ASSESSING THE IMPACTS OF ELECTRONIC PAYMENT SYSTEM IN RETAIL SECTOR. A SURVEY OF RUSAPE TOWN

BY

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DEDICATION FORM

MOM AND DAD

If I have seen further than others, it is by standing on the shoulders of the giants. Thank you my giants for your shoulders, I still have dreams that are yet to manifest. I would like to dedicate this dissertation to my father the late Mr S Pfumbwa and Mrs L Pfumbwa, my brother Powell, sisters Prisca and Mellinda for their unwavering support. I would also like to thank my Pastor Rev J and Mrs Maunganidze, Mrs B Masona and my Supervisor Doctor Mugari. There is no doubt in my mind that without their continued unfaltering and visionary support and counsel upon which I conceded that my academic endeavours are a product that owes much to their contribution. Above all I dedicated this dissertation to Almighty God, the author and the finisher of our faith, knowledge and wisdom, for His love, grace, mercy and kindness to me and for sustaining me through the storm of academic terrain.
ABSTRACT

The introduction of electronic payment system in retail entities has posed risks such as card cloning, card fraud, theft of funds and systemic risk among others. The survey aimed to assess the impacts of electronic payment system in the retail sector. The research objectives were; to identify the electronic payment systems that are available to retail sector in Rusape Town, to investigate the reasons for the rise in electronic payment systems in the retail sector and to explore the risks posed by the retail sector electronic payment system. The researcher used a descriptive survey research design on a sample size of 105 participants with the questionnaire and the interview as the major instruments. The researcher used a stratified random sampling and purposive sampling method to gather primary data. Findings were analyzed and presented using tables, graphs and pie charts. Debit cards, Ecocash, and point of sale were the major electronic payment systems available for the retailers in Rusape Town. The researcher discovered that card fraud, mobile money fraud, and impulsive buying risk were the major risk posed by the adoption of electronic payment system and such risk were reported to be emanating from harsh economic, social and political environment. The adoption of electronic payment system by the retailers was discovered to be a result of liquidity crisis, increased competition from other retailers, and high demand by clients who were issued these facilities by their banks as substitution of cash. Electronic payment system posed negative impacts to the daily operations of the retailers although some positive impacts were realized such as impulsive buying risk and convenience. The researcher recommended that there is need to increase security when using electronic payment system to minimize potential risks that has devastating effects to the retailers.
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Firstly, I would like to think the Almighty God for giving me the light when it mattered most during the time this dissertation was being done.

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CHAPTER I

GENERAL ORIENTATION

1.1 Introduction

This research was conducted to assess the impacts of electronic payment system in retail sector in Rusape Town. This chapter focused on the background of the study, statement of the problem, objectives of the study, research questions, a statement of hypothesis, significance of the study, assumptions, delimitation of the study, limitations of the study and chapter summary.

1.2 Background of the study

The usage of electronic payment system in retail sector is inevitable, as the world has become a global village as a result of the evolution of sophisticated technological advancement in the 21st century. Technological advancement has seen many businesses changing from the usage of hard cash and paper transfers to electronic payment system. According to Muswe (2003) “the cash crisis in Zimbabwe had a devastating impact on service providers in the financial sector, and the Reserve Bank of Zimbabwe has been at the forefront at encouraging a move to create a cashless society.” A cashless society is defined by Muswe (2003) as the economic ecosystem whereby palpable, physical money in terms of banknotes and metal coins are substituted by virtual, digital money, and the usage of cash is replaced by the usage of various types of cards, mobile devices, and many other electronic devices that are linked to the internet.

At first, the introduction of electronic payment system had a negative impact to retail sector since the business sector and banks were not prepared to embrace that technology, and due to the resistance of technology by the customers. Muswe (2003) indicated that this transformation was facilitated by the cash crisis which Zimbabwe is going through.
Although bond notes and coins were introduced in November 2016 so as to reduce the crisis, they seem to have brought more harm than good to the cash crisis. The bond notes resulted in the scarcity of US dollars, as many people are keeping US dollars in their homes, as well as using the US dollars to import goods and services from abroad, and using the bond notes and coins in the day to day transactions.

The RBZ gave some incentives to many firms so that they could adopt electronic payments systems like the ATM, point of sale machines, mobile devices, and this was meant to embrace the cost effective way of delivering services via the internet (Muswe 2003). Banks play a vital role of facilitating electronic payment system, and due to technological advancement, they are expanding their operations and services to the global village (Kokkola 2010). The adoption of debit cards and mobile money is now gaining wide acceptance by the general public, though it caused an inevitable cultural shock to the society.

Bellare et al (1998) found out that “the regulatory environment for payment services in Zimbabwe has not rebounded as quickly as the market, and gaps remain in the legal framework for retail payment services.” It was discovered by Bellare et al (1998) that the towns and cities were the first areas to adopt electronic payment products, this will also facilitate the adoption of electronic payment system in the rural areas. Since urban areas were the first to adopt electronic payment system, Rusape Town was chosen by the researcher for the survey of assessing the impacts of electronic payment system on retail sector. The electronic payment system has five critical success factors which are as follows, to reduce expenses, to provide loyalty from customers, provision of convenience, to increase the profits and competition of marketing strategies amongst the retailers. But however the adoption of electronic payment system has brought with it some risks such as card fraud, cybercrimes, reputational risk, systemic risk just to mention but a few.

1.3 Statement of the Problem

In spite of the introduction of electronic payment system to retail sector as a measure to ease the cash crisis, the retailers are facing some challenges that affect their desired profits.
Electronic payment system is associated with lack of adequate machines that operates consistently with competent capacity to uphold the system causing the system to be down time and again (Muswe 2003). This results in reduced profits due to reduced business hours and the increased associated costs to rectify the affected system to its normal working conditions.

The introduction of electronic payment system in retail entities has resulted in increased cases of card cloning, and funds theft. In card skimming, “the thieves use a device to fraudulently copy bank customer details stored on the magnetic strip on a debit or credit card in retail merchants when bank cards are presented for payments” (Kokkola, 2010). This stolen customer information is then used to manufacture counterfeit cards which are used by these thieves to make fraudulent transactions on the victims accounts. Many credit cards are stolen and swapped especially by means of balance inquiry before making a payment, as these thieves will be looking for the pin and they change the cards when the client is unaware. Card theft has increased among the elderly and illiterate population since they seek for assistance by telling other people their confidential transaction PIN whenever they make a purchases.

