

Investigation Of The Effectiveness Of Xapit Electronic And Mobile Banking Product In Zambia

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ABSTRACT: Xapit is arguably the first banking facility in Zambia incorporating Self Service Banking (Online and Mobile banking and ATM's) with traditional banking and is offered by the Zambia National Commercial Bank (ZANACO). The main objective of the study was to determine the extent of effectiveness with which Xapit services are delivered to clients. The cross-section descriptive design was used with the Technology Acceptance Model (TAM) and the Xapit Acceptance Model (XAM) forming the theoretical and conceptual framework respectively. The study revealed the services/benefits offered through Xapit, that Xapit is effective in service delivery (from users responses on a 5 point likert scale), that 67.2% of the students do not see a service better than Xapit and that of the 32.8% opposed to this view; most consider First National Bank's e-wallet as the best alternative to Xapit. Various other alternatives to Xapit with varying degrees of acceptance were discovered. Based on the findings, it was recommended that: ZANACO must continue its Xapit service offering because users view it as effective; the bank must work on inefficiencies such as system downtime, high cost in comparison to competition and obsolescence of the technological offering with time. Further, researchers should engage in more research on Xapit and other SSB Technologies so that updated data is available for marketing and client decision making. The XAM model would be useful in this regard.

KEYWORDS -Effectiveness, Xapit, TAM, XAM, Mobile banking, Self Service Banking

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I. INTRODUCTION

The Zambia National Commercial Bank (ZANACO) introduced Xapit in Zambia in 2008 to help bank the unbanked by providing a low cost service through combining traditional banking (a normal account) with Self Service Banking Technologies (SSBTs) which include; mobile banking, online banking and access to Automated Teller Machines (ATMs) (ZANACO, 2010; Wiessing, 2010). The year of introduction makes Xapit the first service in Zambia to introduce a full range of SSBTs to clients in the Zambian banking market. Upon introduction, the uptake of the product was "highly successful" according to Kruger (2011). He further asserts that ZANACO decided to launch XAPIT using an Unstructured Supplementary Service Data (USSD) cell phone banking application for Airtel customers and as WAP and J2ME cell phone banking applications for the MTN customers. The varying applications made and still make it possible for customers to use various networks to access their accounts and do their banking effortlessly. Habeenzu (2010) asserts that Xapit is "...a transformative mobile banking solution...; [which] provides a low-value, low-risk banking account with an Internet-enabled visa debit card combined with SMS-banking." Based on the foregoing, it can be deduced that Xapit was designed with a 'customer centric' focus and came to provide affordable but useful banking services to both the banked and the unbanked. The question that arises from this and which remained unanswered prior to this research was: Is Xapit effective in delivering the services it is designed to deliver? Answering this question is helpful in developing a frame of reference for research into effectiveness of Xapit and other electronic mobile banking services.

Statement of the Problem

Various publications and research show that Xapit has many perceived benefits for users (ZANACO, 2010; Wiessing, 2010 and Habeenzu, 2010). However, the effectiveness with which these benefits are delivered to clients who use it was unknown before the commencement of this research. This might be because, most service encounter research has focused on interpersonal interactions, mainly between customers and firm employees largely due to the fact that electronic and mobile banking technologies have been around for only less than two decades (Meuteret *et. al.*, 2000). This situation implied a gap in knowledge on effectiveness of electronic/mobile banking technologies such as Xapit which called for systematic investigation. It is this gap which this research intended to fill.

Purpose of the Study

The central objective of the study was to assess the effectiveness of Xapit in service delivery to clients and thereby develop a system by which research into effectiveness of other modern banking services similar to Xapit can be tested. It sought to find out whether Xapit is effective in meeting the customer needs; whether or not it is useful and whether or not the features on Xapit are easy to use. To achieve the goals, the following were the specific objectives: (i) To assess the nature of services rendered by ZANACO through Xapit to customers; (ii) To determine of the extent of effectiveness to which ZANACO renders the Xapit services to clients; (iii) To determine alternative ways of banking service delivery available for clients in Zambia but not provided through Xapit.

