Maximizing the use of electronic banking for competitive advantage. A case study of the Zimbabwean commercial banking sector (2012-2013)

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A dissertation submitted in partial fulfillment of the requirements for the degree of Master of Business Administration

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DECLARATION

I Paul Batanai Pasiparowa do hereby declare that this dissertation is the result of my own investigation and research, except to the extent indicated in the Acknowledgements and References and acknowledged sources in the body of the report, and that it has not been submitted in part or in full for any other degree, to any other University or college.

Student signature _____________________ Date ______________________

Supervisor signature ____________________ Date ______________________
ACKNOWLEDGEMENTS

First and foremost I wish to thank my supervisor for his tireless support and patience throughout my project. Your advices and corrections carried me this far. My gratitude and sincere thanks go to staff and management at Barclays Bank of Zimbabwe, CBZ bank limited, Kingdom bank, Standard Charted bank and ZB Bank for their great assistance during data collection. I thank all the respondents for generously allocating their precious time and commitment to sharing their opinions on the research topic.

To my wife Muchaneta, my son Initial as well as my daughter Finitual, you deserve special acknowledgement and appreciation for prayers, encouragement, motivation, support and, tolerance that you rendered towards the successful completion of this whole programme. Above all, I give praise, honor and uplift God whose divine intervention and favor has never left me throughout the entire programme.
ABSTRACT

This study sought to establish ways of maximizing the use of electronic banking for competitive advantage through understanding factors that determine customers’ usage of e-banking in Zimbabwe. A theoretical model was developed based on the technology acceptance model (TAM), a model which advances two beliefs: perceived ease of use (PEOU) and perceived usefulness (PU) as the main determinants of attitudes towards using new technology. The TAM incorporated control variables and tested their ability to predict customers’ behavioral intention to use e-banking. A questionnaire was used to collect responses from 200 banks’ customers from five banks with the largest branch networks. Respondents were selected using systematic random selection method from banks branch entrances. The findings of the study the usage of e-banking facilities in Zimbabwe is commendably high but trust, awareness of e-banking and its benefits; computer self-efficacy and auxiliary features have significant effect particularly due to their strong influence on perceived ease of use (PEOU) and perceived usefulness (PU). Demographics and resistance to change have mild impact except education and computer literacy which strongly promote computer self-efficacy. The results of this study are expected to aid the development of strategic plans that effectively promote customers’ usage of e-banking in the local and international banking community particularly in the region of Africa so as to maximize competitive advantage. The study incorporated discussion of the findings’ implications as well as suggestions for possible future research.
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## Abbreviations/Acronyms

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<th>Abbreviation</th>
<th>Definition</th>
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<tbody>
<tr>
<td>AT</td>
<td>Attitude</td>
</tr>
<tr>
<td>ATM</td>
<td>Automated Teller Machine</td>
</tr>
<tr>
<td>AVR</td>
<td>Automated Voice Response</td>
</tr>
<tr>
<td>BI</td>
<td>Behavioral Intention</td>
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<tr>
<td>BOP</td>
<td>Balance Of Payment</td>
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<tr>
<td>E-banking</td>
<td>Electronic banking</td>
</tr>
<tr>
<td>IB</td>
<td>Internet Banking</td>
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<tr>
<td>IS</td>
<td>Information Systems</td>
</tr>
<tr>
<td>PC</td>
<td>Personal Computer</td>
</tr>
<tr>
<td>PDA</td>
<td>Personal Digital Assistant</td>
</tr>
<tr>
<td>PEOU</td>
<td>Perceived Ease Of Use</td>
</tr>
<tr>
<td>POS</td>
<td>Point of Sale</td>
</tr>
<tr>
<td>PU</td>
<td>Perceived Usefulness</td>
</tr>
<tr>
<td>RBZ</td>
<td>Reserve Bank of Zimbabwe</td>
</tr>
<tr>
<td>RTGS</td>
<td>Real Time Gross Settlement</td>
</tr>
<tr>
<td>R²</td>
<td>Coefficient of determination/Regression coefficient</td>
</tr>
<tr>
<td>TAM</td>
<td>Technology Acceptance Model</td>
</tr>
<tr>
<td>TRA</td>
<td>Theory of Reasoned Action</td>
</tr>
<tr>
<td>TV</td>
<td>Television</td>
</tr>
<tr>
<td>USA</td>
<td>United States of America</td>
</tr>
<tr>
<td>US$</td>
<td>United States Dollar</td>
</tr>
<tr>
<td>ZIMRA</td>
<td>Zimbabwe Revenue Authority</td>
</tr>
<tr>
<td>ZIPIT</td>
<td>Zimswitch Instant Payment Interchange Technology</td>
</tr>
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CHAPTER 1
INTRODUCTION TO THE STUDY

1.0 Introduction
The world is experiencing profound transformations in business operations due to tremendous developments in information technology. This has led to the emergence of new types of transactions and activities in various fields (Joseph, Sekhon, Stone, & and Tinson, 2005). The banking sector is one of the earliest sectors to adopt these technological developments through the adoption of electronic banking (Omari & Bataineh, 2012). Electronic banking has increasingly been adopted because banks believe it provides valued benefits to their customers and themselves. Customers’ benefits include round-the-clock availability of the banking services, ease of transactions and avoidance of queues (Al-Somali, Gholami, & Ben, 2009). They are able to check account balance, know foreign exchange rates, get current interest rates information, transfer money between accounts, and pay bills through bank websites without having to travel to the banks, (Chuang, 2011). Banks also benefit from electronic banking through, for example, improved customer satisfaction, which can increase the bank’s market share; reduce operational cost; and improve competitive position (Khalfan, Yaqoub, AlRefaei, & Al-Hajery, 2006; Al-Hajri, 2008). These benefits are summarised in Table 1.1 below.

Table 1.1: Benefits of electronic banking to banks

<table>
<thead>
<tr>
<th>Benefits of electronic banking to banks</th>
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<tbody>
<tr>
<td>• Cost Reduction</td>
</tr>
<tr>
<td>• Increased customer base</td>
</tr>
<tr>
<td>• Enable innovation and development of non-core business services</td>
</tr>
<tr>
<td>• Marketing and communication</td>
</tr>
<tr>
<td>• Increased consumer loyalty and satisfaction</td>
</tr>
</tbody>
</table>

Source: Dube, Njanike, Manomano, & Chiriseri (2011)
Due to these benefits, banks view electronic banking as one of the richest sources of competitive advantage in the banking industry (Zimucha, Zanamwe, & Chimwayi, 2012). This realisation has led to significant innovations and improvements on electronic banking over the last decade (Maenpaa, Kaleb, Kuusela, & Mesiranta, 2008).

The several benefits of electronic banking highlighted above are a clear justification for banks to continue investing in the development of the channel. It is however worth to note that consumers and businesses, if left alone, will ordinarily not buy enough of an organization’s products, (Kotler, 2002). In other words, banks require effective marketing and promotional strategies to maximise customers’ electronic banking utilisation. Such strategies rely on understanding the factors influencing customers’ usage of e-banking.

So far, many studies have been carried out around customers’ usage of e-banking. Examples include Cheng, Edwin, Lam & Yeung (2006); Al-Somali et al.(2009); Azouzi (2009) and Gikandi & Bloor, (2010). Most of such studies have either used a management approach to data collection or have singled out specific electronic banking channels such as Telephone banking, Internet banking or Automated Teller Machine (ATM) banking, (e.g Al-Somali et al., (2009) and Cheng et al., (2006)). This study takes a holistic approach to electronic banking, and uses a customer approach to investigate the factors that determine customers’ usage of electronic banking to establish the best ways they can be manipulated to achieve maximum possible usage. This also gives insight on whether Zimbabwe’s electronic banking customers have unique developing economic setup and different demographic, cultural and infrastructural patents to those of Europe and Asia where most of the closest researches where conducted.

1.1 The Zimbabwean banking sector
This study focuses on the usage of electronic banking in the Zimbabwean banking sector with particular attention on the commercial banking institutions.
The Zimbabwe’s banking sector is highly sophisticated with three groups of financial institutions. It consists of banking institutions, asset management companies and microfinance institutions. The structure of the banking sector is shown in the Table 1.2 below.

Table 1.2: Architecture of Zimbabwe’s banking Sector

<table>
<thead>
<tr>
<th>Type of Institution</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Banks</td>
<td>16</td>
</tr>
<tr>
<td>Building Societies</td>
<td>3</td>
</tr>
<tr>
<td>Merchant Banks</td>
<td>2</td>
</tr>
<tr>
<td>Savings Banks</td>
<td>1</td>
</tr>
<tr>
<td>Total Banking Institutions</td>
<td>22</td>
</tr>
<tr>
<td>Assets Management Companies</td>
<td>16</td>
</tr>
<tr>
<td>Microfinance Institutions</td>
<td>150</td>
</tr>
</tbody>
</table>

Source: RBZ (2013: 26)

Commercial banks carry out their business through a network of branches, agencies and mobile facilities. These banks offer current and deposit account facilities, and provide loans and overdrafts to needy business organizations and individuals (Chagwiza, 2012). They also offer foreign exchange facilities including accepting (Basil, 2002; Heffernan, 2005 and Somashekar, 2009). In addition they are involved in financial advice and clearing systems (Chagwiza, 2012).

Merchant banks mainly provide wholesale banking services to complement the banking facilities extended by commercial banks. They specialize in the money and capital markets to provide trade financing through acceptance of credit facilities, that is short and medium term credits. They can also provide corporate advisory services at a fee, and are involved in underwriting of securities, portfolio management and can provide foreign exchange facilities (Chagwiza, 2012).
Building societies are mainly involved in savings, fixed deposits, a wide range of share deposits and mortgage lending (Chagwiza, 2012). They assist individuals and companies who need to purchase houses and commercial buildings without adequate money through mortgage loans.

Peoples Own Savings Bank (POSB) is the only savings bank in Zimbabwe. The bank, once known as Post Office Savings changed its name as it assumed a more commercial banking extension than was the case previously. According to RBZ (2011), the bank was involved in offering savings accounts and offer post services such as telegraph, registered mails and general letters. After changing its name the banks is still not a full-fledged commercial bank but it is no longer a post office savings bank. POSB has a network of branches dotted around the whole country.

Asset Management companies are mainly there to offer investment advice to investors and they accept and manage funds, usually large amounts. They study possible areas of investment such as stock markets, properties markets and the money market and assess them in terms of risk and return. They then advise investors on how best and where to invest their money for the highest possible return. The micro finance sector is mainly for borrowing and lending loans for the purposes of small to medium projects. They are not allowed to accept deposits from the public (RBZ, 2013).

1.2 Functions of the commercial banking sector
The main function of commercial banks is to accept deposits and lend them (Clarida, Gali, & Gertler, 2000). According to Clarida et al. (2000) the activities of the banking sector revolve around accepting deposits, issuing loans and advances, discounting bills of exchange and offering agency services.

1.2.1 Accepting Deposits
The most important function of commercial banks is to accept deposits from the public because it provides convenience and safe keeping of money. There are three
types of deposits that banks accept and these are savings deposits, current deposits and fixed deposits. Through savings deposits, money up to a certain limit can be deposited into and withdrawn from the bank. Savings deposits allow the bank to mobilize small amounts of money such as salaries and allowances, electricity bills payments and loan repayment installments. They also allow members of the public to transfer money to their relatives and friends.

Current deposits are also known as Demand Deposits where current deposit holders can withdraw and deposit money whenever they desire. They are therefore characterized by very low interest rates but banks can use then for inter-bank overnight lending at very high rates of interest.

Fixed Deposits are for a definite period of time and the length of periods varies depending on the depositor’s requirements. The deposits can only be withdrawn after that stipulated time and, therefore, these are also called time deposits. Time deposits generally earn a higher rate of interest because they are available for on-lending by banks.

1.2.2 Advances and Loans
Banks are a very important source of loans to different sectors of the economy. Upper (2006) states that banks carry the function of credit creation in which they advance loans to borrowers on the basis of deposits. This is reflected in the RBZ January 2013 monetary policy were banks in year 2012 extended loans to five key sectors of the economy namely, manufacturing, distribution, agriculture and services to boost economic development. Such loans are advanced with interest charges and are backed by security or collateral which means banks provide secured loans for productive purposes. In so doing they help in financing the economy whilst protecting and growing depositors’ money.

1.2.3 Discounting of bills of exchange
This is the most prevalent and important method of advancing funds to the traders for short-term purposes. In this scheme traders get money on the basis of their bills
of exchange before the time of their maturity but at a discounted face value. This is another important role by the banks where they underwrite the risk of default that international traders are exposed to. In this way banks promote the country’s export activities which in turn contribute positively to the country’s Balance of Payment (BOP).

1.2.4 Agency function
Over and above the key function of accepting deposits and lending, banks also perform other secondary functions (Davis, 2002). These include collection of cheques, drafts and bills, safe custody of money, facilitating foreign trade, information gathering, investment advice, share underwriting, issuing letters of credit, guarantees and other derivatives. These agency functions are critical because they are a source of income to the bank though they are not core to the banking function.

1.3 Challenges facing the commercial banking sector
As important to the economy as it is, the banking sector is being captivated by a number of challenges. The most peculiar ones include low bank deposits and shrinking markets creating stiff competition among banks, low public confidence, low liquidity buttered by poor economic performance and limited access to offshore lines of credit and also structural deficiencies mainly due to mismanagement.

