until the year 2010, Internet banking was not common. After 2010 when most banks were made all-inclusive banks, internet banking turned out to be normal and effectively assessable to all who subscribe to the service (Hussain et al., 2017). There are minimal inquiries about internet banking on the Zambian financial sector as contrasted with other electronic financial developments (Nguyen, 2019). It is for this reason that this study endeavored to carry out an analysis of the impact of online banking on Zambian Commercial Banks with reference to Stanbic Zambia. The banking industry has evolved over the past decades in the areas of technology and one of such areas is online banking (Arakpogun et al., 2017). This has made it easy for the bank to attract many corporate and retail customers` convenience, easy access and acceptable means of transacting in their day-to-day business operations.

Despite numerous advantages that online banking offers, most customers still opt for physical interaction when it comes to customer service delivery (Shanthi & Desti, 2015). This has been the challenge that STANBIC bank faces from its

customers. In 2020 the bank invested huge sums of money to transform its banking operations by making online banking user friendly as a tool to aid excellent customer service delivery and yet only 35% of the customers are utilizing the online services fully (Stanbic Zambia Limited Annual Report, 2020). This was an indication that about 65% of their customers were dissatisfied with their customer service. Therefore, this study was conducted to investigate the impact of online banking on customer satisfaction in Zambia using Stanbic bank as a case study. The aim of this study was to investigate the impact of online banking on customer satisfaction in commercial banks based on the TRA model using Stanbic Bank as a case study.

2. Key Literature Review (Table 1)

Table 1. Literature review summary.

N0:	Author	Study Title	Study Results
1.	Sakala & Phiri (2019)	Factors affecting adoption and use of mobile banking services in Zambia based on TAM Models	The study suggested that there is a positive relationship between use of e-banking services and perceived ease of use, usefulness, attitudes, external factors, intention, system use
2.	Daka & Phiri (2019)	Factors Driving the Adoption of E-banking Services Based on the UTAUT Model	Performance expectancy is the key to adoption of E-banking services in Zambia
3.	Lishomwa & Phiri (2020)	Adoption of internet banking services by corporate customers for forex transactions based on the TRA Models	There is a very strong relationship between internet banking and performance expectation, control factor and social influence
4.	Soneka & Phiri (2019)	A model for improving e-tax adoption in the rural of Zambia based on the TAM Models	E-tax payment and submission systems is convenient and less costly for those in the rural areas but there is however, greater need to enhance sensitization
5.	Mwiya et al. (2017)	Examining Factors Influencing E-Banking Adoption: Evidence from Bank Customers in Zambia	The modified TAM model indicated its usefulness e-banking adoption
6.	Kawimbe (2020)	An assessment of the impact of mobile financial services on Financial inclusion and economic development in Zambia	Financial inclusion is an important aspect of economic development in developing countries. ICT infrastructure is key to spearhead such development
Gap	None of the studies analyzed the Impact of online banking on customer satisfaction in commercial banks based on the TRA model (A Case Study of Stanbic Bank)		

2.1. Conceptual Framework (Modified TRA Model) Adapted

The adapted Theory of Reasoned Action (TRA) (Figure 1) is a model that finds its origins in the field of social psychology. This model was developed by Fishbein and Ajzen (1975). Al-Suqri and Al-Kharusi (2015) define the links between

