AN ANALYSIS OF FACTORS THAT INFLUENCE INTERNET BANKING ADOPTION AMONG INTELLECTUALS: CASE OF CHINHOYI UNIVERSITY OF TECHNOLOGY.

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Abstract

The adoption on internet banking has remained sluggish despite the efforts by banks to promote the technology. The purpose of the research project was to identify the factors that affect the adoption of internet banking in a bid to construct ways to salvage the situation. The research focused on intellectuals who better understand technology than the general public. Data was collected using questionnaires and interviews from the population of 5000 students and academic staff at Chinhoyi University of Technology. A sample of 450 students and staff were selected from the population. The research identified various factors that impose barriers and enhance adoption of internet banking. Chief among these were compromised security of transactions and marketing exposure. It also unearthed the impact of demographic on internet banking adoption. Two hypotheses were tested, the first one which was meant to determine if there exist any relationship between age and internet banking adoption. It was concluded that there is a negative relationship between age and internet banking adoption. The second hypothesis assumed an association between internet banking and level of education. Education was deemed a prerequisite in enhancing the smooth adoption of internet banking and hence one should have a significant level of education to take up the technology. In waging a protracted war against low levels of internet banking adoption the research concluded banks should rather concentrate in promoting the product (internet banking). Bank should also institute measures to guarantee the security of transactions to internet bank users as this remains the stumbling block to many potential customers.

Keywords: Electronic banking, Information Communication Technology

Introduction

Background of the study: There has been a significant development in the financial sector over the last 40 years because of the improvement information communication technology. According to Consoli (2003), until the early 1980s and 1990s there were many regulatory restrictions which prevented banks to adopt new technology. As a result there was heavy reliance on customary branch based delivery of financial services and little pressure to change. This changed gradually with the deregulation of industry during the 1990s. This time the increasing importance of Information Communication Technology (ICT) brought stiffer competition and pressure for faster change. Driven by the challenge to expand and capture a large part of the banking market, some banks invested in infrastructure to enlarge their geographical and market coverage. Others have considered a more revolutionary approach to deliver their banking services via the internet. Indeed the emergence of internet banking has prompted banks to rethink their Information Technology (IT) strategies in order to stay competitive. Customers today are demanding much
more from banking services. They want new levels of convenience and flexibility (Birch and Young 1997; Lagoutte 1996) on top of powerful and easy to use financial management tools, products and services that traditional banks could not offer.

Internet banking services enables banks to perform transactions such as transferring funds, payments of bills, access of latest balances, statement viewing, and account detail viewing, printing and downloading of statements just to mention but a few. This in its self has been a fundamental shift in the banking delivery channels towards self service channels. According to Quereshi (2008) clients shifted from traditional banking to online banking system, the main reason being that of perceived ease of use, perceived usefulness and security provided by online banking.

Despite the fact that the internet has an ever-growing importance in the banking sector, not all financial institutions (banks) that have adopted internet banking have been successful. Musiime A and Rachadan (2011) pointed out that in Uganda, where concept of internet banking was introduced in early 2006, adoption and implementation has either been slow in banks or among customers. In developing countries, internet banking is still in its early stages. Only a few banks are developing such services while others merely use World Wide Web to provide information about products and services (Wungwanitchakorn, 2002). Deyoung (2003) further pointed out that this low adoption is an indication of the hazards of introducing new products into the market place.

In Zimbabwe commercial banks introduced internet banking in past seven years. The adoption of the technology among individual customers is still very slow in these commercial banks. This is a new innovation in Zimbabwe (internet banking) thus it is worthwhile topic to study so that the quality of Zimbabwe’s banking sector can be improved for the future. On the same token it is important to note that internet banking has been widely studied in developed countries and very few studies have been done on African soil and its adoption has not been investigated in Zimbabwe. Literature shows that there are problems when it comes to adoption and use of internet banking in the African continent. There is lack of experience within individuals and organisation and most of the potential users are unqualified. The above mentioned reasons prompted the researcher to choose this topic as an area of study.

**Justification of the research:** The adoption of electronic banking in particular internet banking in everyday transaction of customers has made it more than just a complement to traditional banking but has resulted in customers perceiving internet banking as a modern way of doing banking. Internet banking is strongly promoted to bring about a change in consumers’ banking behaviour. However in Zimbabwe the adoption of this technology has remained sluggish among bank customer despite the convenience it brings to the customers and the banks. The crippling crisis faced since November 2007 to early 2009 and the continued rise of long queues in the banking hall in this post dollarization era would have been mitigated as customers would have resorted to internet banking which do away with visiting the bank for hard cash. This study investigates the factors that influence the adoption of internet banking among intellectuals.