The Zimbabwean banking sector recently emerged from extreme adverse condition that spanned from year 2004 to year 2008. This period was dominated by several bank failures and hyperinflation. A significant number of banks were put under curatorship and some were finally liquidated due to a combination of political pressures, liquidity challenges and internal mismanagement (Gono, 2006). Failed banks include Trust bank, Royal bank, Time Bank, Barbican Bank, Intermarket Bank, CFX Bank and First National Building Society. In the same period the country experienced severe cash shortages resulting in the introduction of withdrawal limits and incessant queues, (Industrial Psychology Consultants, 2012). According to the
research by Industrial Psychology Consultants (Pvt) Ltd, these events severely
damaged public confidence in the banking sector as many stakeholders continue to
perceive the risk of losing money or having their moneys locked up for a long time.

Year 2009 saw the introduction of a multicurrency system into the economy. This
arrangement resulted in the closure of many Zimbabwean dollar accounts without
account holder compensation. The introduction of the multicurrency system,
however, resulted in slow but positive developments in the banking sector.
According to the Reserve Bank of Zimbabwe, deposits in the banking sector
increased appreciably by 30.7% from US$3,376 million in 2011 to US$4,411 million
in 2012 owing to improvements in financial intermediation realized since the
inception of the multicurrency system. Industrial Psychology Consultants’s research
also revealed that there has been an average monthly growth of about 3% in bank
deposits and most banks were already recording profits in year 2011.

Despite the aforementioned improvements, the banking sector still continues to
experience a number of challenges. Banks are still struggling to build investor
confidence destroyed before the introduction of the multicurrency regime. However,
banks’ intention to build public confidence was found not to be supported by their
actions. Industrial Psychology Consultants argue that the banking system is still fraught
with structural and operational deficiencies that continue to threaten the viability of
many banks. Such deficiencies are characterized by high percentage of non-
performing loans which tend to continue exposing the banking sector to liquidity and
solvency challenges. It was also noted that there was a great mismatch between
lending rates and deposit rates. In its January 2013 monetary policy the RBZ
highlighted that the lending rates charged by banks in 2012 averaged over 22% per
annum which compared unfavorably with deposit rates that only averaged below 4%
per annum in the same year.
The major challenge emanating from banks’ failure to build public confidence is reduced market expansion. Following the closure of Zimbabwe dollar accounts in year 2009, a number of possible bank depositors remain reluctant to open bank accounts. RBZ reported a total deposit of only US$4.18 billion as at July 2012 which implies that all the 24 banks operating at that time were competing for that small amount. To this effect, there is stiff competition among banks to expand and maintain their customer base. The research by Industrial Psychology Consultants concluded that 75.30% of customers are not content with their banks and they would want to move to other banks. This posses a challenge for banks to improve their services inorder to avoid the exodus of their customers to other banks. It may stand therefore, to reason out that banks are challenged to implement strategies that bring more customer satisfaction such as improved service quality, accessibility and shortened lead time in service delivery.

Threat of closure continues to loom for a number of banks. This follows the introduction of the recapitalization plan initiated by the central bank in its quest to minimize the risk of bank failure and build public confidence. The Reserve Bank Of Zimbabwe January 2013 monetary policy indicated that a total of seven banks have not yet managed to reach their required recapitalization levels and two of these have high chances of failure. This again puts public confidence to test.

1.4 Commercial banks service delivery channels
Commercial banks deliver their services through two major types of channels. The first and oldest channel is branch banking. Branch banking is characterized by physical buildings where bank customers can walk in and receive banking services from the banking staff during clearly defined working hours. In other words branch banking involves direct interaction between the bank and its clients. Another extension of branch banking involves the setting up of banking divisions in public stores where customers can access their accounts and withdraw money or check balances. Branch banking is sometimes known as the brick and mortar channel.
The second type of banking channels is electronic banking also known as the “clicks and mortar” channel. This involves the provision of banking services to customers through electronic means. Interaction between the bank and its customers is not physical but rather is through a system or database supported by the bank. Electronic banking is normally available for twenty four hours.

A number of arguments have been generated by some researchers on the relevance of each of these channels. According to Chau and Lai (2003) banks are transforming from their traditional approach of “bricks and mortar” into a “clicks and mortar” in order to sustain business competitiveness. In a contrasting view, Baghdadi, Rizvi, Rizvi, Halima, & Sadia (2011) suggest that electronic banking achieves high success rates through coordination with brick and mortar channels. They argue that electronic banking works as a complement to, rather than a substitute for, physical branches. Evaluation of the relevance of these channels is however out of the scope of this study. The study rather focuses on how banks can maximize the usage of electronic banking to achieve competitive advantage.

1.5 How banks achieve competitive advantage

Competitive advantage is defined as an organizational capability to perform in one or many ways that competitors find difficult to imitate now and in the future (Kotler, 1997; Kotler, 2000). It is mainly based on generating the greatest customer value and sustaining it over time as highly satisfied customers can lead to a stronger competitive position resulting in higher market share and profit (Kotler, 2002; Fornell, 1992). Companies with competitive advantage can exceed their rivals' performance, and achieve long lasting benefits as perceived by clients (Kahreh, Safari, Ahmadi, Heidar & Hashemi, 2011).

Industrial Psychology Consultants (2012) argue that banks that are able to attract and retain customers on the basis of a sustainable blend of superior customer service, price-led competitive initiatives and relevant and diversified product
offerings are the ones that can succeed in the current Zimbabwean economy. They further suggest that banks need to make full use of new and emerging technologies to improve the customer experience and differentiate themselves in customers' eyes. This includes adopting new communication channels characterized by online and mobile technologies. Kahreh et al., (2011) suggest that competitive advantage is attained through offering quality products and services characterised by high perceived value but low perceived cost.

Banks which target to achieve competitive advantage demonstrate high customer care by introducing user friendly channels, channels that help to reduce lead time in service delivery, provide more information to customers and deliver tailored offerings (Industrial Psychology Consultants, 2012). In their research, Industrial Psychology Consultants cited speed and professionalism as the main concern for customers highlighting that these coupled with continuous engagement and friendliness help to keep customers' loyalty high.

To be able to deliver maximum customer value and boost their competitive advantage banks are challenged to adopt innovation. Kotler (2002) defines an innovation as any good, service, or idea that is perceived by someone as new. Innovation guarantees uniqueness which brings in differentiation. Today’s innovation is based in computer technological services which are very important towards achieving user friendliness (Baghdadi et al., 2011). It comes with improved communication and better market management strategies. Most Zimbabwean customers are very agitated by poor communication or lack thereof by their banks and for this reason they are willing to move to other banks (Industrial Psychology Consultants, 2012). This comes under the background that most depositors lost their money through bank failure which they could have avoided had they known what was happening in their banks.
Innovation also allows banks to create a database of their customers and their markets. Companies with superior information databases enjoy a competitive advantage because they can choose their markets better, develop better offerings, and execute better marketing planning (Kotler, 2002).

1.6 Electronic banking

Electronic banking, also shortened as e-banking, is the automated delivery of new and traditional banking products and services directly to customer through electronic interactive communication channels. Burr (1996) defined it as an electronic connection between the bank and customer to prepare, manage and control financial transactions. Ankit (2011) refers to it as the automated delivery of banking products and services directly to customers through electronic communication channels. Other studies describe it as the several types of services through which bank customers can request information and carry out most retail banking services via computer, television or mobile phone (Daniel, 1999; Sathye, 1999). Suffice to say that e-banking involves banks and customers interacting through an electronic channel.

In a number of instances researchers would just refer to internet banking as electronic banking mainly because internet banking is generally the most prominent e-banking platform (Cheng et al., 2006; Zimucha et al., 2012). It should however be noted that electronic banking is a bigger platform than just banking via the internet. The various platforms of e-banking include internet banking, telephone banking, TV-based banking, mobile phone banking, PC banking (or offline banking) and Automated Teller Machines (ATM) (Lustsik, 2004). The platforms of e-banking can be accessed using intelligent electronic devices such as Personal Computer (PC), Personal Digital Assistant (PDA), Automated Teller Machine, Point of Sale (POS), Kiosk, or Touch Tone Telephone (Baghdadi et al., 2011).
1.7 History of Electronic banking

According to Baghdadi et al., (2011) electronic banking started in the 1970s with the improvement of computerisation in financial institutions. They argue that the greatest mark of electronic banking was made in 1981 with the introduction of the ATM. Thereafter, it increased its pace due to technological developments in the telecommunications and Information Technology industry. In the 1990s it expanded to automated voice response (AVR) technology where (Kotler P., 1982) banks could offer telephone banking facilities for financial services. The first internet banking in the world was then introduced by The Security First Network Bank of USA in 1995 and thereafter electronic banking started spreading fast around the world and into various other platforms. In Zimbabwe, the first visible form of electronic innovation occurred in the early 1990s when Standard Chartered Bank and Central Africa Building Society (CABS) installed their ATMs (Dube, Chitura and Runyowa, 2009). In year 2012 Zimbabwean Internet banking had grown to 30% of the total retail values (Gono, 2012).

1.8 How electronic banking delivers competitive advantage

Cost reduction appears to be one of the greatest sources of competitive advantage in e-banking. Claessens and Kliengbiel (2000) suggest that electronic channels can lead to lower transaction costs which are very competitive. A research by Jayawardhena and Foley (2000) revealed that each ATM has the capacity to carry out the same, essentially routine, transactions as do human tellers in branch offices but at half the cost and with a four to one advantage in productivity. According to the research by Allen and Hamilton (1997) traditional banking costs were found to be 50% to 60% of its revenues while internet banking was estimated to be at 15% to 20% of revenues. This is partly because online banking is characterized by lower fees followed by reduced paperwork and human error (Al-Sukkar and Hasan, 2005). Examples of services that can be offered online by Zimbabwean commercial banks without human intervention and paperwork are:

- balance inquiry for all accounts maintained;
• transfer of funds between accounts in the same bank and across different banks;
• bank statements inquiries and printing;
• zimra payments;
• financial institution annual reports;
• application forms for current accounts; and
• application forms for cheque books.

Another dimension of cost comes in the form of setup costs. According to Birch and Young (1997) setting up branch networks is more expensive than setting up self-service distribution channels.

E-banking allows banks to also provide superior services which build and maintain customer loyalty. The most outstanding superiority features of e-banking are convenience and comfort. Robinson (2000) suggests that banks extend their relationships with customers through providing financial services right into the homes or offices of the customers. The branch banking venue is characterized by long winding queues and it is quite logical for the people with knowledge and accessibility to switch over to internet banking (Kerem, 2008). Reduction in the percentage of customers visiting the banks with an increase in alternative channels of distribution will therefore minimize the queues in branches (Thornton and White, 2001). The research by Industrial Psychology Consultants (2012) reveals complains about queues and poor service delivery in banks. It was argued that “in addition to queues moving slowly, tellers were often lackadaisical – taking cell-phone calls, browsing the internet and even chatting with other tellers whilst serving customers “. The adoption of e-banking therefore brings better service delivery speed and professionalism. E-banking customers do not face problems of handling a lot of money, submission of utility bills and waiting in a long queue for services (Zimucha et al., 2012).
Another source of competitive advantage for e-banking is better flexibility. The proliferation of available communication channels, and the rapid adoption of social media, online and mobile technologies by consumers, means that customer expectations of how they should be able to interact with their bank are changing dramatically (Industrial Psychology Consultants, 2012). Electronic banks are therefore more likely to change in reaction to customers’ demands (Madu, 1999). In other words banks with e-banking are quicker to respond to market dynamics.

E-banking builds customer engagement resulting in the creation of barriers to exit. It allows customers to interact with the bank via the channel that suits their particular needs and comfort zone. Research has revealed that fully engaged customers spend more, stay with you longer, and are more profitable than average customers (Industrial Psychology Consultants, 2012). Once a customer moves to full service e-banking, the likelihood of that customer moving to another financial institution is significantly diminished hence creating powerful barriers to customers exiting (Sheshunoff, 2000). Such barriers are very important to Zimbabwean banks given the small deposits base reflected in the RBZ January 2013 monetary policy.

E-banking promotes financial inclusion which expands customer base resulting in increased deposits. It has been observed that due to the growth in internet connectivity Zimbabwe has greatly improved financial inclusion of previously marginalized and excluded communities in the Zimbabwean economy (Zimucha et al., 2012). This means that e-banking gives banks an opportunity to penetrate those areas where branch banking is very difficult. In Zimbabwe banks are now working with mobile network providers to reach rural population through cellphone banking. Closely related to this advantage is the banks’ ability to reach new geographical areas such as the diaspora through internet and cellphones (Muzividzi, Mbizi, & Tinashe, 2013).
1.9 Electronic banking products in Zimbabwe

Zimbabwe has recently witnessed a significant increase in e-banking initiatives. Such initiatives include the mobile phone based banking services, improved ATMs and point of sale (POS) technologies. Examples of mobile banking services launched recently are shown in table 1.3 below.

