

# AN EVALUATION OF THE IMPACT OF ELECTRONIC BANKING ON COMMERCIAL BANK COMPETITIVENESS: A CASE OF ZIMBABWE (2010-2016)

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## ABSTRACT

With the world experiencing a global electronic revolution where almost every business transaction can be done through electronic means, Zimbabwean banks have not been left out. The rise of e-banking in Zimbabwe poses a challenge on the competitiveness of commercial banks. This research paper sought to analyse the impact of electronic banking on commercial bank competitiveness in Zimbabwe (2010-2016). A cross sectional survey was used to address the objectives and hypothesis of the study. A descriptive research design that allowed the researcher to collect primary quantitative data through structured questionnaires and interviews was used. The questionnaire with closed Likert-type scale questions was used and a sample of 100 e-banking customers and 40 commercial banks' staff was used in this study. Judgemental sampling was used to select respondents for both interviews and questionnaires. The results revealed that e-banking has an impact on commercial bank competitiveness. The study revealed that quality of service delivery of electronic banking attracts and retain customers giving the bank a competitive edge within the industry and the market. The findings of the study also revealed benefits of e-banking to both customers and banks. Benefits of e-banking to banks include increasing competitiveness, widening customer base, improving bank profitability, improving marketing of bank products and making marketing of bank products easy. Benefits of e-banking to customers include convenience, reliability, ease of access and use, efficiency, responsiveness, security and lower transaction costs. The study revealed that banks should ensure improve service delivery to increase customer satisfaction in order to increase uptake of e-banking by customers. The study recommended that banks' network infrastructure should be improved so as to enhance efficiency and convenience of using internet banking effective. A good network infrastructure will enable banks to deliver quality service which will result in customer retention and a strong relationship building between the banks and the customers.

**Keywords:** - *Commercial Banks, Electronic Banking, Zimbabwe*

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## **1.0 INTRODUCTION**

The banking industry has been in a process of significant transformation. The force behind this transformation of the banking industry is innovation in information technologies. Bankers are convinced that e-banking attracts, retain and satisfy customers profitably consequently improving the overall performance of the bank by enhancing competitiveness and viability of banks. This research intends to conduct an evaluation of the impact of e-banking on commercial bank competitiveness and viability in Zimbabwe.

### **1.1 Statement of the Problem**

The world is experiencing a global electronic revolution where almost every business transaction can be done through electronic means. In Zimbabwe, commercial banks including CBZ, CABS, FBC, Steward Bank, Stanbic and Barclays Bank Limited have invested into electronic banking in a bid to reduce operating costs and increase transaction volumes as a result of convenience and ease of transacting. However, majority of the customers shy away from digital banking services due to security concerns, computer illiteracy poor and/or lack of technological infrastructure and reliable power supply, lack of proper legislation governing e-transactions, preference to paper money, as opposed to virtual cash in transactions among challenges. Many customers and banks are now switching to digital banking as means of banking despite all the challenges mentioned, as it offers major opportunities in terms of competitive advantage by reducing operating costs and improved customer satisfaction culminating into a stronger and more durable business relationship with its customers. The impact of e-banking on traditional banks' market share growth, profitability and customer satisfaction is therefore critical given the emergence of mobile money products in Zimbabwe (Ecocash, One Wallet and Telecash) that have threatened commercial banks survival and profitability pushing them to rethinking adaptive strategies. It is against this background that the study seeks to find out the impact of electronic banking on competitiveness and viability of commercial banks and solutions to the challenges facing this revolution.

### **1.2 Objectives of the Study**

The objectives are two-fold, the primary objective and secondary objectives.

#### **1.2.1 Primary research objective**

The main objective of the research is to analyse the impact of e-banking on commercial bank competitiveness in Zimbabwe (2010-2016).

#### **1.2.2 Secondary research objectives**

- i. To identify and analyse the benefits and risks of e-banking for commercial banks.
- ii. To analyse the advantages of internet banking to banking customers
- iii. To evaluate the segments of population that are in electronic banking
- iv. To assess variables that have influenced the uptake of internet banking by banking customers and how they have made an impact on banking consumers

## **2.0 LITERATURE REVIEW**

### **2.1 Technology acceptance model (TAM)**

Originally developed by Davis (1989), the technology acceptance model (TAM) has emerged as a powerful and parsimonious model (Yousafzai et al, 2007a, 2007b). Depicted in Figure 2.1 below, the TAM hypothesizes that a person's acceptance of a technology is determined by his or

her voluntary intention to use that technology. Intention, in turn, is determined by the person's attitude toward the use of that technology and his or her perception concerning its usefulness. Attitudes are formed from the beliefs a person holds about the use of the technology. The first belief, perceived usefulness (PU), is the user's "subjective probability that using a specific application system will increase his or her job performance" (Davis et al., 1989; p. 985). Initially defined in the context of one's job performance, PU was later used for any common task in non-organizational settings (e.g., Internet shopping; Gefen, 2002). The second belief, perceived ease of use (PEU), is "the degree to which the user expects the target system to be free of efforts" (Davis et al., 1989; p. 985). PU is influenced by PEU.

## **2.2 Theory of reasoned action (TRA)**

The TRA (Fishbein and Ajzen, 1975) is a well-established social psychological model that is concerned with the determinants of consciously intended behaviours. From a theoretical point of view, the TRA is intuitive, parsimonious, and insightful in its ability to explain behaviour (Bagozzi, 1982). The TRA assumes that individuals are usually rational and will consider the implications of their actions prior to deciding whether to perform a given behaviour (Ajzen and Fishbein, 1980). According to the TRA, presented in Figure 2.2 below, behavioural intention is the immediate antecedent of an individual's behaviour. According to Ajzen and Fishbein (1980), the TRA posits that "most behaviours of social relevance are under volitional control and are thus predictable from intention" (p. 41). The theory also suggests that because many extraneous factors influence stability of intention, the relationship between intention and behaviour depends on two factors: (a) the measure of intention must correspond to the behavioural criterion in action, target, context, and time; and (b) intention does not change before the behaviour is observed (Ajzen and Fishbein, 1980). The TRA is a general model and, as such, it does not specify the beliefs that are operative for a particular behaviour (Davis et al., 1989). Thus, the researcher using the TRA must first identify the beliefs that are salient for participants regarding the behaviour under investigation. Furthermore, the TRA deals with the prediction, rather than outcome of behaviours (Foxall, 1997). In the TRA, behaviour is determined by behavioural intentions, thus limiting the predictability of the model to situations in which intention and behaviour are highly correlated.