**Theory and Empirical Studies**

**Electronic banking explained**

Electronic banking is the newest form of delivery of banking services and products. Brown and Molla (2005), for example described e banking as an electronic connection between bank and customer to prepare, manage and control financial transaction. However, a more comprehensive definition to e banking is given by Singh and Maholtra (2004) as the deployment of banking services and products over electronic communication networks directly to customers. It should be noted that electronic banking is a bigger platform more than just banking via electronic means. However
the most general type of electronic banking of our time is internet banking. The term electronic banking can be described in many ways. In a very simple form, it means the provision of information or services by a bank to its customers, via a computer, television, telephone or mobile phone (Daniel, 1999). At an advanced stage internet banking is called transactional online banking, because it involves the provision of facilities such as accessing accounts, transfer of funds and buying financial products or services online (Sathye, 1999). The terms internet banking and online banking are often used in literature to refer to the same thing. Furthermore, electronic banking is said to have three different means of delivery. Daniel (1999), for example introduced four different channels for electronic banking which are PC banking, internet banking, managed network and TV based banking. The international monetary fund further explained the concept of electronic banking diagrammatically and to show the place of internet banking in the broad spectrum of electronic banking as shown below.

**What is electronic banking?**

![Electronic Banking Diagram](source IMF (2003))

**The concept of internet banking**

Internet banking refers to the systems that enable bank customers to get access to their accounts and the general information on bank products and services through the use of bank’s website, without the intervention or inconvenience of sending letters, faxes, original signatures and telephone confirmations. It is the type of services through which bank clients can request information, and carryout most retail banking services such as balance inquiry, inter account transfer, bill payments within the comfort of their homes or organisation (Hanemman, 1984).

**Types of internet banking:** Mu Yibin, (2003) identified three functional levels or kinds of internet banking that are currently employed in the market place and these are informational, communicative and transactional.
Informational - this can be identified as the first level of internet banking, typically the bank has marketing information about the bank’s products and services on a standalone server and the bank’s internal network.

Communicative - This type of internet banking allows some interaction between the bank’s system and the customer. The interaction is limited to e-mail account, inquiry loan application and static file updates (name and address). It does not permit any funds transfer.

Transactional - This level of internet banking allows bank customer to execute transactions. Since the path exists typically between the bank’s server and the outsourcer’s internal network, this is the highest risk architecture and must have strong controls. Customer transactions can include accessing accounts, payment of bills and transferring of funds.

Benefits of internet banking

To the bank: Internet banking offers many benefits to both the banking institution and the customer. According to Jayawardhana and Foley (2000), the main benefits to the banks are cost saving, reaching new segments of the population, efficiency, enhancement of bank’s reputation and better customer service.

A research conducted by Booz – Allen and Hamilton (1997), concluded that the establishment of a specialised internet banking requires only USD 1-2 million which is very low than the branch based set up. The research also established that traditional banking costs amounts to 50% to 60% of its revenues while internet banking was estimated to be at 15% to 20% of revenues. The researches indicate that internet banking is a strategic tool for cost reduction in the banking sector.

Sheshunoff (2000) says further that the single most important driving force behind the implementation of full service internet banking by banks is the need to create powerful barriers to customers exiting. He argued that once a customer moves to full service internet banking, the likelihood of that customer moving to another financial institution is significantly diminished. The main reasons for this behaviour can be found in the consumer behaviour theory: switching always requires much time and effort from individual customers. He concluded that the competitive advantage of internet banking is very significant for the survival of the bank.

To the customers: Internet banking proved to be helpful more than any other delivery channel in the banking sector. According to Laukkanen (2007), internet banking gives customers access to almost any type of banking transactions at the click of a mouse, except withdrawal 24 hours a day. The branch banking venue is characterised long winding queues and it is quite logical for the people with knowledge and accessibility to switch over to internet banking (Kerem, 2008). Thus he advocated for people to use internet banking because of its convenience.

The greatest benefit of Internet banking is that it is cheap or even free to customers. Kerem (2008) also compared the costs associated with traditional branch banking and internet banking to the customer. His conclusions were that online banking charges are much less than those of traditional banking. However, price seemed to be one factor militating against Internet banking (Sathye, 1999). Two important factors in the price debate are on the one hand geographical differences and on the other hand disparities between the costs of for example internet connections and telephone call pricing. It has also been argued that electronic banks are more likely to change in reaction to customers’ demands (Madu, 1999). Internet banking has the advantage that the customer avoids travelling to and from a bank branch. In this way, Internet banking saves time and money, provides convenience and accessibility, and has a positive impact on customer satisfaction (Karjauloto, 2003). Customers can manage their banking affairs when they want, and they can enjoy more.
Internet banking in Zimbabwe