Table 1.3: Zimbabwe’s most recent mobile banking initiatives

<table>
<thead>
<tr>
<th>Bank</th>
<th>E-Banking initiative</th>
<th>Year Launched</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cabs</td>
<td>TextaCash</td>
<td>2012</td>
</tr>
<tr>
<td>FBC</td>
<td>Mobile Moola</td>
<td>2012</td>
</tr>
<tr>
<td>Kingdom Bank</td>
<td>CellCard</td>
<td>2011</td>
</tr>
<tr>
<td>Tetrad Bank</td>
<td>E-Mali</td>
<td>2011</td>
</tr>
<tr>
<td>ZB Bank</td>
<td>E-Wallet</td>
<td>2012</td>
</tr>
</tbody>
</table>

These mobile products work almost the same way with slight differences on costs. For E-Wallet, interested members of the public are required to open a savings account with ZB Bank. They are also required to own and register an Econet line at ZB bank offices for their E-Wallet account to be created. The E-Wallet account is then attached to their savings account. Once the account is created, the E-Wallet account holder is allowed to transfer money to other ZB Bank accounts using their phones. They can also send money to any mobile network within Zimbabwe. The money is sent through a mobile phone instruction and once the instruction is successful the beneficiary will see a message advising them of their received amount. Upon receipt of the message, the beneficiary can visit any ZB Bank cash out agent around the country to collect their money at a fee of US$1.00. According to ZB Bank, the cost of sending any amount to an E-Wallet account holder is $1.00 whilst that of sending money to a non E-Wallet account holder is $2.50.

These mobile products promote financial inclusion since they help the extension of banking services into the rural areas where bank branches do not exist. The cash
out agents also include shops. This provides convenience to customers as they do not need to carry sums of money for shopping. Instead they can just walk into the shops, withdraw their money and buy their goods. The availability of banking services is also extended from the eight normal working hours, for example customers have the privilege through these facilities to juice airtime into their phones at any time of the day.

The mobile products are also a cheaper method of sending and receiving money. Normal bank charges are currently around five percent of the withdrawn amount but these mobile products only charges less than US$3.00 for any amount. Individuals can check their account balances and make some money transfers without visiting the bank branches. This has the effect of easing bank queues as well as cutting customers’ travelling costs.

The banks benefit from these mobile facilities through reduced staff pressure, financial inclusion, communication and promotion through messages and the ability to track the banking activities of individual customers through the system in order to study customer preferences.

Another fast expanding electronic banking service is the ZimSwitch. ZimSwitch delivers inter-connectivity between ATMs and POS devices throughout Zimbabwe (Dermish, Hundermark, & Sanford, 2012). This facility also allows customers to access their bank accounts and withdraw money in shops or other banks. Chilakalaka et al. (2012) reported a 250 percent growth in the adoption of ZimSwitch between years 1994 and 2012. Zimswitch is being further developed into Zimswitch Instant Payment Interchange Technology (ZIPIT) to enable interconnectivity between banked mobile subscribers by allowing money to be sent instantly to any cell phone in Zimbabwe (Dermish et al., 2012). This will result in it operating like an RTGS (real time gross settlement system) facility.
Internet banking (IB) is another fast growing e-banking technology. IB is electronic banking in which the customers connect with their banks through internet and the website designed by the banks (Hanafizadeh & Khedmatgozar, 2012). A number of banks, such as CBZ Bank, Ecobank, FBC Bank and Cabs Bank, now have web based connections to their customers which include auto bank statements email facilities.

Such development shows that banks consider e-banking as a way of obtaining competitive advantage. Whether that is true or not is reflected in customer value to e-banking. The task of any business is to deliver value to the customer at a profit, and customer value is defined as a ratio between what the customer gets and what he gives (Kotler, 2002). What it means is that, banks can continue to improve on e-banking but as long as customers do not adopt it, e-banking remains valueless. Banks therefore require effective strategies to attract customers towards full usage of e-banking.

1.10 Research problem
As banks stand to benefit more by adopting e-banking than other service delivery channels especially in reducing operational costs, moving customers to e-banking is becoming an important issue for the banking industry. Banks’ management therefore require comprehensive understanding of the factors that determine customers’ usage of e-banking, how those factors operate and how management can influence them. Literature has shown evidence of research efforts towards identifying these factors from a managerial perspective for example, Dube et al., (2011) and Zimucha et al., (2012). However, little has been done to probe them from a customer perspective and to cross tab their relationships. This helps management to establish ways of shaping customers’ perceptions towards e-banking in order to maximising the usage of the channel and gain competitiveness.
1.11 **Purpose of study**
The purpose of the study is to establish and evaluate the factors that influence customers’ perceptions towards e-banking with a view to supporting banks in developing effective strategic plans to increase customers’ continued usage of e-banking.

1.12 **Study objectives**
The objectives of this study are:

1) To identify factors determining the use of e-banking in Zimbabwe.
2) To establish ways in which banks can enhance the use of e-banking to achieve competitive advantage.

1.13 **Research questions**
This study seeks to answer the following questions:

1) How does e-banking enhance the competitiveness of banks?
2) What is the extent of e-banking usage in Zimbabwe?
3) What factors influence customers’ usage of e-banking in Zimbabwe?
4) What strategies can banks adopt to facilitate the usage of e-banking?

1.14 **Proposition**
The proposition behind this study is that the banking industry in Zimbabwe has not yet achieved maximum usage of e-banking to exploit its full potential for competitive advantage.

1.15 **Significance of the study**
Most financial institutions, especially retail banks, direct their strategies towards satisfying customers to guarantee current and future benefits (Arbore & Busacca, 2009). Arbore & Busacca(2009) acknowledge that behavioural responses from customer satisfaction have a positive impact on key corporate outcomes, such as retention rates, average deposit amounts, cost to the bank of providing services, and
future earnings. Gikandi & Bloor, (2010) showed that e-banking reduces costs and hence is more competitive in comparison with conventional banking practices.

A consensus was noted among the general public that bank charges were above international best practice and this could hinder the growth of savings (RBZ, 2013). On the other hand banks argued that bank charges are simply based on the cost of providing banking products and they are competitive compared to charges in the region (BAZ, 2012). Nevertheless, the Reserve Bank and the banking sector had to enter into a memorandum of agreement aimed at substantially reducing the charges (RBZ, 2013). The adoption of e-banking presents an opportunity to significantly reduce bank charges and bring satisfaction to both banks and their customers.

This study adds more insight into the factors that determine the usage of e-banking in order to support banks in crafting strategies to effectively enhance its continued usage.

1.16 Scope of research

This study covers all the commercial banking institutions in Zimbabwe. However, because of resources and time constraints the study focuses on commercial bank branches in Harare. Harare has representative branches for every bank in Zimbabwe and therefore is a good representative of the commercial banking sector in the country.

1.17 Study outline

This study is presented in five chapters. Chapter 1 is the introduction to the study, which lays out the study background, its objectives, scope and limitations. Chapter 2 reviews literature relating to factors that influence the adoption of e-banking. Chapter 3 lays out the methodology on how the study was conducted highlighting data collection and data analysis methods. Chapter 4 presents and analyses the study findings. Chapter 5 outlines the conclusions drawn and recommendations derived directly from the study findings and it also presents the suggested areas of further study as reflected by the study findings.
1.18 Summary

This chapter introduces the topic of the study. It goes onto describe the banking sector with more detail on the commercial banking institutions where the study is focused. The cause for e-banking adoption is also explained in order to create a better understanding of the subject area. The research problem is defined and objectives are laid down so as to give the direction of the study and to define the gap that it intends to close. The chapter also contains a proposition to the study which will be used to compare the study expectations against the actual research results.

Literature review follows immediately in Chapter 2 to examine work done by other researchers, authors and contributors in the field of e-banking in order to unveil the linkages between this study and earlier studies and to establish the gap that the study intends to close. It also allows the researcher to identify the variables that need to be tested and to understand the theoretical keystones around the area of study. Methodology, methods and designs used in the research in gathering data and analyzing it to bring out the trends in the data is discussed in Chapter 3. Chapter 4 presents and analyzes the study findings to get a deeper insight of the research. Chapter 5 summarizes the study from results presented in Chapter 4 and suggests the way forward in solving the problem definition. Conclusions and recommendations are proposed at this stage of the dissertation. The discussion will also attempt to map out implementation issues, which can be adopted by players in this industry. Finally the section also proffers other areas considered for further research.
CHAPTER 2
LITERATURE REVIEW

2.0 Introduction

This chapter contains a review of the literature on electronic banking in Zimbabwe. The theoretical framework in this study therefore carries three sections. The first section addresses the current theories and models that can be used to explain customers' usage of technology. Secondly, previous research on the critical factors which may have significant impact on the use of electronic banking is discussed. The chapter is concluded by proposing a model to use for better understanding the factors which influence customers' usage of e-banking in Zimbabwe.

2.1 Technology acceptance theories

Literature has revealed that the reason why users accept or reject e-banking can be explained by technology acceptance theories. These theories originate from human behavioural theories which try to explain human behaviour. The most prominent theories are discussed in this section with the view to propose the most appropriate one in testing the usage of e-banking in Zimbabwe.

2.1.1 Technology Acceptance Model

Technology Acceptance Model (TAM) was originally proposed in 1986 by Fred Davis and further developed in 1989. It was introduced to explain the user adoption or acceptance of Information Systems (IS). It finds its roots in the Theory of Reasoned Action (TRA) which was developed by Icek Ajzen and Martin Fishbein in 1975 to explain the relationship of beliefs to behaviors (Davis, 1991). TAM assumes that an individual's information systems acceptance is determined by two major beliefs, Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) (Davis, 1989).

Davis (1989) defines Perceived Usefulness (PU) as the degree to which a person believes that using a particular system would enhance his or her job performance. He defines Perceives Ease of Use (PEOU) as the degree to which a person believes
that using a particular system would be free of effort. Davis (1989) argues that a system which is perceived to be more useful and easier to use will receive more acceptance than other systems.

Davis et al (1989) came up with a modified version of the TAM which includes attitude. Fig 2.1 shows the structure of the modified technology acceptance model.

![Technology Acceptance Model](image)

**Fig 2.1: Technology Acceptance Model**

*Source: Davis Et al. (1989)*

In this model Davis (1991) argues that PU and PEOU are a function of some external factors. He identified user self-efficacy and system as factors that affect PU and PEOU. He reiterates that PU and PEOU will in turn affect the person’s attitude to use the system. In this model PEOU is said to have a direct impact on both PU and AT and an indirect impact on BI which leads to actual use. PU directly affects AT and BI and indirectly affects usage of the the system. He further argues that attitude is the one that directly determines system usage.

Since 1991, TAM has undergone development by a number of people (Chuttur, 2009). The issue of technology usage has received overwhelming attention over the past decade due to the need for businesses to maximize the benefits associated with adopting technology. Literature shows that the number of variables that make input to the model has increased significantly from just self-efficacy and system design. Research on the Technology Acceptance Model has both focused on very specific areas of software and expanded to other areas. Specific software areas that
have been studied include word processing, tax preparation software, email and voicemail, building management systems, and marketing decision support systems. It was also found out that TAM is very consistent in predicting and explaining system adoption (Chuttur, 2009; Al-Somali et al., 2009)

2.1.2 **Reumerman’s integrated model**

This model was developed by Reumerman in 2006. It is hinged on the argument that most technology acceptance theory models fail to include ‘organizational’ or ‘technical view’ on testing the acceptance of a system. In his argument he integrated the De Loe & McLean model with the TAM model. The integrated model proves the relationship between the three perspectives, which are, organizational, technical and user perspective. Fig 2.2 shows the two integrated models with the user-concerned factors.
The factors which make input to this model were adopted from a survey by Selamat, Anom, Karim and Mamat (2003), which led to the identification of six organizational factors and five technical factors that influenced information systems success. The identified six organizational factors are 'top management support', 'management style', 'managerial IT knowledge', 'goal alignment', 'resources allocation' and 'decision making structure'. The technical factors are 'Information system (IS) structure', 'user support', 'IS competency', 'IS facilities' and 'IS integration' (Selamat, et al., 2003).

In this integrated model, Reumerman simply argues that there is a relationship between organizational factors, technical factors and user perspective. Such relationship needs to be managed well because it can affect the acceptance of
technology by an organization and its users. These three groups of factors have the ability to influence each other and together they influence the intention to use the system. The technical perspective is related through the system quality and the information quality factors. In other words, poor technical quality affects both user perceptions and organizational performance. User-concerned factors influence the organization via ‘organizational impact’. The organization influences the user via, for example, the “voluntariness” or the subjective norm. Fig 3 shows the diagrammatic relationship among the three groups of factors.

Figure 2.3: Relationships of the three perspectives with their factors.
Source: Reumerman (2006)

2.2 Research model: Technology Acceptance Model

This study is a customer based study. To that effect the proposed model for this study is the Technology Acceptance Model (TAM). The model is chosen over Reumerman’s integrated model because of two reasons, it is simple and easy to understand and it also focuses on the customer. This model allows for the testing of
several variables’ ability to influence users towards using e-banking. The model is also chosen based on its proven consistence in predicting and explaining the adoption of technology. The existence of perceptions in this model makes it even more suitable since research is focused on users’ views. Variables or input factors are obtained from literature and they are then inputted into this model to find their controlling power on the customers’ behavioural intention to use e-banking.

2.3 Factors that affect the usage of e-banking

The factors affecting customers’ usage of e-banking have been at the center of several studies worldwide. Al-Somali et al., (2009) and Sohail & Shanmugham, (2003) found out that quality of the Internet connection, the awareness of online banking and its benefits, the social influence, computer self-efficacy, education, trust and resistance to change are some of the factors that have significant effects on the perceived usefulness (PU) and perceived ease of use (PEOU) of e-banking products. This section explores literature on the factors that are thought to have influence on the usage of e-banking. Such factors are then investigated to find their bearing on the usage of e-banking in Zimbabwe.