## **2.3 Theory of planned behaviour (TPB)**

The theory of planned behaviour (Ajzen, 1991), an extension of the TRA, tackles the original model's limitations in dealing with behaviours over which people have incomplete volitional control. The TPB suggests that in addition to attitudinal and normative influence, a third element, perceived behavioural control (PBC), also influences behavioural intentions and actual behaviour. The TPB extends the TRA to account for conditions in which individuals do not have full control over the situation. According to the TPB, human action is guided by three kinds of considerations: (a) behavioural beliefs about the likely outcomes of the behaviour and the evaluations of these outcomes; (b) normative beliefs about the normative expectations of others and the motivation to comply with these expectations; and (c) control beliefs about the resources and opportunities possessed (or not possessed) by the individual and also the anticipated obstacles or impediments toward performing the target behaviour (Ajzen, 1991). In their respective aggregates, behavioural beliefs produce a favourable or unfavourable attitude toward the behaviour; normative beliefs result in perceived social pressure or subjective norm; and control beliefs give rise to PBC. The TPB is, nevertheless, problematic on several grounds. First, like the TRA, the TPB assumes proximity between intention and behaviour; thus, the precise

situational correspondence is still vital for accurate prediction (Foxall, 1997). As Eagly and Chaiken (1993) pointed out, the assumption of a causal link between PBC and intention presumes that people decide to engage in behaviour because they feel they can achieve it. Second, the operationalization of the theory is troubled by the problem of measuring PBC directly, as opposed to recording control beliefs (Davies et al., 2002; Manstead and Parker, 1995). Third, the theory introduces only one new variable when there is continuing evidence that other factors add predictive power over and above the measures formally incorporated in the TPB (Davies et al., 2002).

## **2.4 EMPIRICAL EVIDENCE**

### **2.4.1 India**

Gupta and Bansal (2012) developed an instrument for measuring internet banking service quality in India and also analysed the impact of Internet banking service quality dimensions on the overall internet banking service quality and customer satisfaction. To measure service quality they also developed scale of 22 items. Exploratory factor analysis resulted into five dimensions: security/privacy, reliability, efficiency, responsiveness, and site aesthetics. Model was further validated through Confirmatory Factor Analysis. A survey was carried on a mixed sample of 1350 Internet banking customers of private sector, public sector and foreign banks in the Delhi Metropolitan Area. Results of multiple regression analysis revealed that security/Privacy dimension carry the maximum impact on the Overall Internet Banking Service Quality whereas customer satisfaction is most impacted by the Efficiency dimension as compared to other dimensions.

### **2.4.2 Nigeria**

Chiemeke et al. (2006) conducted an empirical investigation on adoption of e-banking in Nigeria. The study identified the major inhibiting factors to Internet banking adoption in Nigeria such as, insecurity, inadequate operational facilities including telecommunications facilities and electricity supply, and made recommendations on how Nigeria banks can narrow the digital divide. Also, the report revealed that Internet banking is being offered at the basic level of interactivity with most of the banks having mainly information sites and providing little Internet transactional services.

### **2.4.3 Iran**

Mahdi and Mehrdad (2010) used chi-square to determine the impact of e-banking in Iran and the findings from the viewpoints of customers is that, e-banking cause higher advantages to Iranians. In other words, Iran banks provide services that the customers are deriving satisfaction with particular reference to the use of e-banking. In a similar study, Jayawardhena and Foley (2000) explore e-banking as a new delivery channel arguing that e-banking may help to overcome the inherent disadvantages of traditional banks; it is very clear that if e-banking conducted successfully it leads to big volume of transactions.

### **2.4.4 Thailand**

Nochai's (2013) study looked at the impact of internet banking service dimensions on customer satisfaction in Bangkok, Thailand. Questionnaires were used to collect data. A sample of 450 respondents was used in the research. Results showed that providing 24 hours and 7 days a week service, providing up to date accurate information, fast transaction process and providing online registration were the major factors that have the impact on customer satisfaction. The study recommended that banks should have easy to use websites and there must be a help function.



### 3.0 METHODOLOGY

This study adopted a single research paradigm in which qualitative approaches were used due to the qualitative nature of the research topic. This entailed using the cross-section survey approach to gather data using a structured questionnaire conforming to the Likert scale. The target population of the study comprised of banking customers and 14 commercial banks in Zimbabwe (that is, Agribank, Banc ABC, Barclays, CABS, CBZ, Ecobank, FBC, MBCA, Metropolitan bank, NMB, Stanbic, Standard Chartered, Steward bank as well as ZB bank). For banking customers, key informants included all age groups that have bank accounts and are participants in the banking industry. The sample size of the population comprised of one hundred banking customers. The researchers mainly concentrated on banking customers in Bulawayo. Out of the 14 registered commercial banks in Zimbabwe as the target population, the researchers only carried out the study on a sample of 8 banks owing to time, costs and convenience limitations. The sample is assumed to be a true representative of information on all commercial banks in Zimbabwe. Judgemental sampling was used to study the responses from the banking customers within Bulawayo and the sampled customers were randomly chosen from reference points of banking customers. The researchers used purposive sampling on a sample of 100 banking customers selected purposively by distributing the questionnaires at strategic points around the city. The researchers conducted a judgemental sampling method to obtain a representative sample which would represent less bias on the findings. The researchers then collected the questionnaires for data analysis after a day upon completion. The questionnaires were pilot tested on ten banking customers as well as 6 bank employees to check for validity and reliability. Some questions were rephrased upon seeing that they could disadvantage data collection process, and others were even dropped completely during the pilot test. The researchers kept all the data collected confidentially as noted on the questionnaires.

### 4.0 ANALYSIS, PRESENTATION AND DISCUSSION OF RESULTS

#### 4.1 Questionnaire Response Rate

Table 4.1 below shows the number of questionnaires that were distributed, those returned as well as those that were not returned.

**Table 4.1 Questionnaire Response Rate**

	<b>Distributed questionnaires</b>	<b>Received questionnaires</b>	<b>Response rate Per category</b>	<b>Overall response rate</b>
<b>Category</b>	<b>Freq.</b>	<b>Freq.</b>	<b>%</b>	<b>%</b>
Customer	100	80	80	53.3
Bank employees	50	40	80	26.6
<b>Total</b>	<b>150</b>	<b>120</b>		<b>79.9</b>

**Source: Primary Data**

Of the one hundred questionnaires distributed to bank customers eighty were received back to give a response rate of 80%. Of the 50 questionnaires distributed to bank employees, 40 were turned giving a response rate of 80%.

#### 4.2 Interview Response Rate

Table 4.2 below shows the number of interviews that were scheduled and those that were conducted.

**Table 4.2: Interview Response Rate**

	Number of Interviews
Interviews scheduled	6
Response rate	5(83.3%)

**Source: Primary data**

The results in table 4.2 on the previous page indicate that out of the 6 interviews scheduled, 5 were successful culminating into a response rate of 80%. This response rate makes the results of the study reliable.

### 4.3 Demographics

The study analysed different aspects of respondents' demographic characteristics and their respective impact on electronic banking. Various demographic individualities are shown in tables below.

