Virtual Banking Adoption And Customers' Satisfaction In Zimbabwe

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ABSTRACT

Virtual Banking is a new phenomenon emerging in the Zimbabwean banking sector. It has assisted in offering low cost and convenient banking solutions to the traditionally unbanked lower end of the market through the use of internet technology and Information Communication Technologies (ICTs). The rivalry among players in the financial services sector has given birth to such innovative banking solutions. Literature revealed that Virtual Banking has many benefits compared to branch banking. The research used random sampling focusing on commercial banks customers and employees across the banking sector. Primary data were collected using questionnaire for this descriptive research. The study revealed that education, age and income play an important role in Virtual banking adoption by customers. It recommended that the banking sector should fully recapitalize itself, acquire the latest Information and Communication Technology and partner with key stakeholders to form formidable business ecosystems.
Keywords: *Virtual Banking, Banking sector, Internet Technology*

INTRODUCTION

This research seeks to establish the impact of the adoption of Virtual Banking by commercial banks to customers in Zimbabwe. Traditionally, banking services have been offered through brick and mortar branches with the traditional 4Ps (Product, Place, Price, Promotion) and the soft Ps (People, Processes, Physical evidence) of marketing playing a critical role. A rapid evolution in technology over the past decade has brought unprecedented changes in the banking industry. Virtual Banking is the gift of the Information Technology to the fast pace life, where individuals can do all their banking anywhere anytime through the internet (Young, 2001). The entire world is fast adopting the internet, incorporating it in various aspects of everyday life. The world over, bankers were wondering whether virtual banking was another capital budgeting project for launching a novel delivery channel, or a paradigm shift in the nature of doing business (Dandapani and Lawrence, 2008).

The prior decade witnessed the launching of scores of new virtual banks in the developed world, and of these, two thirds were successful, while a third of them did not survive. By the end of 2000, in the United States, more than 3,000 financial institutions had developed some type of internet banking capabilities and more than 40 Virtual banks, banks with no bricks and mortar branches and which operate only on the internet (Dandapani and Lawrence, 2008). An increasing number of depositors switched to online banking, then it becomes the more economical and optimal way of delivering banking services.

According to Gordijn, Akkermans, and van Vliet (2000), the bank`s electronic business model (e-business model) can be described using a simple approach that consists of nine basic business model building blocks (figure 1). Virtual Banking system thrives on high volume of transactions given its low cost to customers (Torbay, Osterwalder and Pigneur, 2002). A comparison of charges for Virtual Banking solutions against the traditional banking system in Zimbabwe is summarized on table 2. Electronic banking and branchless banking services enable customers to pay bills, load airtime, access bank balances via mobile phones and computers much to the delight of clients who seek convenience from the comfort of their homes and offices (Banking Survey, 2011).

Banks have also created better communication with customers if they enter into partnership with all mobile network providers (MNOs). Porter (2001) states that a firm must define its channel strategy and understand that the Internet has a great potential to complement rather than cannibalize its business. By changing the costs and risks of distributing financial services, channels outside the branch network have enabled large commercial banks in partnership with Mobile Network Operators (MNO) to contemplate reaching large numbers of unbanked potential customers (World Bank, 2010). The partner network details how the value creation process is distributed among the partners of the firm. Strategic networks are stable inter-organizational ties which are strategically important to participating firms. These may take the form of strategic alliances, joint-ventures, long term buyer-supplier partnerships, and other ties (Gulati, Nohria and Zaheer, 2000). Retailers, the hospitality industry and utility institutions have joined the list of partnerships and alliances that have made Virtual Banking concept acceptable throughout Zimbabwe as shown in figure 2. In Zimbabwe, banking sector`s partners are many; ATM and POS network is serviced and maintained for an agreed fee by network companies for example Celsys, Powertel and Africom. Africom, Powertel, E-Transact, Transaction Payment Solutions (TPS) and Econet provide channels for data transmission throughout banks.

Background to Zimbabwe`s Banking Industry Analysis

Virtual banking is branchless banking (Carmel and Scott, 2009). According to Carmel and Scott (2009), branchless banking is the delivery of financial services outside conventional bank branches using information and communication technologies (ICTs). In Zimbabwe, banking started with free banking as early as 1892 when the first bank was established (Hanke, 2008). At independence in 1980, the country had a more sophisticated financial sector than any African country other than South Africa. Throughout the 1980s the financial sector was tightly controlled and highly oligopolistic, with multinational banks (Barclays and Standard Chartered Bank) dominating the sector. Market entry was restricted and competition limited. Operations were distorted by ceilings imposed on lending and deposit rates, portfolio restrictions, government-directed lending programmes, and exchange controls (Makina, 2009). Presently, the financial sector comprises the Reserve Bank of Zimbabwe (RBZ), commercial banks, merchant banks, building societies, the People's Own Savings Bank (POSB), insurance companies, asset management companies, developmental financial institutions, the Zimbabwe stock exchange, microfinance institutions and money transfer agencies. Most institutions have the majority of their branches in major

cities, although there is a relatively good spread of branches throughout the provinces of the country. Lack of infrastructure such as reliable energy supplies, telecommunications and road network has hindered rural penetration. A survey conducted by the national task force on microfinance in 2006 concluded that the size of the market not served by existing financial institutions is still large. The average banking density was found to be one financial institution outlet per 17,000 inhabitants while in rural areas it was found to be one financial institution outlet per 60,000 inhabitants (Makina, 2009). This implies that less than three percent of the rural folk have access to financial services.