Kokkola (2010) found out that electronic payment system is usually affected by the interruption of network, due to incompatibility of debit cards on other bank’s POS machines, some transactions fail and it takes some days to be reversed. Incomplete transactions will reduce profitability of the retail entity per day. This will reduce customer confidence, especially the elderly and the illiterate, causing a long term reduction in profit, as these clients will not be willing to pay the purchases price using electronic payment system in the retail sector anymore.

Since many clients were used to the brick and mortar way of payment, the introduction of electronic payment system in retail sector is affected by technology resistance by many customers. Muswe (2003) reported that the adoption of electronic payment system in retail entities is also affected by shortage of appropriate, and a framework that is codified. Shortage of sufficient technicians to solve breakdown machines, and also the time taken in
repairing the out of services machines are the major challenges which are being faced by 
the retail sector in their operations and profitability.

1.4 Research objectives

The primary objective of this survey is to assess the impacts of electronic payment system 
in the retail sector in Rusape Town from January 2018 to February 2019. To achieve the 
primary objective, sub-objectives were crafted to enhance the survey.
1) To identify the electronic payment system that is available to retail sector in Rusape 
   Town.
2) To investigate the reasons for the rise in electronic payment systems in the retail sector.
3) To explore the risks posed by the retail sector electronic payment system.

1.5 Research Questions

To achieve the assessment of the impacts of electronic payment system in the retail sector, 
the research was premised on the following questions:

1) Which electronic payment systems are available to the retail sector in Rusape Town.
2) What are the reasons for a rise in the usage of electronic payment system in the retail 
   sector in Rusape Town.
3) What are the risks posed by the adoption of electronic payment system in the retail 
   sector in Rusape Town.

1.6 Significance of the study

A major thrust of this survey was to shed light to some risks posed by the usage of 
electronic payment system by the retailers. This research was viewed as of greater 
significance, since it dealt with all parties that are affected negatively by the risks of 
electronic payment system in retail sector; such parties included the retail sector, the 
clients, the banks and the electronic payments system providers. The main obligation of the
retail sector and the electronic payment system providers was to design measures to minimize the risks posed by the adoption of electronic payment system by retailers.

1.7 To the retail sector

The study will be useful to retail sector management and its stake holders to identify, and design measures to reduce the risks posed by electronic payment system in the retail sector.

1.6.2 To the Clients

The study will give an understanding of the advantages brought by electronic payment system to the clients of retail sector. This study will also help the clients to reduce the personal risks caused by the use of electronic payment system in the retail sector.

1.6.3 To electronic payment system providers

The study will identify risks posed by the use of electronic payment system in retail sector, and assist the system providers to design measures to mitigate such risks.

1.6.4 To Bindura University

The survey will be used as literature review by other fellow students and researchers like educational institutions, who would like to undertake a research on a similar topic of electronic payment system.

1.8 Assumptions of the study

The research was premised on the assumptions outlined below:

- The researcher assumed that the adoption of electronic payment system posed a rise in risks in the retail sector of Rusape Town.
- The researcher assumed that electronic payment system was adopted by all retail entities in Rusape Town.
The researcher assumed that the participants of the research will respond positively for the study to achieve the desired outcome.

The researcher assumed that the information provided by the retail sector in Rusape Town was a true reflection of other retailers across the nation.

1.8 Delimitations of the study

The research was an assessment on the impacts of electronic payment system on the retail sector. The study was meant to identify the types of electronic payment system available for retail sector and the risks posed by this payment system in the retail sector. The research was conducted in Rusape Town so as to get responses from chosen retail entities since most of the retail outlets are represented in this city. The study covered all areas of risks related to the use of electronic payment system by retail sector from January 2018 to February 2018.

1.9 Limitations of the study

The researcher faced the challenges outlined below when he was conducting this survey.

1.9.1 Confidentiality

Access to relevant information was a challenge since most retail sector chosen respondents felt exposed to their competitors as a result of the research. Some respondents did not feel free and safe, as the dissemination of some information such as shortfalls and failures ruined their reputation. However, the researcher did not request for names of respondents and thus such information was recorded in a confidential manner so as to protect the respondent.
1.9.2 Manipulation of information

The respondents had different perspectives and objectives from that of the researcher. However, the respondents were informed that research was aimed for academic purpose only such that they gave accurate and reliable information.

Large population and sample size

The population was large for the researcher to get adequate information relating to the different typologies of electronic payment systems available and the risks posed by usage of electronic payment system by retailers. However, the researcher used the database of retail entities as a proxy to see the proportion distribution of the risks that resulted from the usage of electronic payment system in the retail sector.

1.9.3 Issue of formality

The respondents required a lot of formalities to be completed including a recommendation letter from the research institution before the study or interviews were undertaken. However, the researcher requested for an application form to ask for the permission to carry out the research from the research institution, namely, Bindura University of Science Education. The researcher is a conventional student at Bindura University resulting in limited time for the research as he was concentrating with other courses, and also has to seek permission to go out for the research from the department.

1.9.4 Bureaucracy problem

The sector was characterized by a lot of lines of control which delayed the retrieving of the information in time. The researcher wrote an application letter to the managers of the chosen retail entities such that the information is easily collected in time.
1.10 Definition of terms

**ATM**- Automated Teller Machine is electronic devices that allows the withdrawal of cash, balance inquiry, recharge cards and transfer without going into the banking hall and is accessed 24 hours/7 days a week.

**ATM Cards**- these are cards issued by financial institutions to their clients to enable internet access to the client’s accounting information and allow consumer to withdraw and deposit cash at ATM machines.

**Internet banking**- is a banking system that permits clients of financial institutions to make financial transaction on secured websites that are operated by that firm such as banks or credit union.

**Internet**- is a global networking of interconnected computers, regulated by international standards and protocols crafted by the Internet Engineering Task Force.

**Mobile banking**- involves the balance inquiry, accounting transactions, payments, credit application and various banking transactions conducted via a mobile device like mobile phone or a Personal Digital Assistant (PDA).

**Mobile payment**- A transfer of value via a mobile device.

**Payment Service Provider (PSP)**- is a firm that provides services that allows the depositing and withdrawing of funds from an account, payment transaction such as funds transfer, issuance and acquisition of payment instruments such as cheques, e-money, credited cards, debit cards and remittances.

**POS**- Point of Sale is a terminal used for business and tax purposes to record sales by salesperson accessible interface and it allows the creation and printing of receipts after every transaction.

**Retail entity**- is a firm that sells goods to the end user for consumption.
Retail payments - these are small payments made by customers when acquiring goods and service in the market.