#### 4.3.1 Distribution by respondents' gender

Table 4.3 below shows the respondents' gender distribution

**Table 4.3 Distribution by respondents' gender**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid male	40	50.0	50.0	50.0
Valid female	40	50.0	50.0	100.0
Total	80	100.0	100.0	

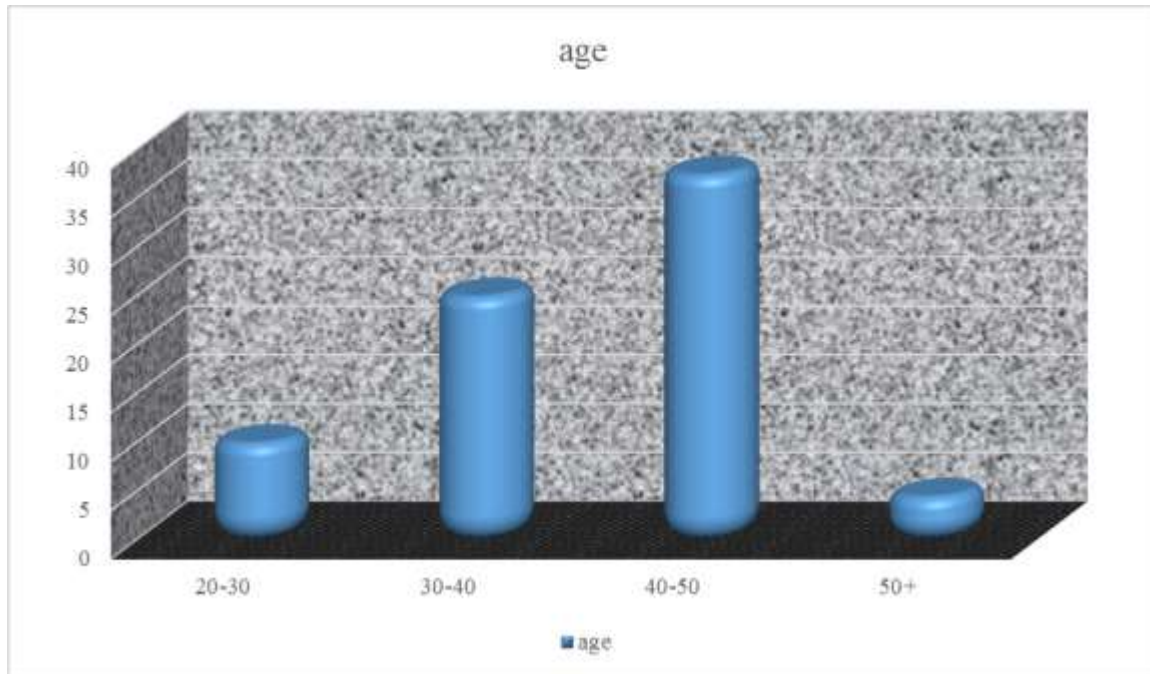
**Source: Primary data**

Of the 80 respondents representing (100%), 40(50%) were males as compared to the other 40(50%) who were female. This shows there was gender parity in the distribution of respondents.

#### 4.3.2 Distribution by age

Figure 4.1 below shows the age ranges of respondents.

**Figure 4.1 Distribution by age**



**Source: Primary data**

An analysis of the above figure revealed that the highest percentage of respondents fell within the 40 to 50 year age bracket. This was followed by 27.5% of respondents who were over 50 years of age, 25% of respondents fell within the 30 to 40 year age group. Only 10% of respondents were less than 30 years of age. The above showed that mature respondents (over 40 years) who were willing to devote their time to participate in the survey.

**4.3.3 Distribution by educational qualification**

Table 4.4 below shows respondents’ educational qualifications.

**Table 4.4: Distribution by educational qualification**

	Frequency	Percent	Valid Percent	Cumulative Percent
completed secondary school	12	15.0	15.0	15.0
diploma	54	67.5	67.5	82.5
degree	14	17.5	17.5	100.0
Total	80	100.0	100.0	

**Source: Primary data**

An analysis of the table above showed that of the total number of respondents (80), 54 which is 67.5% of the respondents were holders of diploma qualifications. This was followed by 17.5% of respondents who indicated that they were holders of degree qualifications and finally 15% of respondents only held secondary school qualifications. The above showed that the diploma

holders were probably the ones who had bank accounts and were also willing to contribute to the survey.

#### 4.3.4 Cross-tabulation by Location and Bank Used

A cross-tabulation done on Table 4.5 below showed two dimensions which are respondents' location and the bank they are using.

**Table 4.5: Cross-tabulation showing location and bank used**

			Place of residence		Total
			High density	low density	
which bank are you using	CBZ	Count	6	4	10
		% within location	11.5%	14.3%	12.5%
	FBC	Count	10	0	10
		% within location	19.2%	0.0%	12.5%
	BARCLAYS	Count	6	4	10
		% within location	11.5%	14.3%	12.5%
	CABS	Count	4	6	10
		% within location	7.7%	21.4%	12.5%
	STANCHART	Count	6	4	10
		% within location	11.5%	14.3%	12.5%
	NMB	Count	8	2	10
		% within location	15.4%	7.1%	12.5%
	BANCABC	Count	6	4	10
		% within location	11.5%	14.3%	12.5%
	STEWARD	Count	6	4	10
		% within location	11.5%	14.3%	12.5%
	Total	Count	52	28	80
		% within location	100.0%	100.0%	100.0%

**Source: Primary data**

The table above shows the relationship between location and bank used by respondents. Of the total number of respondents (80) who reside in high density and low density areas 10 out of 80 (12.5%) were from each of the eight participating banks. Thus there was an equal number of participants from each of the eight commercial banks.

The second aspect cross-analysed was the respondents' location within each participating bank. Of the 52 (100%) respondents who reside in the high density area 6(11.5%) used CBZ as compared to 10(19.2%) who used FBC. This was followed by 6 (11.5%) who used Barclays,



4(7.7%) who used CABS, 6 (11.5% who used Standard Chartered, 8 (15.4%) who used NMB, 6 (11.5%) who used BANC ABC and 6 (11.5%) who used Steward bank. Standard Chartered bank had the highest number of respondents staying in high density suburbs.

Thirdly, of the 28 (100%) respondents who reside in the low density area 4(14.3%) said they used CBZ as compared to 0 (0%) who used FBC. This was followed by 4 (14.3%) who used Barclays, 6(21.4%) who used CABS, 4 (14.3% who used Standard Chartered Bank, 2 (7.1%) who used NMB, 4 (14.3%) who used BANC ABC and 4 (14.3%) who used Steward bank. The above showed that more customers from the low density areas used banking services than those from the high density areas.

#### 4.3.5 Cross-tabulation and frequency of banking

A cross-tabulation done on Table 4.6 below showed two dimensions, respondents' location and their frequency of using bank services.