2.3.1 Quality of internet connection

Quality of internet connection is defined by speed of internet access, segregation of user rights and existence of firewalls to block attacks. Sohail & Shanmugham (2003) found out that internet connection is a very significant factor to the usage of banking services. This is in agreement with Al-Somali et al. (2009) who state that internet connection has a significant effect on perceived usefulness (PU) and perceived ease of use (PEOU). They further argue that internet speed is a test of patience and can discourage e-banking adoption especially in an environment where time is highly valued.

Franco and Klein (2009) stress the importance of upgrading technological infrastructure to bring it up to the speed with internet trade. This helps e-banking to be more reliable. According to Liao and Cheung (2002), reliability is positively
related to the use of electronic banking. The adoption of electronic banking in Zimbabwe was found to be underpinned by the slow growth of internet connectivity in the country (Zimucha et al., 2012).

2.3.2 Awareness of e-banking and its benefit

Lack of awareness of e-banking and its benefits was highlighted in a number of researches as a significant contributor to low e-banking adoption by customers (Izogol, Nnaemeka, Onuoha, & Ezema, 2012; Al-Somali et al., 2009; Aladwani, 2001). Suganthi, Balachandher and Balachandran (2000) argue that creation of awareness is one of the key success factors to the adoption or acceptance of any innovative financial service or product. They further proposed for increased promotional efforts on the part of banks to create a greater awareness of electronic banking technology and its benefit. In the same context, Lichtenstein and Williamson (2006) propose for an aggressive marketing campaign targeting non adopters. According to Al-Sukkar and Hasan (2004) creating greater awareness by showing customers the benefits of using new systems may encourage customers to adopt e-banking transactions. Prasad and Arumbaka (2009) state 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. Muzividzi et al. (2013) share the same sentiments for Zimbabwe and reiterate that marketing exposure is very important in the adoption of technology and lack of awareness in the banking sectors hinders successful adoption of new banking technology. They argue that the majority of Zimbabwean customers are unaware of the advantages and usefulness of e-banking to bankers. This is further supported by Ndlovu & Sigola (2013) who suggest that banks in Zimbabwe need to invest more in improving customer awareness of e-banking products. Sohail & Shanmugham (2003) carried a study in Malaysia which seemed so suggest otherwise that awareness of e-banking products and services has no significant effect to the adoption of e-banking services.
2.3.3 Customers’ reluctance to change

Some studies found a high level of customers’ inertia in changing their established banking activities to e-banking (Al-Somali et al., 2009). This may be an issue of familiarity and developed relationships with the earlier banking channels. Maenpaa et al (2008) argues that familiarity plays a significant role in determining the acceptance and adoption of internet banking, a sub-channel of e-banking. Ramadhan (1987) argues that consumers normally adjust to innovation at slow pace as they need to adjust their existing preferences and practices. Customers go through the steps of knowledge, conviction, decision, and confirmation before they are ready to adopt and use a product or service (Rogers and Shoemaker, 1971). Thus successful innovation can only start after the initial resistance has been overcome (Muzividzi et al., 2013).

2.3.4 Social influences

Social influence is the action taken based on other people’s perceptions. According to Al-Somali et al. (2009), customers may have unfavorable or favorable perceptions towards online banking use because of the perceptions of a family member, acquaintances or peers influence. This factor is likely to be very influential in Zimbabwe where adoption of new technology is considered prestigious in some circled whilst some religious backgrounds would discourage it.

2.3.5 Computer self – efficacy

“Self-efficacy” refers to individuals’ beliefs that they have the ability and the resources to successfully perform a specific task (Bandura, 1994). Muzividzi et al. (2013) argue that consumers with increased computation ability may adopt e-banking more easily and their ability may also improve their efficiency in the use of the service. They suggest that those who have no experience and skill in the use of banking technology and computer software may not even recognize the benefits thereof. Other studies have also suggested a close relationship between computer self – efficacy and perceived ease of use (e.g. Wang et al., 2003; Eastin, 2002;
Igbaria and Iivari (1995) indicate that experience is strongly and significantly correlated with self-efficacy. The same sentiments are passed by Agarwal, Sambamurthy, & Stair (2000) who claim that individuals' prior experiences and their past interaction with systems can form their self-efficacy and their confidence to use an advanced technology. The issue of experience was mentioned in several other studies including (Jiang, Hsu, Klein, and Li, 2000; Kim, Widows, and Yilmazer; 2005). Karjaluoto, Mattila, & Pento (2002) concluded that prior computer experience, prior technology experience, and prior personal banking experience positively affect consumers' attitude and behavior towards online banking.

2.3.6 Demographic characteristics
Demographic factors are frequently used as a basis for understanding consumer characteristics (Block and Roering, 1976; Lewis, 1981). The demographic characteristics include age, sex, income, occupation, education (Kotler, 1982). These characteristics also play a vital role in understanding the buying behavior 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).

Previous studies have identified age, income and education to be a strong determinant of the usage of e-banking. Sakkthivel (2006) reveals that the profile of an internet user tends to be young, male, well educated, and earning an above-average income. Awamleh and Fernandes (2006) also find that in United Arab Emirates, young affluent and highly educated groups generally accept technological changes more readily. 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. This is supported by Bauer and Hein (2006) who argue that older customers are less likely to adopt
Internet banking than younger customers because they are less willing to tolerate a high risk.

The effect of income is supported by Flynn and Goldsmith’s (1993) study which profiled the Internet consumer and found that innovators normally belong to the high income group.

A research carried in Nigeria found marital status, age and education level to have a significant effect on the adoption of e-banking (Izogol, Nnaemeka, Onuoha, & Ezema, 2012). Izogol et al. (2012) however found gender, religion and, in contrast to other studies, income not to be significant influencers. In another research, Azouzi (2009) found that age, gender and educational qualifications have evidence of influencing the adoption of e-banking by customers in Tunisia. This agrees with Howcroft, Hamilton, and Hewer (2002) who argue that the demographic characteristics that describe typical internet banking customers include young, affluent, and highly educated.

Muzividzi et al. (2013) suggest that internet banking is familiar with men than women. They argue that men are ready to take up any new development when it comes to technology than women. This argument is based on their study in which they found more male adopters than female adopters.

Studies on the effect of religion have not been found. However religion plays significant role in determining customers’ choices of products and services in other sectors such as the food, clothing and music sectors. It is therefore worth to assess its impact to the customers’ acceptance of e-banking technology.

2.3.7 Trust

Trust can be defined as the belief that the promise of another can be relied upon and that, in unforeseen circumstances, the other will act in a spirit of goodwill and in a benign fashion toward the trustor (Suh & Han, 2002). In the context of e-banking trust entails that even though the customers do not have face-to-face interaction with the bank, they believe that the bank’s electronic channel is as reliable as human
service. According to literature trust plays a significant role in determining the acceptance of e-banking channels (Agarwal, Rastogi, & Mehrotra, 2009; Al-Somali, Gholami, & Ben, 2009; Suh & Han, 2002). Altintas and Gursakal (2007) highlight internet banking as a trust-based system, which carries the risk of theft of customers’ personal identity information and therefore can cause customers to lose their confidence and trust in the system and their bank. Other studies also found e-banking to be highly trust sensitive because transactions of electronic nature contain sensitive information and parties involved in the financial transaction are concerned about access to critical files and information transferred via the internet (Alsajjan and Dennis, 2006; Suh and Han, 2002) as cited in (Al-Somali, Gholami, & Ben, 2009). According to Baghdadi et al. (2011), Zimbabwean banking customers do not trust internet banking; rather customers perceive the use of internet banking as highly uncertain. Baghdadi et al. (2011) suggest that banks should provide detailed and easily accessible information on their websites to promote a better understanding of the channel.

2.3.8 Security

Most studies have found security as the most influential factor explaining the usage of e-banking (e.g. Al-Somali, Gholami, & Ben, 2009; Aladwani, 2001). Here, security means the protection of an information resource and system from assaults against its integrity, confidentiality, authenticity, no-repudiation, availability and access control of the electronic transactions transmitted, and more importantly ‘the reliability of the direct parties involved in electronic commerce’, Ratnasingham (1998) as cited in (Chena, Hsiaob, & Hwang, July 2012).

Gerrard and Cunningham (2003) as cited in (Biney, October 2011) argued that in internet banking, security is one of the most important future challenges because customers fear higher risk in using the web for financial transactions. Azouzi (2009) also highlights the fear of loss because of transactions errors or hackers as factors that play a significant role in alienating customers from online banking. This belief is also supported by a lot of literature (Liaoa & Cheung, 2002; Shaha, Hussain, &
Siddiqui, 2006) and (Sathye, 1999; Daniel, 1999; Cox and Dale, 2001; Howcroft et al., 2002; Baghdadi et al., 2011). Zimucha et al. (2012) found security to be a major concern in Zimbabwe. They actually seem to discourage the adoption of e-banking by claiming that its adoption by commercial banks increases security risks, potentially exposing their isolated systems to open and risky environments. A research by Sathye (1999) in Australia also revealed security and awareness as the major barriers to the adoption of e-banking in that country. A research carried in Finland however concluded that security was not a major concern for Finland’s banking customers (Maenpaa et al., 2008).

2.3.9 Auxiliary features

Auxiliary features are attributes within the e-banking offering, such as voice effects, virtual figures and search agents, which contribute to the overall augmented product. According to (Maenpaa et al., 2008), such attributes can be used to improve the usability and interactivity of e-banking, thus enhancing user-friendliness and reducing the perceived risk. This may have a significant impact on PEOU.

2.4 Chapter Summary

This chapter has examined literature on how usage of technology is tested. It managed to establish Technology Acceptance Model as the most suitable model for this study. Nine variables have been found from literature as the most influential factors to the usage of e-banking. These factors become the inputs to the TAM model to determine how each of them or their relationships affects PU, PEOU attitude and behavioral intention to use e-banking and as a result to determine the level of usage of e-banking in Zimbabwe. This provides a basis for suggestions on how usage of e-banking can be maximized.
CHAPTER 3
RESEARCH METHODOLOGY

3.0 Introduction
This chapter explains the methods and specific techniques utilised to conduct research for this study. It describes the target population, sampling procedure and sample size of the study, the data collection instrument used and issues pertaining to its validity and reliability, the procedure followed to gather the data and the statistical techniques used to analyze the data. Most importantly it helps the researcher to guard against the temptation of collecting everything insight but to understand the different types of data and which to collect (Graziano Anthony & Raulin, 2004). It provides a clear plan of how data is collected, managed and analysed in this study. The adopted methodology and methods must best reveal commercial banking customers’ perceptions towards e-banking, behavioural intentions to use and actual usage of e-banking.

3.1 Methodological approach
This section lays out the research philosophies and methodologies used to collect and analyse data in this study.

3.1.1 Research philosophy and methodology
This study was hinged on a positivistic philosophy. Positivists apply a deductive reasoning process, looking for cause-and-effect relationships; and their research is deemed to be accurate and reliable, though the validity may at times be questioned (Collis & Hussey, 2003). In other words, it is “a numerical examination and interpretation of observations” (Babbie, 2003). The research therefore was highly quantitative in nature. Quantitative methods are regarded as powerful ways of determining whether a particular result is causally related to one or another variable,
and to what extent these are related (Joseph, 2008). Based on the nature of the problem numerical examination and interpretation was required to analyze the results from the imperial findings. The examination was done using a computerized data analysis package, the Statistical Package for Social Science 20.0.

The phenomenological philosophy was also adapted mainly to argument the positivistic philosophy in areas where quantitative methods could not yield valuable results. It is a philosophy that seeks to understand values, beliefs, and meanings of social phenomena, thereby obtaining a deep and sympathetic understanding of human activities and experiences (Bryman, 1988). Phenomenologists apply the inductive process, searching for patterns that may be repeated in other similar situations, revealing higher levels of validity, but lower levels of reliability, when the research is replicated (Collis & Hussey, 2003). This philosophy was mainly applied to gain a full understanding of the values, beliefs and meanings associated with e-banking from the customer’s perspective as well as the banks’ perspective. This part of study was therefore based on a qualitative methodology which emphasizes on processes and an in-depth understanding of perceived meanings, interpretations and behaviors Denzin and Lincoln, 1994). Qualitative methodology requires the investigator to spend considerable time with the group under study, to develop contact with the key respondents, to learn the language, norms, values and attitudes of this group and to build relationships (Kruger, 1998). This was done through in-depth interviews with bank informants and also with a selected number of customers who helped in the design of the data collection tool.

3.1.2 Research approach

Both philosophies and methodologies were applied in this study. Positivism-quantitative approach was used to quantitatively test the proposition that the banking industry in Zimbabwe has not yet achieved maximum usage of e-banking to exploit its full potential for competitive advantage. Deductions were made from readily available data, graphs and charts to explain the influential power of each of the factors identified in literature and the correlations thereof that may have effects
towards the usage of e-banking. A key assumption was made that a strong negative influence implies that the banks have not yet done enough. The positivism approach was also adopted to improve precision through quantitative, reliable measurement and control of data.

Phenomenological-qualitative approach was applied through in-depth interviews with key bank informants to gain a deep understanding of the functions of e-banking products, their availability and their benefits and contribution towards banks' competitive advantage. The interviews were contacted with the help of an interview guide to keep the interviewer focused to the subject whilst collecting detailed explanations from the respondents.