Retail Payment Instrument - simply means all tangible or intangible device or mechanism that allows customers or firms to access money and to make payments for goods or services despite the fact that the user is an account holder or not.

Real time gross settlement (RTGS) System - is a form of payments system that operates on a real time basis not in batches. This gives an immediate final processing of transactions. Gross settlement means to settle a transaction on its own rather than combining them.

Short message service - is a text messaging service component of phone, web or mobile communication systems. SMS characterized by the standardized communications protocols to enable devices to exchange short text messages.

Virtual currency - refers to a digital representation of value that can be digitally traded and used as a medium of exchange, a unit of account and a store of value but does not have legal tender status.

Wallet - refers to the holder of an escrow account

1.11 Organization of the study

Chapter One provides a general introduction of the entire research which is aimed to assess the impacts of electronic payment system on retail sector in Rusape Town. It includes background of the study, an explanation of the research problem, the research objectives, the research questions, the scope of the study, limitations and delimitations, and a summary.

Chapter Two of the study provides a literature review that outlines the theoretical perspective of the risks posed by electronic payment system in the retail sector, and the empirical evidence; this chapter also describes and explains the definition of risk. The reasons why the risks in the retail sector increased due to the adoption of electronic
payment system are also defined and explained in this chapter. Risk and its causes, manifestation and the effect to the stakeholders of retail sector are well examined in this chapter.

**Chapter Three** dwelled much on the research design used and the research methodology of the survey. A detailed research design and methodology is also explained in this chapter together with the approaches of the research, the population under study, the population sample as well as the sampling procedures, the instruments used in this survey and methods used to collect by the researcher.

**Chapter Four** focused on the presentation of data, the analysis process as well as the discussion. The collected data pertaining to the impacts of electronic payment system in the retail sector was interpreted, discussed evaluated and analyzed. The research objectives were designed to act as a guideline to evaluate the research findings and some conclusions were drawn.

**Chapter Five** this chapter gives a synthesis of the whole survey through summarizing the research objectives. Some conclusions, proposals and recommendations were made to allow possible future research.

**1.12 Chapter summary**

The main thrust of this survey is to assess the impacts of electronic payment system on retail sector in Rusape Town. The researcher proposes that this study was of a vital significance to other researchers, retail sector and the electronic payment system providers. This chapter outlined the background of the retail sector, the statement of the problem, the study objectives. The research questions used, the assumptions that guided the survey, significance of the survey, delimitations, limitations, the hypothesis test and lastly the definition of terms were also outlined in this chapter. Chapter two will focus on literature review relating to the impacts of electronic payment system on retail sector.
CHAPTER II

LITERATURE REVIEW

2.1 Introduction

This chapter aimed to review the literature from several published sources relating to the impacts of electronic payment system in the retail sector. This chapter will discuss the theoretical arguments and empirical evidence on electronic payment system in the retail sector. Literature review is important in research because it provides a theoretical or conceptual framework for the study and it makes one to familiarize with the subject under study. This helped to avoid duplication of ideas, but helps to identify knowledge gaps, thus the aspects of the problem that has not been studied yet, and identify weaknesses or pit falls to be avoided.

Literature review was carried out as a benchmark of the study noting what was observed by other scholars and researchers in this area of study. Although the topic has gained significance, there is still a long way to identify a rich definition and a grand theory of risks, thus identifying the knowledge gap which this research endeavors to fill. This study investigates the impacts of electronic payment system in the retail sector in Rusape Town. The review of literature was fulfilled by reading books, journals, articles, internet, newspapers, magazines, theses, dissertations, conference proceeding reports and documentaries just to mention but a few.

2.2 Conceptual and theoretical framework

2.2.1 Electronic Payment System (EPS)

An electronic payment system is a method used to pay for goods or services using electronic means, in substitution of cash or a cheque, either personally or via mail. Kavu (2012) reported that “electronic payment systems are the everyday technology under use,
they are the relevant systems which go hand in hand with technology and they are also high in demand.’’ According to Kokkola (2010) ‘‘electronic payment system refers to the complete set of instruments, intermediaries, rules which bind the transactions, procedures, processes and interbank funds transfer systems which facilitate the circulation of money in country or currency in an area.’’ Kavu (2012) postulated that an useful and widely accepted electronic payment means in Zimbabwe can be used as a tool to address some challenges being faced in the ecommerce. Electronic payment system is a system which allows the use of internet payment among users of an electronic surrogate of a financial transaction backed by a financial institution or trusted intermediaries as a substitute payment method to the use of hard cash, cheque or other legal tender (Agimo 2004).

In the past years, retail payment system and settlement was manual and paper-based. In the 21st century, due to technological advancement, electronic payment system was introduced where data is now changed electronically for payments made by clients upon purchases of goods in retail enterprises. Electronic payment systems were widely adopted by many retailers in Rusape Town, which resulted from the widespread usage of the internet by retailers. Cunha (2018) reported that electronic payment systems are easy to use and time serving as compared to the manual processing of transaction, and they assist firms to enlarge its market sphere of influence.

Kokkola (2010) discovered that electronic payment systems are composed of three major elements given below. The first element is composed of instruments which are means of authorizing and providing a payment, meaning the way by which a client of retail enterprises gives the bank permission of transferring funds to a retailer. It is also a way used by the payee to authorize its bank for collection of funds from the payer for instance credit card. Secondly, processing is another element characterized by payment authorization being shared among banks and the accounts involved. Lastly, settlement is the process were the payer’s bank makes a settlement with the payee’s bank, using bilateral means or via accounts held by the two banks in favor of third-party settlement agent. This process of discharging obligation from the payer to the payee resulted to a point where funds are transferred from the client’s account and deposited into the retailer’s account.
E-money is a term used for electronically, thus the monetary value is stored magnetically storing device that can be represented by redeeming on the issuer, it is then recorded and issued upon the receipt of funds for the payment reasons and which are acceptable as ways of payment by other individuals not the issuer Kokkola (2010:25). E-money can be stored in various devices like a SIM card, and funds are accessed through the use of mobile phones, online, credit and debit cards just to mention but a few.