**Table 4.6 Cross-tabulation and frequency of banking**

		location		Total
		High density	low density	
How often do you use the banks services	Count	38	8	46
	once a month % within location	73.1%	28.6%	57.5%
	Count	14	20	34
	twice a month % within location	26.9%	71.4%	42.5%
Total	Count	52	28	80
	% within location	100.0%	100.0%	100.0%

#### Source: Primary data

From the table above, it was revealed that of the 80 (100%) respondents who reside in high density and low density areas 46 (57.5%) indicated that they used bank services once a month as compared to 34 (42.5%) who indicated that they used bank services twice a month. The second aspect cross-analysed was the respondents' location within the number of times they used the bank services. Of the 52 (100%) respondents who reside in the high density area 38(73.1%) said they used bank services once a month as compared to 14(26.9%) who said they used banking services twice a month. Thirdly, of the 28 (100%) respondents who reside in the low density areas, 8(28.6%) said they used banking services once a month as compared to 20 (71.4%) who use banking services twice a month. The above showed that respondents who resided in the high density areas tended to use banking services only once a month as compared to respondents who resided in the low density areas who tended to use banking service twice a month. This could be attributed to the fact that those who reside in high density areas have low paying jobs and would normally just withdrawing their salaries holus-bolus and exhaust their accounts.

#### 4.3.6 Cross-tabulation showing location and awareness of own bank offering e-banking

A cross-tabulation done on table 4.7 below showed two dimensions, respondents' location and whether they were aware of their respective banks offering e-banking services.

**Table 4.7 Cross-tabulation showing location and awareness of own bank offering e-banking**

		location		Total
		High density	low density	
Have you ever heard that your bank has electronic banking services	Count	52	28	80
	YES % within location	100.0%	100.0%	100.0%
Total	Count	52	28	80
	% within location	100.0%	100.0%	100.0%

**Source: Primary data**

Of the 80 (100%) respondents who reside in high density and low density areas 80 (80%) indicated that they were aware of their bank offering e-banking services. This can be attributed to the fact that the banks are waging an effective campaign to educate their customers about e-banking services.

#### 4.3.7 Cross-tabulation showing location and forms of electronic banking services used

A cross-tabulation done on Table 4.8 below showed two dimensions, respondents' location and which e-banking platform they used at the bank.

**Table 4.8 Cross-tabulation showing location and forms of electronic banking services used**

		location		Total
		High density	low density	
Which service do you use?	automated teller machines	Count 24	6	30
	% within location	46.2%	21.4%	37.5%
mobile banking	Count	10	12	22
	% within location	19.2%	42.9%	27.5%
point of sale	Count	18	10	28
	% within location	34.6%	35.7%	35.0%
Total	Count	52	28	80
	% within location	100.0%	100.0%	100.0%

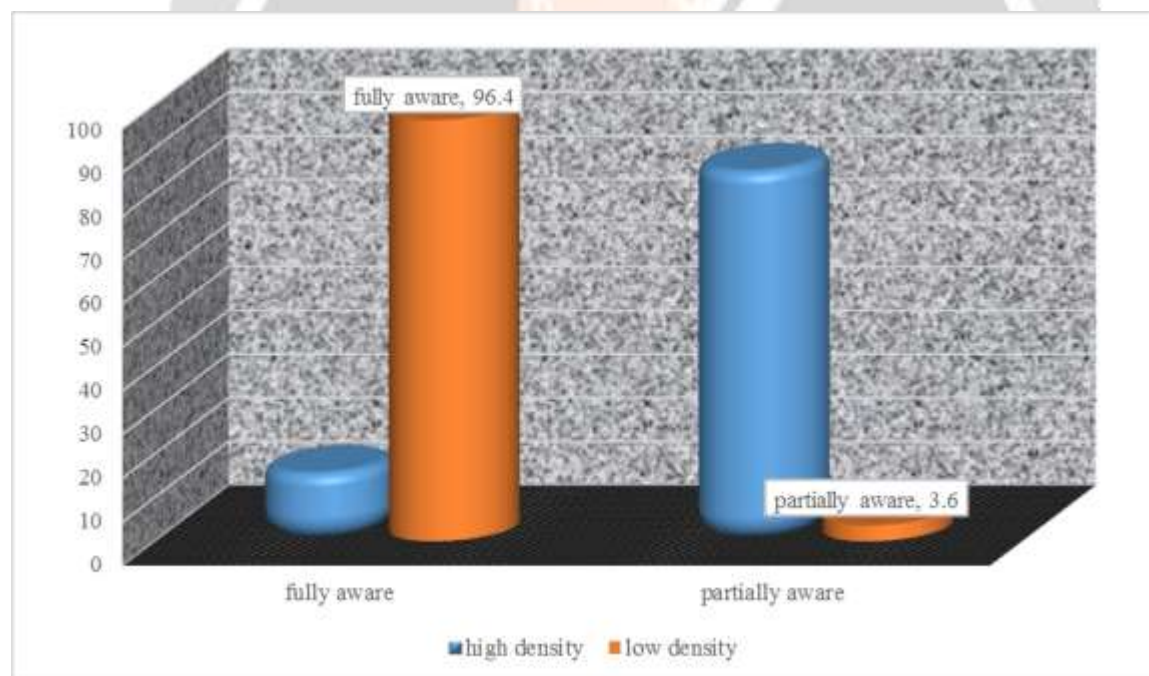
**Source: Primary data**

Results revealed that of the 80 (100%) respondents who reside in high density and low density areas 30 (37.5%) indicated that they used the ATM machines as compared to 22 (27.5%) who indicated that they used the mobile banking platform and 28 (35%) who indicated that they used the Point of sale platform. The second aspect cross-analysed was the form of e-banking platform they used within their different residential areas. Of the 52 (100%) respondents who reside in the high density area 24(46.2%) said they used the ATM e-banking platform, as compared to 10(19.2%) who said they used the mobile banking platform and 18 (34.6%) who said they used the POS platform. Secondly, of the 28 (100%) respondents who reside in the low density areas, 6(21.4%) said they used the ATM platform as compared to 12 (42.9%) who said they used the mobile banking platform and 10 (35.7%) who said they used the POS platform. The above showed that respondents who resided in the high density areas favored ATMs and Point of sale platform as compared to those in the low density areas who tended to favour the mobile banking platform.

#### 4.3.8 Cross-tabulation on location and awareness of use of e-banking services

Figure 4.2 on the next page showed two dimensions, respondents' location and their level of awareness on the use of e-banking services.