Figures released by the Reserve Bank of Zimbabwe (RBZ), governor Gideon Gono in November 2010 showed that cumulative total of mobile and internet transactions amounted to four hundred and fifty seven thousand valued at US$193 million were processed from January to November 2010. Of these transactions internet transaction amounts to 99 percent and mobile payments 1 percent. According to the monetary policy for January 2012 the governor further pointed out that internet banking constitutes 30% of the total retail values. During 2011 internet values increased significantly by 132% to US$532 million from US$230 million of 2010. Concomitantly volumes increased from 85 thousand in 2010 to 196 thousand in 2011. These figures proved that internet banking is taking over the market with a bang. Internet banking was introduced in Zimbabwe in early 2003. Standard (2004) argue that private banks were the early adopters of Internet banking while the public banks are also beginning to use the same banking facility. Internet banking in Zimbabwe is concentrated mainly in the commercial banks and a few building societies which specialise on retail banking. According to the Reserve Bank of Zimbabwe (RBZ) March 2011, Quarterly Bank Supervision Bulletin, there are 17 commercial banks in Zimbabwe of which almost 50% of them provide Internet banking services. Some commercial banks, notably, Kingdom Bank, First Banking Corporation, Merchant Bank of Central Africa and Commercial Bank of Zimbabwe are currently the leading banks to have introduced Internet banking for a limited range of services such as access to account inquiries; funds transfers and loan applications. Some of the services offered by the Zimbabwean commercial banks include the following:

- Balance inquiry for all accounts maintained
- Transfer of funds between accounts in the same bank and across different banks
- Bank statements inquiries and printing
- Utility payments e.g. electricity rates, rent or insurance
- ZIMRA payments
- Financial institution annual reports
- Application forms for current accounts
- Application forms for cheque book requests

Adoption process.

Adoption is the acceptance and continued use of a product, service or idea. According to Rogers and Shoemaker (1971), consumers go through "a process of knowledge, persuasion, decision and confirmation" before they are geared up to adopt a product or service. So the stages through which a technological innovation passes are:

- Knowledge
- Persuasion
- Decision
- Implementation
- Confirmation

An adopter passes through certain stages before decision is made on whether to adopt or reject an innovation. Rogers has been one of the number of researchers who has focused upon the adoption process, which he defines as the "the process through which an individual or other decision-maker unit passes from first knowledge of an innovation, to forming an attitude toward the innovation to a decision or rejection to implementation of the new idea, and to confirmation of this decision" (Frambach, 1993).

The innovation adoption process defined by Rogers (1995) is the process through which an individual or other decision making unit passes from knowledge of an innovation, to forming an
attitude towards the innovation, to a decision to take up or reject, to execution of the new idea, and to confirmation of this decision.

**Factors affecting the adoption of internet banking**

In spite of the identified benefits and tailor made services internet offers, some bank customers still pay bills in more traditional ways as there are some factors slowing down customers’ adoption of internet banking (Laukkanen 2007). Consumers normally adjust to innovation at slow pace as they need to adjust their existing preferences and practices (Ramadhan, 1987). Thus successful innovation can only start after the initial resistance has been overcome. Musiime (2011), Amin (2007) and Davis (1989) identified many factors which they concluded that they affect customer’s choice in adoption of new technology. These factors include perceived security, internet experience factor, internet prestige, internet skills, marketing exposure, reliability and demographic characteristic.

**Perceived security:** Internet banking provides alternatives for a faster delivery of banking services to a wider range of customers (Oghenerukevbe, 2008). However, the increasing popularity of Internet banking attracts the attention of both legitimate and illegitimate online banking practices (Oghenerukevbe, 2008). Further, Internet banking is a trust-based system, which means the theft of customers’ personal identity information can cause customers to lose their confidence and trust in the system and their bank (Altintas and Gürsakal, 2007). In addition, Internet fraud or deception can negatively affect customers’ opinions on the Internet banking safety and security provided by the banks (Altintas and Gürsakal, 2007). Criminals can also focus on stealing a user’s online banking credentials because the username and password combination is relatively easy to acquire, making it possible to fraudulently access an Internet banking account and commit financial fraud (Oghenerukevbe, 2008). Thus, perceived security has been widely recognized as one of the main barriers to the adoption of internet innovation in financial services (Mattila and Mattila, 2005). Mattila and Mattila (2005) suggest that banks offering Internet banking must first convince their customers that the internet is secure as a medium.

Laforet and Li (2005) discover significant security differences between those customers using online banking and those who do not, and emphasize that the hackers and fraud aspects are important for the non-users. Hackers and fraud actions are known as computing environment crimes (Altintas and Gürsakal, 2007). Within these crimes, electronic funds may be transferred, or identities may be stolen, and in both situations the user’s computer is both a target and a tool (Madu, 2002). Kaynak and Harcar (2005) observe that security problems are the most important reason given for not using online banking by sample respondents. Kaynak and Harcar (2005) show that security problems such as hackers and fraud are determining factors in selecting any Internet services. Trust and security are important factors supporting a positive view of Internet banking service quality (Altintas and Gürsakal, 2007).