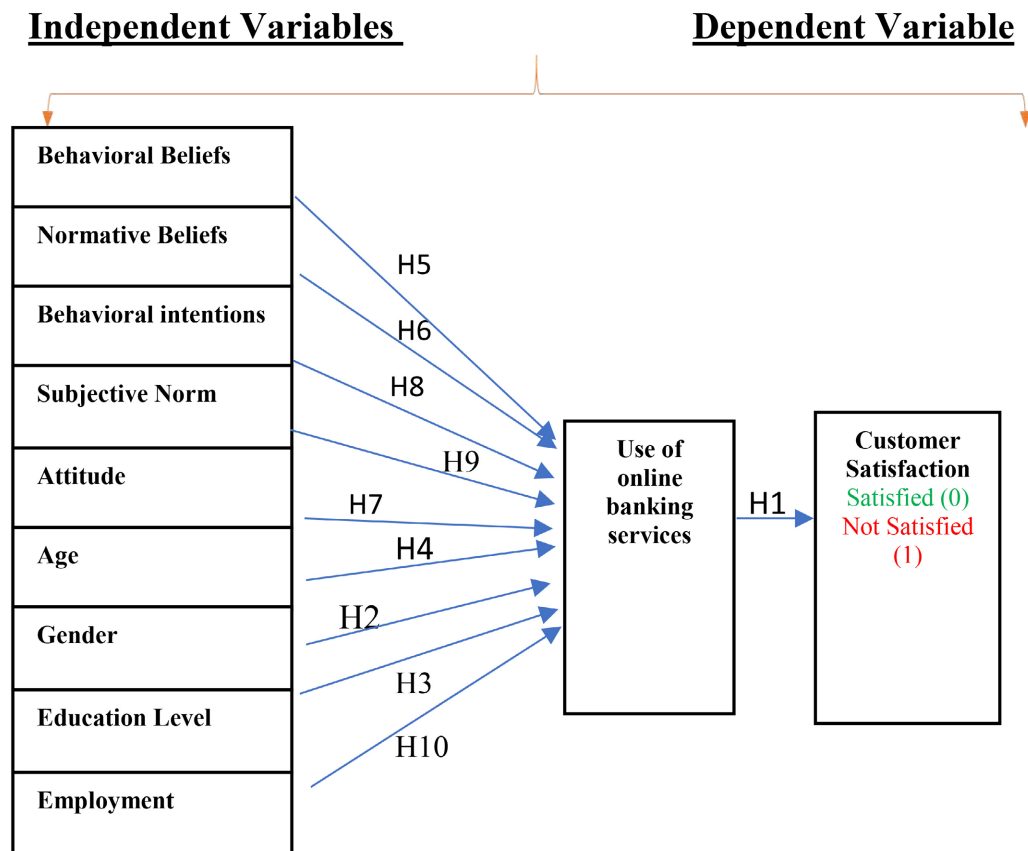## Independent Variables   Dependent Variable

Figure 1. The framework and development of hypothesis.

beliefs, attitudes, norms, intentions, and behaviors of individuals. According to this model, a person's behavior is determined by its behavioral intention to perform it. This intention is itself determined by the person's attitudes and his subjective norms towards the behavior. Fishbein and Ajzen (1975) define the subjective norms as "the person's perception that most people who are important to him think he should or should not perform the behavior in question" (Fishbein & Ajzen, 1975).

2.2. Hypotheses

The following section looks at the conceptual frame work that was used to formulate the hypothesis. The descriptions outlined establish the background for the independent variables.

H1: The use of online banking influences customer service satisfaction

H2: The interaction between being Male and the none use of online banking influences customer service satisfaction.

H3: The interaction between having secondary education or below and the none use of online banking influences customer service satisfaction.

H4: The interaction between being aged 36+ years and the none use of online banking influences customer service satisfaction.

H5: The interaction between negative behavioral beliefs and the none use of online banking influences customer service satisfaction.

H6: The interaction between negative normative beliefs and the none use of online banking influences customer service satisfaction.

H7: The interaction between customers negative attitude and the none use of online banking influences customer service satisfaction.

H8: The interaction between negative behavioral intention and the none use of online banking influences customer service satisfaction.

H9: The interaction between customers negative perception and the none use of online banking influences customer service satisfaction.

H10: The interaction between being unemployed and the none use of online banking influences customer service satisfaction

3. Research Methodology

This study employed a cross-sectional study design. The study was carried at Stanbic Bank main branch in Lusaka. The study targeted customers with personal and/or business accounts. The sample size was estimated based on the Comparative Study of Ghana and Spain .85 [(85.0%; Amoah-Mensah (2011)], at the confidence interval of 95% (Z-score 1.96) and a precision/margin of error of 5%, the sample size was estimated at **196** with a 2.5% (**5**) over sampling included non-response, never available and other situations which may have affected the initial sample size; the sample size of **201** ensured a 95% confidence interval estimate where the proportion of Stanbic bank customers were satisfied within 5% of the true proportion. The sample size was determined as indicated below:

The sample size estimation was done as bellow:

$$n = \left(\frac{Z\alpha}{d}\right)^2 = \left(\frac{1.96}{0.05}\right)^2 = 196$$

$$n = N*n/(n+N-1)$$
$$= 28211*196/(196+28211-1)$$
$$= (\text{Finite population adjustment})$$

where:

n = is the sample size.