Zimbabwe`s Banking Industry Analysis: Deposits Market Share in 2010

The total deposits for the commercial banks market stood at $1.6bn after recording a 6.5% growth (RBZ, 2011). The graph in figure 3 below reveals that there was not much change of position for all banks in July beside the Interfin - CFX consolidated market share position of 3%. All the other banks were in the region of plus or minus 0.5% of their June positions (Banking Survey, 2011). Total market loans grew by 14% to $1.1billion, while average loan to deposit ratio declined by 4% to 68% (RBZ, 2011). CBZ remained the largest lender in the market with a loan book of $354 million which equates to 33% of all the loans. Kingdom loans stood at $85 million (8%), while its loan deposit ratio increased by 26% to 109%. The other banks with loan deposits ratios above 100% included MBCA (109%), Interfin (122%), and TNF (122%). Agribank and NMB also emerged aggressive lenders with lending-deposit ratios of 94% each. The traditional giants took a cautious approach to lending. Stanbic lending ratio was 38%, Stanchart 44% and Barclays 24% (RBZ, 2011). This is summarized in figure 4.

Adoption and Benefits of Branchless/Virtual banking: Branchless banking has emerged as a promising new approach to accelerate financial institution. By changing the costs and risks of distributing financial services, channels outside the branch have enabled large commercial banks in partnership with Mobile Network operators (MNO) to contemplate reaching large numbers of unbanked potential customers (World Bank, 2008). In recent years, no example of branchless banking has done more to stoke enthusiasm than M-PESA, the mobile payment service offered by Safaricom, Kenya's largest MNO (FSD Kenya, 2009). Since its commercial launch in March 2007, more than 7 million people - approximately one in four adult Kenyans - have signed up.

The proportion of Kenyans considered to be formally financially included has almost doubled to 41% in just 3 years (FSD Kenya, 2009). Research has revealed that there is also a correlation between Mobile penetration and access to financial services in countries such as Kenya that are pursuing virtual banking. Across Africa, the weighted average percentage of the population with access to financial services is approximately 23% (World Bank, 2010). When compared to other regions of the world like North America (91%), the African figure stands out as being pathetically low. The projected figure for Kenya is particularly high due to Safaricom (M-PESA)/ Barclays partnership. This has seen the growth of internet and mobile phones usage for Virtual Banking in Kenya being exponentially phenomenal with the largest growth witnessed in 2007 (World Bank, 2008). Internet and mobile phones have become the basic means of communication and

transacting for most Kenyans regardless of their economic status and geographical location (Kenyan National Bureau Statistics (KNBS), 2009). These technologies have increasingly become affordable to the lower levels of the society and used as a mechanism for greater participation of these groups in the economy and development process (Communications Commission of Kenya (CCK), 2009). Kenya`s internet and mobile phones users are not necessarily the same group of people, with the difference attributed to the fact that mobile phones and the internet, though equally useful in virtual banking, do not necessarily fulfill similar needs (Jagun, Heeks and Whalley, 2007). While they both offer reliable and cost-effective tools serving households information needs such as (conducting business transactions, communication and checking prices of products), households make choices on which technology to use based on the value derived from the usage (RIA, 2007).

Brazil is also a notable pioneer in terms of Virtual Banking and relies on point -of -sale (POS) devices deployed at agents. Following a ramp-up of agents by state and private banks, Brazil could claim by 2005 that every municipality in the country had a financial service point, changing the geography of financial institution (Banco Central do Brasil, 2009). The goals and actions are largely shaped by the material, social and cultural contexts in which people are embedded from individual through family, community, nation state to the increasingly interconnected global society (McGregor, 2006; Gough and McGregor, 2007). Businesses all over the world are riding on these perceptions to derive value from various levels of society, taking into account the demographic structures to customize banking solution offerings.

In Kenya, the number of ATMs has increased seven- fold and bank branches almost doubled since 2003 (FSD Kenya, 2009). In Brazil, the combined ratio of ATMs and branches per 100,000 people grew from 62 in 1999 to 99 in 2009 (Banco Central do Brasil, 2009). This happened at the same time as a massive increase in the number of branchless banking agents in Brazil, an indication that conventional banking channels are far from dying. However, future growth of conventional banking channels faces inherent limits. Kenya`s Equity Bank believes it may soon reach a ceiling on the number of viable branches and ATMs. The investment required for developing countries to reach the level of deployment per capita of conventional touch-points in more developed countries is prohibitive. For example, for Kenya to reach middle-income levels of branches and ATMs at current costs, it would require capital expenditure of US$2 billion, a figure which is six times the pretax profit of the entire Kenyan banking sector in 2008. This makes searching for lower cost channels critical for banks and policy makers responsible for financial institution (World Bank, 2009; Duncombe and Boateng, 2009).