In a survey of web users, Friedman, (2002) analyzed the concerns about the potential risks and harms of web usage on consumers and evaluated the web practices of 72 participants. Friedman’s (2002) interviews on web security show four screen shots of a browser connecting to a website and asks participants to state if the connection is secure or not secure and to affirm the motivating factor for their appraisal. Friedman, (2002) discover that all 72 participants could not tell if a connection was secure and that they were at risk. Chiemeke, Evwikpaehe, and Chete (2006) investigate the possibility of Internet banking adoption and show that the main factors that inhibit the adoption of Internet banking are security and inadequate operational facilities which include proper telecommunications and power supply. Bauer and Hein (2006) confirm that perceived risk is the most important factor that makes customers reluctant to adopt Internet banking. In addition, older customers are less likely to
adopt Internet banking whereas younger customers tend to be early adopters because they are willing to tolerate a high risk (Bauer and Hein, 2006). Berger and Gensler (2007) agree and support Bauer and Hein’s (2006) findings that online banking customers tend to be young, have white collar jobs, high personal income, higher telecommunication usage, and willing to accept certain risks.

**The Internet Experience Factor:** The World Wide Web can change human behaviour and human interactions to a very large extent (Kamineni, 2002). The Internet provides both firms and consumers with new methods for communication (Harridge-March, 2006). For instance, the Internet provides consumers with access to rich new information sources and with the potential to make better-informed decisions (Kamineni, 2002).

According to Al-Ghamdi (2009), the experience of consumers may affect trust when they purchase products or services online in the United Kingdom. In this context, consumer may not rapidly adopt Internet banking due to a lack of understanding and knowledge about the Internet (Corritore, Kracher and Wiedenbeck, 2003). Gerrard, Cummingham, and Devlin (2006) find that customers who have never purchased products over the Internet are more likely to continue to use traditional ways of sourcing their banking services. Agarwal, Sambamurthy, and Stair (2000) argue that the familiarity with one software may increase consumers’ belief in her or his capability to use another software. Igbaria and Livari (1995) indicate that experience is strongly and significantly correlated with self-efficacy. Also the individuals’ prior experiences and their past interaction with systems can form their self-efficacy and their confidence to use an advanced technology (Agarwal et al., 2000).

Research shows that an Internet banking experience includes online consumer behaviour and online service adoption factors. Internet banking experience is an important factor that affects consumers’ intentions to use Internet banking, and consumers’ attitudes towards using the Internet banking system (Lichtenstein and Williamson, 2006). Jiang, Hsu, Klein, and Lin (2000) consider that the more experienced an Internet user is, the more likely they are to adopt new Internet technologies. Hoppe, Newman, and Mugera (2001) reached the same conclusion and find that users who are more experienced at using the Internet are more likely to adopt the technology than those consumers who have not had much exposure to the internet. In addition, a simple lack of experience and knowledge can hold back adoption; firms and individuals with higher usage intensity of information technology may have a higher probability to adopt Internet banking than less experienced firms (Speece, 2000). Karjuoto et al. (2002) concluded that prior computer experience, prior technology experience, and prior personal banking experience positively affect consumers’ attitude and behaviour towards online banking.

**Internet Prestige:** Prestige Internet banking includes among other factors such as status and high standing among peers and self concept. Most banks in China have not aggressively promoted Internet banking to the bank customers. Bank consumers in China cited various types of costs which have inhibited their use of Internet banking, such as cost of buying a computer, the monthly fee of an Internet connection, and the monthly fee charged by the bank (Lichtenstein and Williamson, 2006). Mols (1998) and Sathye (1999) studies show that some consumers could not afford a personal computer (PC) and this prohibited the adoption of Internet banking.

Young (2006) shows that affluent and highly educated groups generally accept changes more readily. Thus highly educated consumers may be more likely to adopt Internet banking services than low educated consumers. In addition, using Internet banking gives these consumers prestige among their peers. It is also part of the social scene of today’s technology driven society. Sarro (2002) argues that customer profiles of Internet banking users
are not substantially different between one country and another, as most clients are young people with a college education, a steady job and income. Price Waterhouse Coopers (2000) state that the typical Internet banking customer is aged between 25 and 35 years, has medium to high income, and likes to make his/her own financial decisions. Al-Somali, Gholami, and Clegg (2008) discovered that trust and education influence customers’ attitudes towards using Internet banking. In addition, Flynn and Goldsmith’s (1993) study profiled the Internet consumer and found that innovators normally belong to the high income group.