**Figure 4.2: Location and awareness of use of e-banking services**



#### Source; Primary data

The study revealed that of the 80 (100%) respondents who reside in high density and low density areas 35 (43.8%) indicated that they were fully aware on the use of e-banking services as compared to 45 (56.3%) who indicated that they were only partially aware on the use of – banking services. This may be attributable to poor marketing strategies being used by banks in making electronic banking products. The second aspect cross-analysed was the respondents' level of awareness of e-banking services within their different residential areas. Of the 52 (100%) respondents who reside in the high density area 8(15.4%) said they were fully aware of e-banking services as compared to 44(84.6%) who said they were only partially aware on the use

of e-banking services. Secondly, of the 28 (100%) respondents who reside in the low density areas, 27 (96.4%) said they were fully aware of the use of e-banking services as compared to 1 (3.6%) who said they were only partially aware of the use of e-banking services. The above showed that respondents who resided in the high density areas tended to be fully aware of the e-banking services as compared to those in the low density areas who tended to be only partially aware of the use of e-banking services.

#### 4.3.9 Impact of age on frequency of using e-banking services

The table below is a test on whether age has an impact on the uptake of e-banking services. A cross tabulation below shows two dimensions of how often respondents use banks services according to age

**Table 4.9 Crosstab on the Impact of age on frequency of using e-banking services**

			age				Total	Chi-square test
			20-30	30-40	40-50	above 50		
How often do you use the banks services	once a month	Count	2	6	24	14	46	.001
		%	25.0%	30.0%	80.0%	63.6%		
twice a month	Count	6	14	6	8	34		
	%	75.0%	70.0%	20.0%	36.4%	42.5%		
Total	Count	8	20	30	22	80		
	%	100.0%	100.0%	100.0%	100.0%	100.0%		

#### Source: Primary data

The table above is a test on whether age has an impact on the uptake of e-banking services. A cross tabulation above shows two dimensions of how often respondents use banks services according to age. From the 80 (100%) of the respondents (46) 57.5% indicated they use the facility once a month and (34) 42.5% of them indicated they use it twice a month. The second aspect analysed their use age according to age 14 (63.6%) respondents of the age 50+ indicated they use it once a month, this was followed by 24(80%). This was supported by the chi square test that was done which showed that there was a significant difference between a user's age and how often they use banking services.

#### 4.4 VARIABLES INFLUENCING UPTAKE OF E-BANKING AND IMPACT ON CUSTOMERS

This question was analyzed using descriptive statistics as it sought to compare the views of all 8 banks' customers on convenience, reliability and responsiveness. In this section respondents' responses were measured on a 5 point Likert scale from 1 (not at all) to 5) and it is the means within the various subcategories which are compared in order to establish the variables that have influenced the uptake of e-banking by bank customers and their impact on banking customers..

##### 4.4.1 Convenience, reliability and responsiveness influencing uptake of e-banking

Table 4.10 below shows variables influencing uptake of e banking by customers. The variables are convenience, reliability and responsiveness of e-banking services

**Table 4.10 Convenience, reliability and responsiveness influencing uptake of e-banking**

which bank are you using		convenience	reliability	responsiveness
CBZ	<b>Mean</b>	<b>2.6750</b>	<b>2.8000</b>	<b>2.2000</b>
	N	10	10	10
	Std. Deviation	.10541	.00000	.48305
FBC	<b>Mean</b>	<b>2.7250</b>	<b>2.7200</b>	<b>2.7500</b>
	N	10	10	10
	Std. Deviation	.09860	.10328	.23570
BARCLAYS	<b>Mean</b>	<b>3.0750</b>	<b>3.3600</b>	<b>3.9500</b>
	N	10	10	10
	Std. Deviation	.22973	.15776	.10541
CABS	<b>Mean</b>	<b>2.9250</b>	<b>3.5200</b>	<b>3.7500</b>
	N	10	10	10
	Std. Deviation	.10541	.10328	.16667
STANCHART	<b>Mean</b>	<b>2.8750</b>	<b>3.6000</b>	<b>4.0000</b>
	N	10	10	10
	Std. Deviation	.08333	.13333	.00000
NMB	<b>Mean</b>	<b>2.6250</b>	<b>2.9600</b>	<b>2.5500</b>
	N	10	10	10
	Std. Deviation	.08333	.27968	.42164
BANCABC	<b>Mean</b>	<b>2.6500</b>	<b>2.9600</b>	<b>2.7500</b>
	N	10	10	10
	Std. Deviation	.09860	.20656	.76376
STEWART	<b>Mean</b>	<b>2.6500</b>	<b>3.1600</b>	<b>2.1000</b>
	N	10	10	10
	Std. Deviation	.19365	.15776	.35746
Total	<b>Mean</b>	<b>2.7750</b>	<b>3.1350</b>	<b>3.0063</b>
	N	80	80	80
	Std. Deviation	.20126	.34681	.82194

**Source: Primary data**

The table above revealed the average mean response score for answers to the question on convenience of e-banking platforms. The question was checking the extent to which customers agree or disagree on the convenience of electronic banking services offered by their banks. CBZ recorded the lowest mean score to indicating a (3.133-not sure) showing that to the bank customer CBZ's e-banking services are sometimes convenient. The standard deviation score of 0.358 shows that the responses were homogeneous. For the remaining banks, the mean score is on agree basis with the lowest being (3.667-agree) for FBC bank and the highest being that of BANC ABC with a (4.1335-agree). Responses were homogeneous for all banks.

In terms of reliability, FBC has the least score. The mean score on reliability indicates a (2.720-not sure) showing that to the bank customer FBC's e-banking services are sometimes reliable. The standard deviation score of 0.358 shows that the responses were homogeneous. Standard chartered bank however is at the other end of the spectrum with the highest score. The mean score to the above question indicates a (3.600-agree) showing that to the bank customer Standard Chartered's e-banking services are reliable. The standard deviation score of 0.281 shows that the responses were homogeneous.



In terms of responsiveness of e-banking platforms provided by respondents' banks, Steward bank has the least score. The mean score to the above question indicates a (2.100-disagree) showing that to the bank customer Steward's e-banking services are the least responsive. The standard deviation score of 0.357 shows that the responses were homogeneous. Standard Chartered bank's mean score to responsiveness indicates a (4.000-agree) showing that to the bank customer, Standard Chartered bank's e-banking services are the most responsive. The standard deviation score of 0.000 shows that the responses were homogeneous.