Clients in the context of this research referred to students in public universities in Zambia. These formed a bulk of users at the commencement of the research thus being the justification for choosing this population. Further justification for targeting this population of users is given in the methodology section.

Research Questions

The central research question was: What is the effectiveness of the Zambia National Commercial (ZANACO) bank's Xapit in client service delivery? The specific questions which guided data collection were as follows: What services does ZANACO render through Xapit to clients? How effective is ZANACO in rendering the Xapit services to clients? What other ways may be used to provide convenient but cost effective banking services to clients?

Significance of the study

One importance of researching the effectiveness of Xapit in service delivery to students in public universities in Zambia is that the results can be used to determine whether or not the banking facility would be effective and useful to the wider population of low income people who have incomes as low as those of students in the public universities. Further, the conduct of this research expects to contribute positively to the expectations of different groups of people who will be interested in its findings as follows: (i) Students: enable students in public universities in Zambia to make informed decisions about the type of banking service(s) that are effective in meeting their banking service needs (ii) ZANACO management: help ZANACO management improve on or maintain their Xapit service delivery. According to Kwashie (2012) "Many banks are shifting gradually from the traditional way of banking and are gradually introducing ICT into their service delivery." It is imperative that these Information Communications Technologies (ICTs) are monitored for effectiveness if they are to be continually implemented in client service delivery (iii) Other researchers on Xapit: This research adds to existing literature about Xapit and other Self Service Banking Technologies (SSBT) services in Zambia, Africa and the world at large. It contributes to the useful direction of future research. With the frame established, future research can be conducted easily and data analysed using the constant comparative method. "The constant comparative method is a process in which any newly collected data is compared with previous data that was collected in one or more earlier studies (Leitch, 2015). Further, this research brings about an innovative way of collecting data from respondents using an online questionnaire. This online questionnaire assists in collecting data faster but with tighter budget(s). This innovation can assist other researchers harness the power of the World Wide Web in conducting their research in a timely and economical manner. (iii) The consumer protection authority: can identify areas of concern to consumers because via responses in this research, consumers bring out areas that they believe have opportunity for improvement as they simultaneously respond with the details of the areas they believe are assisting in bringing about customer satisfaction.

II. LITERATURE REVIEW

Scholars have generally studied the effectiveness of general banking services with none specifically writing on the effectiveness of Xapit. Simuchimba (2011), Wiessing (2010) and Habeenzu (2010) among others acknowledge that Xapit is an affordable, entry-level Self Service Banking Technology (SSBT) combined with traditional banking and offers electronic and mobile banking solutions to meet customer's everyday banking needs. According to ZANACO (2010), the following services are offered through Xapit via mobile phone: account balance enquiry, money transfer, mobile phone airtime purchase, bill payments (Water and TV bills and university fees) and viewing mini statements.

The most popular model for the study of various aspects of mobile and electronic banking products was found to be the Technology Acceptance Model (TAM) by Davies (1989). The model itself was developed out of the Theory of Reasoned Action (TRA) by Ajzen and Fishbein (1975) and the Theory of Planned Behavior (TPB) by Ajzen (1985).

The most striking discovery in the course of the research was that although consumers from developing nations consider technology as a key enabler to access to financial services, consumers in developed markets want more of face to face interaction with service personnel. A 2010 study by Ernst and Young which attempted to

measure satisfaction across the European retail banking market showed that customers in developed countries in Europe prefer banking the traditional way with a personal touch to it and asserted that “service quality is the most important criteria for customers when choosing a bank.” The study also showed that a third of customers considered a personal relationship with their bank to be highly important when choosing a bank. The UK and Italy had the greatest dissatisfaction with 12% and 13% of customers respectively saying the attention they receive is bad. In contrast, 40% of Spanish respondents described the personal attention from their bank as excellent. Empirical evidence from developing countries including Rwanda, Malawi, Tanzania and Kenya showed that consumers were generally happy with electronic and mobile banking technology.