$Z\alpha$ = 1.96 at 95% Confidence interval which is the value from the standard normal distribution reflecting the confidence level as required (e.g., Z = 1.96 for 95%).

P = Proportion of bank customers are not satisfied (.85 or 85%) based on the Comparative Study of Ghana and Spain (Amoah-Mensah, 2011).

d = 5% margin of error/precision (d is the desired margin of error).

N = 28,211 (Stanbic Zambia Limited Annual Report, 2020).

The sample size for the study was estimated at 196. However, with a 2.5% non-response rate the total sample size was 201.

However, the response rate was at 77.6%. Therefore, all analyses were based on only 156 respondents (77.6%). Stratified sampling and circular systematic sampling methods were employed in the study. Both primary and secondary data were collected. Primary data was collected using a questionnaire (Simpson, 2006), and secondary was gathered from published works. To ensure validity and reliability of the data which was collected and the results of the study, the questionnaire was pre-test at two different branches; Zambia National Commercial Bank with five (5 participants) and Standard Charted Bank with (5 participants). This was done to check for consistence as well as to check whether the questionnaire was able to measure what it intended (Taherdoost, 2016). Data was analysed at univariate, bivariate and multivariate levels. Kendall's tau-b correlation was used to determine the relationship between online banking and customer satisfaction of banking services. To determine the influence of online banking on the outcome variable (customer satisfaction), multivariate analysis, was done by the use of Binary logistic regression (Jindal et al., 2017).

Binary Logistic the Model

Binary logistic regression was used to estimate the (**Log Odds)** of a customer being unsatisfied. Binary logistic regression equation was estimated as follows:

$$\text{Logit}(P) = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + \cdots + b_p X_p + E$$

P: denotes the probability of the customer being satisfied = 1, and unsatisfied = 0.

$b_1 \ldots b_p$: denotes the coefficients of the independent variables.

$X_1 \ldots X_p$: denotes the independent variables. All dichotomous variables were converted into dummies before they could be entered in the model. The model was built using the **Enter Method** in which all the predictors were entered at once. However, only predictors which were significantly associated with customer satisfaction were advanced to multivariate analysis.

4. Results and Discussion

4.1. Results

4.1.1. Univariate Analysis (Background Characteristics)

Of the total 156 respondents 64% were males while 36% were females (Figure 2). In terms of age groups (Figure 3) 62.2% were in age group 18 - 35 years while 37.8% were aged 36+ years. Figure 4 shows that 71.8% had tertiary education while 36% had "secondary or below" education. Figure 5 shows that 65.4% were employed while 34.6% were unemployed. Figure 6 shows the distribution of respondents by customer satisfaction. The figure indicates that 59% were satisfied with the bank's service provision while 41% indicated that they were not satisfied with the bank's services. Figure 7 shows the distribution of respondents by use of on-line banking. That 35.9% were using internet banking while 64.1% indicated that they were not using internet banking.
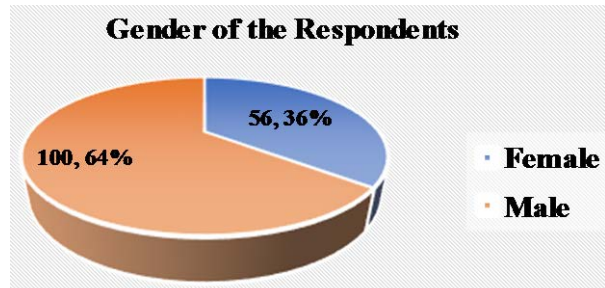
Gender
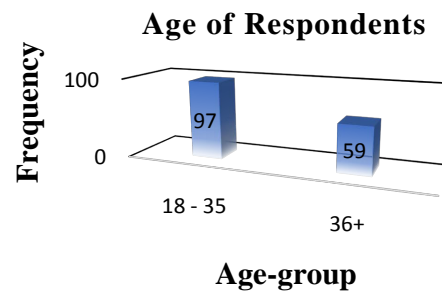
Figure 2. Gender of respondents.

