FACTORS INFLUENCING UPTAKE OF INTERNET BANKING BY SMALL AND MEDIUM ENTERPRISES IN NAIROBI COUNTY; A CASE STUDY OF COMMERCIAL BANK OF AFRICA

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ABSTRACT
While the world of electronic banking is changing day by day, customer uptake is a recognized dilemma for the strategic plans of financial institutions. At the Commercial Bank of Africa, the percentage of business banking customers making up the SME segment that had subscribed for internet banking was only 28.97%. Past research has recommended investigations to be carried out using different types of users of internet banking such as corporate customers. In response, the main purpose of the study was to investigate the factors influencing the uptake of internet banking for financial transactions by SMEs in Nairobi County that formed part of the corporate clients of CBA. Descriptive research design was used in
conducting the study. The target population was 1,123 SMEs in Nairobi Metropolis that had subscribed for internet banking with CBA. The sample size for the study was 112 SMEs. The sampling unit was the owner/manager of the SMEs. Systematic sampling technique was applied. A structured questionnaire was used to collect the data. Data analysis was aided by SPSS. Inferences were drawn using Karl Pearson’s Correlation Coefficient technique. The data was further subjected to regression analysis using multiple regressions modeling. The results showed that 82.1% of the SMEs used internet banking for financial transactions. On average, most of the SMEs sometimes used internet banking for making bill payments (M=3.20, SD=0.90), receiving payments (M=3.17, SD=0.98) and making payments to suppliers (M=3.00, SD=1.08). Collectively, reliability, security, cost and accessibility of internet banking explained 50.5% of the variation in uptake of internet banking for financial transaction. Specifically, accessibility had the strongest explanatory power on the variability of uptake of internet banking for financial transaction (B=0.438). It was concluded that accessibility had the strongest influence on the uptake of internet banking for financial transactions by SMEs with convenience being the main incentive for utilization of internet banking service at CBA. Perceived security risks had a negative influence on the uptake of internet banking for financial transactions. The uptake of internet banking was directly influenced by perceived relative cost savings and reliability of internet banking. It was recommended that CBA should champion the convenience of internet banking in the form of worldwide unrestricted accessibility any time as a unique selling proposition besides cost savings. This should be reinforced by enhancing internet banking security.

**Introduction**

Internet banking is defined by Krauter and Faulant (2008) as a service that allows customers to conduct a wide range of banking transactions electronically via the bank's web site anytime and anywhere, faster, and with lower fees compared to using traditional, real-world bank branches. Internet banking has been a subject of growing interest from the academia and industry practitioners. Durkin (2007) observes that the growth of internet banking has resulted in a steady increase in the number of customers interacting through remote channels to a greater extent than before. Cai et al. (2008) argue that with the help of electronic innovations such as the internet, banking services are no longer bound to time and geography. Bainbridge (2006) traces the concept of internet banking back to the early 1980s when it was first envisioned and experimented with. Polasik and Wisniewski (2009) noted a marked proliferation of electronic banking in the 1990s occasioned by the popularization of the internet. Polasik and Wisniewski (2009) observed that the idea was quickly adopted by other banks like Wells Fargo, Chase Manhattan and Security First Network Bank. Jenkins (2007) also makes the observation that the number of banks that recognized the benefits of internet banking services and adopted internet banking has increased.
dramatically during the last decade. Sohail and Shaikh (2008) point out that banks have progressed a long way in the use of the internet, with most banks offering transaction services over the internet. According to Yu (2008), banks have become increasingly interested and concerned about internet banking services and are seeking methods to provide high quality service that exactly fulfills the requirements or preference of their customers. Polasik and Wisniewski (2009) consider the internet as the cheapest distribution channel for standardized bank operations, such as account services or transfer of funds. Sarel and Marmorstein (2005) added that online usage also present banks with great opportunities to increase revenue as well as to reduce cost. Giving reasons why branch value will rapidly erode during the next two decades, Bruene (2006) states that customers that begin turning 30 in 2010, have been raised on the Internet. Bruene speculates that when looking for a new bank, new loan, or anything financial, customers will research and buy online.