3.1.3 Justification of research approach

Positivism-quantitative approach was dominantly used to maintain objectivity in the study especially during measurement of variables' influential power and correlation. It was also found to be the quickest and most economical way to gather and analyses data in this study. Quantitative methods were used with the help of a questionnaire to gather information on variables that have a bearing on the usage of e-banking. Most of the questions on the questionnaire were closed. This was done to minimize ambiguous answers that could make analysis very difficult. A phenomenological approach and qualitative methods were necessary to collect and interpret detailed explanations from banks' key informants about e-banking, its benefits, its products and the efforts made so far by banks to enhance its usage.

3.2 Population and sampling methods

Robson (1995) defines population as the group of interest to the research study of which the results of the study will be generalized upon this group. Population for this study was therefore constituted by all customers for the 16 registered commercial banks in Zimbabwe. The research strategy was to identify five representative banks with the largest branch network in the country from which findings would be generalized. The criterion of branch network was found to be more appropriate than
other criteria such as market share and balance sheet strength because of its capacity to bring a wider spectrum of customer views across the banking industry. Banks with the largest number of branches were identified as at 31 December 2012 and are listed in Table 3.1 below.

Table 3.1: Selected commercial banking institutions

<table>
<thead>
<tr>
<th>Bank</th>
<th>Branches</th>
<th>Total Deposits</th>
<th>Market Share, October 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBZ Bank Limited</td>
<td>66</td>
<td>25.3%</td>
<td></td>
</tr>
<tr>
<td>ZB Bank</td>
<td>48</td>
<td>4.9%</td>
<td></td>
</tr>
<tr>
<td>Barclays Bank of Kingdom</td>
<td>34</td>
<td>5.4%</td>
<td></td>
</tr>
<tr>
<td>Kingdom Bank</td>
<td>25</td>
<td>3.6%</td>
<td></td>
</tr>
<tr>
<td>Standard Chartered Bank</td>
<td>24</td>
<td>7.8%</td>
<td></td>
</tr>
</tbody>
</table>

Source: CBZ Bank Limited (2012)

3.2.1 Sample selection and sample size

A total sample of 200 customers was drawn from the five most networked banks in Zimbabwe, 40 per each bank being 20 males and twenty females to eliminate gender bias. Participants were identified at their bank branches around Harare. Permission was sought with the bank authorities to stand near the branch entrances and administer the questionnaires to customers as they arrive. The researcher used a systematic random sampling technique whereby the questionnaire would be administered to every fifth customer to arrive at the bank. To ensure diversity of responses the maximum number of questionnaires administered per each branch was restricted to twelve.

3.3 Data collection

An exploratory research design was considered the most suitable approach in view of the nature of the problem being investigated. A structured questionnaire was designed and then pre-tested and modified to accommodate the finding of the pre-
test. The instrument was pre-tested with a sample of 20 customers, 10 from CBZ bank and the other 10 from ZB bank. It was then modified to increase its clarity while peer evaluation was also undertaken to shape the final questionnaire design. The questionnaire was divided into two sections. The first section captured basic demographic and banking information about the customer and the second section sought to determine the customers’ background, challenges, perceptions and beliefs in relation to e-banking and its usage. This section used a five point Likert Scale battery where the respondents were asked to indicate the extent to which they agree or disagree with various statements. This design was mainly adopted to eliminate ambiguity and to facilitate objective comparison of responses. The questionnaire was also used because it is a quick way of gathering primary data from many respondents. To encourage participation the questionnaire was designed in a manner that did not require the respondents to reveal their names and other personal credentials.

Respondents were allowed two weeks to complete the questionnaire after which they would return it and submit to the bank teller of the branch from which the questionnaire was administered. This followed agreement by branch managers to assist in collecting completed questionnaires through their tellers. Any questionnaire returned after the two weeks period was not accepted by the bank and hence was not included in data analysis.

In-depth interviews were also contacted with five key informants one from each of the selected banks in order to gain a better understanding of their e-banking products, how they promote them and most importantly to be able to compare the findings obtained from customers data and findings from the bank.

3.3.1 **Validity and reliability of the questionnaire**

The face validity and reliability of the questionnaire was examined through pilot testing. According to Saunders, Lewis, & Thornhill (2003), a pilot test is used to test for clarity of questions, to check whether there are major topical omissions, to find
out the time it takes to complete the questionnaire and to collect any other comments from the respondents. During pilot testing the questionnaire was administered to 20 participants as indicated earlier. The participants were given a brief explanation of the purpose of the research after which they were asked to complete the questionnaires. To guarantee responses to all questions, participants were assured that there were no wrong or right answers and were given adequate time to complete the questionnaire. Meetings were then arranged with the participants to peer evaluate the questionnaire. After the evaluation process a number of corrections and modifications were made particularly to improve phrasing, clarity and order of questions.

3.4 Data analysis and presentation

Data for this research was analyzed using the Statistical Package for Social Science 20.0. The analytical process was necessary to turn research data into information. Information is data that is in a form that can be used for explanation and decision-making. This process covered a critical part of the study since data could be of value to bank managers and other stakeholders if only it could be effectively communicated. The analytical approach involved three basic distinct steps:

- Data coding which involved capturing data into the analysis tool and grouping different types of responses by codes.
- summary and analysis of raw data, to provide basic profiles of the respondents;
- an exploratory data analysis with the objective of identifying underlying patterns in the data;
- the input of information obtained from the analysis into the TAM to determine the kind of relationships among the variables that influence usage of e-banking;
- the presentation of results; and finally
- critical analysis of the meanings of the results to see how they relate to the study proposition and literature

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The results of the analysis were presented in the form of tables, charts and graphs to clearly and concisely indicate the findings in line with the objectives of the research. Bar-charts were used to show trends in the variables whilst pie-charts were used to show proportion or share of occurrences. Cross tabulations were used to show the correlation that exists between different variables considered in the study. Charts were used to pictorially display categorical data from variables and then compare and contrasted them. Most of the graphs and charts were generated using Microsoft excel spreadsheets. Qualitative analysis was used for words and such other data that was non numerical especially findings from bank informants.

3.5 Limitations

It was difficult to persuade participants to fill in their questionnaire copies since there was no strong motivation for them to respond. Some participants also found it difficult to fill in the questionnaires despite every effort done to simplify the questionnaire, particularly after making adjustments following the pilot-test that was done. Other targeted participants decided not to respond to the questionnaire, whilst a few requested for clarity on a few questions. Clarifications were offered to participants but without influencing on how the respondents had to answer the questions, to avoid bias.

3.6 Ethical Considerations

The study was carried out in line with ethical guidelines in that participation was voluntary and confidential. The respondents were free to participate or not to and no rewards were offered to attract their participation as that would have resulted in participants giving biased answers. Responses from both customers and bank informants were kept anonymous through the exclusion of their personal identities to avoid participants’ embarrassment and victimization. It was also promised that the collected data was going to be used for the purpose of this study only.
3.7 Chapter Summary

This chapter discussed the procedures adopted for the research and the various mechanisms that were put in place to ensure validity, completeness and reliability of the data. The chapter also considered concepts and literature concerning the population of the study, sampling techniques, research methods, research instruments, quality control and the analysis of the data.
CHAPTER 4
PRESENTATION AND ANALYSIS OF THE FINDINGS

4.0 Introduction
This chapter contains the research findings. The findings were discussed in relation to the literature of the study and they formed the basis on which study conclusions and recommendations were made.

4.1 Response Rate
A total of 200 questionnaires were administered to the respondents of the study and 146 were successfully completed and returned. This therefore represents a study response rate of 73%, which was high enough to warrant validity of the study findings. The distribution and response rate of the questionnaires is shown in Table 4.1 below.

Table 4.1 Respondents' response Rate

<table>
<thead>
<tr>
<th>Questionnaires</th>
<th>Barclays Bank of Zimbabwe</th>
<th>CBZ Bank Limited</th>
<th>Kingdom Bank</th>
<th>Standard Chartered Bank</th>
<th>ZB Bank</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sent</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>200</td>
</tr>
<tr>
<td>Received</td>
<td>28</td>
<td>37</td>
<td>29</td>
<td>27</td>
<td>25</td>
<td>146</td>
</tr>
<tr>
<td>Response Rate</td>
<td>70</td>
<td>92.5</td>
<td>72.5</td>
<td>67.5</td>
<td>62.5</td>
<td>73</td>
</tr>
</tbody>
</table>

Table 4.1 shows appreciably high response rate per each bank although none of the banks managed to achieve 100% response rate. This suggests that respondents were allowed enough time to complete the questionnaires and were free to participate without fear of victimisation because their anonymity was guaranteed by not being asked to identify themselves. Alternatively the involvement of bank staff in collecting returned questionnaires may have triggered respondents’ willingness to
complete the questionnaires as they felt they were making direct contribution to the improvement of their banks’ services.

4.2 Reliability test

The questionnaire was subjected to a reliability test to make sure each of its questions was measuring the intended variable. The results of the test showed that the Cronbach’s Alphas for each variable was greater than 0.6 and there was no item delete. This shows that all the variables were reliable. The results of the test are shown in Appendix ii, Table 1.

4.3 Normality test

Normality test was done to find out whether the respondents to the study research were normally distributed or skewed in terms of their demographics so as to determine which correlation coefficient, either Spearman’s or Pearson’s to use when testing the relationships among the determinants of e-banking use. Pearson’s correlation coefficient best predicts correlations on normally distributed data whilst Spearman’s correlation coefficient is best used for data which is not normally distributed. Using the wrong correlation coefficient can result in misleading results. It was therefore very crucial in this study to establish the rightful coefficient to apply during the TAM test. The study findings revealed that the respondents to the study were demographically skewed and as such the Spearman’s correlation coefficient was used to test the correlations in this study. The results of the normality test are displayed in Table 2 of Appendix ii.

4.4 Sample Demographics

This section presents the demographic structure of the group of the study respondents.

4.4.1 Age and gender distribution

Table 4.2 below shows a cross tabulation of the age ranges of the respondents again the respondents’ gender.
Table 4.2: Age range and gender of respondents

<table>
<thead>
<tr>
<th>Age range of respondents</th>
<th>Gender of respondent</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male %</td>
<td>Female %</td>
</tr>
<tr>
<td>16-25</td>
<td>21</td>
<td>14</td>
</tr>
<tr>
<td>26-34</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>35-43</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>44-52</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Above 52</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>53</td>
</tr>
</tbody>
</table>

The majority (58%) of the respondents was young males and females of between 16 and 34 years of age, 40% were middle aged males and females and 2% constituted old respondents aged above 52 years. The dominance of young respondents suggests that banks’ customer base is dominated by young people and e-banking facilities may have to be packaged in a way that is most appealing to the young. The trend is such that as age increased more females became interested to participate than males but at youngest age of 16 to 25 years more males were keen to respond. This may confirm Sakkthivel (2006) who argues that young male customers are more interested in e-banking than young females. At the same time the results suggest that more interest in mature females than males and negative interest in old people.

4.4.2 Marital status

Fig 4.1 below shows that most of the responses to this study came from married people who constituted 74% of the respondents, 19.2% were single and 6.8% were either widowed or divorced. This suggests that married people pay more attention to e-banking than the other groups. This trend suggests that married people dominate other groups in the use of e-banking products.
4.4.3 **Religion**

All except 2.1% of the respondents claimed that their religion or churches do not prohibit them from using e-banking facilities whilst the 2.1% was not sure. These findings agree with Izogol et al. (2012) who found religion to be non-influential to the use of e-banking in Nigeria.
4.4.4 **Level of education**

The study showed that all the respondents attained at least secondary education. In other words no-one indicated that they were not educated. The majority of respondents (56.5%) reached college level followed by 23.5% who ended at secondary level whilst 20% reached university level. The findings show that all the respondents attained modest education and according to Awamleh and Fernandes (2006) it suggests they were in a position to understand the e-banking technology.

![Figure 4.3: Respondents' level of education](image)

4.4.5 **Income distribution**

As shown in Fig 4.4 below, the majority (62.3%) of the respondents were low monthly income earners earning between 0 and 1000 dollars per month followed by 19.8% representing medium income earners and only 17.8% representing those who earn above 5000 dollars per month. Sakkthivel (2006) argues that low income does not encourage usage of e-banking facilities because customers find the means to access e-banking very expensive. The trend therefore suggests that the majority of bank customers are low income earners who may not afford to access e-banking channels if the means are expensive and hence a need to make sure e-banking is kept affordable to low income earners.
4.4.6 **Computer literacy level**

The results of the assessment of respondents’ computer literacy level are shown in Fig 4.5 below.

According to the study findings all the respondents were computer literate, most of them (63.7%) being at the intermediate level, 22.6% percent were advanced users whilst 13.7% indicated that they had some experience. These findings are highly welcome as Muzividzi et al. (2013) argue that consumers with high computation ability are likely to adopt e-banking more easily and use it more efficiently. Sambamurthy, & Stair (2000) also suggest that past interaction with computers
yields high self-efficacy and builds customer confidence to use technology. The majority of the respondents attained a modest level of computer literacy and accordingly it suffices to suggest that they were in a position to use e-banking facilities.

4.5 Application of the Technology Acceptance Model (TAM)

This section presents the results of the investigation of the determinants of customers’ perceptions, attitude and behavioural intention to use e-banking in Zimbabwe using the TAM (Fig 2.1) with a view to establish factors with significant influence. The factors were categorised into four groups in line with the TAM model, those that influence perceived ease of use (PEOU), those that influence perceived usefulness (PU), those that affect attitude towards use (AT) and lastly those that affect the behavioural intention to use (BI). The behavioural intention to use was then used to estimate the actual usage of e-banking in Zimbabwe.