2.2.2 Nature of retail electronic payment system

They are various type of electronic payment systems adopted by the retailers. These include the credit card, debit card, digital wallets, e-cash, RTGS, ZIPIT and mobile payment. Retailing is derived from French verb ‘retailer’ meaning ‘to cut up’, this highlights one essential characteristics of retailers of buying in huge volumes and selling in smaller amounts. Kavu (2012) postulated that ‘a retail store is business enterprise which sells primarily to the ultimate consumers for the non-business use.’ The High Court of Delhi (2004) defined retail as ‘a sale for final consumption in contrast to a sale for further sale or processing, a sale to the ultimate consumer.’ Direct interface with customers is a meant to coordination all activities of the business activities from all angels, that is from the concept or crafting stage of the produce or outcome, including to the delivery stage and after delivery of the service to consumer is the fundamental activity of retail enterprises.

All retailers wishing to embrace retail payment and the usage of retail payment instrument must be abiding to the regulations put in place by the Reserve Bank of Zimbabwe (RBZ) under its guidelines. Kavu (2012) indicated that ‘retail payment instrument means any tangible or intangible device that enables an individual or an entity to obtain money, goods or services or to otherwise make payment or transfer money, regardless of whether the user holds an account or not.’ According to Kokkola (2010:25) ‘retail payment system comprises the technical infrastructure, participants, instruments for clearing and settlement, business relationship arrangements for instance bank-customer relationship, rules and procedures.’ This payment system requires a regulatory legal framework and relevant arrangements of governance that when coordinated, provides a universal environment
whereby both large volumes with relatively low value transaction are posted, authorized, processed, cleared and settled.

Payment Service providers (PSP) play a crucial role in facilitating the successfullness of electronic payment system in retail enterprises. Cunha (2018) indicated that a Payment Service Provider is defined as an entity that provides services which allows the withdrawal and depositing of funds into an account, funds transfers, issuance or acquisition of payment instruments for instance credit and debit cards, cheques, and other services associated with funds transfer.

In Zimbabwe examples of PSP includes mobile network companies like Econet through Ecocash, Telecel via its product of Telecash, and Netone via its product Onemoney has been reported by Kavu (2012). These products allow the storage of funds in a SIM card which allows transfer of funds to other users of the same network. To add on, banks are also PSP that issue debit and credit cards, which are then used by clients to purchase goods in retail enterprises using a point of sale (POS) machine. Kavu (2012) said that these POS machines are owned by the banks and funds are transferred electronically by swiping the card, which has the effect of debiting the client’s account and crediting the retail entities’ account.

2.2.2.1 Mobile banking

Mobile banking refers to the performing of account balance checks, transactions of an account, payments, applying for credit facilities as well as transactions that relates to the bank via a mobile phone or alternatively a Personal Digital Assist (PDA). According to Kavu (2012) ‘‘the earliest mobile banking services were offered over Short Message Service (SMS) a service known as SMS banking.’’ The adoption of this method requires minimum or does not need infrastructure at all, particularly in rural areas, which is composed of the un-banked population. Kokkola (2010) reported that this method was widely developed in Zimbabwe after the dollarization from 2010.

Mobile banking was widely adopted as a result of liquidity crisis. This crisis resulted in cash shortage in the circulatory system and many customers were not able to pay the
purchases price using cash. The mobile banking system was introduced by the RBZ and all other commercial banks are required to comply with this banking system (Masauso 2016). For example CBZ has introduced the CBZ touch mobile app where clients are enabled to make funds transfers to CBZ account holders and to account holders of other local banks like ZB bank, Agribank, POSB among others. This method is now also used by clients to make mobile app RTGS and internal transfers upon purchasing goods in retail enterprises without necessarily using cash.

2.2.2.2 Real-Time Gross Settlement (RTGS)

Real-time gross settlement is an electronic system where securities and funds are transferred inter-bank wise on real time and on gross basis. Nzaro et al (2014) discovered that “settlement in real time means a payment transaction is not subject to any waiting period, with transaction being settled as soon as they are processed.” They went on to postulate that, Gross settlement refers to the settlement of transaction each on its own without combining that transaction with others. The term settlement refers to the irrevocability of transaction once it is processed.

According to Nzaro et al (2014) RTGS are usually used for high value transaction which requires immediate clearing and are monitored by the central bank namely the Reserve Bank of Zimbabwe. Agimo (2004) stated that the “RTGS system does not involve physical exchange of cash, the central bank makes adjustments in the electronic account of Bank A and Bank B thus reducing the balance in Bank A’s account with the amount in question and increasing the balance in Bank B’s account with the same amount.”

2.2.2.3 Credit Cards

According to Pierce (2001) “a credit card as a plastic card that assures a seller that a person using it has a satisfactory credit rating and that the issuer will see to it that the seller receives payment for the goods delivered.” According to Nzaro et al (2014) in Zimbabwe, credit card owners use this card to pay for goods and services to the retailers that accepts Zimswitch. In contrast Mugari (2016) posits that Zimbabwean banks are not offering such cards to their clients. The credit cards are linked to bank account or some firms that offers
credit line facilities. A credit card allows the owner a fixed credit limit that is preset by the granting bank and higher interest are charged for the overdue balances.

The electronic transferring of funds from a credit card occurs when the card is swiped on a POS machine linked to retail entity’s account when a correct PIN is entered. Clients use these credit cards in the retail sector to pay for the goods acquired. Once the authorization is complete and the merchant hands over the requested goods or services, the customer has no further role to play in the process (Pierce 2001). The economic challenges in Zimbabwe resulted in the low usage of credit cards. However, Mugari (2016) postulated that retailers in Zimbabwe do not accept credit cards for the payment of goods and services.

### 2.2.2.4 Debit card

Mutepfia (2016) posits that debit cards allow the user to withdraw funds from his account at the bank or at an ATM machine. A personal identification number (PIN) is required to authenticate electronic transferring of funds at a Point of Sale (POS) machine from a debit card. The usage of debit cards is characterized by the direct debiting of client’s account with the same amount of the purchased item that is a demand deposit account has been reported by Pierce (2001). When the transaction has been successful, the client receives a transaction alert SMS confirming that the account has been debited with the purchases amount of the goods.

Banks issue debit cards to their clients so that they can access their funds and make payments via the use of POS machine. Abor (2004) stated that a point of sale machine is a machine that allows debit cards to be swiped and funds are accessed after a correct pin is entered. According to Information Systems Examination Handbook FFIEC (1996), “signature-based debit card transactions are processed in batch mode at the POS, and settlement is delayed until the batches are processed at the end of the day.”
2.2.2.5 Ecocash

According to Nzaro et al (2014) “Ecocash is a mobile cash transfer that was launched by Econet Wireless, a mobile cell phone service provider, on 30 September 2011 in Zimbabwe.” With the use of Ecocash, users are allowed to send and receive funds, to purchase airtime and make payments for other utilities such as ZESA tokens from the retailers. Nzaro et al (2014) postulated that funds are transferrable to various networks in Zimbabwe via Econet agents such as POSB. A product was invented whereby bank account holders are now able to link their accounts with ecocash. This facilitates ease electronic transfer of funds from bank to wallet or from wallet to bank, thus accessibility of cash. The retail sector took this facility to also accept ecocash as a retail payment instrument that can be used by clients. The growth of mobile money can be attributed to the growth of informal economy and increase in mobile penetration (Mutepfa, 2016).