The essential proposition of branchless banking that financial services providers can reduce fixed costs by using existing facilities and devices, whether owned by the customer (mobile phones) or by agents- has caught the attention of service providers, though the record to date has been modest (Wireless Federation, 2009). Recent surveys of customers of branchless channels in Kenya, Brazil, the Philippines, South Africa, and India are starting to build a picture of clients and their usage patterns. About 30 percent of M-PESA users were previously unbanked in 2008 (FSD Kenya, 2009). In Philippines,

26 percent Filipino mobile money users live on less than US$5 per day (Pickens, Porteous and Rotman, 2009). These findings confirm research done in 2006 that more than one-third of clients of South African mobile banking service WIZZIT were previously unbanked (Ivatury and Pickens, 2006). In the Brazilian state of Pernambuco, 90 percent of people in the three poorest segments use banking agents to pay bills (CGAP, 2009). One of the few providers of branchless banking channels meeting the two criteria of serving more than a million active low-end customers and making a profit is the mobile banking business unit of First National Bank (FNB), a large South African commercial bank that has explicitly sought to make mobile payments the prime channel for serving underserved or marginal customers. FNB emphatically claims profitability on a fully cost-absorption basis (FNB, 2006). Despite its large numbers and soaring revenues, the chief executive officer of Safaricom, Michael Joseph, stated in May 2009 that M-PESA had not yet become profitable on a stand alone basis, although the unaccounted benefits of savings on airtime commissions and customer churn undoubtedly make the overall financial picture for M-PESA compelling (Wireless Federation, 2009). This lack of large robust models is hardly surprising, given their recent appearance: branchless or virtual banking for the poor is still in its infancy stage, only in Brazil has branchless banking been underway for a whole decade, triggered by a 1999 change in agent regulation (Banco Central do Brasil, 2009). The social, economic and knowledge dimensions are visibly impacted upon by virtual banking in both Africa and Latin America through the use of internet and mobile phones (Kauffman and Kumar, 2005; Kauffman and Wood, 2007; World Bank, 2010). In these developing countries, particular in Africa, Asia and Latin America, the level of access is particularly poor. Though opportunities also clearly exist in Latin America and Asia, Africa is of particular interest based on the combined impact of:

i Rapidly increasing mobile phone and internet penetration

ii Markets with extremely low access to financial services.

Internet, through virtual banking has the potential to become a mainstream, accessible means of delivering transformational financial solutions (Carmel and Scott, 2009). In India, the competitive pressures and the evolving requirements of consumers have required banks to develop new banking solutions using ICTs. Internet banking, particularly Virtual banking which has revolutionized the banking industry worldwide is a product of innovations that revolves around technologies (Malhotra and Singh, 2010). In general, Internet banking refers to the use of Internet as a delivery channel for banking services, including traditional services such as account opening and funds transfer as well as new banking services , such as electronic bill payment, which allow customers to pay and receive the bills on a bank`s website (Ellis-Chadwick, Doherty and Hart, 2002; Furst, Lang and Daniel, 2002). Internet based electronic banking is one of the newest and least researched but most promising delivery channel for retail banking services (Doherty and Ellis-Chadwick, 2010). Banks using this technology are meeting and exceeding the ever-increasing competition. It has also emerged as a strategic resource to Indian banks for achieving higher efficiency, control of operations and reduction of costs through paperless and automated processes leading to higher productivity and profitability (Malhota and Singh, 2010).

Challenges in Adopting Virtual Banking in Zimbabwe

The landscape for cooperation on internet driven technologies is changing in response to the greater use of ICTs and the development of partner networks. The need to develop effective and long term inter-firm alliances is ever increasing, more so on virtual banking delivery solutions. The need by businesses worldwide to contain costs, utilize the best competencies and deliver high quality products among partners has speared the growth of such arrangements (Colm, Joan and Philip, 2010). Successful branchless banking business models work not only for providers and customers, but also for alliance partners. Providers are dependent on the effort of agents for customer acquisition and for managing liquidity so as to support cash transactions. These agents are viewed as a special category of customers with well structured commissions, rather than a passive channel. In Kenya, a typical M-PESA agent in urban slums and rural areas earn 4.3 times greater profit from being an agent (US$5.01 per day) than selling airtime (US$1.55 per day) (FSD Kenya, 2009). However, this requires high average transaction volumes. M-PESA agents average some 86 transactions per day, but agents in other countries, such as the Philippines, see far fewer customers and struggle to earn sufficient revenue (CGAP, 2009). These agents incur costs such as the cost of maintaining an adequate float of electronic money (e-money), which necessitates frequent time-consuming trips to a bank branch. Considerable work still needs to be done to understand how to build and manage viable agent networks in most countries.