Age Group

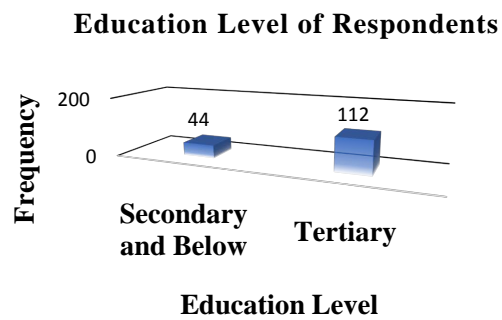Figure 3. Age-group of respondents.

Education Level

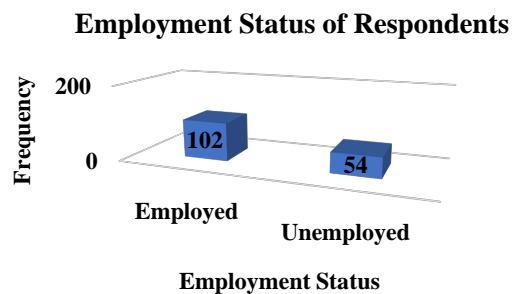Figure 4. Education level of the respondents.

Employment Status

Figure 5. Employment status of respondents.
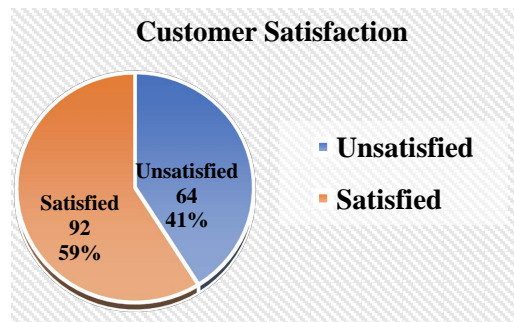
Customer Satisfaction
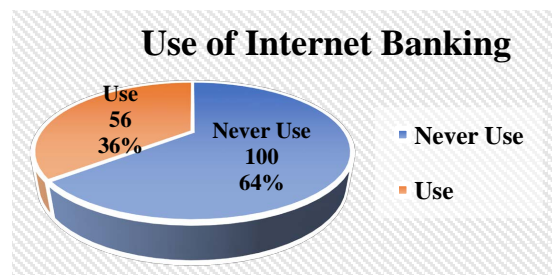

Figure 6. Customer satisfaction.

Use of Online Banking

Figure 7. Use of internet banking.

4.1.2. Bivariate Analysis

This was the second level analysis which was done to establish the direction of the relationship between online banking and customer service satisfaction. Kendall's tau_b was used to establish the relationship between the use of online banking and customer satisfaction. To allow for Kendall's tau_b to be employed to analyze the relationship between using online banking and customer satisfaction, the two variables were ranked (ordinal scaled). This was done to address specific objective one or to test hypothesis 1. See Table 2.

1) *H*1: *The use of online banking influences customer service satisfaction positively*

A Kendall's tau-b correlation was run to determine the relationship between the use of online banking and customer satisfaction amongst 156 participants. There was a weak, positive correlation between the use of online banking and customer satisfaction, which was statistically significant ($\tau b = .169$, $p = .012$). Therefore, the research hypothesis was accepted (Table 4).

4.1.3. Multivariate Analysis

Binary Logistic Regression Model Building

Model Two (2)

Table 3 shows the output of the second model of binary logistic regression. In this advanced model, holding all the independent variables constant, customer

Table 2. Kendall's Tau_b correlation between use of online banking and customer satisfaction.

			Customer Satisfaction	Online Banking Use
Kendall's tau_b	Customer Satisfaction	Correlation Coefficient	1.000	.169*
		Sig. (2-tailed)	.	.012
		N	156	156
	Online Banking Use	Correlation Coefficient	.169*	1.000
		Sig. (2-tailed)	.012	.
		N	156	156

*Correlation is significant at the .05 level (2-tailed).

Table 3. Binary logistic regression model two.