**Internet Banking and SMEs**

According to Redlinghuis and Rensleigh (2010), internet banking services have become increasingly popular with individual and business customers with advanced information processing technologies now widely used by banks in servicing small and medium enterprise (SME) customers. A study of bank financing to SMEs in the East Africa Region by Calice et al. (2012), indicated the significance of the SME sector in the region and that the SME segment has become a strategic priority for the banks in the region which considers them a profitable business prospect and provide an important opportunity for cross-selling as the SME lending market is large, not saturated and has a very positive outlook. They concluded that SMEs have also become an important target market for Kenyan banks due to the business opportunity they present, with banks now showing increasing interest and trend in the growth of their SME portfolio. Around the world, banks have varied definitions of SMEs which take into account loan size, revenue turnover, staff size and capital employed (Ellis, 2007). According to Calice et al (2012), the definitions tend to vary depending on the size of the bank with smaller banks using smaller thresholds to define their SME customers while the bigger and more established traditional commercial banks use higher thresholds. The World Bank for instance defines SMEs as those enterprises with a maximum of 300 employees, $15 million in annual revenue, and $15 million in assets (Ellis, 2007). A report by Bouri, et al. (2010) noted that the Inter-American Development Bank described SMEs as having a maximum of 100 employees and less than $3 million in revenue.

**Internet Banking and SME Sector in Kenya**
In Kenya, a report by the Financial Sector Deepening-Kenya (2009) found that banks’ definition of SMEs vary, but typically they define SMEs as businesses with six to 50 employees or with annual revenues less than 50 million Kenyan shillings. This report revealed that the lack of a universal definition, statistical information and specific regulation on SMEs makes it difficult to accurately determine the exact size of this key sector in Kenya. However, Calice et al. (2012) noted that banks in Kenya seem to have embraced the SME segment enthusiastically and are investing in new strategies aimed at developing their relationship with SME clients, coming up with new and innovative products that are relevant to the market and setting aside a budget to cater for marketing to SME clients. Ellis (2007) also adds that banks in Kenya have realized the potential that the SME sector presents in way of profitability and significant growth has been witnessed in the SME portfolio of banks in the last few years with each bank holding a portfolio of SME clients.

**SMEs in Nairobi County**

The SME sector in Kenya is defined based on employment size, whereby micro and small enterprises covers the range of establishments including one or more persons on the lower end and 50 persons on the upper end (Stevenson & St-Onge, 2005). A national survey undertaken by the Kenya National Bureau of Statistics in 1999 revealed that there were some 1.3 million SMEs in Kenya. The bulk of this number is based in Nairobi City. Nairobi County has its Nairobi City as its business hub, a city described as the administrative, industrial and financial center of Kenya (Muiruri, 2010). Nairobi is described as a city with more than four million people, a robust city that teems with commerce and industry (Perkins, 2013).

**Problem of the statement**

While the world of electronic banking is changing day by day, customer uptake is a recognized dilemma for the strategic plans of financial institutions (Mavri and Ioannou, 2006). In Kenya, an empirical study by Njuguna, et al. (2012) showed that despite the high penetration of internet in the country, internet banking use was very low as only 24.82% of the respondents in their study used internet banking services. At the Commercial Bank of Africa, the percentage of business banking customers making up the SME segment that had subscribed for internet banking was only 28.97% (Commercial Bank of Africa, 2014). According to Sarel and Marmorstein (2005), to achieve any future savings, banks need to persuade more consumers to use internet banking more actively and more frequently as meaningful savings are likely to be realized only when significant migration to internet banking takes hold and successful migration requires active,
ongoing use by many consumers. Therefore, understanding the key drivers that may be slowing adoption has become a relevant topic for the banking sector (Manzano, et al. (2009b). Currently, there is a growing interest towards the quality of technology-based banking services, and aspects influencing the adoption and use of them (Heinonen, 2007).

From the foregoing literature, it can be inferred that ongoing research on factors influencing the uptake of internet banking is inevitable if banks are to achieve return on investment on internet banking technology platforms/systems. However, Manzano, et al. (2009b) observes that despite the growing importance of internet banking, there are still not enough studies that provide a holistic view of factors driving the extent of use of the internet as a distribution channel for financial services. The study by Njuguna et al. (2012) sought to establish the factors that influence adoption of internet banking among individuals who have accounts with commercial banks in Nairobi County, Kenya. Njuguna et al. (2012) targeted Kenyan households with a view to include all segments of the population using internet banking as well as non-users. Njuguna et al. (2012) recommended that similar investigations be carried out using different types of users such as corporate customers. In response, this current study sought to investigate the factors influencing uptake of internet banking services by the SME customers of Commercial Bank of Africa for financial transactions.