Research in developed countries, mainly Australia and the United Kingdom have shown that greater transaction efficiency through reduced employee numbers and physical facilities in favor of web-based service delivery infrastructure may negatively impact customer perceptions of service quality due to reduced human interaction in service exchanges (Jabnoun and Al-Tamimi, 2003). Although banks attempt to mitigate consumer concerns through providing online accounts that typically attract reduced fees and higher interest, managing the ongoing tension between efficiency and human interaction represents a challenge to banking institutions wishing to encourage ongoing consumer loyalty and retention (Furst, Lang and Daniel, 2002; Carmel and Scott, 2009).

Table 1: Mobile Penetration, Wireless Intelligence Access to Financial Services in Africa

Country	**Access to Financial Services**	**2008**	**2012***
Tanzania	5%	33%	61%
Kenya	10%	49%	101%
Liberia	11%	29%	49%
Mozambique	12%	26%	42%
Sierra Leone	13%	26%	55%
Zambia	15%	31%	63%
Sudan	15%	29%	73%
Nigeria	15%	46%	97%

*Projected.

Source: World Bank (2010)

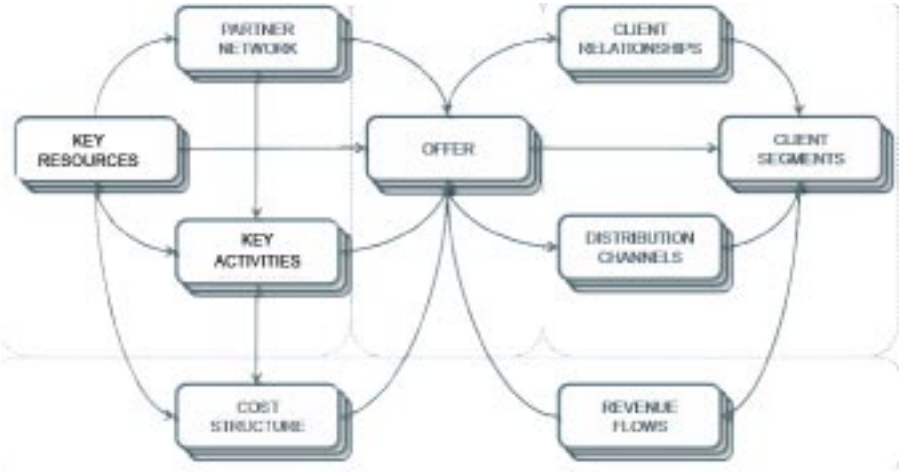

Figure 1: The Building Blocks of Virtual Banking Business Model
Source: Gordijn, Akkermans, and Van Vliet (2000)

Table 2: A comparison of Virtual Banking Versus Traditional Products Pricing

Charge Type	Virtual Banking	Conventional Products-Personal	Conventional banking- Company
Service fees	$1.30	$5	$20
POS Purchase	$0.30 flat fee	N/A	N/A
Withdrawal Fee	0.75% max .90c	1%	1%
Deposit Fee	Free	Free	Free
Transfer fees	$0.15 flat fee	0.5% max $100	0.5% max $200
Statement fees	$0.03 flat	$0.5 per page	$0.5 per page
Airtime top-up	Free	N/A	N/A
Stop order	$1	$10	$10

Source: Banking Survey (2011)

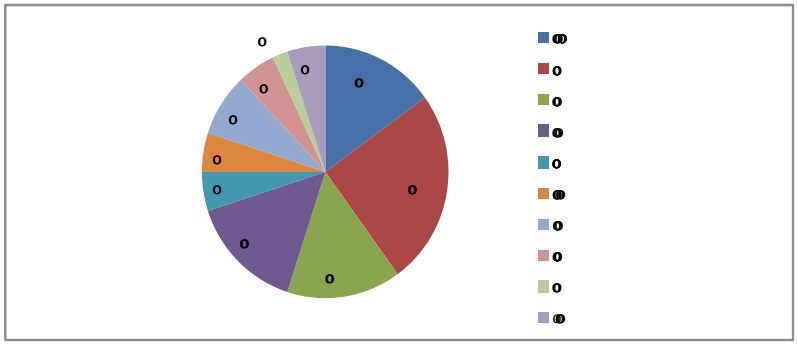

Figure 2: Alliances and Partner Network Participation Levels
Source: Banking Survey (2011).

Figure 3: Deposit Market share for 2010 ***Source:*** Reserve Bank of Zimbabwe (2011)

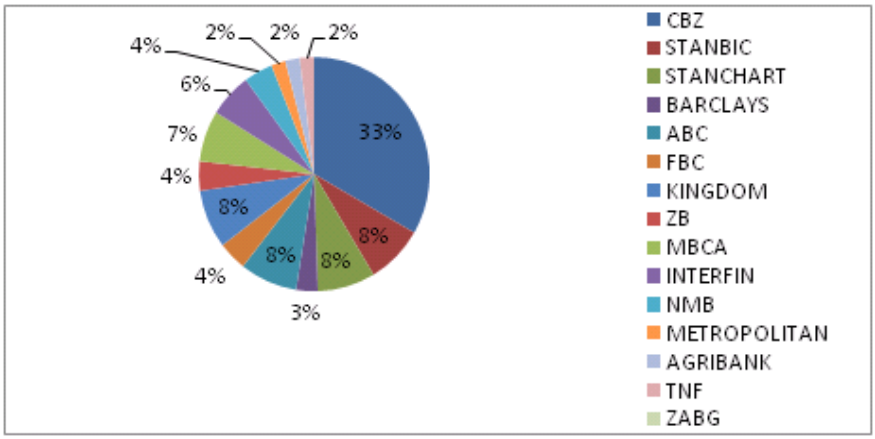

Figure 4: Lending Market Share for 2010. ***Source:*** Reserve Bank of Zimbabwe (2011).