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Never Use (1)	−.710	.353	4.04	1	.044	2.034	1.019	4.064
Male (1) by Never use (1)	−.964	.483	3.98	1	.046	.381	.148	.982
Secondary and Below (1) by Never Use (1)	1.163	.563	4.26	1	.039	3.198	1.061	9.641
Never Use (1) by Unemployed (1)	.294	.460	.409	1	.523	1.342	.545	3.305
Negative Behaviour Belief (1) by Never Use (1)	−1.129	.480	5.52	1	.019	.323	.126	.829
Negative Normative Belief (1) by Never use (1)	−.011	.481	.001	1	.981	.989	.385	2.539
Negative Attitude (1) by Never use (1)	−1.051	.442	5.63	1	.018	2.859	1.201	6.807
Negative Subjective Norms (1) by Never Use (1)	.574	.437	1.72	1	.189	1.775	.754	4.178
Negative Behaviour Intentions (1) by Never Use (1)	−.916	.438	4.37	1	.036	2.500	1.060	5.898
Age Group 36+ (1) by Never Use (1)	−.386	.499	.598	1	.439	.680	.256	1.808
Constant	.878	.279	9.92	1	.002	.415		

a. Variable(s) entered on step 1: Male * Never Use, Secondary and Below * Never Use, Never Use * Unemployed, Negative Behaviour Belief * Never Use, Negative Normative Belief * Never Use, Negative Attitude * Never Use, Negative Subjective Norms * Never Use, Negative Behaviour Intentions * Never Use Age Group * Never Use.

satisfaction increases by .878 log odds [($P = .002$); (CI: 95%)] and singularly, the none usage of online banking reduces customer satisfaction by .710 log odds [($p = .044$); (CI: 95%)]. Furthermore, this model was fitted in order to test hypotheses 2 to 10 of the study.

2) *H*1: *The interaction between being Male and the none use of online banking influences customer service satisfaction negatively*: Interacting gender of "being male" and none usage of online banking reduces customer satisfaction by .964 log odds: [($p = .046$); (CI: 95%)]: the research hypothesis was accepted (Table 4). This means that being male and none use of online banking increases customer dissatisfaction.

Table 4. Tested hypotheses.

Hypothesis	Result	Decision
Tested Hypotheses (1 - 10). 1) *H*1: *The use of online banking influences customer service satisfaction.*	(τb = .169, *p* = .012).	(H1: Accepted).
2) *H*1: *The interaction between being Male and the none use of online banking influences customer service satisfaction negatively.*	This relationship is significant at [(*p* = .046); (CI: 95%)].	(H1: Accepted)
3) *H*1: *The interaction between having secondary education or below and the none use of online banking influences customer service satisfaction negatively.*	This relationship is significant at [(*p* = .039); (CI: 95%)].	(H1: Accepted)
4) *H*1: *The interaction between being unemployed and the none use of online banking influences customer service satisfaction negatively.*	This relationship is not significant	(H0: Accepted).
5) *H*1: *The interaction between negative behavioral beliefs and the none use of online banking influences customer service satisfaction negatively.*	This relationship is significant at [(*p* = .019); (CI: 95%)].	(H1: Accepted)
6) *H*1: *The interaction between negative normative beliefs and the use of online banking influences customer service satisfaction negatively.*	This relationship is not significant	(H0: Accepted).
7) *H*1: *The interaction between negative attitude and the use of online banking influence customer service satisfaction negatively.*	This relationship is significant at [(*p* = .018); (CI: 95%)].	(H1: Accepted)
8) *H*1: *The interaction between negative customers perception (negative subjective norms) and the use of online banking influences customer service satisfaction positively.*	This relationship is not significant	(H0: Accepted).
9) *H*1: *The interaction between negative behavioral intention and the use of online banking influences customer service satisfaction negatively.*	This relationship is significant at [(*p* = .036); (CI: 95%)].	(H1: Accepted)
10) *H*1: *The interaction between being aged 36+ years and the none use of online banking influences customer service satisfaction negatively.*	This relationship is not significant	(H0: Accepted).