The major criticism on the literature is that the various researchers who used the TAM in their research looked at aspects of mobile banking for issues other than effectiveness. Further, scholars did not address the issue of effectiveness of Xapit particularly and mobile/electronic banking in Zambia generally. Additionally, those who took a quantitative approach in their studies used Likert data – an area that presents a grey area when it comes to quantitative data analysis due to the argument that Likert scales are not interval scales on the Stevens (1946) data typology. Stevens (1946) classified data into four groups namely; Nominal, Ordinal, Interval, and Ratio (Velleman). Each class of data has to be analysed carefully and interpreted accurately. Stratified random sampling was used with each of the three universities representing a stratum. The sample size (excluding responses in the pilot study) was a total of 180 students.

Research Instrument

The main research instrument used was a questionnaire administered to students who use Xapit (i.e. users of Xapit). Other data collection techniques were used to triangulate the results obtained via questionnaires. Most of these other techniques involved collection of secondary data to confirm/support the primary data collected.

Procedure for data collection

A questionnaire was administered to the respondents (users of Xapit) by the researcher on a random basis. The researcher stood at a point near the Zambia National Commercial Bank (ZANACO) Automated Teller Machines (ATMs) and hostels. As ZANACO clients came to do their banking or to their hostels, the researcher randomly selected each to fill in the questionnaire until the total number of respondents for that particular stratum was fulfilled.

III. METHODOLOGY OF THE STUDY

The sections below highlight the research methodology that was used.

Research Design

The cross section descriptive design was employed in the study. The major purpose of descriptive research is description of the state of affairs as it exists (Tromp and Kombo, 2013). The attitudes of the respondents to Xapit were measured on a Likert scale of 1 to 5 with 1 being strongly disagree and 5 being strongly agree.

Sample size

The target population for this study included students from the three public universities in Zambia that were operational at the commencement of this research in late 2014. These included University of Zambia in Lusaka, Copperbelt University in Kitwe and Mulungushi University in Kabwe. The reasons for using students as respondents were that the Universities are scattered across the country, the students come from all over the country into these universities and the students are intellectually apt to answer the questionnaires regarding effectiveness (since each one is required to pass ordinary level examinations before being enrolled into university). The study used stratified random sampling. That means that the sample drawn was a random sample of students with the objective of fulfilling minimum strata with respect to the number of students in each public university.