The research seeks to establish the impact of the adoption of Virtual Banking by commercial banks by tapping into the unbanked market through offering low cost and convenient banking solutions. The total deposit base shared by all banks has remained static at $2.7billion. The purpose of this study is, therefore to examine the impact of the adoption of Virtual Banking system as a low cost banking solution crafted by commercial banks as a strategy to tap into the unbanked market in Zimbabwe while at the same time complying with Regulatory and Central Government`s moral suasion for banks to offer low cost and convenient banking to the general public. The study also seeks to evaluate the shortcomings of Virtual Banking system and how commercial banks are managing these challenges and give recommendations on how to ensure that Virtual Banking system model meets the expectations of all stakeholders involved.

The following are thus the objectives of the study:

i To determine the extent of Virtual Banking adoption by commercial banks;

ii To establish whether benefits accrued to the bank after adopting Virtual Banking System; and

iii To assess the challenges being faced by commercial beings in adopting Virtual Banking.

METHOD

The research was conducted using the survey method. Bryman and Bell (2003) point out that a survey enables the researcher to obtain data about practices, situations or views at one point in time through questionnaires or interviews. In this study, the population consists of commercial banks customers, employees and management. A sample size of 350 was found to be representative of the population under study. This was drawn from all the segments of the commercial banking customer base and employees of banks using stratified sampling technique to get fair representation of each segment in its proportion size. Leedy and Ormrod (2010) argue that the larger the sample the better. In order to gather information about the extent to which Virtual Banking is being implemented by commercial banks, a questionnaire was designed. Among the surveyed participants (350 participants sampled), 215 completed and returned the copies of the questionnaire representing a 61.4% response rate. The administration of the questionnaires within the banks respondents was done via e-mail linked to a web-link with automatic submission after completion. The advantage of electronic administration is that it is a cheaper way of communication and data is obtained faster. It also minimized costs of travelling throughout the whole country as the banks branches are located in all major towns and cities. Customer respondents received their questionnaire via the virtual banking platform in the same way e-statements are mailed to them.

RESULTS AND DISCUSSION

Working Status of Respondents: The majority of the respondents (57%) are in full time jobs, 16% are running their own businesses, 11% are students, 7% are in part time jobs and 9% of the respondents are not employed (figure 5). This implies that the salaried people are pressured to open bank accounts mainly for purposes of receiving their salaries from employers. People running their own businesses find it attractive to open Virtual Banking accounts, they need the convenience to allow them to do their banking in the comfort of their premises while also enjoying low banking costs. The combined percentage of students, part-timers and non-working (27%) implies that the banks strategy to use Virtual Banking system to attract the unbanked is proving to be a success. This category with low spending power is very sensitive to bank charges and ordinarily do not open any bank accounts.

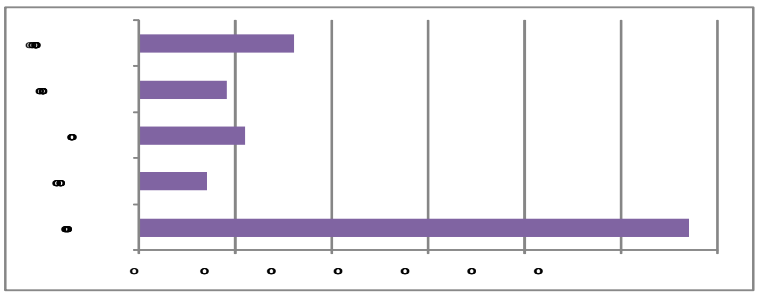

Figure 5: Working Status of Respondents

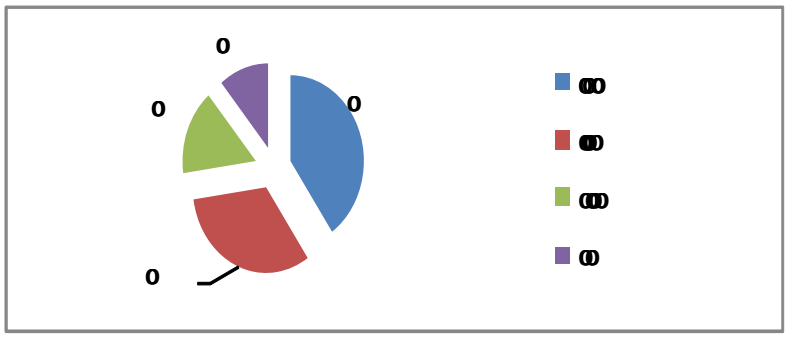

Figure 6: Combined Household Income of Respondents

Combined Household Income: Of the surveyed respondents who answered the questionnaires, 40% have a combined household income less than $500, 32% have between $500 and $1 000, 16% have between $1 000 and $1 500, while 11% are above $1 500 per month. This implies that banks had managed to lure customers from the lower end of the market, an indication that the low cost and convenient Virtual Banking Solution strategy is paying dividends.