3) *H*1: **The interaction between having secondary education or below and the none use of online banking influences customer service satisfaction negatively:** Interacting negative behavioral belief and none usage of online banking increases customer satisfaction by 1.163 log odds: [(*p* = .039); (CI: 95%)]: the research hypothesis is rejected (Table 4), because the relationship is positive and reduces customer dissatisfaction.

4) *H*1: **The interaction between being unemployed and the none use of online banking influences customer service satisfaction negatively:** Interaction of being unemployed with none usage of online banking, and customer satisfaction was not significant. Therefore, this hypothesis was rejected (Table 4).

5) *H*1: **The interaction between negative behavioral beliefs and the none use of online banking influences customer service satisfaction negatively:** Interaction of negative behavioral belief with none usage of online banking, and customer satisfaction is negative: [(*p* = .019); (CI: 95%)]: the research hypothesis is accepted (Table 4). This further implies that, interacting negative behavioral belief and none usage of online banking reduces customer satisfaction by 1.13 log odds. This means that having negative behavioral beliefs and none use of on-

line banking increases customer dissatisfaction.

6) *H*1: *The interaction between negative normative beliefs and the use of online banking influences customer service satisfaction negatively*: The relationship between, the interaction of negative normative beliefs with none usage of online banking, and customer satisfaction was not significant. Therefore, this hypothesis was rejected (Table 4).

7) *H*1: *The interaction between negative attitude and the use of online banking influences customer service satisfaction negatively*: Interaction of negative attitude with none usage of online banking, and customer satisfaction is negative: [(p = .018); (CI: 95%)]: the research hypothesis was accepted (Table 4). This means that, interacting negative attitude and none usage of online banking reduces customer satisfaction by 1.051 log odds. This interaction increases customer dissatisfaction.

8) *H*1: *The interaction between negative customers perception (negative subjective norms) and the use of online banking influences customer service satisfaction positively.*

The relationship between, the interaction of negative customer perception with none usage of online banking, and customer satisfaction was not significant. Therefore, this hypothesis was rejected (Table 4).

9) *H*1: *The interaction between negative behavioral intention and the use of online banking influences customer service satisfaction negatively.* Interaction of negative behavioral intention with none usage of online banking, and customer satisfaction is negative: [(p = .036); (CI: 95%)]: the research hypothesis was accepted (Table 4). This implies that, interacting negative behavioral intentions and none usage of online banking reduces customer satisfaction by .916 log odds. This interaction increases customer dissatisfaction

10) *H*1: *The interaction between being aged 36+ years and the none use of online banking influences customer service satisfaction negatively.*

The relationship between, the interaction of being aged 36+ years with no usage of online banking, and customer satisfaction was not significant. Therefore, this hypothesis was rejected (Table 4).

4.1.4. Model Goodness of Fit

The second study model illustrated 96.5% accuracy of data prediction. The model further showed that variations of 8.4% (Cox & Snell R^2: .084), in customer satisfaction were explained by the model. The −2 Log Likelihood value of 1083.017e, with Hosmer and Lemeshow test values of .170 (P > .05)], showed that the model estimates were acceptable and gave indication of a good model fit of the model on the data.

5. Discussion

The general objective of this study was to analyze the impact of online banking on customer satisfaction in commercial banks based on the TRA model using

Stanbic Bank as a case study. It was established that the use of online banking influence customer service satisfaction positively. This analysis was done using the Kendall's tau-b correlation and there was a weak, positive correlation between the use of online banking and customer satisfaction, which was statistically significant. The more customers use internet banking services the more satisfied they become with the banking services These results are consistent with the results of the study which was done by (Hammoud et al., 2018). The possible explanation to this could be that E-Banking improves reliability, efficiency, and ease of service delivery with high responsiveness and communication; and ensures good security and privacy which impact positively on customer satisfaction (Li et al., 2021; Poon, 2008; Sardana & Bajpai, 2020). Literature further, indicates that the banking industry has been rapidly developing and that the use of internet banking is believed to be an efficient and viable tool to create customer value (Li et al., 2021).

Binary logistic regression was fitted on the data to determine the effect and influence of the independent variables on the dependent variable. Interactions were done between the use of internet banking and other characteristics of customers to determine the interaction effect on their bank service satisfaction. This was done to address the second specific objective of the study to test the aligned hypotheses.