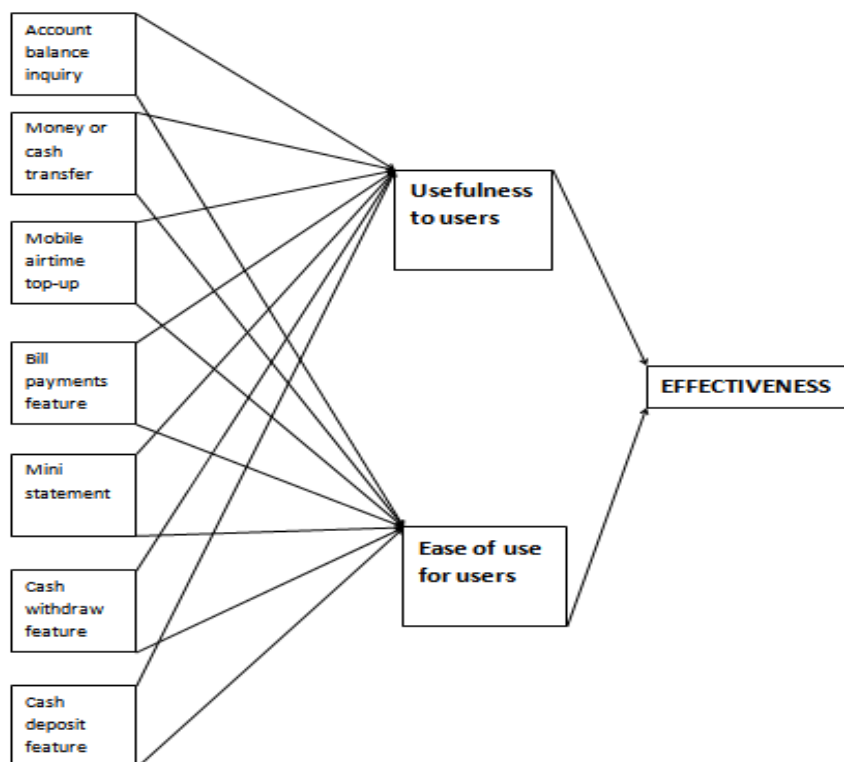


Figure: Authors' Xapit Acceptance Model

VI. DATA ANALYSIS

Qualitative data were commented on with respect to quantitative data. For instance, where respondents preferred one banking product compared to Xapit, their response in the quantitative questions were checked for consistency with this response and some comments passed. A constant comparative method was going to be appropriate had there been more research publications available on the topic in Zambia.

Most quantitative calculations were from the Likert scale responses by the respondents to the questionnaire. Scholars have for some time now struggled with the treatment of Likert data in data analysis. As cited in Brown (2011), scholars such as Coombs (1960) Vigderhous (1977) Jakobsson (2004), Jamieson (2004), Knapp (1990) and Kuzon, Urbanek, & McCabe (1996) argue that Likert items do not form an interval scale, must be considered ordinal scales and should be analyzed accordingly. However, many others argue that Likert scales can indeed be analyzed effectively as interval scales (Baggaley & Hull, 1983; Maurer & Pierce, 1998; Vickers, 1999; Allen and Seaman, 1997). This study sided with the second school of thought which argues that with sufficient sample size (above thirty as a rule of thumb); data can be analysed as Likert scales as long as the scale that is being used in the study has at least five anchor points.

That assumption that a Likert scale is continuous is a criticism on the study. It is now recommended that future research replicating this study uses Semantic Differential Scales rather than or in conjunction with Likert data so that data analysis is more appropriate. Taking nothing else away from the earlier study, this paper assumes that Likert data was analysed as being on an interval scale.

IV. FINDINGS OF THE STUDY

In an attempt to meet the main objective of the research which was to find out how effective Xapit was in service delivery, a frame of reference for the study of the effectiveness of banking services and products like Xapit was established. To meet the general objective, three research questions guided the study. These were: (i) What services does ZANACO render through Xapit to students in public universities in Zambia? (ii) How effective is ZANACO in rendering the Xapit services to the students in public universities in Zambia? and (iii) Which other ways may be used to provide convenient banking services to students in public universities in Zambia?

The study revealed that the main services offered by ZANACO through Xapit include account balance inquiry, money transfers, bill payments, mini statements, cash withdrawals, online banking, ability to transact at Point of Sale (POS) machines and cash deposits. With respect to effectiveness, a t test was used to test the hypothesis that Xapit is ineffective in client service delivery. The test value used was the five point Likert scale mean of 3.0 as supported by Sichone (2015) who used the test value of 3.0 in a research that involved a five point

Likert scale. This approach assumed that Likert data is measured on an interval scale as stated in the previous section. The t-test established that Xapit was effective for students at the three universities who use this banking facility.

V. DISCUSSION OF FINDINGS

The finding that Xapit is effective in service delivery to students in public universities in Zambia are in line with many other similar findings including those by Armstrong (2010) on various banking products by Rabobank (including Xapit), Abuga (2015) on mobile banking services in Rwanda, Suri and Jack (2008) and Suri and Jack (2010) who studied M-Pesa. All these studies revealed that the services they studied were effective in client service delivery to the users of these services. The similarity in findings with this research could be due to the fact that there were similarities in market conditions for the services studied by the researchers noted and the market conditions for Xapit. For instance, Armstrong (2010)'s case studies were on products by Rabobank – a bank that was key to the introduction of Xapit at ZANACO and in Zambia. Abuga (2010) and Suri and Jack (2010) did studies in developing countries whose market conditions are similar to Zambia by virtue of them being developing countries.