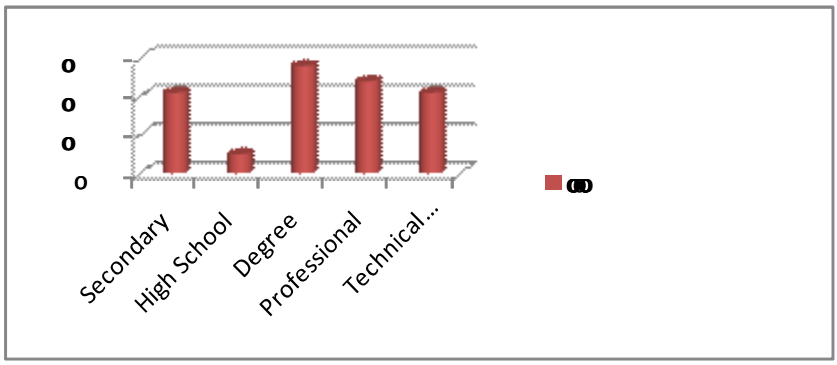

Figure 7: Standard of Education of Respondents

Level of Education Attained: Out of the surveyed respondents who completed and returned the questionnaires, 21% had Secondary education as their highest educational qualification, 24% had Professional level qualification, 28% had degree level qualifications and 21% had Technical College level qualification. Only 5% of the respondents had High School advanced level qualification, implying that the majority are educated and can fully appreciate banking solutions for their financial needs.

Table 3: Age of Respondent`s Account

Age of Account	**Frequency**	**Percentage**
Less than 2	107	49.8%
2 - 5 Years	55	25.6%
6-10 Years	34	15.8 %
Above 10 Years	19	8.8 %
Total	**215**	**100 %**

Of the surveyed respondents, about 50% indicated that they had less than 2 years banking with their current banks, 26% were between two and five years, 15% had five to ten years and 9% had more than ten years operating bank accounts.

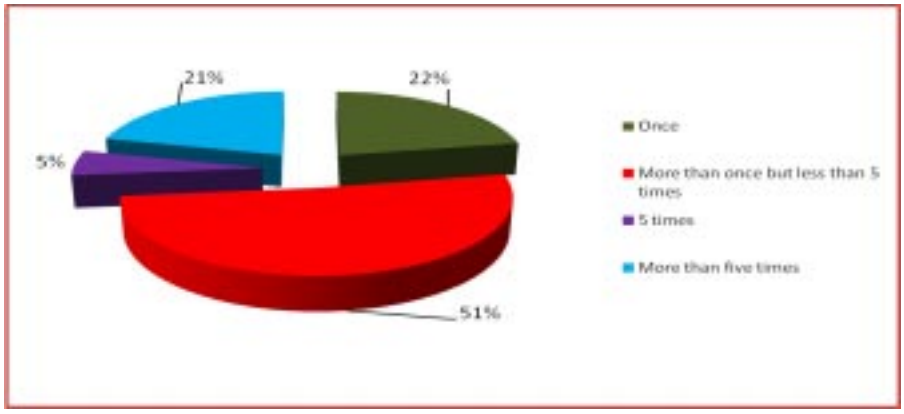

Figure 8: Branch Visits for Banking Solutions

Visits Per Month to Branches For Banking Services: Respondents were asked the number of visits they make to the branch network in a month and results are as shown in figure. Results of the survey indicated that 51% of respondents visit the branches more than once but less than five times per month to access banking solutions, while 22% only visit the branches once per month for the same reasons. A combined 26% visit the branches at least five times per month for banking services. Combining those that visit the branches at most four times per month gives a larger percentage of 73%. This implies that many of the bank`s customers on Virtual Banking platform no longer find it necessary to frequently visit banking halls for services. They are enjoying banking services in the comfort of their homes and offices through the ICT driven Virtual Banking platform.