2.2.2.6 Telegraphic Transfers

Telegraphic transfer is a system is an international way of transferring funds between banks located in different countries. Annon (2003) discovered that “a telegraphic transfer refers to an electronic means of transferring funds overseas or from one country to another.” In supporting, Nzaro et al (2014) said that a telegraphic transfer is sometimes called a TT, which refers to a message that is send via cables to settle the transaction between the banks involved. Telegraphic transfers are characterized by a reduction in transaction costs considerably. Telegraphic transfers are used in the retail sector to import goods and other services from abroad.

2.2.2.7 Zimswitch

Chaparadza (2018) said that “Zimswitch is a retail electronic funds switch, delivered interconnectivity between ATMS and POS devices throughout Zimbabwe.” The RBZ compelled all Zimbabwean banks to adopt and embrace Zimswitch payment facility. Chaparadza (2018) posits that “Zimswitch is a third-party, privately owned and managed company, formed in 1994, whose original purpose of ATM and POS connectivity has recently broadened to incorporate mobile phone based transactions into its platform of
services.’’ Chaparadza (2018) went on to postulate that Zimswitch devised a latest electronic payment facility that allows the processing of all payments despite the size and volume with the intention to reduce pressure from the real time gross settlement, known as the Zimswitch Instant Payment Interchange Technology (ZIPIT).

The ZIPIT platform enables Zimbabwean banking sector to provide mobile banking facilities through the use of GSM networking on cell phones. The ZIPIT platform is then used by clients to make payments of goods and services acquired from the retail sector. Chaparadza (2018) said that ‘‘ZIPIT is designed to enable interconnectivity between banked mobile subscribers by allowing money to be sent instantly to any cell phone in Zimbabwe.’’ This mechanism was meant to enable bank clients of to send funds immediately to other banks that accept ZIPIT payments, on real time like what the RTGS platform does.

2.2.3 Risk of Electronic Payment System

Business dictionary defined ‘‘risk as a probability or threat of damage, injury, liability, loss, or any other negative occurrence that is caused by external or internal vulnerabilities, and that may be avoided through preemptive action.’’ The adoption of electronic payment facility by the retailers has brought both external and internal risk to the sector that can affect the smooth flowing of the business if not handled well.

Mugari et al (2016) found out that ‘‘the current liquidity crisis in Zimbabwe has led to an increase in the use of facilities such as payment cards and Real Time Gross Settlement (RTGS), and these alternative payment systems have increased exposure of financial institutions to risk such as fraudulent RTGS payments and electronic card fraud.’’ Gwanyanya (2017) said that as consumers warm up to electronic payments, it is sad that most platforms are beginning to experience risks such increase in system down time, transaction errors, duplication and reversals of transaction, card cloning and card fraud.
2.2.3.1 Card cloning risk

Card cloning or skimming is a technique whereby someone obtains another person’s debit or card details are copied onto a bogus card that is then used for fraudulent payments. Chaparadza (2018) cited that the increasing adoption of plastic money in our nation is resulting from the shortages of cash which is susceptible to an increase in the rampant cloning of cards. Most banks use the magnetic stripe cards because chip cards are still expensive, thus fraudster takes advantage of this less secure magnetic stripe card system. This card cloning has increased by the cheaper costs of acquiring the skimmer. Chaparadza (2018) noted that fraudsters can acquire the skimmer for as little as $20 that can clone a card pretty easily. During January and February 2018, about $147,577 was lost through card cloning. The card cloning risk has resulted in the retail sector suffering loses and the clients losing their funds (Nyathi 2018).

2.2.3.2 Card fraud risk

This is a financial risk that affects the card issuers which are included electronic payment transaction posed by fraudulent and deceptive use of debit or credit card. Mugari et al (2016) posits that card fraud is the perpetration of crime through unauthorized use of another person’s account or a misrepresentation of personal accounting information. “There are two types of card fraud which are online and offline card fraud. Offline card fraud involves stealing of physical card and online card fraud is committed through the internet and web” has been reported by Mugari et al (2016).

The Institute for Technology Assessment (ITA) October (1997) in its report postulated that any financial crime such as card fraud can probably be adapted to electronic payment system. The potential risk comes when an illicit new transaction is added in the processing stream by the funds custodians or makes alteration with the intention to misappropriate and misdirect funds. Chaparadza (2018) states that card fraud can be categorized into internal card fraud, which is an operational risk arising from the illegal acts perpetrated by retail sector employees with intention to defraud the clients. This is done by violation of the
regulation policies and the ethical codes of contact of the retail sector. Secondly, external card fraud is the one that results from acts committed with intend to fraud by third parties.

According to the reporter of Daily News (2018) the lack of sound internal controls on security physically, security on data, and controls on the operations increases the chances of card fraud which can result in losses to the retailers. The issue of debit card fraud is more rampant since the facility uses a particular less secured protocol for the identification of a client who authorizes the transaction. Nicole (2018) posits pin codes and passwords are not secure enough to protect a client’s funds and do not prove neither verify whether the one in position is the owner. If the pin codes and security password are correct, the retail employees do not care who is using the debit card. This means that if someone gains unauthorized access to someone’s debit card and its password, that person will access that person’s funds and can use the card for fraudulent transaction.

2.2.3.3 Hacking risk

According to Hedavati (2012) cited in Mugari et al (2016), hacking is the unauthorized access to a database with the intention gain confidential information of individuals or firms. The adoption of electronic payment system by the retailers has resulted to the sector facing the hacking risk. Mugari et al (2016) outlined the common the hacking tactics like the service denial, worms and viruses, spoofing, key loggers, sniffing, fake massages and social engineers.