The findings of this research are however different from the findings of some researchers. For instance, the literature review showed that consumers of banking products in developed countries consider service quality as the most important criteria when choosing a bank. The study by Ernst and Young (2010) referred to earlier is a case in point. A few studies in developing countries also leaned towards SSBT's not being effective. For instance Kaijage (2013) found that since the year 2008, "more customers in Mbeya region and other parts in Tanzania have been losing huge amounts of money through frauds done by employees of mobile phone companies and incorrect entry by both customers and employees of the companies, hence causing customers to incur huge financial loss." This service quality issue might have caused a contrast in results between the findings of this research and those of Kaijage (2013) because Tanzania is ranked 117/178 while Zambia is ranked 68/178 on Transparency International's latest (2015) corruption perception index. This means that Zambia is less corrupt than Tanzania generally and a study done in Zambia is less likely to reveal corruption and fraud related service quality issues than a study done in Tanzania.

VI. CONCLUSIONS AND RECOMMENDATIONS

The conclusions are with respect to the three research questions and objectives.

Conclusions

The study determined the main services offered via Xapit as self-service banking technologies (mobile, Internet and ATMs) coupled with traditional banking. The main services/benefits identified for customers include affordable account balance inquiry; funds transfer feature, airtime purchase, mini statements, utility bill payments, cash withdrawals and cash deposits. Respondents were asked if they knew of any other Xapit services apart from the ones mentioned but the statistics from the responses revealed that no other significant service could be noted. The first objective of the research was met as such.

The study then determined the extent of effectiveness with which ZANACO renders the Xapit services to clients/students in public universities in Zambia. This was research objective number two. Overall, it was found that Xapit was both useful to the users and easy to use. It was further established that overall, Xapit is effective in client service delivery to students in public universities in Zambia. Despite this, a number of students stated that there was room for improvement. The reasons for this were established to include factors such as; system downtime, lack of reliability in the service delivery and lack of innovations to match customer demands. With those revelations, objective two of the research was tackled.

It was established that other banking services that were introduced later than Xapit are offering significant opposition to ZANACO in the various dimensions of service delivery that consumers stated were important to them. FNB's e-wallet came out as the most preferred among these. Out of all the respondents, 32.8 % said there is a service better than Xapit and were mostly of the view that the service is FNB's e-wallet. Other services identified as alternatives and potential competitors for Xapit include; Ecobank's student account, Stanbic's savings account, standard chartered bank's current and savings accounts, Finance bank's makumbi account and Barclays bank's accounts with mobile banking activated.

Recommendations

In view of the findings, a number of recommendations are posited. It is recommended that ZANACO continues offering all these services in order to cater for a variety of users who were generally happy with the service offering.

The findings also revealed that some customers prefer competing banking services and are mostly going for FNB's electronic banking services due to affordability, stability of the network, reliability of services and innovation advancement. The bank management in charge of Xapit can cater for these clients and retain them by

benchmarking costs with the lowest cost competitor, reviewing mobile network infrastructure maintenance to improve stability and perception of innovation and developing an enhanced cash management programme to eliminate ATM and mobile banking related downtime issues.

Further, the research established an important source of literature on Xapit and electronic banking (mobile, internet banking etc) in Zambia. Being one of the few papers in this area, it is recommended that future researchers consider taking up the topic and working on the weaknesses that were noted after this research was completed. Among them; the research used a Likert scale to measure attitudes but this is arguably not an interval scale. Future research may need to use more appropriate scales such as the semantic differential scales. The research proposed a mixed (qualitative and quantitative) data analysis method but qualitative data was analysed only to the extent that it affected results from quantitative data. Future research may need to use the Constant Comparative Method so that justice can be done to the quantitative data analysis as well.

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