#### 4.4.2 Charges, ease of access and security influencing uptake of e-banking

These variables were analyzed using descriptive statistics as it sought to compare the views of all 8 banks' customers on electronic banking charges, ease of access and security. In this section respondents' responses are measured on a 5 point Likert scale from 1 (not at all) to 5) in order to establish the variables that have influenced the uptake of e-banking by bank customers and their impact on banking customers. Table 4.11 shows how charges, ease of access and security influence uptake of e-banking

**Table 4.11 Charges, ease of access and security influencing uptake of e-banking**

which bank are you using		Charges	Ease of access and use	Security
CBZ	Mean	3.1333	2.6667	3.1000
	N	10	10	10
	Std. Deviation	.35832	.24845	.21082
FBC	Mean	3.6667	2.8667	3.2000
	N	10	10	10
	Std. Deviation	.58794	.30225	.10541
BARCLAYS	Mean	3.6667	3.1667	3.2500
	N	10	10	10
	Std. Deviation	.44444	.45812	.16667
CABS	Mean	3.8000	2.6333	3.1000
	N	10	10	10
	Std. Deviation	.28109	.30225	.12910
STANCHART	Mean	4.0000	2.8667	3.3500
	N	10	10	10
	Std. Deviation	.00000	.30225	.12910
NMB	Mean	4.0000	2.5667	3.2000
	N	10	10	10
	Std. Deviation	.00000	.21082	.10541
BANCABC	Mean	4.1333	2.6333	3.2000
	N	10	10	10
	Std. Deviation	.28109	.23307	.19720
STEWART	Mean	3.4667	3.1333	3.3000
	N	10	10	10
	Std. Deviation	.35832	.20488	.19720
Total	Mean	3.7333	2.8167	3.2125

N	80	80	80
Std. Deviation	.45128	.35539	.17384

#### Source: Primary data

The findings reveal CBZ had the least score on e-banking services efficiency. The mean score to the above question indicates a (3.133-not sure) showing that to the bank customer CBZ's e-banking services are the least efficient. The standard deviation score of 0.358 shows that the responses were homogeneous. BANC ABC has the highest score in terms of efficiency. The mean score indicates a (4.1333-agree) showing that to the bank customer, BANC ABCs' e-banking services are the most efficient. The standard deviation score of 0.281 shows that the responses were homogeneous.

With regards to ease of access and use, NMB bank had the least score - The mean score to indicates a (2.556-disagree) showing that to the bank customer NMB' e-banking services are the most difficult to use. The standard deviation score of 0.210 shows that the responses were homogeneous. However Barclays bank score indicates a (3.167-agree) showing that to the bank customer Barclays' e-banking services are most easy to use. The standard deviation score of 0.444 shows that the responses were homogeneous

#### 4.5 Benefits of Electronic Banking to Customers

In this section respondents view on the benefits of using e-banking platforms was measured on a 5-point Likert scale, from 1 (strongly disagree) to 5 (strongly agree). Table 4.12 below shows descriptive statistics showing perceived benefits of internet banking services

**Table 4.12 Descriptive Statistics showing benefits of internet banking services**

Customers (N=80)	N	Mean	Std. Deviation
Secure		2.65	.858
Lower transaction costs		2.90	.208
Confidentiality		3.00	.675
Clear flow of process that is fast		2.43	1.271
Accessibility to money beyond normal branch working hours		4.05	.710
No need for waiting in long queues for service		4.30	.644
Easy payment of bills		3.08	.911
Convenience		3.23	.616

#### Source: Primary data

From the findings, the mean of 2.65 indicates that on average respondents perceive e-banking services to be unsecure hence they are 'not sure'. The standard deviation score of "0.858" shows that the respondents were homogeneous in their responses, therefore this means that commercial bank customers had a similar and common views regarding the security of e-banking services. The mean of 2.90 indicates "not sure" that on average respondents are saying sometimes e-banking services charge lower transaction costs. The standard deviation score of "0.208" shows that the respondents were homogeneous in their responses, therefore this means that commercial bank customers had a similar and common views regarding the lower transaction costs charged

by e-banking services. The mean of 4.05 indicates “agree” hence on average, respondents are agreeing that e-banking services are accessible beyond normal branch hours. The standard deviation score of “0.710” shows that the respondents were homogeneous in their responses, therefore this means that commercial bank customers had a similar and common views regarding the accessibility to money beyond normal branch working hours through e-banking services. The mean of 3.23 indicates “not sure” and that on average respondents are saying sometimes there is convenience in the use of e-banking services. The standard deviation score of “0.616” shows that the respondents were homogeneous in their responses, therefore this means that commercial bank customers had a similar and common views regarding the convenience e-banking services. The above therefore shows that while generally the customers were agreed on the benefits of e-banking services they remained skeptical about the security aspect surrounding e-banking services.

#### 4.6 Risks and Benefits of E-banking on Commercial Banks

This section seeks to establish the mean and standard deviation values to questions on the benefits to banks of having e-banking platforms. In this section respondents view on the perceived user perceived benefits of having e-banking platforms was measured on a 5-point Likert scale, from 1 (strongly disagree) to 5 (strongly agree).

##### 4.6.1 Benefits of electronic banking to commercial banks

Table 4.13 below shows descriptive statistics on benefits of electronic banking to commercial banks.

**Table 4.13 descriptive statistics on benefits of electronic banking to commercial banks**

Employees (N40)	N	Mean	Std. Deviation
Increase competitiveness	40	4.55	.504
Widen customer base	40	3.13	.939
Improves profitability of the bank	40	3.90	.871
Improve marketing of bank products	40	4.50	.506
Makes marketing of bank products easy	40	4.68	.474

**Source: Primary data**

Findings on table 4.13 on the previous page revealed that, the mean of 4.50 indicates “agree” hence on average respondents are agreeing e-banking services improve marketing of bank products. A mean of 4.55 for competitiveness indicate that respondents summarily agree that electronic banking increases bank competitiveness. The standard deviation score of “0.504” shows that the respondents were homogeneous in their responses, therefore this means that commercial bank employees had a similar and common views regarding the fact that e-banking services help improve competitiveness

##### 4.6.2 Risks of electronic banking

This section seeks to establish the mean and standard deviation values to questions on the risks of using electronic banking platforms. In this section respondents view on the perceived risks of

using e-banking platforms was measured on a 5-point Likert scale, from 1 (strongly disagree) to 5 (strongly agree). Table 4.14 below indicates the employees' risks perceptions rating of e-banking services.