It was established that the interaction between being Male and the none use of online banking influences customer service satisfaction negatively. This shows that, interacting gender of "being male" and none usage of online banking reduces customer satisfaction on bank services. Males were found to use internet banking less than females. The use of internet banking was higher among females compared to males. These results are in contradiction with the result of a study done in Nigeria which found that gender differences moderated the acceptance of e-banking of users in the research context (Ayo et al., 2012). Computer self-efficacy and perceived ease of use were of a serious concern to females, but less so for their male counterparts. In their study, the use of internet banking was higher among males (Ayo et al., 2012). This difference could be explained by the fact that, with women empowerment which is grass rooted from school level, more women, of late, are finding it much easier to work with technology as they are getting more exposed to it compared to males. This is putting women in the position to catch up with technology and employing it more to simplify their lives. The less usage of internet banking by males makes them less satisfied with the bank services (Ayo et al., 2014). In another study, which was done by Jiménez and Díaz (2019) there was no effect of gender on bank technology use contradicting the studies which found that the adoption of technology, such as internet banking, was relatively lower in women compared to men and the current study which found that the use of internet banking is lower among men.

The interaction between having secondary education or below and the none use of online banking influence customer service satisfaction negatively. Having

secondary education or below with none usage of online banking, and customer satisfaction is negative. This means that having secondary education or less interaction with the none use of internet banking makes customers less satisfied with the services provided by the bank. People with less or no education may be finding it very difficult to interact with internet machinery, computers; among others. This makes them to less appreciate the internet banking services and consequently fail to appreciate the internet banking and other innovations which the bank sets up to improve service delivery to the customers. These results are consistent with the results of a study which was done by (Jiménez & Díaz, 2019) which found that, education impacts preference for using technology to transfer funds and review bank statements among others activities. Furthermore, the association between higher education and increased technology use has been documented in many past studies and is tied closely to higher socioeconomic status, greater need for innovative learning, and higher level of access to resources (Jiménez & Díaz, 2019).

It was determined in this study that the interaction between negative behavioral beliefs and the none use of online banking influences customer service satisfaction negatively. Customers with negative behavioral belief may not appreciate bank innovations and when interacting with the none use of internet banking get less satisfied. This further implies that, interacting negative behavioral belief and none usage of online banking reduces customer satisfaction. The possible explanation to this scenario could be that one's negative subjective probability that a positive action result may or may not be achieved determines what effort would be required to carry out an action. Mixed feelings and approaches are employed in the use of internet banking at different levels. Where there are negative behavioral characteristics, the execution of activities may guarantee no positive result. These results are consistent with the findings of the study which was done by Liao et al. (1999).

The interaction between negative attitude and the use of online banking influences customer service satisfaction negatively. As indicated in table 5 the relationship between, the interaction of negative attitude with none usage of online banking, and customer satisfaction is negative. This means that, people with negative attitude towards the use of internet banking were less satisfied compared to the ones with the positive attitude. This interaction negatively affects customer satisfaction. Literature clearly indicates that the banking industry is continuously enhancing and augmenting services on the internet, for many banking services among others; bill payment, electronic balance inquiries, tracking of expenditures and credit cards, monitoring transaction histories, transferring money between bank accounts and mobile-bank accounts, investment tracking, analyzing securities. The results of the current study are consistent with many study results including those of a study done in Pennsylvania by Kaynak and Harcar (2005), which examined consumer attitudes towards online banking. Their empirical study findings showed that online bank marketing

would gain importance and its use would accelerate at a faster rate in the coming years as many people respondents indicated positive attitudes towards the innovations and the subsequent resultant improved banking services.