“Hacking tactics such as key stroking monitoring or transmission whereby software is installed on victim’s computer which records the key being entered and they are recorded and used for identity theft, internet fraud, telecommunication fraud and economic espionage” was discovered by Broadhurst (2006) cited in Mugari et al (2016). The use of Point of Sale machines by the retail sector is susceptible to key monitoring whereby the software can be installed on the retail sector’s POS machine.
2.2.3.4 Malware risk

Uppal et al (2014) cited by Mugari et al (2016) noted that malware refers to unauthorized programme that is installed secretly in a computer system to steal information. These malicious softwares scan the hard drive of computers and collects the needed information, such as PIN and card numbers of clients. Roderic (2006) cited by Mugari et al (2016) went on to say that “malicious software can be designed to intercept communication or log key board strokes, therefore recording entry made by the user and the information can be sifted electronically for password and related information.” Mugari et al (2016) discovered two types of malware namely the contagious which includes viruses and worms and secondly the masked such as Trojans.

2.2.3.5 Systemic risk

The systemic risk is result of network challenges whilst a transaction is in progress. According to the reporter of Daily News (2018) there is a possibility that some clearing and settlement participants in the network might fail to plays its role. This might result in settlement failure by other participants of the payment networks involved in that particular transaction. Inadequacy and reliability of operations and security might pose a negative effect to the data integrity that is exchanged during the clearing and settlement phase and can cause losses of finance by retailers and the clients involved. Nicole (2018) posits that the facility is susceptible to errors, specifically when huge volumes of payments are handled frequently which involves many recipients.

2.2.3.6 Reputational risk

The introduction of electronic payment system in the retail sector has posed reputational risk of the retail sector to its clients and its various stakeholders. “Reputational risk may involve actions that create a lasting negative public image of overall retail operations, such that the ability to establish and maintain customer relations is significantly impaired” has been discovered by Nicole (2018). This type of risk damages the confidence of the clients in using the electronic payment system in the retail sector. The reporter of Daily News
(2018) noted that there is a possibility that the electronic payment system might fail to satisfy the expectations of clients during the delivery process.

Nicole (2018) posits that “this risk usually occurs when the systems or products do not work as expected and cause a widespread negative reaction and also when customers experience problems with a service but have not been given adequate information about product use and problem resolution procedures.” Since the retail sector rely on electronic payment system providers, they suffer a lot from this risk as clients face service challenges but were not forewarned about any problems and the mitigation procedures. According to the Members of European Central Bank Oversight Division (2007) reputational loss in the electronic payment system increases the challenges of the retailer which erodes the public confidence in electronic payment system.

2.2.3.7 Impulsive buying risk

Impulsive buying risk has a negative impact to the clients but at the same time it has a positive impact to the retailer since it results in high profits. Impulsive buying is always a risk faced by many clients of the retail sector due to the use of electronic payment systems. Nicole (2018) noted that the risk of impulsive buying is magnified when making a payment of goods using a debit or credit card by simply swiping and entering PIN on the POS machine. Buying impulsively becomes habitual and sticking to the budget will be difficult (Nicole 2018).

2.2.3.8 Compliance risk

This is a risk posed by non-compliance to the prescribed rules that are supposed to be followed when the retailers are using electronic payment facility. According to the Members of European Central Bank Oversight Division (2007) “compliance risk is the loss associated with non-compliance with laws, rules, regulations, prescribed practices or ethical standards.” The compliance risk may arise when the customers and retail sector employees do not follow the regulatory procedures of the electronic payment system. Noncompliance to the rules and regulations of electronic payment facility by the retail
sector exposes its customers to fraud and identity theft, from which the retailers can be held liable for the loss.

The payment card data security standard (DSS) requires all firms which stores, process or transmit data for Visa cardholders, which comprises of financial institutions, merchants and payment service providers to be abide by the regulatory framework. “The Payment Card Industry Data Security Standards (PCI DSS) was instituted to by Visa to protect valuable credit card information by holding merchants, banks and credit card processors to the highest data security standards” (www.compliance101.com/pci-compliance-resources/visacompliance/). Participants of Visa’s programmes require PCI DSS to demonstrate compliance regularly.

2.2.4 Theoretical framework

The adoption of electronic payment facility in the 21st century has been of great interest to scholars and many researchers as they try to shed light on why the electronic payment system is being used and the risk associated with its adoption. Criminologists came out with various theories, and below are some of the theories that explain the impacts of electronic payment system.

2.2.4.1 The routine activities Theory

The routine activities theory is one of the contemporary forms of the Classical School framework because it assumes a rational decision making offender. Lawrence Cohen and Marcus Felson in 1979 propounded this theory. Felson preferred to link criminal activities to the mundane and the daily societal features. Felson (1998) identified the requirements of the crime chemistry that are necessary ingredients which should be mixed together, namely, the motivated offender, suitable targets and lack of guardianship. Cloward (1959) and Cullen (1984) concurred that, even if the offenders are willing to commit crime, the commission is impossible until an opportunity of law breaking is available. Most criminologists assumed that, the level of individuals to participate in crime is subject to
criminal motivation, and the rate of crime in social locations are determined by criminally motivated offender numbers in any given location.

The assumption of this theory states that many crimes are done in the daily routines of people who identify the tempting chances to commit crime. The use of electronic payment system on daily basis in the retail sector creates an opportunity for the commission of crime. Tibbets (2012) said that “opportunity is a necessary condition for any specific crime to be committed and involves a person or object providing a suitable target for the offender, and there must be the absence of guardians capable of preventing violations.” In the retail sector, the wide adoption of electronic payment system has witnessed the increase in the risks such as card fraud, card swapping, and identity theft just to mention but a few. “The distribution of opportunities and individual’s access to these opportunities is the reason why certain geographical areas have high crime rates than other areas” (Tibbets 2012).

The increase in the risk of electronic payment system is due to the economic and social problems in Zimbabwe which enlarged the pool of motivated offenders. The rightful time convergence of suitable targets in the absence of guardians which are capable can result to increased crime rates, has been discovered by (Tibbets 2012). Zimbabwe has witnessed a major change in the routine activities, thus from the use of hard cash and cheques to the use of electronic payment system due to the liquidity crisis. The use of electronic payment system by many citizens especially the elders, the illiterate and tobacco farmers provided an attractive and suitable target because they are not vigilantly guarded.

Many people walk around carrying their ATM cards and written PIN in their wallets and purses, and there is high possibility for them to meet motivated offenders in the absence of guardianship. The possibility of card cloning and card fraud was increased. According to Tibbetts (2012) areas characterized with high convergence of motivated offenders, suitable targets in the absence of capable guardianship are high risk and often referred to as hot spots. The important determinant of convergence is the societal mundane.