Research Objectives

The main purpose of the study was to investigate the factors influencing the uptake of internet banking for financial transactions by small and medium enterprises in Nairobi County.

Specific Objectives

1. To establish the influence of accessibility on the uptake of internet banking for financial transactions by SMEs
2. To determine the influence of security risks on internet banking uptake for financial transactions by SMEs.
3. To establish the influence of cost on uptake of internet banking for financial transactions by SMEs.
4. To evaluate the influence of reliability on the uptake of internet banking for financial transactions by SMEs.
Research Questions

1. To what extent does accessibility affect the uptake of internet banking for financial transactions?
2. What is the influence of security risk concerns on internet banking uptake for financial transactions?
3. What is the influence of cost in uptake of internet banking for financial transactions?
4. What is the influence of reliability on the uptake of internet banking for financial transactions by SMEs?

Literature review

Theoretical Review

A theory is defined by Wagner et al. (2012), as a statement used to help explain the relationship among variables, how the variables operate and the process involved. According to Wagner et al. (2012), researchers use a particular theoretical lens from the outset to help them answer ‘why’ questions in order to explain various units of analysis in certain situations. The research will be informed by three theories namely: the Theory of Planned Behavior (TPB), Technological Acceptance Model and Diffusion of Innovation Theory.

Theory of Planned Behavior

According to Vadlamani (2007), the Theory of Planned Behaviour (TPB) is one of the most influential and well-supported social psychological theories for predicting human behavior. The central premise of the theory is that behavioral decisions are not made spontaneously but are the result of a reasoned process in which behavior is influenced, albeit indirectly, by attitudes, norms, and perceptions of control over the behavior. The model proposes that attitude (the evaluation of the target behavior), subjective norms (perceived social pressure regarding performance of the behavior), and perceived behavioral control (perceived control over performance of the behavior) influence behavior primarily through their impact on behavioral intention. Hence, intention is seen as the proximal determinant of behavior. Perceived behavioral control (PBC) is thought to have both a direct effect on behavior and an indirect effect via intention (Vadlamani, 2007).

Technology Acceptance Model

Technology Acceptance Model (TAM) posits that a user’s acceptance of information system is determined by the user’s intention to use the systems, while perceived usefulness and ease of use can
predict the usage intention, and perceived ease of use is hypothesized as a predictor of perceived usefulness (Manuere et al., 2012). TAM theorize that the effects of external variables such as system characteristics, development process and training on intention to use are mediated by perceived usefulness and perceive ease of use.

Perceived usefulness is also influenced by perceived ease of use because, holding all other factors constant, the easier the system or technology is perceived to be or is, the more useful it can be (Aleke et al., 2010). Aleke et al., 2010 concur that over the years, TAM has become well-established as a robust, powerful, and parsimonious model for predicting user acceptance. It is no surprise then that several researchers claim that the Technology Acceptance Model (TAM) is the most widely applied model of user acceptance and usage (Steve, 2008).

**Empirical Review**

**Extent of internet banking uptake by SMEs**

Mavri and Ioannou (2006) observe that although millions of dollars have been spent on building internet banking systems, reports have shown that potential users may not use the systems in spite of their availability. According to Cai, et al. (2008), despite the convenience and other benefits that the service can offer, not everyone uses e-banking, especially internet banking. In agreement, Smith (2009) also argues that in spite of the technological advances, many customers prefer to do their banking face to face at a brick-and-mortar branch. Bruene (2006) observe that even heavy users of online banking and call centers still hit the branch nearly as often as they did a decade ago.

Sarel (2003) submits that for most banks, the heavy investment in development, marketing and operation of online banking have not yielded positive returns. A survey of 2,200 small, medium and micro enterprises in South Africa revealed that just a third of the respondents used internet banking (Baskaran and Muchie, 2006).