**Marketing Exposure Factor:** One of the most important contributing factors for adoption or acceptance of any innovative financial service or product is the creation of awareness among consumers for the service or product (Suganthi, Balachandher, and Balachandran, 2000). In this context, Rogers and Shoemaker (1971) assert that consumers go through a process of knowledge, conviction, decision, and confirmation before they are ready to adopt and use a product or service. Howard and Moore (1982) and Guiltinan and Donnelly (1983) emphasize the importance of awareness for the adoption of any new innovation. Suganthi, Balachandher, and Balachandran, (2000) indicate that there should be increasing promotional efforts on the part of banks to create a greater awareness of Internet banking technology and its benefit in Malaysia. Prasad and Arumbaka (2009) show that most customers in India do not know how to become an Internet banking user, how to use the technology, and hence feel insecure about Internet facility primarily, due to a lack of marketing effort on the part of banks. Sathyे (1999) also studied the adoption of Internet banking in Australia, and finds that security concerns and a lack of awareness stand out as the main reasons for the failure to adopt Internet banking by sample respondents. Al-Sukkar and Hasan (2004) note that a lack of awareness reduces the adoption rate of Internet banking services in the Middle East. Creating greater awareness by showing customers the benefits of using new systems may encourage customers to adopt Internet banking transactions (Al-Sukkar and Hasan, 2004). Lichtenstein and Williamson (2006) show that many Internet non-users mentioned not having known or thought about Internet banking, nor have they seen the technology advertised in Australia. Some respondents remarked that they did not bank through the Internet because they believed Internet banking is too complicated or of little interest. This lack of awareness suggests the need for banks to create interest in Internet banking, perhaps through an aggressive marketing campaign targeting non adopters (Lichtenstein and Williamson, 2006).

**Internet Skills Factor:** Any new technology is usually picked up by the early adopters who have Internet access and knowledge about the facilities such as those provided by a bank on the Internet (Prasad and Arumbaka, 2009). However, some consumers do not know how to become an Internet banking user, and some consumers do not have the required PC skills and facilities needed to do Internet banking (Prasad and Arumbaka, 2009).

Kim, Widows, and Yilmazer (2005) note that some consumers have more ability to use banking technology and computer software for managing money than other consumers. Consumers with increased computation ability may adopt Internet banking more easily and their ability may also improve their efficiency in the use of Internet banking. In addition, they may need to invest less time and money to learn Internet banking (Kim et al., 2005). Consumers who have no experience and skill in the use of banking technology and computer software may not recognize the benefits of Internet banking. However, these customers may hesitate to adopt Internet banking as they need to invest more time and money to learn Internet banking (Kim et al., 2005).
Several researchers have discussed about the virtual requirement of computer ownership and operational skills for Internet adoption. For example, Centeno (2003) notes that Internet banking requires that the user must have a minimum level of Internet skills. This may explain why some older customers are hampered by a lack of computer skills and the need to be educated on basic Internet functions required to conduct online banking (Al-Alawi, 2005). Black, Lockett, Winklhofer, and Ennew’s (2001) study reveal that the adoption of Internet banking depends on the compatibility of the new channel with the individual’s personality, computer skills, and the opportunity to try the service offered. Gerrard and Cunningham (2003) find that consumers who are non-adopters of Internet banking could be differentiated by their low (or poor) computation proficiency and computer skills. In Lichtenstein and Williamson’s study (2006), the authors pointed out that a person’s Internet self-efficiency, such as Internet skill, will affect the decision whether or not to adopt Internet banking. Internet users generally expressed confidence in their ability to use the Internet – a confidence acquired from multiple positive experiences and acquired familiarity with the Internet channel (Lichtenstein and Williamson, 2006). The results show that the non-user of Internet banking services have lower Internet skills, lack of access, and lack of experience (Lichtenstein and Williamson, 2006). Furthermore, Polatogu and Ekin (2001) reach a similar conclusion with Lichtenstein and Williamson (2006). The authors show that the consumers’ knowledge and skills about the Internet and Internet banking are important to the adoption of Internet banking. If the knowledge and skills about the Internet and Internet banking are low, the adoption rate will be low. The more knowledge and skills a consumer possesses about Internet banking, the easier it is for the consumer to utilize Internet banking (Polatogu and Ekin, 2001).

Reliability Factors: Leelapongprasut, Praneetpolgrang, and Paopun (2005) indicate that in Thailand, the three most important dimensions of quality in Internet banking are: reliability, serviceability, and durability. Reliability involves consistency of performance and dependability which means that the banking firm performs the services right the first time and honours its promises (Khan, 2007). Reliability involves accuracy in billing and information, keeping records correctly, performing the service at the designate time (Zeithaml, Parasuraman, and Malhotra, 2002; McKinney, Yoon, and Zahedi, 2002). Reliability is associated with the technical functioning of the internet banking site, particularly the extent to which the site is available and functioning properly. Sathye (1999) and Polatoglu and Ekin (2001) find that the reliability dimension is an important factor for consumers who use electronic banking. Furthermore, Sathye (1999) and Liao and Cheung (2002) find that reliability is positively related to the use of electronic banking.