**Table 4.14 Risks of electronic banking**

Employees (N=40)	N	Mean	Std. Deviation
Compliance risks		4.38	.628
Reputation risks		4.50	.506
Transactional risk		4.40	.709
Information security related risks		4.48	.554

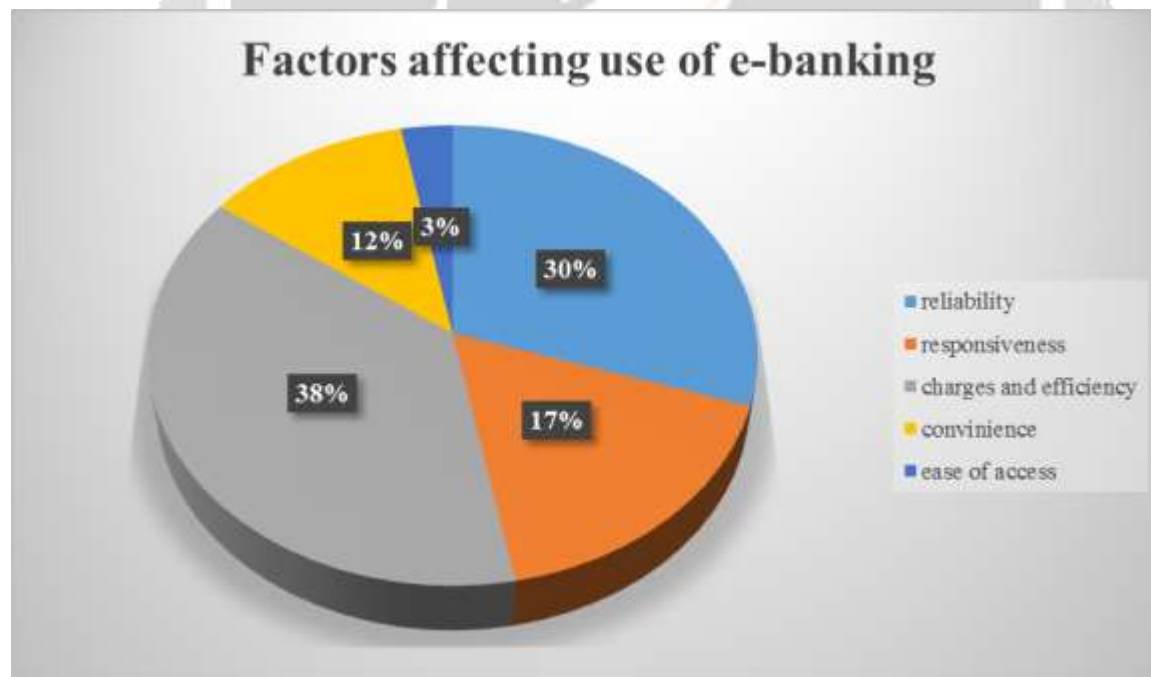
**Source: Primary data**

From the findings a mean of 4.38 indicates “agree” implying that on average respondents are agreeing e-banking services enhance compliance risks. The standard deviation score of “0.628” shows that the respondents were homogeneous in their responses, therefore this means that commercial bank employees had a similar and common views regarding the compliance risks aspects of e-banking services highlighted by employees.

**4.7 Factors Affecting Use Of E-banking**

Figure 4.3 shows factors that influence use of electronic banking services by customers.

**Figure 4.3: Factors affecting use of electronic banking**



**Source: Primary data**

Findings revealed that many customers use electronic banking because of charges and efficiency as shown on the figure above. Low cost and efficient electronic banking increases use of

electronic banking. Reliability has the least percentage (3%) while ease of access has the second highest percentage in determining use of electronic banking by banking customers.

**4.8 Impact of E-banking on Commercial Bank Competitiveness**

Impact of – banking on commercial bank competitiveness was analyzed using Regression analysis. Stepwise method was employed to identify the e-banking services that have an impact on their competitiveness as banks.

**4.8.1 Regression analysis on the impact of e-banking on bank competitiveness**

Table 4.15 shows regression analysis on the impact of e-banking on bank competitiveness.

**Table 4.15 Regression analysis on the impact of e-banking on bank competitiveness**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.676 <sup>a</sup>	.458	.413	1.767	.458	10.262	6	73	.000

a. Predictors: (Constant), secu, respns, charg, eas, convenie, relaib

**Source: Primary data**

The table on the preceding page is a model summary extracted from regression analysis. The model has an adjusted R Square value of 0.458, meaning that 45.8% of the variance in banks competitiveness is accounted for by the service quality variables that are security, responsiveness, charges, ease of access, convenience and reliability.

**4.8.2 Variables that predict bank competitiveness**

Table 4.16 below shows the variables included that contributed to the prediction of the dependent variable (banks competitiveness). The table below compares the contribution of each independent variables, and to show whether they have a statistical significant difference on banks competitiveness.

**Table 4.16 Variables that predict bank competitiveness**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-3.305	4.749		-.696	.489
convenie	-4.485	1.309	-.391	-3.427	.001
relaib	4.152	.855	.625	4.857	.000
respns	-1.280	.392	-.456	-3.268	.002
charg	2.078	.468	.407	4.440	.000
eas	1.026	.640	.158	1.604	.113
secu	.134	1.295	.010	.104	.918

a. Dependent Variable: which bank are you using

**Source: Primary data**

From the findings, taking the value of R2 to be the explanation power of regression model, these 6 bank service quality variables can clearly explain 45.8% of the variation on banks



competitiveness. Considering the beta coefficient of each independent variable and its significant level, the results revealed that 4 components of service quality that include convenience, reliability, responsiveness, charges have a significant impact on banks competitiveness (at the 5% significance level). This means that the more the bank is able to meet these dimensions the better it will be able to satisfy its customers and out do its competitors. However considering the statistical significance (p-value), assurance with a p-value of .001, meaning the variable makes a significant contribution to the customer satisfaction. Reliability and convenience, responsiveness, charges and efficiency have sig. values of .000 , 001, 002, 000 respectively which is less than the sig value .05, showing there is a significant contribution to banks competitiveness. The other variables ease of access and security had sig. values of .113 and .918, which is greater than .05, therefore this concludes that these two variables contribute no significance to bank competitiveness. The results reveal that electronic banking reliability has an impact on commercial bank competitiveness. Convenience, responsiveness, charges and efficiency also have an impact on commercial bank competitiveness as it uses electronic banking in providing services to customers. However ease of access of electronic banking access and security do not have an impact on commercial bank competitiveness as stand-alone factors. This means that customers have less security and ease of access concerns when they transact electronically. This can be attributable to secure means of transaction for the majority of customers that is mainly composed of mobile banking which is not prone to hacking.

#### 4.8.3 Levene's test for equality of variances

Table 4.17 shows an Independent samples t-test that addresses the differences in response to the impact of e-banking services on the banks competitiveness.

**Table 4.17: Levene's test for equality of variances**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
conve nie	Equal variances assumed	.212	.651	-1.095	18	.288	-.05000	.04564	-.14589	.04589
	Equal variances not assumed			-1.095	17.920	.288	-.05000	.04564	-.14592	.04592
relaib	Equal variances assumed	216.000	.000	2.449	18	.025	.08000	.03266	.01138	.14862
	Equal variances not assumed			2.449	9.000	.037	.08000	.03266	.00612	.15388
respns	Equal variances assumed	19.636	.000	-3.236	18	.005	-.55000	.16997	-.90709	-.19291
	Equal variances not assumed			-3.236	13.056	.006	-.55000	.16997	-.91703	-.18297
charg	Equal variances assumed	9.228	.003	-2.449	18	.025	-.53333	.21773	-.99077	-.07589

	Equal variances not assumed			-2.449	14.875	.027	-.53333	.21773	-.99776	-.06891
eas	Equal variances assumed	.358	.557	-1.616	18	.123	-.20000	.12373	-.45994	.05994
	Equal variances not assumed			-1.616	17.350	.124	-.20000	.12373	-.46064	.06064
secu	Equal variances assumed	8.036	.011	-1.342	18	.196	-.10000	.07454	-.25659	.05659
	Equal variances not assumed			-1.342	13.235	.202	-.10000	.07454	-.26073	.06073

#### Source: Primary data

The above Independent samples t-test addresses the differences in response to the impact of e-banking services on the banks competitiveness. From the findings, there was a significant difference on the services provided by the different banks. The Levene's test on differences shows that there was no statistical significant difference on convenience within the different banks, the p-value for convenience was .651 which is more than 0.05 level of significance.