Felson (1998) discovered that poverty stricken areas increase the temptations to offenders and they lack controls. For example many tobacco farmers and the illiterate citizens are
poor and usually reside in rural and remote areas of the country. When they have sold their tobacco to the floors, they walk in groups towards retail entities to buy groceries that can sustain them throughout the off tobacco season. Some even ask assistance to the till operators and other customers to assist them to enter their secret pin to the swiping machine upon paying the purchases price of the goods. By so doing they provide an opportunity to the motivated offenders to steal their funds. However, decreasing opportunities for offending is a pragmatic approach to prevent crime. The prevention of crime can be done by eliminating the opportunity.

The crime suitable targets include a various situations. For instance, a suitable target in the electronic payment system can be a tobacco farmer who asks a till operator or someone else to enter on his behalf the ATM card pin on the POS machine. The suitable target of electronic payment system risk in the retail sector is subject to increase during the tobacco selling season. “The increased likelihood of criminal activity is the lack of guardianship which is often a police officer or security guard” (Felson 1998). In the retail sector, the guardianship role is played by the security guards who will be standing at the exit points to check whether the goods carried by the client tallies with those items printed on the receipt. Also the closed circuit Television has been put in place by the retail sector as a guardianship tool to both clients and the retail employees.

Felson (1998) identified three strategies of that can be used to block crime opportunities. Natural strategies are the first strategy, which includes the channeling of people to use places with less or no harm at all. In the retail sector this can be accomplished by providing signs and access to doors that lead people to enter the retail building only through doors where surveillance is high. The secondly strategy involves organized strategies, for instance the hiring of security guards to make crime commission difficult. Most retail entities adopted the hiring of security guards to minimize the risk of electronic payment system. The third strategy is the use of mechanical methods such as alarms, cameras, closed circuit televisions that provides surveillance.

Eck (2003) illustrated the guardianship concept and controllers by a triangle. Consistent with routine activity theory, Eck views crime as the convergence of offenders and suitable
targets in certain places. He uses a triangle to give visually representation of this intersection and how guardians can reduce the opportunity as illustrated in fig 1 below. The presence of a controller diminishes the opportunity for crime commission. Offenders have handlers such as the clergy, family members whom they have mutual bonds with and they cannot break the law in front of them.

**Crime triangle**

![Crime Triangle Diagram](image)

**Fig 1, Eck’s Routine Activity Crime triangle**


Targets have guardians which are those people being guardians on their own property, discouraging a potential offender’s attempt at a predatory crime. In the retail sector these guardians can be the account holder who will be protecting their funds from potential thieves. Lastly, managers are the people whose responsibility is to ensure the proper functioning of activities in a particular place. These include the management of the retail sector, the till operators, custodians or receptionist just to mention but a few. According to Madensen and Eck, (2013), “even if preventing crime is not on their minds, their mere
presence of managers can discourage an offender from considering this spot available to victimize.’

2.2.4.2 The fraud theory

This theory was propounded by Donald Cressey, (1919-1987). According to Cressey cited in Tibetts (2012) ‘most people who commit fraud against their employers are not career criminals. They are trusted employees who have no criminal history and who do not consider themselves as law breakers.’ Three essential elements should be present which are pressure, opportunity and rationalization.

Fraud is committed by trusted employee who has a non-sharable financial need which the employee failed to solve by legitimate methods, so he engages in illegal acts has been discovered by Cressey cited in Lilly (2015). The employees of retail sector might have financial pressure, since their salaries are not sufficient enough for their needs and wants. This has resulted from liquidity crisis and the rising exchange rates of United States Dollar to the Zimbabwean bond dollars as well as the ecocash which saw high percentages being charged upon cash withdrawals. This might result them in having non-sharable financial need which they cannot solve using legitimate means, thus leading them to commit illegal acts. The pressure such as inability to pay bills, addiction in drug and gambling, as well as desire for societal status assets such as bigger house, latest cars and very expensive school for their children.

To add on, an opportunity is necessary factor in the fraudulent activity. Cressey as cited in Lilly (2015) noted that opportunities are the circumstances which allow an employee to carry out the fraudulent activities. The employee abuses his position of trust as a means to solve the financial needs. This is ease to retail sector employees since they have access to assets, books of accounts, looking into client’s Ecocash pin/debit card pin whilst transacting and computer systems which presents them with opportunities to commit fraud. This will result in electronic card fraud which is perpetrated when the fraudster uses another person’s credit or debit card for personal without the awareness of the card owner and the card issuer.
There is increased risk of card swapping scams by fraudster who work in connivance with retail sector employees. Upon paying the purchases price of the goods at the till, the victim gives his debit card for payment, and the employee will then process the payment but instead of returning the true card, the employee returns another different card to an unsuspecting victim. The fraudster will then use the card to make fraudulent payments which is then discovered by the victim through transaction alerts SMS. Skimming is also a way used by retail sector employees as an opportunity to solve their non-sharable financial need.

Chaparadza (2018) defined skimming as the process of removing cash from a victim firm before being entered in to the books of accounts. Skimming occurs at any given point where funds enters the business, with electronic payment system, employees can take advantage of network challenge resulting in failed transaction and use these failed transactions as shield to conceal their skimming. Larceny is another way used by retail sector employees to solve their non-sharable financial challenges. Chaparadza (2018) stated that larceny occurs when cash/payment has been recorded on the company’s books or computer system in some fashion and is later stolen.

Rationalization is the third factor of the fraud theory. “Rationalization is a frame of mind that allows employees to intentionally misappropriate cash or other organizational assets and justify their dishonest actions” has been stated by Gwanyanya (2017). The retail sector employees will justify their criminal actions to be acceptable. For instance they can say “I had to steal to provide for my family or I was unpaid for some time that’s why I took the money for personal use with intention to bring the money back when I got paid.”

2.2.4.3 The rational choice and exchange theory

This theory was propounded by Coleman (1990), in this theory; he introduced the concept of exchange which is based on two factors which are rationality and exchange. Coleman (1990.13) asserts that when I am asked why I did something, a possible response is “I had my reasons,” meaning that I had an intended goal, and I perceived my behavior or actions contributing to that goal in specific and knowable ways. Each actor is purposive and had an
intention to maximize his personal gain which causes interdependence, or a character that is systemic, to both of their actions.

Coleman assumed that a rational actor is purely self-interested and unconstrained by societal norms and rules. There are three factors which need to be considered in this theory which includes, resources that affect other actors, personal attributes, such as skills and looks, valued by others and resources such as money that can be used in direct exchange. Bert et al (2011) said that trust and trustworthiness is necessary when there is time asymmetry, and enables the actors to accomplish much more than if they are lacking.