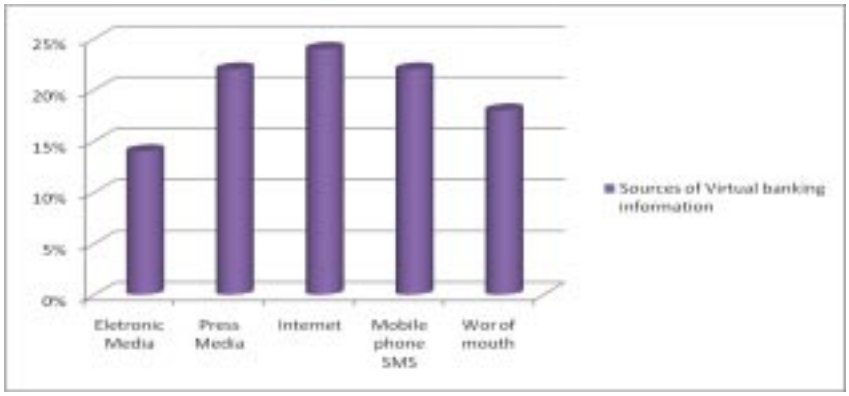

Figure 9: Source of Banking Solutions Information

Sources of Information on Banking Solutions: The questionnaire in this research asked the respondents to state where they obtain information on Virtual Banking system. The results are as shown in figure 11. An analysis of responses from the returned questionnaires indicated that 14% of respondents get Virtual banking information through the electronic media, 22% from press media, 24% from the internet, 22% from mobile phone text messages and 18% through word of mouth. This implies that the dominance of cyberspace and the press as sources of information have been exploited by the bank to

promote the branchless banking solution. The existence of multiple sources of virtual banking information which are equally dominant implies that banks had been very aggressive in the use of promotional mix with an objective to raise awareness of the product to its intended target market.

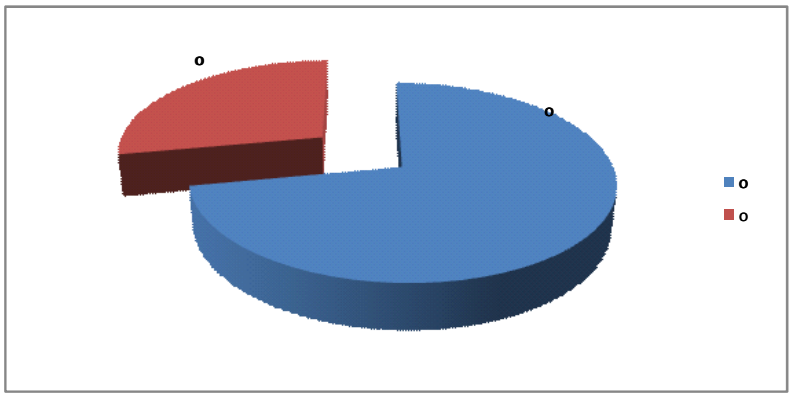

Figure 10: Internet Access

Internet as a means of Accessing Accounts: Respondents were asked whether they had access to internet or not. The results are shown in Figure 10. Out of the respondents who returned questionnaires, 72% indicated that they have access to internet while 28% have no access. This implies that the majority of Virtual Banking customers can transact without the need to visit a branch while a smaller percentage still need to visit the branch for accessing banking solutions. The increasing availability and falling cost of connectivity has enabled real-time connections that previously were not viable and customers can easily connect to their banks easily and cheaply.

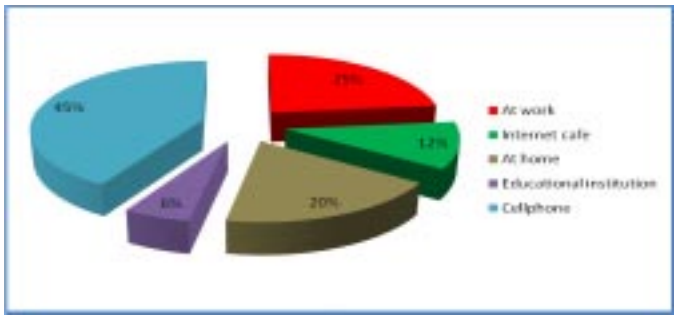

Figure 11: Places where Customers Access their Virtual accounts

Places where Customers Access their Virtual accounts: The questionnaire in this research asked the respondents to indicate where they access their Virtual bank accounts using internet. 45% of the respondents access their virtual bank accounts using their mobile phones, 25% access using computers at the work place, 20% access from their home computers, 12% access from internet cafes, while 6% from learning institutions (figure 11).

Customer retention and market penetration: Respondents were asked about the likelihood of remaining with the bank, adding another product and likelihood of referring others to Virtual Banking, the results are shown in figure 12. Of the respondents 52% indicated they are very much likely to recommend Virtual banking to friends and relatives,

38% indicated they are likely to recommend, 6% indicated they are unlikely to recommend, while 4% indicated they are very unlikely to recommend anyone. Results from respondents showed that 55% of respondents indicated they are very likely to remain customers of their bank through use of Virtual banking, 33% indicated they are likely to remain with the bank, 9% indicated they are unlikely to remain and 3% indicated they are very unlikely to remain. Respondents were asked on the likelihood of opening another Virtual banking account with another bank, 42% indicated they are very likely to have another virtual banking account, 39% indicated they are likely, 11% indicated they are unlikely and 8% indicated they are very unlikely.