Demographic Characteristics: Demographic factors are frequently used as a basis for understanding consumer characteristics (Block and Roering, 1976; Lewis, 1981). The popularity of using demographic factors is attributable to the observed relationship between the consumption of certain products and certain demographic factors (Block and Roering, 1976). The demographic characteristics include age, sex, income, occupation, education (Kotler, 1982).

In Murillo and Roisman’s (2004) report, the authors indicate that a bank’s decision to provide Internet banking depends on the characteristic of the market the bank serves, such as the demographic characteristics of potential customers, as well as whether the bank is located in a metropolitan area. Demographic characteristics also play a vital role in understanding the buying behaviour of consumers in different segments, and when the characteristics are identified, they enable companies to develop products and services according to customers’ specific requirements, tastes, and preferences (Sakkthivel, 2006). In addition, for Internet
banking service adoption, banks must consider a user’s demographic characteristics to offer the correct range of service products. Several studies have been conducted to profile the Internet consumer’s demographic characteristics and the results of these studies suggest that innovators who belong to the high income category are normally initial users of the Internet (Flynn and Goldsmith, 1993; Gan, Clemes, Limtsommbunchai, and Weng, 2006). Further, Sakkthivel (2006) reveal that the profile of an Internet user tends to be young, male, well educated, and earning an above-average income.

According to Polatoglu and Ekin (2001) and Howcroft, Hamilton, and Hewer (2002), demographic characteristics that describe typical electronic banking customers include young, affluent, and highly educated. A Finnish study (Mattila, 2003) reveals Internet banking users are relative wealthy, highly educated, and are in higher professions. Awamleh and Fernandes (2006) also find that in United Arab Emirates, young affluent and highly educated groups generally accept technological changes more readily.

Materials and Methods

The aim of this study is to Identify factors that affect adoption of internet banking among intellectuals. Determine the impact that the demographic characteristics have on internet banking. Evaluate strategies that banks can put in place to improve the adoption of internet banking.

The Research Design: For this research two designs were used one for generating the topic and the other one for answering research question and testing hypothesis. Exploratory research helped the researcher to identify problems, generates hypothesises and gain insight into the subject of internet banking. It is carried on a small scale in nature, cost are relatively low, tends to be flexible and findings tend to be inconclusive. The researcher came up with the topic after observing that internet banking adoption by individual customers is still very low. And the Descriptive research design The researcher used this kind of research to obtain first hand data from the respondents so as to formulate rational and sound conclusions and recommendations for the study in the field of internet banking. However, this type of research allows the researcher to gather information about the present existing conditions in the field and since it is a quick approach and practical in terms of financial aspect, the researcher can draw up reliable results in this short space period of time given.

Target Population: The target population for this study was all 4823 Chinhoyi University of Technology students and 240 academic staff.

Sample: A sample of 450 participants which encompasses students and staff was selected using stratified random sampling. The population was divided into stratus of schools which are:

- school of business sciences and management
- School of hospitality
- School of Engineering
- School of lifelong learning
- School of Agric engineering
- school of natural sciences
- school of art

The participants were drawn randomly from these schools to participate in the research.

The researcher used this sampling (stratified random sampling) method to ensure that each member of the population from the case has an equal opportunity of being part of the sample thus making this method an efficient sampling method as it reduces biases on selecting respondents.
A semi-structured instrument was used in this study. This instrument was used mainly because it spares respondents from direct confrontation with the researcher and ensures anonymity since it bears no names.

**Data Analysis and Discussion**

**Response rate**

The researcher distributed questionnaires and carried out interviews to gather data for the research. The researcher distributed 450 questionnaires to students and organized 16 interviews.

**Questionnaire response rate**

Out of the 450 questionnaires distributed 300 were received by the researcher and this can be translated to a response rate of 67% and a non-response rate of 33%

**Questionnaire response rate**

**Interview response rate**

Out of the 16 interviews organized, 12 interviews were successful, giving a response rate of 75% and non-response rate of 25%.

Those who failed to turn up for interview were academic staff citing different reasons

**Questionnaire response rate in relation to the age group**

The responses from the returned questionnaires were widely distributed according to age group.

**Questionnaire response rate in relation to the age group**

65.5% of the respondents fall in the age range of 18 to 25 years followed by the age group of 26 to 35 with 21.5% of respondents and 36 to 45 years with 8%. The age group of 46 to 60 years had the lowest number of respondents with 5%. The modal age category is between 18 and 25 because it is the category with the highest frequency. It implies that much of the respondents came from this age category.

**Benefits of internet banking**

Of respondents who indicated that they were using internet banking also answered the question about the benefits of internet banking to users. About 46% of the respondents argued that they use internet banking because of its convenience, 32% argued that internet is cheaper than convensional banking thus the main reason they chose to use the technology, 13% argued that its time saving and 9% talked about other benefits other than those that were specified on the questionnaire.