The test was done using regression analysis, a statistical tool for the investigation of relationships between variables with the intention to ascertain the causal effect of one variable upon another (Sykes, 2010). Three statistics were generated per each relationship; the Spearman’s correlation coefficient which estimates the strength and direction of relationship between variables, the coefficient of determination ($R^2$) which explains the portion of variability in one variable that can be accounted for by variability in another variable and the significance level (p-value) which explains the significance of disagreement with the assertion that one factor influences the other (Tamil, 2012).

The correlation coefficient lies between -1 and 1 with 1 representing a perfect positive relationship and -1 showing a perfect inverse relationship. In other words the relationship becomes stronger as the correlation coefficient approaches 1 or -1 and it becomes weaker as the coefficient approaches zero. The coefficient of determination ranges between 0 and 1 and the higher it is the stronger the influential power of the independent variable on the dependent variable.
In the TAM test if the absolute correlation coefficient is above 0.3 it represents a strong relationship between two variables. A coefficient of determination ($R^2$) greater than 0.3 means that variability in one variable has strong explanation power on variability in the other variable. A p-value of less than 0.05 represents a significant association between variables whose relationship is being tested. The results of the TAM test are shown in Fig 4.7 below. See also Table 3 of Appendix ii.

![Fig 4.7: Technology acceptance test](image)
4.6 Factors that determine perceived ease of use (PEOU)

The TAM test results revealed that quality of internet connection; auxiliary features and computer self-efficacy indeed have significant influence on bank customers’ PEOU of e-banking facilities as suggested in literature (e.g. Sohail & Shanmugham, 2003; Muzividzi et al. (2013). Quality of internet connection was revealed to be the strongest determinant of PEOU among the study respondents with a correlation coefficient of 0.714, followed by auxiliary features with 0.527 and computer self-efficacy with 0.454. According to the study findings the joint variation in these three factors explains 51% of the variation in PEOU as shows by the PEOU’s $R^2$ in Fig 4.7 above.

4.6.1 Effect of computer self-efficacy on PEOU

Improved self-efficacy helps banks to maximize the usage of e-banking facilities. Computer self-efficacy is highly determined by experience of using computerized gadgets such as computers, mobile phones and ATMs.

This section sought to establish if computer self-efficacy is adequate enough among bank customers to yield maximum usage of e-banking facilities. This was done by assessing users’ computer literacy and their ability to use e-banking facilities without help. Fig 4.8 shows the level of computer literacy among the study respondents.
When asked how much computer experience they possessed, the majority of respondents (63.7%) claimed to have intermediate experience. No one was found to have no experience at all. This suggests that banks' customers have sufficient capability to use e-banking facilities.

An assessment was also carried to determine the respondents’ e-banking experiences. The results of the assessment are shown in Fig 4.9 and Fig 4.10 below.
The majority of respondents (66.4%) indicated that they were comfortable to use e-banking facilities without the help of system manuals whilst 32.1% preferred system manuals and 1.4% were not sure.

![Fig 4.9: Need for system manuals to use e-banking facilities](image1)

![Fig 4.10: Respondents' need for human assistance](image2)
The findings however revealed that despite not wanting system manuals the majority of respondents (60.3%) were not comfortable to perform e-banking activities in environments where human support was not readily available.

Respondents were also asked if e-banking presented a faster way of accomplishing banking activities than traditional banking channels. The findings to this study are presented in Fig 4.11 below.

Fig 4.11: Electronic banking enables faster accomplishment of banking activities

The study findings showed that 49.3% agree and 44.5% strongly agree that e-banking presents a faster way of accomplishing banking activities. No one was found to disagree although a small percentage (6.2%) was not sure.

From the study findings it appears that banking customers are sufficiently computer literate and have strong PEOU on e-banking. The findings support the argument that computer experience yields positive PEOU on e-banking (Al-Somali et al., 2009; Muzividzi et al.; 2013). On the other hand the findings also suggest that computer self-efficacy is not yet adequate enough to yield maximum e-banking usage as
reflected by a large percentage of respondents who preferred human support backup when performing e-banking activities. These findings may imply lack of e-banking confidence among respondents.

4.6.2 Effects of quality of internet connection on PEOU

This section sought to determine whether internet connection in Zimbabwe is quality enough to yield positive PEOU of e-banking facilities as determined by speed of internet access, accuracy, efficiency, guaranteed availability and reliability. The findings of the study are presented in Fig 4.12 below.

![Quality of internet connection](image)

Fig 4.12: Quality of internet connection

The study findings revealed that the majority of respondents agreed to the existence of quality internet connection to support the usage of e-banking facilities. Respondents were asked if there were no delays in accessing e-banking facilities and the majority (52.1%) strongly agreed, 46.6% agreed and 1.4% disagreed. There was no respondent who objected to the accuracy, availability and reliability of e-banking in Zimbabwe. All the respondents claimed that they could access e-banking
facilities any time every day. The findings however showed that 6.2% doubted e-banking accuracy, 13% were not sure about its efficiency whilst 34.9% were doubtful about its reliability. This may point to insufficient confidence building initiatives to guarantee trust of e-banking facilities.

Further study was carried to establish the availability of internet access methods in Zimbabwe with the intention to verify whether bank customers have the requisite means to connect to e-banking facilities. The study findings are displayed in Fig 4.13 below.

The study results in Fig 4.13 above show that all the respondents had the means to access e-banking facilities. The majority (69.2%) indicated that they could access internet from their mobile phones, 15.8% could access from work offices whilst 15.1% claimed that they access from their friends’ phones or computers. The findings of this study suggest that there is effective internet connectivity in Zimbabwe.
contrary to Zimucha et al. (2012) who argued that internet connectivity was a major hindrance to the adoption of e-banking in the country. The findings present mobile phones as a great opportunity on which e-banking can be leveraged.

4.6.3 **Effect of auxiliary features on PEOU**

Respondents were asked if they would be attracted to sound/voice effects, virtual figures or search agents on e-banking channels. The TAM test revealed that auxiliary features play a significant role in influencing banking customers’ PEOU with a positive correlation of 0.527. Table 4.3 shows if auxiliary features may improve customers’ PEOU of e-banking facilities.

**Table 4.3: Respondents’ desire for auxiliary features**

<table>
<thead>
<tr>
<th></th>
<th>Desire sound/voice</th>
<th>Desire virtual figures</th>
<th>Desire search agents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.70%</td>
</tr>
<tr>
<td>Disagree</td>
<td>32.90%</td>
<td>3.40%</td>
<td>6.20%</td>
</tr>
<tr>
<td>Not Sure</td>
<td>19.20%</td>
<td>32.90%</td>
<td>17.80%</td>
</tr>
<tr>
<td>Agree</td>
<td>16.40%</td>
<td>50.70%</td>
<td>64.40%</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>31.50%</td>
<td>13.00%</td>
<td>11.00%</td>
</tr>
</tbody>
</table>

The study findings show that a significant percentage of bank customers where indifferent about the importance of auxiliary features in e-banking. When asked whether sound/voices were useful during e-banking activities, 32.9% disagreed whilst 19.2% were not sure and the remainder agreed. The majority of e-banking customers preferred virtual figures (67.7%) and search agents (75.4%). The study findings suggest that the existence of auxiliary features is highly user sensitive, may improve usability and interactivity of e-banking (Maenpaa et al., 2008), but may also render e-banking very unfriendly to other customers. This may imply that auxiliary features need to be optional in e-banking.
4.7 Factors that determine perceived usefulness (PU)

PEOU, social influence and awareness of e-banking and its benefits were tested for their influential powers on perceived usefulness of e-banking facilities. The results of the TAM test revealed that PEOU holds an almost perfect correlation (0.81) with PU confirming Davis et al. (1989)’s declaration that PEOU has a strong direct impact on PU. In other words the direct impact of internet connection quality, auxiliary features and computer self-efficacy on PEOU partly yield a significant indirect impact on PU. These findings imply that users perceived ease of use on e-banking facilities require close management in order to ensure that customers value e-banking services.

The other two variables also have significant influence on PU with awareness of e-banking and its benefits holding 0.609 whilst social influence has 0.454. The joint variation in these three factors explain above half (65.3%) of the variation in PU which means these factors are jointly very determininant to customers’ perceived usefulness of e-banking facilities.

4.7.1 Influence of perceived ease of use (PEOU) on PU

This section sought to establish the level of perceived ease of use of e-banking facilities among the study respondents that had a bearing on PU. Respondents were asked five questions which relate to PEOU and the study findings are shown in Table 4.4 below.

Table 4.4: Respondents’ PEOU

<table>
<thead>
<tr>
<th></th>
<th>E-banking processes are clear and understandable</th>
<th>E-banking activities are easy to perform</th>
<th>E-banking is faster than other channels</th>
<th>E-banking skills are easy to acquire</th>
<th>I expect/ I know e-banking to remain simple</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>33.56%</td>
<td>7.50%</td>
<td>10.96%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Sure</td>
<td>5.48%</td>
<td>13.70%</td>
<td></td>
<td>4.79%</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>47.26%</td>
<td>30.80%</td>
<td>39.73%</td>
<td>49.32%</td>
<td>47.95%</td>
</tr>
</tbody>
</table>
Respondents were asked whether they perceived e-banking processes to be understandable and clear. From the study findings the majority of the respondents (60.96%) agreed or strongly agreed that e-banking processes were clear and understandable. A significant percentage (33.56%) said e-banking processes were not clear and understandable whilst 5.48% were not sure. Most of the respondents also said e-banking was easy, faster to perform, easy to learn and were expecting it to remain simple with change in technology. The study findings revealed that 7.5% of the respondents found e-banking to be difficult to perform, 13.7% were not sure whilst 10.96% did not agree that e-banking is faster than other channels. Respondents demonstrated significant optimism about the future user friendliness of e-banking as 100% agreed that they expect e-banking to remain simple in future.

From the study findings it can be inferred that a large number of respondents held negative perceptions about the friendliness of e-banking facilities. It can however be argued that respondents had commendable faith in the future of e-banking, in other words respondents expected e-banking to be more easy with time.

4.7.2 The effect of awareness of e-banking and its benefits on PU

The study sought to establish if respondents were aware of the availability of e-banking facilities on the market as well as their benefits. The study started with indepth interviewing of banks’ key informants to establish e-banking products on the market, their functions and their benefits and to understand how banks educate customers about these products. All the informants highlighted mobile and internet banking as their fast growing e-products with the advantages of low service charges, high convenience, easy money transfer and 24/7 availability.

The study then sought to find out if the study respondents had enough knowledge about the revealed e-banking benefits. The study findings are presented in Table 4.5 below.
The study findings revealed that all respondents received e-banking information from banks. The findings however revealed that many respondents (37%) believed they were not well informed about e-banking services whilst 33.6% claimed they were not fully informed about e-banking benefits and 21.9% argued that they were not fully aware of how to use e-banking. The percentages of those who were indifferent were also very significant per each question showing that e-banking awareness was very much lacking among the respondents. This is consistent with Muzividzi et al. (2013) who argued that the majority of Zimbabwean customers are unaware of the advantages and usefulness of e-banking to bankers.

In view of the above findings it can be concluded that available campaign and promotional strategies are not yet adequate enough to foster maximum appreciation of e-banking and its benefits. Together with the results of the TAM test, this strongly supports Suganithi, Balachandher and Balachandran (2000)’s argument that creation of awareness is one of the key success factors to the promotion of PU and in turn usage of e-banking products.

Table 4.5: Respondents awareness of e-banking products

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Not Sure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I receive enough information about electronic banking services</td>
<td></td>
<td>37%</td>
<td>33.60%</td>
<td>21.90%</td>
<td>33.60%</td>
</tr>
<tr>
<td>I receive enough information about the benefits of electronic banking</td>
<td></td>
<td></td>
<td>17.10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I receive enough information of using electronic banking</td>
<td></td>
<td></td>
<td></td>
<td>17.10%</td>
<td></td>
</tr>
<tr>
<td>I never received information about electronic banking from the bank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>66.40%</td>
</tr>
</tbody>
</table>
4.7.3 The effect of social influence on PU

The study sought to establish if social influence was an important determinant of the PU of e-banking services among respondents. The TAM test showed a strong (0.454) correlation between social influence and PU meaning that it is an important factor to consider when promoting the usage of e-banking. The findings of the study are displayed in Table 4.6 below.

Table 4.6: Assessment of respondents’ social influence

<table>
<thead>
<tr>
<th></th>
<th>Colleagues and families influence</th>
<th>Others’ personal recommendations matter in using e-banking facilities</th>
<th>Personal instinct matters more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>0.70%</td>
<td></td>
<td>2.10%</td>
</tr>
<tr>
<td>Disagree</td>
<td>58.20%</td>
<td>4.10%</td>
<td>6.20%</td>
</tr>
<tr>
<td>Not Sure</td>
<td>10.30%</td>
<td>0.70%</td>
<td>2.10%</td>
</tr>
<tr>
<td>Agree</td>
<td>21.90%</td>
<td>51.40%</td>
<td>77.40%</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>8.90%</td>
<td>43.80%</td>
<td>12.30%</td>
</tr>
</tbody>
</table>

The study findings revealed that the majority (58.9%) of respondents did not agree that colleagues and families could influence their decisions to use or not to use e-banking, 21.9% agreed, 8.9% strongly agreed and 10.3% were not sure. When asked whether other people’s recommendations matter when deciding to use e-banking a small percentage (4.1%) disagreed and 0.7% were not sure whilst the rest agreed. This may suggest that relatives and friends do not have significant influence but people who are perceived to be experienced may have. The majority (89.7%) indicated that they trust their instincts when deciding on whether to use e-banking facilities. These findings generally suggest that social influence did not strongly determine the usage of e-banking among respondents.