Reliability, responsiveness, charges and efficiency had p-values of .000, .000 and .003 of significance level which is less than 0.05, meaning there was a statistical significant difference of the e-banking services among the banks. The other two variables ease of access and security had p-values of .557 and .011 level of significance respectively meaning there was a no statistical significant difference on the way the e-banking services were provided across all banks.

#### 4.8 Hypothesis Testing

The one-way ANOVA was used to test for differences between the banks, to see the impact of e-banking on commercial bank competitiveness based on quality of services. Table 4.19 shows Analysis of variance (ANOVA) for different banks in terms of bank competitiveness.

**Table 4.18 Analysis of variance (ANOVA) for different banks**

		Sum of Squares	df	Mean Square	F	Sig.
Convenience	Between Groups	1.888	7	.270	14.792	.000
	Within Groups	1.313	72	.018		
	Total	3.200	79			
responsiveness	Between Groups	42.422	7	6.060	39.848	.000
	Within Groups	10.950	72	.152		
	Total	53.372	79			
Security	Between Groups	.538	7	.077	2.988	.008
	Within Groups	1.850	72	.026		
	Total	2.388	79			
Charges	Between Groups	7.467	7	1.067	8.907	.000
	Within Groups	8.622	72	.120		
	Total	16.089	79			

#### Source: Primary data

**H<sub>0</sub>- E-banking has no impact on commercial bank competitiveness.**

**H<sub>1</sub>- E-banking has an impact on commercial bank competitiveness.**

The table above shows the output of the ANOVA analysis and whether there is a statistically significant difference between two groups. For convenience, responsiveness, security, charges, the significance value is .000 (i.e.,  $p=000$ ), which is below 0.05 of the significance level. Therefore, there is a statistically significant difference of convenience, responsiveness, security and charges among the banks meaning e-banking does make a bank more competitive than the other, as it improves customer satisfaction. The results above rejected the null hypothesis, therefore concluding e-banking has an impact on commercial bank competitiveness.

## **5.0 CONCLUSION AND RECOMEDATIONS**

### **5.1 Conclusion**

The research analysed the impact of electronic banking commercial bank competitiveness in Zimbabwe. The study established that electronic banking affected customers both positively and negatively. Benefits that accrue to banks include improved marketing of bank products, increased number of customers among others. Benefits to customers include convenience, ease of access and security among others. According to Thornton and White (2001) this ultimately leads to improved customer satisfaction. The study also concludes that commercial banks in Zimbabwe have adopted different forms of electronic banking such as internet banking, telephone banking, ATMs and Point of sale (PoS) to use in distributing their products and services to their customers. Bankers resoundingly agree that internet banking significantly improve service delivery and increase uptake and usage of electronic banking. It was realized that internet banking offers a cheap way of transacting by customers, including funds transfers, balance inquiries, pay bills, and placing and/or cancelling cheques. The study established that electronic banking affected customers both positively and negatively. Benefits that accrue to banks include improved marketing of bank products, increased number of customers among others. Benefits to customers include convenience, ease of access and security among others. Internet banking was perceived to be beneficial to some banking customers. Efficiency, responsiveness, reliability among others were main benefits as perceived by the banking customers. These perceived benefits however determine the uptake of electronic banking by banking customers.

The studies revealed that security is a cause for concern to the banking customers. The impact of internet banking in terms of security has made a negative impact on the banking customers according the findings. Banking customers have refrained from using internet banking because of fraud. Customers are skeptical about keeping 100% of their funds within the banking vicinity hence this has led to a decline in savings and hence a fall in deposits also. However banks have not responded in improving and assuring customers that their electronic security is reliable and therefore it has led to customers conducting less of banking activities. According to (Hoffman et al.1999) some people fear internet banking because they lack of trust in the online environment due to the greater perception of risk and insecurity. The study concludes that electronic banking has a positive impact on commercial bank competitiveness. Increased customer satisfaction as a result of high quality service increase uptake of electronic banking and therefore give a competitive edge to a bank. In this regard, Mattila et al (2002) also notes that the attraction for consumers to use online banking can explained mainly in the following aspects: services offering anywhere and anytime, the round-the-clock availability and avoidance of long time waiting queues, speed, low price (operation cost-saving) et cetera. In this regard electronic banking can be used a competitive tool by commercial banks. Results reveal that electronic banking increases customer satisfaction and consequently increase customer base.

This concurs with findings by Al-Sukkar and Hasan (2005) who argued that benefits that have accrued because of the adoption of electronic banking in developed countries include the ability to attract new customers and widening the customer database, improving bank marketing and communication, and having the ability to retain high profit customers. The research concludes that some clients are not aware of electronic banking services offered by their respective banks. Awareness of bank services offered is critical for the adoption thereof. This is in sync with Molla (2002) who argues that creation of awareness among the consumers of the product or service is critical for the adoption or acceptance of any innovative service or product.

## 5.2 RECOMMENDATIONS

The following recommendations are thus suggested:

- i. Banks should improve the pricing models based on internet banking. The pricing should resemble international standards so that the impact of using internet banking is effective in terms of costs. Lower transaction cost results in more customers adopting electronic banking and increasing transaction frequency
- ii. Banks should invest in security to do away with hacking of accounts. They need to use passwords, antiviruses and constantly upgrade internet security so as to instill confidence in the customers to adopt and continuously use electronic banking.
- iii. Advertising of internet banking products should be informing and educating clearly indicating the usefulness of using internet banking. Their marketing strategies should target the different demographic groups so as to prepare and deliver the adequate specifications of each group. This will improve the uptake of internet banking by all banking customers.
- iv. Banks network infrastructure should be improved so as to enhance efficiency and convenience of using internet banking effectively. A good network infrastructure will enable banks to deliver quality service which will result in customer retention and a strong relationship building between the banks and the customers.
- v. The central bank as a regulator should engage the government to increase investments in education and infrastructure development to enable more banks to increase their internet services.
- vi. The central bank of Zimbabwe ought to also engage the state to subsidize the cost of internet installations and also to upgrade electricity distribution. This enables customers to easily access their internet banking portals.

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