The distribution shows that most of the users use internet banking because it is convenient and time saving.

**Factors that affect internet banking adoption**

The following factors were noted to affect internet banking adoption among intellectuals. Of the 300 respondents 79 (26.33%) argued that Security of transaction is the most important factor which influence their adoption or non adoption of internet banking, marketing exposure 64 (21.33%), internet skills 42 (14%), reliability 39 (13%), internet prestige 37 (12.33%), quick service 22 (7.33%), variety of services offered 10 (3.34%), internet experience 7 (2.34%). The responses were drawn for both users and non user, both the two groups concurred on security of transactions as the most important factor in influencing the adoption of internet banking. About 75% of those who did not use internet banking (non adopters) emphasised on the security of transaction as very important to them if they are to take up the technology. This goes well with the findings of Sathye (1999) in the Australia who discovered that security concern and lack of awareness on the part of consumers stand out to be the major obstacles to the adoption of new internet banking. As shown on the bar graph in fig 4.5 the adoption of internet banking is secondly most affected by the marketing exposure of the technology. The researcher discovered that 59 participants singled out marketing exposure as very important in the adoption of new
technology. It implies that lack of awareness in the banking sectors hinders successful adoption of new banking technology.

To determine the understanding of respondents about the factors that influence internet banking adoption and how important were these factors, questions were asked which relate to each of the factors. The responses were assessed based on a likert continuum with five graduations from strongly disagree, disagree, neutral, agree and strongly agree where strongly disagree= 1 point, disagree=2 points, neutral=3 points, agree =4 points and strongly agree=5. Responses were aggregated, the means calculated and rankings were done to facilitate comparison.

Table below shows the data sheet for the results obtained.

**Importance of factors that influence internet banking adoption**

Of the 300 respondents from the sample chosen among staff and students it can be generally be concluded that the population was aware of the factors which affect the internet banking adoption and agree that these factors affect the adoption of internet banking. It is vivid enough as shown by the value of the mean scores that most of the respondents strongly agree on marketing exposure, internet skill and security of transaction as very important if one is to take up internet banking. Most of the respondents who have not yet adopted internet banking were neutral about the variety of services offered on the internet but strongly agree that marketing exposure and security affect their adoption of internet banking. However the general trend of the responses shows that the factors which affect internet banking adoption can be ranked in order of importance starting with security followed by marketing exposure and all others come after these two factors have been satisfied. Those intellectuals between the age of 18 and 26 argued that their main aim when adopting internet banking is for prestige reasons.

**Impact of demographic factors on adoption of internet banking.**

**Distribution of adoption and non adoption in relation to gender**

Among the respondents the adopters (intellectuals already using internet banking) were 130 and non adopter (those not using internet banking) were 170. The table 4.6 illustrates the distribution of sex among the adopters and non adopters.

**Adoption and non adoption in relation to gender**

101 male and 29 females adopted internet banking. Female non adopters were 120 and male non adopters were 50. This indicates that males are keen to adopt new technology than females since the percentage of male adopters in relation to the total sample was 33.66% as compared to 9.67% of the female adopters. From another angle more female are non adopters than males about 40% of the respondents were female non adopters and male non adopters were 16.67%. The results show that internet banking is familiar with men than women. Men are ready to take up any new development when it comes to technology than women. The results were consistent with, Sakkthivel’s (2006) who revealed that the profile of an Internet user tends to be young, male, well educated, and earning an above-average income.

**Number of adopters according to age**

The number of intellectuals who adopted internet banking in relation to age groups. Most of the people who adopted internet are at the age between 18 and 25 and the least about 8 people are between the ages of 46 to 60. The mean of the data was 27.56 and the median age is 24. 31 this indicates that the data is positively skewed, that is there are more observations where variables take a low value. The age of internet adopters is a positively skewed variable because most are concentrated in the 18-25 age range but there are some mature intellectuals who were older than this. The distribution shows that internet banking is popular with young intellectuals between the age of 18 and 35. Fig is a line graph which shows the distribution of internet banking adoption according to age. The line shows that as the age increases the number of people using internet banking decreases. This goes well with Sakkthivel’s (2006) findings which revealed
that the profile of an Internet user tends to be young, male, well educated, and earning an above-average income.

Now since the internet banking adoption and age are associated as shown by the graph. The researcher went on to test if internet banking and age are positively or negatively related. Regression was used to test the hypothesis and it was found that $R = -0.860959247$ this means that the internet banking is negatively related to the age. That is a decrease in rate of internet banking adoption; correspond with an increase in age. As a result of the hypothesis test $H_0$ was accepted and $H_1$ rejected.