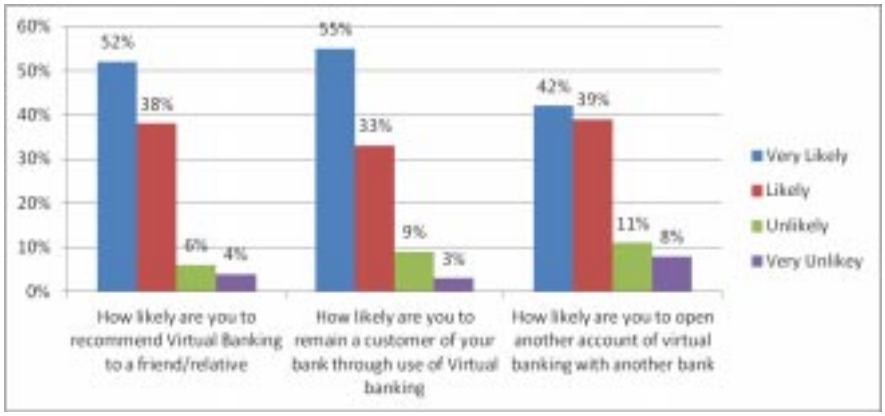

Figure 12: Customer retention and market penetration

Table 4: Analysis of Virtual Banking System Benefits.

No	Ratings of Virtual Banking Benefits	**5**	**4**	**3**	**2**	**1**
1	Queues at the bank are short	55%	20%	11%	5%	9%
2	Branchless service points always up	67%	15%	9%	4%	5%
3	Bank reacts fast to requests	27%	24%	15%	18%	16%
4	Bank employees are ready to assist	16%	9%	4%	22%	49%
5	Branchless system easy to use	21%	29%	2%	11%	37%
6	Bank keep us informed	55%	22%	9%	5%	9%
7	Money is secure on Virtual Banking	64%	13%	7%	11%	5%
8	Bank adheres to confidentiality	66%	11%	4%	16%	3%
9	Branchless banking solutions are cheap	59%	22%	2%	10%	7%
10	Virtual Banking offers convenience	68%	22%	1%	5%	4%

Virtual Banking Benefits Ratings for Commercial Banks by Customers: The survey questionnaire asked respondents to indicate their opinion about various dimensions of Virtual Banking Solution dimensions. A list of options was availed, which required each respondent to indicate the ratings on a Likert scale of five (5) to one (1). Five (5) indicates strongly agree, (4) indicates Agree, (3) is indifferent, (2) indicates disagree, while (1) indicates strongly disagree to the given dimension of banking services solution. The results are shown on Table 4. Table 4 above shows an analysis of the factors that determine the attractiveness of Virtual Banking. Looking at the benefits of Virtual Banking, 68% of the participants indicated convenience as the most important aspect. The second is uptime of branchless service points with 67%, followed by the bank`s confidentiality with 66%, security of the Virtual Banking system at 64% followed closely by affordability of Virtual Banking Solution at 59%.

CONCLUSION AND RECOMMENDATIONS

The findings of this study provide evidence that the adoption of Virtual Banking Solution by commercial banks was achieved with varied success levels for all the set objectives. The results show an indication that the concept of Virtual Banking has been accepted by a significant number of the banks customers. However, frequency of visits to branches is still high with clients on Virtual Banking still visiting branches at least five times in a calendar month. These results show that although the concept is popular with customers, a hybrid model of Virtual Banking with brick and mortar appears to be what the customers are comfortable with. In terms of level of customer retention for the banks, conclusions can be drawn from the results that Virtual Banking exceeded customer expectations judging by the responses on Virtual Banking service dimensions ratings which scored highly. Customer loyalty increased, with customers indicating their willingness to enjoy more bank products and also indicating their likelihood to refer friends and relatives to Virtual Banking services. The following recommendations are made to alleviate the factors that constrain the adoption of Virtual banking system by commercial banks.

Creating awareness: New Branchless Banking system must be accompanied by appropriate promotional mix to create awareness and ultimately brand loyalty. Huge investments sunk while setting up such facilities require a return through a large customer subscription base. These solutions are meant to bring convenience to customers through low cost products which can only thrive on pushing volumes for an investor to get a return. Market penetration can only take place if awareness is created at product introduction stage, otherwise all the investment put in research and development of these solutions may not see day light.

Regulatory Authority: Virtual Banking system must be accompanied by appropriate conducive environment which facilitates the implementation of ICT enabled banking solutions which are efficient and convenient in meeting customer banking needs. The regulatory authority must also ensure that such innovation is done within set standards which safeguard the public from bank failures and security threats posed by cybercriminals.

Access to Technology: The government should facilitate convergence of ICTs between financial institutions and technology companies to avoid duplication of national resources which can be deployed in other critical developmental areas. Government can also speed up the use of internet as a key enabler of branchless banking by removing duty on all ICT gadgets and also facilitating setting up locally based manufacturing plants for hardware and software. A bias towards ICT knowledge and e-learning in all institutions at all levels will assist in creating an e-society which will embrace electronic banking solutions easily.

Improve partnership with key Stakeholders: In order to maximize the benefits derived from Virtual Banking, the financial sector must improve the networking partnership with key stakeholder. Improved network can assist in reaching all unbanked population in remote areas.

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