In an empirical study of the emergence of technology in the Kenyan banking sector, Nyangosi and Arora (2009), using nine common services offered through internet banking, enquired from customers the most used services. The list of variables which represents the internet banking services include, know products of banks, check balance, electronic funds transfers, check statement, purchase products, order cheque books, stop payment, change password or pin and after sale service like e-mail enquiries. Majority of Kenyan customers used internet banking to know information and the news of innovative products provided by banks (41.6%) and services offered by their banks. After sale service (29.6%) also received...
favor of respondents as a service mostly used. The survey revealed further that 25.6% of the respondents used internet banking when they want to know the balances in their accounts. Also 20% of the customer respondents reported that they purchased product through internet banking which included opening new accounts and other bank products and services. The least favored internet banking services included change of password (8.8%), order cheque book through internet banking (6.6%), and stop payment (3.2%).

Njuguna, et al. (2012) undertook a study to establish the factors that influence adoption of internet banking among the individuals who have accounts with commercial banks in Nairobi County, Kenya. The research used technology acceptance model, extended by risk and self-efficacy variables as well as a reduced version of perceived characteristics of innovation model without the image and voluntariness constructs. The research was a survey on three hundred individuals in Nairobi, Kenya. Their results showed that internet banking use in Kenya was very low as only 24.82% of the respondents used internet banking services. Their analysis showed that perceived usefulness, perceived ease of use, self-efficacy, relative advantage, compatibility, and results demonstrability had a significant association with intention to use internet banking while risk, visibility and trialability were not significant.

**The influence of accessibility on the uptake of internet banking**

Bak and Stair (2011) assert that the main attraction of internet banking from a customer perspective is accessibility/convenience. Widely, studies in the diffusion of innovation have used the accessibility/convenience attribute as one of the characteristics of innovation. The evidence is drawn from the internet banking research done by Brown, et al. (2004). The accessibility variable is positively related to the adoption of innovation, in which the greater the convenience of an innovation, the more rapid its rate of adoption is likely to be.

Cai, et al. (2008) conducted a study on US consumer’s attitude toward and use of internet banking using national data set of 2003 Survey of Consumers commissioned by the Survey Research Center at the University of Michigan. Consumers’ perceptions of characteristics related to e-banking, including internet banking (such as usage to monitor accounts, transfer funds between accounts and to pay bill electronically), were recorded by ascertaining their agreement with various statements of those characteristics. The statements aimed to ask respondents’ attitudes toward e-banking, including both positive and negative features of the service. The results of the factor analysis and the logistic regression analysis revealed that consumers’ perceptions of the characteristics of e-banking, namely the perceived
advantages and problems, had different impacts on consumers’ attitudes toward and their use of internet banking. While the perceived problems were more important in shaping consumers’ attitudes toward internet banking, the perceived advantages had the greatest impact on consumers’ use of such service. The construct of accessibility, however, needs to be discussed in context. Thomas (2005) asserts that most banks have discovered that most customers prefer the accessibility of “bricks and clicks” banking – a system that couples the suitability of banking at home with the assurance that a local office is nearby for more complicated transactions and personal service. Laforet and Li (2005) research showed that consumers are not generally predisposed to change their behavior radically and adopt widespread usage of telephone and online banking. In fact, it is argued that the social content of service encounters often seems to overshadow any economic rationale that may offer a more expedient alternative (Durkin and Howcroft, 2003; Durkin 2007). In a study by Sohail and Shaikh (2008), many respondents indicated that they did not feel the need to use internet banking, and, of the two-thirds of respondents who said they had no need, a large majority indicated that they were very content with the way they currently source their banking services.