Negative behavioral intention and the none use of online banking was found to influence customer service satisfaction negatively. The relationship between, the interaction of negative behavioral intention with none usage of online banking, and customer satisfaction is negative indicating that customer with negative behavior intentions, that is, having a negative thought of employing internet banking innovations reduced the satisfaction levels of the customer. The negative thought of using internet banking and having a preconceived thought and feeling about bank services came out as a clearer negative predictor of customer satisfaction. Bashir and Madhavaiah (2015) also found that attitude, perceived risk, perceived lack of enjoyment and distrust determined the customers' behavioral intentions to use Internet banking. Furthermore, other studies show that, the direct effect of perceived website design difficult of use was seen as its indirect effects on perceived usefulness, attitude and behavioral intentions on the delivery of bank services (AlHaliq & AlMuhirat, 2016; Ayo et al., 2014; Kaynak & Harcar, 2005; Li et al., 2021). Therefore, positive behavior intention is a significant positive predictor of customer satisfaction as it indicates the ultimate appreciation of bank innovations and consequently the resultant service delivery of the bank.

Linking the TRA Model to the Study Results

This study adapted the TRA model developed by Fishbein et al. (1980) to try and explain how the use or none use internet banking impacts on customer satisfaction on the banking services. As suggested by the theory that; because many extraneous factors influence stability of intention, the relationship between intention and behavior depends on two factors: 1) the measure of intention must correspond to the behavioral criterion in action, target, context, and time; and 2) intention does not change before the behavior is observed. The TRA specifies that behavioral intention is a function of two determinants: a personal factor termed attitude toward behavior, and a person's perception of social pressures termed subjective norm (Fishbein et al., 1980).

In this study the model clearly defines the links between beliefs, attitudes, norms, intentions, and behaviors of individuals. According to this model, a person's behavior was determined by the behavioral intention to perform banking activities online in order to achieve their intended satisfaction on bank service delivery. The extended modified interactional mechanisms have explained that negativity on beliefs, attitudes, intentions, and the none use on online banking have negative effect on the satisfaction of the banks' customers. This is to mean that, positivity on the stated parameters creates an environment where customer enjoy the banks innovations and broadened service delivery through internet banking services which are accessible at any minute of interest. The model has

explained that internet usage increases customer satisfaction on bank services and positively affects the attitude of customers towards the services provided by the bank. Individual characteristics of customers; age gender, occupation, education level, where incorporated in the interactions of the adapted model and the resultant effects were able to indicate effect direction.

The implementation of this model was not able to incorporate all the key parameters which might be able to explain all the variations and implications of the aspects of indicated factors on the model. The binary logistic regression model was built on the parameters of the TRA through the manipulation of certain variables to allow for ease of analysis and clearer statistic interpretation. Future studies may require employing Multinomial regression in respect of the natural falling of the parameters of the TRA model so as to enhance the explanation of the natural phenomena.

6. Conclusion

This study was conducted on Stanbic Bank customers to determine the association between the use of internet banking and their satisfaction on the bank's service delivery and the impact of its use or none use interacted with other factors on the satisfaction of service delivery. By use of the Kendall's tau-b correlation, results showed a weak positive correlation between the use of online banking and customer satisfaction. Furthermore, the interactions which were found to be associated with customer dissatisfaction were the interactions between; gender of "being male", having secondary education or below, negative behavioral belief, negative attitude, negative behavioral intention, and none usage of online banking. This means that "being male", having more than secondary education, positive behavioral belief, positive attitude, positive behavioral intention, and using of online banking were positively associated with customer satisfaction. Therefore, in the quest increase to increase customer satisfaction, the bank needs to consider these parameters in its strategic planning if it is to maintain or grow its customer base.

Limitations

1) This study's findings cannot be generalized because it is consumer-based research and only one bank was covered as a case study.

2) The study focused only on some technological, behavioral, and attitudinal factors. It left out many customer-specific factors and other psychographic and behavioral factors including cost, perceived value, service quality determinations, which could have provided more significant insight into the innovation adoption process.

Recommendations

This study recommends that:

1) The bank needs to establish a motivation factor for people to embrace the use of internet banking for all bank services. Customers especially those with low education, the males and the unemployed may need to be oriented properly on the usage of internet banking. Those with negative behavioral beliefs, negative attitude, negative behavioral intentions may need to be educated on the advantages of the innovations of the bank and their benefit.

2) Further studies may have to focus on some customer-specific factors and other psychographic and behavioral factors including cost, perceived value, service quality determinations, which were left out in this study which could have provided more significant insight on the innovation adoption process.

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Conflicts of Interest

The author declares no conflict of interest regarding the publication of this paper.

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