**Internet banking adoption and level of education**

The distribution of adoption and non adoption of internet banking in relation to the level of education. The largest number of those who adopted internet banking is those whose highest level of education at the time of the research was high school. The highest numbers of those who do not use internet banking are also those whose highest level of education is high school as shown on the table this might be because they constituted the biggest number on the sample. The lowest for both groups (adopters and non adopters) was of those whose highest level of education was PhD with 6 and 8 respectively.

To test the hypothesis on the association between internet banking adoption and level of education, Chi-square ($\chi^2$) was used. The $\chi^2$ was tested at 5% level right with 5 degrees of freedom. The $\chi^2$ crit was 11.07 and $\chi^2$ statistic was 3.866997. Since $\chi^2$ statistic was less than $\chi^2$ crit $H_0$ was rejected and accept $H_1$ concluding that there is an association between internet banking adoption and level of education. Thus for people to adopt internet banking they need to be educated. This was supported by Howcroft, Hamilton, and Hewer (2002), who argued that the demographic characteristics that describe typical internet banking customers include young, affluent, and highly educated.

The hypothesis to test the relationship between level of income and internet banking adoption was not tested because respondents were not comfortable to disclose their incomes though the questionnaires were clearly indicated ‘strictly for academic purposes only’ and many of the respondents were students who argued that they do not have income.

**Strategies to improve internet banking adoption.**

The respondents were of the opinion that the successful adoption of internet banking rest with the banks to deal with those factors that negatively affect the adoption process. The main focus of the interviews was to extract the ideas of people on issues to the improvement of internet banking adoption. 91% of the twelve who were interviewed argued that banks need to advertise their products in particular internet banking. Commenting on the slow adoption of internet banking the respondents pointed on the lack of knowledge about how internet bank works. Part of the sample interviewed was not able to distinguish between internet banking and mobile banking signifying lack of knowledge about the technology. About 50% percent of the respondents pointed out that they are not sure about the security aspect of internet banking and hence they argue that for them to take up the new technology they need full guarantee of the security of their transactions. The respondents also highlighted that internet banking is a new technology but they are not aware of its advantages comparing with other electronic delivery channels. One other respondent put it clear that internet banking should be critically explained to users, and banks should work hand in glove with institutions of higher learning to draft ways to improve information disseminations about the adoption of new technology in banks.
Conclusions and Policy Recommendation

Conclusions: The research pointed out on the benefits of internet banking to users; convenience, time saving, cost saving and quick to use. It also clarified on factors that affect internet banking adoption among intellectuals. Much of the respondents concurred on security and marketing exposure as the main factors that affect their decision to take up internet banking. As the internet banking is new to Zimbabweans, intellectuals fear to entrust it with wealth as indicated their concern on security aspects of internet banking. Those who use internet banking are still not yet confident to wholly conduct their banking business on the internet.

A lot also needs to be done if banks are keen to tap the benefits of technology in business. A legion of respondents argued that they are not aware of such developments in the banking sector; most of them confused internet banking and electronic banking. From the findings it can be concluded that most intellectuals are not aware of the benefits of internet banking, they do not have any justification for leaving their convention ways to take up internet banking.

From the study it was shown that internet banking is popular with men than women. This may be because men have the courage to take up new technology even with little information about it. Men usually are keen to experiment than women. The research study also vividly exhume that internet banking is familiar with the young generation between the age of 18 and 25. The rational for having more people adopting internet banking in this age group is because these are people who were born during the digital era and they understand technology faster than those who are in their late thirties.

The association between internet banking and level of education was tested using $\chi^2$ chi-square and the test proved there is an association between the two, hence for one to adopt internet banking he or she must be educated. Education enhances the understanding of new technology. Respondents also brought strategies to improve internet banking adoption on board. In their view they maintained that banks should market their service in order to realise the desired target levels in internet banking adoption.

Recommendations: Communication campaigns have to be launched by banks since majority of the customers proved to unaware of the advantages that attached to internet banking services and its usefulness to bankers. It is vital to increase efforts to promote Internet training and provide learning systems for general public who do not have possibilities to get relevant education either at school or at work. Education would increasingly be a key contribution to the recruitment of new users. As it is increasingly difficult for persons who do not have Internet access or skills to keep up with the development of society, therefore it is crucial to pay attention to bridging the digital divide. High-end heavy users are already motivated to keep up and train themselves. Flat-out efforts should be done to improve the accessibility of internet to the public because someone who failed to adopt internet banking cited lack of internet experience. Some who was interviewed highlighted that they cannot take up the technology because they do not have infrastructure to access the internet. There must be strong security to do away with hackers who want to access information. Back up must be there in times of power cuts since customers will not be able to access their currents if the server with bank is down. Effective laws can vastly accelerate the development of Internet banking - especially laws concerning digital signature. Effective privacy protection laws considering the Internet environment would help to build trust and consumer confidence. Engage more with customers to identify critical areas of need to improve the delivery of e banking products.
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