**The influence of security on uptake of internet banking**

The security of internet banking is a major issue for an increasing number of consumers (Sarel and Marmorstein, 2005). Previous research in countries with different levels of E-commerce adoption shows that perceived security risk is an important predictor of internet banking adoption (Manzano, et al. 2009b). Consumers associate security risk with the loss of bank account or credit account numbers, passwords, et cetera, which can result in the loss of money (Manzano, et al, 2009a). According to Jensen (2005), a research firm, which interviewed one thousand American adults for a study on online banking safety, found that many consumers are anxious that personal data could either be stolen by hackers or sold to third parties by the banks. Nearly 83% of those who conduct banking online report such concerns, while 73% of respondents said private data stealing are a problem that holds them back. Liao and Cheung (2008) further adds that in internet banking, security has been found to be a matter of intense concern, especially with regard to the acquisition and dissemination of personal and sensitive data. Perceptions regarding this aspect of service quality are generally operationalized in the form of transaction security, as represented directly by the safe and accurate transfer of funds and payment-credit information and indirectly by transaction risk. Bruene (2006) contends that consumers are cautious with their money, and they like the security of dealing with someone they know. Most customers still desire a
certain level of human interaction, and for bigger deals like mortgages, a face-to-face meeting is mandatory. According to some analysts, customers still value personalized and responsive services from their bankers (Awuondo, 2006). Bruene (2006) therefore suggests that banks should make it easy to research online and then ask questions via online chat/phone, or by requesting a callback or in person appointment. Consumer behaviour researchers most often define perceived risk in terms of the consumer's perceptions of the uncertainty and potential adverse consequences of buying a product or service (Little and Melanthiou, 2006). Perceived risk arises from the uncertainty that customers face when they cannot foresee the consequences of their purchase decisions (Manzano, et al. 2009b). For example, owing to the open Internet technology infrastructure and lack of sufficient laws concerning e-commerce activities, the trust and trust related-concepts (that is, perceived risk, credibility, image and reputation) have been integrated with the adoption models to explain internet banking adoption behaviour (Ozdemir and Trott, 2009).

Beckett (2004) argues that with branchless banking, it is no longer possible to know the individual employee dealing with an issue and the loss of identity for customers mean that it is far harder for them to engage directly with bank processes, particularly when those processes go wrong. Instead of face to face conversations with an employee at a local branch, customers interact with unknown individuals at remote locations and this leads to frustration and a sense of powerlessness as they find it difficult to locate who is responsible for a set of actions.

Ozdemir and Trott (2009) conducted a research using a multi-method and phased research approach was adopted to explain the adoption behaviour. The data were collected in the commercially developed parts of Istanbul, which are often populated by people who belong to upper socioeconomic strata and have higher education levels. This research adopted convenience sampling of Internet users who were aged over 18 and hold a bank account. The study found out that security concerns played the key role.

Research Design

Descriptive research design was used in conducting the study. This type of research is intended to produce an accurate representation of persons, events or situation (Saunders, et al. 2009). Descriptive research measures a set of variables as they exist naturally (Gravetter & Forzano, 2011). This research design was used because it emphasizes the production of data based on real world observation through a purposeful and structured approach (Denscombe, 2003) and therefore inferences about relationships between
variables can be made from related variations of independent and dependent variables (Polit & Beck, 2001). In this study, the dependent variable was the uptake of internet banking for financial transactions whereas the independent variables are: Accessibility, perceived risks, cost benefits and perceived reliability of internet banking.

**Population**

A population is the total collection of elements about which the researcher wishes to make some inferences (Cooper & Schindler, 2005). The population of the study was all the 5,285 small and medium enterprises that made up the business banking clientele of Commercial Bank of Africa as of the year 2013 (Commercial Bank of Africa, 2014). Target population refers to a group of people that will be the focus of study (Carter & Aaron, 2003). In this study, the target population was 1,123 small and medium enterprises in Nairobi Metropolis that have subscribed for internet banking with Commercial Bank of Africa. Nairobi was chosen because it accounts for the majority of the total business banking clientele of the CBA that have subscribed for internet banking as shown in table 3.1.

**Table 3.1**

*Population Distribution*

<table>
<thead>
<tr>
<th>Category</th>
<th>Branch</th>
<th>Population</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMEs without internet banking</td>
<td></td>
<td>3,753</td>
<td>71.0</td>
</tr>
<tr>
<td>SMEs with internet banking</td>
<td>Nairobi</td>
<td>1,123</td>
<td>21.2</td>
</tr>
<tr>
<td></td>
<td>Mombasa</td>
<td>255</td>
<td>4.8</td>
</tr>
<tr>
<td></td>
<td>Nakuru</td>
<td>45</td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>Thika</td>
<td>43</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td>Meru</td>
<td>27</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Eldoret</td>
<td>23</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>Kisumu</td>
<td>16</td>
<td>0.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>5,285</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: CBA (2014)