4.8 Factors that determine attitude towards use

This section sought to assess the influential powers of factors that have a bearing on attitude towards use of e-banking facilities.
Seven factors were tested for their influential powers on attitude towards the use of e-banking facilities and out of these four factors were found to have significant correlations with attitude. These factors are PU, PEOU, trust and resistance to change. PU was found to have the most significant correlation (0.744) followed by PEOU with 0.698, trust with 0.535 and then resistance to change with 0.517. The other factors were demographics and internet access methods. Demographics were further split into gender, age, education, income, religion, marital status and computer literacy. The TAM test revealed that demographics had no effect on the usage of e-banking facilities among respondents because each of the sub-factors of demographics was found to have no correlation with attitude. The joint variation of the seven factors has a 61.4% explanatory power on the variation in attitude towards e-banking usage as shown by the attitude’s $R^2$ in Fig 4.1 above. This suggests that these factors combined are strong determinants of attitude towards use.

4.8.1 The effect of PEOU and PU on attitude towards use

This section sought to establish the strength of PU in and PEOU in determining the attitude of respondents towards the use on e-banking facilities. The TAM test revealed a 0.698 correlation between PEOU and attitude. It was also shown that PEOU has a significant correlation with PU which in turn has a strong positive (0.744) correlation with attitude towards use. This shows that PEOU has both direct and indirect influence on attitude. Earlier discussions revealed that a number of respondents had negative PEOU despite having strong faith about the future of e-banking. A study was also carried to determine the value perceived on e-banking by the respondents. Respondents were asked a number of questions to determine their perceptions about e-banking and findings of the study are shown in table 4.8.1 below.
Table 4.7: Respondents’ perceived usefulness of e-banking facilities

<table>
<thead>
<tr>
<th></th>
<th>E-banking offers better control of accounts and financial activities</th>
<th>E-banking allows multi activities</th>
<th>E-banking improves performance utilization of banking services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td></td>
<td>6.8%</td>
<td></td>
</tr>
<tr>
<td>Not Sure</td>
<td></td>
<td>8.2%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Agree</td>
<td></td>
<td>41.1%</td>
<td>46.6%</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td></td>
<td>43.8%</td>
<td>47.3%</td>
</tr>
</tbody>
</table>

The study findings revealed that the majority of respondents perceived e-banking to be more efficient than traditional banking channels. Table 4.7 above shows that a small percentage (6.8%) did not perceive e-banking as a source of control on financial services and accounts. All except 6.2% agreed that e-banking allowed them multiple tasks and improved their performance utilization of e-banking facilities. These findings suggest that the respondents were positive about the usefulness of e-banking facilities and hence this suggests a positive influence on their attitude towards use.

4.8.2 The effect of demographics on attitude towards use

The TAM test results suggested that demographic variables have no effect on attitude towards use. This is in line with Al-Somali et al. (2009) who found out that age, gender and income had no effect towards attitude of the Saudi Arabian banking community. One may therefore hasten to conclude that demographics have no effect whatsoever on the use of e-banking in Zimbabwe. However, it may be suggested that education and computer literacy have a strong bearing on high computer self-efficacy which was evident in this study. Computer self-efficacy in turn has an impact on PEOU which was found to be a strong determinant of attitude. It therefore suffices to suggest that demographic factors had a strong though indirect influence on attitude of respondents towards e-banking.
The effect of trust on attitude towards use

The findings of the strength of trust among respondents are presented in Fig 4.14 below.

The study findings have shown that the level of trust among respondents varied significantly with some strongly agreeing to trust whilst others strongly disagreeing. When asked whether e-banking was trustworthy, 39.7% strongly agreed, 8.2% agreed, 26% were not sure, 15.1% disagreed and 11% strongly disagreed. This trend suggests that trust was a major concern among respondents. This, therefore, supports Baghdadi et al. (2011) who argued that Zimbabwean banking customers do not trust internet banking but rather perceive it as highly uncertain. Seventy two percent of the respondents said that they trust the e-banking promises and services from their banks and were sure that e-banking values the interests of customers. A significant number of respondents, between 20.5 and 26% expressed doubts about the trustworthy of e-banking, its services, its promises and whether it saves the interests of customers. This trend suggests once again that the respondents’ attitude.
to use e-banking facilities was strongly hindered by lack of trust. The fact that trust is strongly correlated with attitude presents trust as a significant threat to e-banking usage. To this end it may suffice to argue that there is insufficient trust building initiatives to guarantee maximum usage of e-banking facilities. The study findings here are consistent with literature which suggests that trust forms one of the major prohibitions to the usage of e-banking.

4.8.4 The effect of resistance to change on attitude towards use

Respondents were asked questions to access their level of resistance to change in order to find out the causal effect of the variable on attitude. The study findings are shown in table 4.8.2 below.

Table 4.8: Assessment of respondents’ resistance to change

<table>
<thead>
<tr>
<th>Interest in new technology</th>
<th>Technology developments enhance lives</th>
<th>There is comfort in using e-banking technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td></td>
<td>6.8</td>
</tr>
<tr>
<td>Not Sure</td>
<td>2.1</td>
<td>1.4</td>
</tr>
<tr>
<td>Agree</td>
<td>56.2</td>
<td>52.1</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>41.8</td>
<td>46.6</td>
</tr>
</tbody>
</table>

According to the study findings in Table 4.8 the majority of respondents impress technological development. When asked how comfortable they are to change technology, 6.8% argued that using the same technology was more comfortable. This may be due to their high familiarity with traditional banking channels which tend to provide them with more comfort than e-banking. According to Maenpaa et al (2008), familiarity is an important determinant on the adoption of e-banking channels. The small percentage of resisters, however, suggests that the effect of resistance to change was almost overcome among the respondents and as such resistance to change had little role to play in determining respondents’ negative attitude towards use.
**4.9 Factors that determine behavioural intention to use e-banking**

The TAM test findings have shown that the correlation between attitude and behavioral intention to use e-banking is very high at 0.744. PU and behavioral intention to use yielded an almost perfect correlation of 0.864. These findings suggest that PU and attitude are very strong determinants of behavioral intention to use e-banking. Their combined variation explains 78% of the variation in behavioral intention to use e-banking. The results of the study on PU presented earlier suggested that there was generally high positive perception among respondents about the usefulness of e-banking. This section therefore sought to assess the attitude of respondents towards using e-banking facilities. The results of the assessment are shown in Table 4.9.1 below.

**Table 4.9: Respondents’ attitude towards use**

<table>
<thead>
<tr>
<th></th>
<th>E-banking developments benefit customers</th>
<th>I encourage use of e-banking</th>
<th>Traditional banking channels are no-longer satisfying</th>
<th>I can move to banks with better e-banking</th>
<th>I’m strongly positive about using e-banking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Sure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The study findings revealed that all respondents were positive about the developments of e-banking. A total of 56.8% agreed whilst 43.2% even strongly agreed that e-banking developments benefit customers. Most respondents confirmed that they would encourage friends and colleagues to use e-banking whilst 5.5% were not sure. The percentage of those who were not sure may suggest lack of trust or insufficient e-banking knowledge about e-banking facilities. A large percentage (33.6%) of the respondents indicated that they were still satisfied with visiting the bank to carry out financial activities, 53.4% preferred e-banking and 13%
were indifferent. A significant number of respondents (80.8%) could prefer other banks if their current bank had poor e-banking facilities and 14.4% would not bother whilst 4.8% were indifferent. All respondents were positive about using e-banking. The results of the study suggest that respondents were generally positive about e-banking. A positive attitude is very important as it may yield the desired behavioral intention to use e-banking facilities.

The study findings suggest also that a number of respondents were still comfortable with brick and mortar channels or both channels. This supports the argument by Baghdadi et al. (2011) who suggest that electronic banking must be coordinated with brick and mortar channels to achieve high success rates.

4.10 Actual e-banking usage

The technology acceptance model is a predicting tool used to predict the actual use of the system by assessing the influential power of behavioral intention to use the system. The influential power of PU and attitude are high enough to cause significant usage of e-banking in Zimbabwe. Based on the inputs the behavioral intention to use, which is the 0.744 correlation coefficient from attitude and the 0.864 correlation coefficient from PU as well as the 78% coefficient of determination, actual usage of e-banking among respondents was predictably high.

4.11 Chapter summary

This chapter has presented an analysis of the findings of the study on the factors that determine the use of e-banking in Zimbabwe, their influential significance and how they relate to other factors in order to recommend ways of managing them for competitive advantage. The next chapter presents the study conclusions and recommendations.
CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction
This chapter presents the study conclusions and recommendations. The conclusions and recommendations are based on the findings of the previous chapter.

5.1 Conclusions
The conclusions are presented in regarding the order of the research questions as follows:

i How does e-banking enhance the competitiveness of banks?
E-banking plays a very important role in Zimbabwe. It enhances banks’ competitive advantage by providing banks with ways of maximising customer satisfaction, rebuilding customer trust, confidence and cheaply expanding into new markets. This is achieved through improved and cheap communication between banks and their customers, extended service delivery hours, reduced lead time in service delivery, reduced operational costs and improved efficiency in service delivery. E-banking expands banks’ market share through financial inclusion of non-account holders in rural areas and the diaspora people with no branch setup costs. Banks offer their customers differentiated and customised products and services which helps them to create barriers of exit for customers as well as barriers of entry for new competition hence protecting their markets against competition. E-banking also creates opportunities for additional income through promoting non-core businesses such as banks participating in derivative markets. It is, however, important to note that simply offering e-banking facilities without promoting and differentiating them may not provide the desired competitive advantage. In fact e-banking has the potential to increase competition among banks and to reduce penetration costs of outsiders.
ii What is the extent of e-banking usage in Zimbabwe?

From the findings of the study actual usage of e-banking facilities is relatively high as derived from high attitude towards use and positive perceptions about the usefulness of e-banking products. Mobile phones are the main source of connection to e-banking facilities as most customers have access to internet through their phones. It can be concluded though that e-banking usage is still below its maximum possible level since customers’ perceptions and attitude are not yet fully shaped to support e-banking.

iii What factors influence customers’ usage of e-banking in Zimbabwe?

From the findings of the study many factors affect the usage of e-banking in Zimbabwe. The most outstanding factors are trust, awareness of e-banking and its benefits, computer self-efficacy and auxiliary features. Lack of trust in the e-banking promises, accuracy and reliability negatively affect customers’ attitude towards e-banking usage. There is not enough awareness of e-banking and its benefits to guarantee maximum usage. Computer self-efficacy is not at its best to ensure user friendliness of e-banking facilities despite the high level of education and computer literacy among bank customers. Auxiliary features are not a universally accepted enhancement on e-banking, they add complexity to some customers and friendliness to others and therefore they both discourage and encourage e-banking usage. The emergence of mobile banking has improved internet connection quality but trust for its reliability and accuracy is the major drawback on e-banking usage. Perceived ease of use (PEOU) and perceived usefulness (PU) are also not strong enough to drive attitude towards e-banking usage particularly because customers do not have enough
information on how to use e-banking products and how the products benefit their lives. Elements of resistance are still evident as some customers prefer and trust traditional banking channels more than e-banking. Demographics have less effect than was expected on the usage of e-banking save for computer literacy and education which enhance computer self-efficacy. Religion, gender, income and marital status do not have significant influence on e-banking usage. However, the banking community tends to be dominated by young and low income earners and as such there is need to make sure e-banking is more appealing to the youth and is affordable to low income earners.

**iv What strategies can banks adopt to facilitate the usage of e-banking?**

Perceptions are the main drivers of the usage of e-banking products. They have a strong impact on the attitude towards use of e-banking and as such they indirectly affect the behavioural intention to use e-banking facilities. The first point of call for banks is therefore to manage customers’ perceptions. They need to promote knowledge about the advantages of e-banking, the comfort and convenience it brings to human life. Banks need to exploit the opportunity presented by increased availability and affordability of cell phones to tailor their e-banking products to suit mobile phone settings. Human support and free training also helps customers to be confident and comfortable about using e-banking channels.