**Sample and Sampling Technique**

Mugenda and Mugenda (2003) suggest that 10% of the target population is an adequate sample. Therefore, the sample size for this study was 112 respondents representing 10% of the target population.
of SMEs that had subscribed for internet banking at CBA. The technique used for including respondents into the sample was systematic sampling technique. According to Denscombe (2003), systematic sampling operates on the same principles of random sampling whereby each member of the population has an equal chance of being chosen as part of the sample; but introduces a system whereby samples are chosen based on every ‘nth’ case. It involves movement through the sampling frame and selection of every fixed number of cases based on a predetermined sample interval (Vanderstoep & Johnson, 2009). According to Taylor (2005), this sampling technique arranges individuals in the population in some logical order from which a list of random numbers may be used to select the samples needed. In this study, the sample interval \( k \) was determined as follows:

\[
k = \frac{\text{Target population size}}{\text{Sample size}}
\]

\[
k = \frac{1,123}{112} = 10
\]

**Instruments of Data Collection**

A structured questionnaire was used to collect the data. Saunders et al. (2009), define a questionnaire as a general term including all data collection techniques in which each person is asked to answer the same set of questions in a predetermined order. In this study, the questions were constructed using Likert’s 5 Point Scale based on the study objectives. According to Stangor (2010, p.75), “a Likert scale consists of a series of items that indicate agreement or disagreement with the issue that is to be measured, each with a set of responses on which the respondents indicate their opinions.” Each item is a stand-alone statement that expresses an opinion about a subject (McNabb, 2008). The author posits that Likert scales aim to measure the extent of a respondent’s agreement with each item on a five-point scale namely, strongly agree, agree, undecided, disagree and strongly disagree; with the items assigned values from 1 through to 5 in that order. The author suggests that depending on how the statements are worded, low means scores can be used to equate with either positive or negative attitudes while high mean scores can be used to suggest the opposite.
In this study, the researcher used the Likert scales to assess the opinion of respondents regarding the factors influencing uptake of internet banking for financial transactions. The instrument was divided into six parts. The first part contained questions seeking to establish respondents’ demographic information such as gender, age, internet experience, ICT self-efficacy, tenure in the business, among others. The second section sought to determine the respondents’ uptake of internet banking. Thus it included questions on the frequency of uptake of banking services such as balance enquiry, account statement enquiry, fund transfers, foreign exchange enquiry, sending mail message and receiving bulletins, changing password, and ordering bankers cheques.

**Data Collection Procedure**

The data collection procedure which was followed entailed first obtaining a letter of introduction from Jomo Kenyatta University of Agriculture introducing the researcher to concerned stakeholders. This letter was then used to approach Commercial Bank of Africa to seek official permission use the bank as a case study as well as access its SME clientele. Once this permission was obtained, the researcher approached the owner-managers of the said SMEs with request to participate in the study. During this process, the researcher sought informed consent from the respondents and assured them of confidentiality. Once informed consent was obtained from the target respondents, they were issued with a questionnaire, which was physically administered.

**Pilot Test**

Before the actual data collection, questionnaire was pilot-tested on a small sample of ten respondents, which were not included in the final analysis. The researcher used the pilot study to identify any items in the questionnaire that were ambiguous or unclear to the respondents and changed them accordingly. The pilot results also enabled the researcher to get familiar with administration of the instrument and determine the timelines that were required to complete the data collection exercise.

**Validity**

The results of the pilot-test were used to determine the validity of the instrument. Based on the results of the pilot-test, the researcher reviewed various components of the research instrument and evaluated how the components affected data that is gathered and the study findings. The researcher then refined the research instrument to address generalizability of the findings that was obtained to the larger population of SMEs.
Reliability

Reliability of the research instrument was tested using Cronbach’s Alpha. An alpha value exceeding or equal to 0.7 indicates that the instrument is highly reliable. In this study, Cronbach’s Alpha was 0.754 as shown in Table 1. Therefore, the instrument was highly reliable. This was tested using the Statistical Package for the Social Sciences version 20

Table 1: Reliability Statistics

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
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<tbody>
<tr>
<td>.754</td>
<td>27</td>
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</tbody>
</table>