**5.2 Proposition**

This study and its findings support the proposition that the banking industry in Zimbabwe has not yet achieved maximum usage of e-banking to exploit its full potential for competitive advantage. This is supported by the discovery that perceptions and attitude are not yet at their best to yield maximum e-banking usage.
5.3 Recommendations

The study presents the following recommendations:

i. E-banking and its benefits require strong promotion and advertisement. This is because awareness creates desire and confidence to use the product. There is need for banks to provide detailed information about their e-banking products on public media, the internet and through mobile messages. They need to provide proof of reliability and accuracy of e-banking transactions through feedbacks such as instant confirmation messages.

ii. Mobile phones are the most dominant means for customers to access e-banking products. They have a wider coverage since internet and cell phone network can be accessed from most parts of the country. There is therefore need for banks to intensify on mobile banking as this does not only promote usage by their customers but also promote financial inclusion of the marginalised people in the country.

iii. Banks should differentiate auxiliary features at customer level. Customers should be allowed to choose which auxiliary features they require to avoid unnecessary overloading of help facilities to customers.

iv. Banks should maintain flexibility by keeping a viable branch banking system to backup e-banking products. Customers may not learn everything overnight and as such branches keep banking services available or slow learners and act as an alternative when the network is down. Their existence aids comfort to customers and prevents banks from losing customers on the encounter of little network problems.

v. Banks should keep e-banking costs way below traditional banking costs to fight resistance to change and at a level which is affordable to low income earners. The customer base for commercial banks is
dominated by low income earners and as such they may not be attracted to expensive facilities. It is also important to capitalise on the fact that most of bank customers are young hence are relatively adventurous. Banks should therefore continue to package e-banking products in a way that best suits the youth.

5.4 Areas for further study
Future studies could further extend the TAM model to include other variables such as infrastructure and cost of e-banking services. This study was conducted in the city of Harare, the capital city of Zimbabwe where all banks are represented. Information about usage of e-banking may vary with location around the country particularly between towns and rural areas. Future similar studies could target these areas to gain comparative national results. Other models of analysis other than the TAM model could also be used to query the same variables in order to circumvent weaknesses of one model.
References


## APPENDICES

### Appendix i:

**Questionnaire for commercial bank customers**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age range (Years):</td>
<td>16-25</td>
<td>26-34</td>
</tr>
<tr>
<td>Marital status:</td>
<td>Single</td>
<td>Married</td>
</tr>
<tr>
<td>Education:</td>
<td>Secondary</td>
<td>College/Poly</td>
</tr>
<tr>
<td>Monthly Income:</td>
<td>0-500</td>
<td>500.01-1000</td>
</tr>
<tr>
<td>Computer Literacy:</td>
<td>Expert</td>
<td>Advanced</td>
</tr>
<tr>
<td>Internet access method:</td>
<td>Own computer</td>
<td>Own mobile phone</td>
</tr>
<tr>
<td>Bank:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I Electronic banking enables me to accomplish banking activities more quickly

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Not Sure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Statement</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Not Sure</td>
</tr>
<tr>
<td>---</td>
<td>----------------------------------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>2</td>
<td>Electronic banking enables me to improve performance of utilising banking services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Electronic banking enables me to accomplish more banking activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Electronic banking gives me greater control over my bank account and other financial banking activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Electronic banking processes are clear and understandable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>It is easy to perform any banking activity using electronic banking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Learning to use electronic banking options will be or has been easy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>I am ready to become or I am already skilled at using electronic banking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Overall, I expect electronic banking to be easy for me to use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>I will use electronic banking on regular basis in the future</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>I expect the use of electronic banking for handling my financial transactions to continue in the future</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>I will strongly recommend others to use electronic banking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Electronic banking development will benefit customers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>My colleagues strongly encourage me to use electronic banking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>I will encourage the use of electronic banking among my colleagues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>I am not satisfied with using traditional banking services when carrying out financial activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Lack of proper electronic banking services will cause me to leave my bank to other banks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Overall, I am strongly positive about using electronic banking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>My access to the Internet is easy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>The Internet enables me to handle my online financial transactions accurately</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Using the Internet for handling online financial transactions is efficient</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>The Internet enables customers to access the bank’s services 24/7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Banking transactions performed over the internet are successful and guaranteed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>I receive enough information about electronic banking services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>I receive enough information about the benefits of electronic banking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>I receive enough information of using electronic banking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>I never received information about electronic banking from the bank</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Electronic banking is trustworthy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>I trust in the benefits promised by electronic banking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Electronic banking keeps its promises and commitments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Electronic banking keeps customers’ best interests in mind</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>I trust my bank’s electronic banking services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>I would consider using electronic banking if someone personally recommended it</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>When trying new technology, I trust my own instinct more than advice from others</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Most people who are important to me think that I should use or continue to use electronic banking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>I am interested to hear about new technological developments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Not Sure</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>-------------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>37</td>
<td>Technological developments have enhanced our lives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>I feel comfortable in changing and using electronic banking services for my financial activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>I could conduct electronic banking transactions if I had only the system manuals for reference</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>I could conduct electronic banking transactions if I had seen someone else using it before trying it myself</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>I could conduct electronic banking transactions if I could call someone for help if I got stuck</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>I am confident of using electronic banking system even if I have never used such a system before</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>I could conduct electronic banking transactions if there are sound/voice effects (for example signaling that the transaction is successful)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>It would be fun to have a virtual figure from whom I can ask for help when problems occur</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>It would be useful to have a search agent in electronic banking who would search information for me about topics I have chosen.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>My church/religion discourages the use of electronic banking</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**ANY OTHER COMMENTS**

End of questionnaire. Thank you for participating in this research.
Interview guide for key bank informants

SECTION A: ADMINISTRATION

a) Respondent Name : ____________________________________________

b) Institution : ________________________________________________

c) Sector : ___________________________________________________

d) Work Title : ________________________________________________


SECTION B: ELECTRONIC BANKING

1. What electronic banking products do you offer?
   _____________________________________________________________

2. In general how do they work?
   _____________________________________________________________

3. How do you market them?
   _____________________________________________________________

4. What are the main advantages of using electronic banking over the traditional channels?
   _____________________________________________________________

5. In your opinion how do you rate customers’ understanding of e-banking and its benefits?
   _____________________________________________________________

6. What factors can hinder customers from using e-banking?
   _____________________________________________________________

7. Briefly explain how you have dealt with these factors?
8. Do you think you have done enough to manage those factors? Why?

9. In your opinion to what extend do you think customers prefer electronic banking over traditional channels?
Table 1: **Reliability test results**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number of items</th>
<th>Item delete</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Usefulness</td>
<td>4</td>
<td>0</td>
<td>0.904</td>
</tr>
<tr>
<td>Perceived Ease of Use</td>
<td>5</td>
<td>0</td>
<td>0.863</td>
</tr>
<tr>
<td>Behavioral intention to use</td>
<td>3</td>
<td>0</td>
<td>0.909</td>
</tr>
<tr>
<td>Attitude towards e-banking</td>
<td>5</td>
<td>0</td>
<td>0.699</td>
</tr>
<tr>
<td>Quality of internet connection</td>
<td>5</td>
<td>0</td>
<td>0.895</td>
</tr>
<tr>
<td>Awareness of e-banking and its benefits</td>
<td>4</td>
<td>0</td>
<td>0.794</td>
</tr>
<tr>
<td>Trust</td>
<td>5</td>
<td>0</td>
<td>0.880</td>
</tr>
<tr>
<td>Social Influence</td>
<td>4</td>
<td>0</td>
<td>0.656</td>
</tr>
<tr>
<td>Resistance to change</td>
<td>3</td>
<td>0</td>
<td>0.647</td>
</tr>
<tr>
<td>Computer self-efficacy</td>
<td>4</td>
<td>0</td>
<td>0.776</td>
</tr>
<tr>
<td>Auxiliary features</td>
<td>3</td>
<td>0</td>
<td>0.745</td>
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</table>
Table 2: Test of normality

<table>
<thead>
<tr>
<th>Perceived Usefulness</th>
<th>Kolmogorov-Smirnov(^a)</th>
<th>Shapiro-Wilk</th>
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<tr>
<td></td>
<td>Statistic</td>
<td>df</td>
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<tr>
<td>Perceived Ease of Use</td>
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<td>146</td>
</tr>
<tr>
<td>Behavioral intention to use</td>
<td>.170</td>
<td>146</td>
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<td>.262</td>
<td>146</td>
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<tr>
<td>Quality of internet connection</td>
<td>.146</td>
<td>146</td>
</tr>
<tr>
<td>Awareness of e-banking &amp; benefit</td>
<td>.201</td>
<td>146</td>
</tr>
<tr>
<td>Trust</td>
<td>.175</td>
<td>146</td>
</tr>
<tr>
<td>Social Influence</td>
<td>.160</td>
<td>146</td>
</tr>
<tr>
<td>Resistance to change</td>
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<td>146</td>
</tr>
<tr>
<td>Computer self-efficacy</td>
<td>.184</td>
<td>146</td>
</tr>
<tr>
<td>Auxiliary features</td>
<td>.126</td>
<td>146</td>
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</table>

\(^a\) Lilliefors Significance Correction
Table 3: Profile of respondents

<table>
<thead>
<tr>
<th>Respondents characteristics</th>
<th>Number of respondents who answered (146)</th>
<th>Percentage</th>
<th>Respondents characteristics</th>
<th>Number of respondents who answered (146)</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Gender</td>
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<td></td>
<td>Income</td>
<td></td>
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<tr>
<td>Males</td>
<td>67</td>
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<td>0-500</td>
<td>27</td>
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<td>Females</td>
<td>77</td>
<td>52.7</td>
<td>500.01-1000</td>
<td>64</td>
<td>43.8</td>
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<tr>
<td>Age</td>
<td></td>
<td></td>
<td>1000.01-2000</td>
<td>17</td>
<td>11.6</td>
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<tr>
<td>16-25</td>
<td>51</td>
<td>34.9</td>
<td>2000.01-5000</td>
<td>12</td>
<td>8.2</td>
</tr>
<tr>
<td>26-34</td>
<td>34</td>
<td>23.3</td>
<td>5000.01-10000</td>
<td>20</td>
<td>13.7</td>
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<td>35-43</td>
<td>40</td>
<td>27.4</td>
<td>Above 10000</td>
<td>6</td>
<td>4.1</td>
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<tr>
<td>44-52</td>
<td>17</td>
<td>11.6</td>
<td>Computer literacy</td>
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<td></td>
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<tr>
<td>Above 52</td>
<td>4</td>
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<td>Expert</td>
<td>0</td>
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<tr>
<td>Marital status</td>
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<td>22.6</td>
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<td>Single</td>
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<td>19.2</td>
<td>Intermediate</td>
<td>93</td>
<td>63.7</td>
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<td>Married</td>
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<td>74.0</td>
<td>Some</td>
<td>20</td>
<td>13.7</td>
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<tr>
<td>Once married</td>
<td>10</td>
<td>6.8</td>
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<td>0.0</td>
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<td>Education</td>
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<td>Secondary</td>
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<td>20.5</td>
<td>Internet Access method</td>
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<td></td>
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<tr>
<td>College/Poly</td>
<td>80</td>
<td>54.8</td>
<td>Own mobile</td>
<td>101</td>
<td>69.2</td>
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<td>University</td>
<td>36</td>
<td>24.7</td>
<td>Own computer</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>None</td>
<td>0</td>
<td>0.0</td>
<td>Friend's</td>
<td>22</td>
<td>15.1</td>
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<tr>
<td>Religion discourages e-banking usage</td>
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<td></td>
<td>Work computer</td>
<td>23</td>
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<tr>
<td>Strongly</td>
<td>110</td>
<td>75.3</td>
<td>Internet Café</td>
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<tr>
<td>Disagree</td>
<td>33</td>
<td>22.6</td>
<td>No access</td>
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<tr>
<td>Not sure</td>
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<td>2.1</td>
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<tr>
<td>Agree</td>
<td>0</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly agree</td>
<td>0</td>
<td>0.0</td>
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</table>
Table 4: *Technology acceptance test results*

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Dependent Variable</th>
<th>Regression coefficients ($R^2$)</th>
<th>Correlation coefficient ($r$)</th>
<th>p-value</th>
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<tbody>
<tr>
<td>Quality of internet connection</td>
<td>PEOU</td>
<td>0.496</td>
<td>0.714</td>
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<tr>
<td>Computer self-efficacy</td>
<td>PEOU</td>
<td>0.013</td>
<td>0.090</td>
<td>0.281</td>
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<tr>
<td>Auxiliary features</td>
<td>PEOU</td>
<td>0.249</td>
<td>0.527</td>
<td>0.000</td>
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<tr>
<td>PEOU</td>
<td>PU</td>
<td>0.612</td>
<td>0.810</td>
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<td>Awareness</td>
<td>PU</td>
<td>0.315</td>
<td>0.609</td>
<td>0.000</td>
</tr>
<tr>
<td>Social influence</td>
<td>PU</td>
<td>0.221</td>
<td>0.454</td>
<td>0.000</td>
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<tr>
<td>PEOU</td>
<td>Attitude</td>
<td>0.585</td>
<td>0.744</td>
<td>0.000</td>
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<tr>
<td>Trust</td>
<td>Attitude</td>
<td>0.456</td>
<td>0.698</td>
<td>0.000</td>
</tr>
<tr>
<td>Resistance to change</td>
<td>Attitude</td>
<td>0.229</td>
<td>0.535</td>
<td>0.000</td>
</tr>
<tr>
<td>Age</td>
<td>Attitude</td>
<td>0.010</td>
<td>0.095</td>
<td>0.255</td>
</tr>
<tr>
<td>Gender</td>
<td>Attitude</td>
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<td>-0.037</td>
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<td>Education</td>
<td>Attitude</td>
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<td>Religion</td>
<td>Attitude</td>
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<td>0.482</td>
</tr>
<tr>
<td>Income</td>
<td>Attitude</td>
<td>0.002</td>
<td>-0.062</td>
<td>0.456</td>
</tr>
<tr>
<td>Computer literacy</td>
<td>Attitude</td>
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<td>0.067</td>
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<td>Internet access method</td>
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<td>Attitude</td>
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