Data Processing and Analysis

Data processing and analysis entailed coding and entering the questionnaire data into the computer for analysis using the Statistical Package for Social Sciences (SPSS, Ver.12). Descriptive statistical method was used to analyze the data. This entailed the determination of the mean and standard deviations as and where necessary (Saunders, et al. 2009). Inferences were drawn using Karl Pearson’s Correlation Coefficient technique. The data was further subjected to regression analysis using multiple regressions modeling technique (Ghauri and Gronhaug, 2005) written as:

\[ Y_i = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \ldots + \beta_n x_n + \epsilon_i \]

Where \( Y_i \) = Dependent variable

\( \beta_0 \) = Constant

\( \beta_1 x_1 \ldots \beta_n x_n \) = Independent variables

\( \epsilon_i \) = Error level.

Using the regression formula above, the following regression equation was used.

\[ IB = \beta_0 + \beta_1 AC + \beta_2 CT + \beta_3 SR + \beta_4 RL + \epsilon_i \]

Where IB = Internet Banking uptake for financial transaction

AC = Accessibility

CT = Cost of internet banking

SR = Security Risks

RL = Reliability of Service
Summary of findings

The main purpose of the study was to investigate the factors influencing the uptake of internet banking for financial transactions by SMEs in Nairobi County. The specific objectives were: to establish the influence of accessibility on the uptake of internet banking for financial transactions by SMEs; to determine the influence of security risks on internet banking uptake for financial transactions by SMEs; to establish the influence of cost on uptake of internet banking for financial transactions by SMEs, and; to evaluate the influence of reliability on the uptake of internet banking for financial transactions by SMEs.

Descriptive research design was used in conducting the study. The population of the study was all the 5,285 SMEs that made up the business banking clientele of CBA. The target population was 1,123 SMEs in Nairobi Metropolis that had subscribed for internet banking with CBA. The sample size for this study was 112 SMEs. The sampling unit was the owner/manager of the SMEs. The technique used for including respondents into the sample was systematic sampling technique. A structured questionnaire was used to collect the data. Inferences were drawn using Karl Pearson’s Correlation Coefficient technique. The data was further subjected to regression analysis using multiple regressions modeling.

The results showed that 82.1% of the SMEs used internet banking for financial transactions. On average, most of the SMEs sometimes used internet banking for making bill payments (M=3.20, SD=0.90), receiving payments (M=3.17, SD=0.98) and making payments to suppliers (M=3.00, SD=1.08).

With regards to the influence of accessibility, there was a strong positive correlation between uptake of internet banking for financial transactions and real time access ($r=0.674, p<.01$), worldwide access ($p=0.621, p<.01$) and unlimited access (unrestricted frequency) ($p=0.643, p<.01$).

In terms of cost of internet banking, uptake of internet banking for financial transactions was strongly and significantly correlated to cheaper relative cost ($r=0.543, p<.01$), time savings ($r=0.627, p<.01$) and affordable set up cost ($r=0.563, p<.01$).

Concerning the influence of security risks, there was a statistically significant negative correlation between uptake of internet banking for financial transaction and internet fraud risks ($r=-0.423, p<.01$), risk of hacking ($r=-0.484, p<.01$), lack of confidentiality ($r=-0.485, p<0.01$), lack of trust ($r=-0.502, p<.01$) and perceived lack of legal protection ($r=-0.286, p<.01$).

With respect to the influence of reliability, uptake of internet banking for financial transaction was directly correlated to the successful completion of transaction process upon initiation ($r=0.476, p<.01$), performance of internet banking system without downtimes ($r=0.223, p<0.05$), relative speed of transaction
compared to over the counter transaction ($r=.447$, $p<.01$) and the existence of reliable evidence of transaction for every transaction ($r=.476$, $p<.01$).

**Recommendations**

In order to promote the uptake and utilization of internet banking for financial transaction among its SME clientele, CBA should champion the convenience of internet banking in the form of worldwide unrestricted accessibility any time as a unique selling proposition. The marketing communication message should use the perceived value of time to position internet banking services in the mind of clients as the real advantage in addition to reduced transaction cost incurred by the client. However, this should be reinforced by making the system as secure as possible through, among others, improving fraud detection and prevention units and offering free training as well as consumer awareness literature on the due diligence they need to take.

**References**