Bert et al (2011) postulated that rational choice involves making a decision based on, one’s current assets, possible consequences of one’s choice, and the consequences are uncertain that is evaluation of outcomes in terms of probabilities. Bert et al (2011) went on to give an example, where two men John and Peter do paper work together in an office. The rules of the office clearly state that each should do his job by himself or should consult the supervisor if he is in need of help. Suppose person John is not tactful in executing his duties and would do it in better and faster way if he is assisted regularly. He is reluctant to consult the supervisor, and to make confession an incompetence which might limit his chances of promotion. He then went on to asks help from his workmate Peter who is more experienced at the work and does his work well and quickly. Peter then helps John because the supervisor will not check for a breaking of rules against him. Peter helps John who in turn gives Peter a token of appreciation for the help.

This theory will be applicable in the retail sector as it clearly explains the risks associated with the trust that is given to retail sector employees when they are given debit cards in favor of cash backs. These risks can arise due to the illiteracy of some clients and the elder who face some technological challenges upon using electronic payment system, for instance the request for assistance when entering PIN upon swiping the debit card or entering the PIN when using Ecocash. These clients disclose their secret PIN to either the employees of the retail sector or other customers thus creating an opportunity that can be taken advantage of by the criminals to defraud. Clients are not allowed by the card issuer to
disclose their PIN to other persons as this will create opportunities for the commission of crime by motivated offenders.

2.5 Empirical Evidence

This section of literature review is going to look at the previous research findings on electronic payment system, while placing much emphasis on the impacts posed by the adoption of electronic payment facility by the retailers.

Nzaro and Magidi (2014) conducted a survey on the roles of electronic payment systems in financial institutions. The researcher conducted a descriptive survey design. This research aimed to provide an overview of the various types of electronic payment platforms adopted by the savings bank, assessing the role of electronic payment platform and the merits and demerits posed by electronic payment system in the savings bank. The researcher collected data from 20 employees of the savings, 40 clients of savings bank and 5 top managers from Causeway as well as the branches in Bindura. They used questionnaires and personal interviews were conducted to gain primary and secondary data was gathered by studying information from online materials, authoritative textbooks and latest newspaper.

It was discovered that cellphone banking, RTGS, ecocash, ATMs, Western Union and the credit card were common cyberspace payment platforms used by the savings bank. The adoption of cyberspace payment platforms by the savings bank was beneficial since it was regarded as more convenient; it offers a various services, reduced costs, speeded up transacting process and more accessible. The survey sample indicated that 75% customers showed minimum commitment and an attitude that is negative towards the use of cyberspace payment platforms when performing transactions and felt unsecure of their funds especially with the use of credit card. The savings bank and all Zimbabwean banks were recommended to use and embrace electronic payment system.

Mbwayo (2017) conducted a study to explore the factors that affects the usage cyberspace payment platforms by commercial of Kenya. A descriptive research design method was used by the researcher in which 43 Kenyan banks were studied to investigate factors tha
influenced the usage of electronic payments by the commercial banks of Kenya. The survey was conducted to assess the extent to which the Kenyan commercial banks have adopted electronic payment systems, identifying the key factors influencing the uptake of cyberspace payment platforms by commercial banks, and identifying the main challenges and benefits associated with the usage of cyberspace payment platforms by Kenyan commercial banks. Questionnaires were designed to gather data from the head of payments from each bank. The collected data was coded and inputted on SPSS in descriptive and inferential statistical analysis.

The survey findings revealed that Kenyan commercial banks have adopted a range of electronic payment methods such as the ATM, electronic funds transfers; bulk cash deposit machines, and mobile banking applications. It was discovered that the electronic funds transfer payment methods were the most adopted, and also the security of information, technology, infrastructure, the regulatory framework, and the higher level management recommended the uptake of electronic payment methods by commercial banks of Kenya. Some challenges were discovered such as inadequate legal and regulatory frameworks, outdated technologies, poor infrastructure, connectivity issues, poor technologies, inefficient customer care services, and time consuming technologies. These above mentioned challenges need to be addressed in order to improve the uptake of the electronic payment systems in the Kenyan commercial banks.

The Basle Committee (1998) conducted a survey on management of the risks associated with cyberspace banking and electronic funds transactions. The survey was conducted to shed light on the risks posed by electronic banking and electronic money in banks. The survey aimed to give a provision on considerations of supervisory authorities and banks as they develop methods to identify, assess, manage and control the associated risks with electronic banking and electronic money. The research used a matrix method of data presentation.

Mugari et al (2016) conducted a survey on cybercrime in the financial service sector in Zimbabwe. This survey was conducted on four financial institutions in the city of Harare with the aim to investigate the prevalence of cybercrime in the financial institutions. A
stratified random sampling and purposive sampling techniques were used. Questionnaires alongside in-depth interview were adopted as the major research instruments from a 48 respondents chosen from 4 commercial banks. The study found that hacking, phishing, malware and identity theft were the major types of cyber crime in banks. It was observed that the technological advancement is out-pacing the cyber security systems devised and implemented by financial institutions to mitigate this scourge.

From the survey conducted, it was deduced that cybercrime is very popular in financial institutions with cyber threats prevalence hacking risks, identity theft risks and malicious software risk. The findings also highlighted that the scourge of cyber crime is more rampant in less economically developed countries with Zimbabwe being in this category. The study recommended control measures to be put in place, such as training, updating antivirus, firewalls to curb cyber crime. Basing from the research outcomes, cybercrime was indicated as a major threat to financial sector and the problems will be compounded by the swift pace by which technology is advancing.

Mugari (2017) conducted a study entitled “Cyberspace enhanced payment systems in the Zimbabwean retail sector; opportunities and threats.” The was conducted to identify the characteristics of electronic enhanced payment platforms for the Zimbabwean retailers, and outlined the nature and characteristic of cyber risks to this sector by the use of the most dominant payments which are debit cards, mobile money transaction and real time gross settlement (RTGS). The study identified threats such as infection of computer viruses, unauthorized access, card fraud and RTGS fraud infrequently happens in the retail sector of Zimbabwe.

The researcher conducted questionnaires and interviews to the retail employees and shop owners to gather data. It was discovered that the devastating liquidity crisis and lobbying by the monetary regulators were identified as major push factors for the usage of electronic payment platforms. Basing on the survey outcomes, it was deduced that cybercrime continues to be major threat to electronic enhanced payment platforms amongst the retailers of Zimbabwe.
Kavu et al (2013) conducted a survey about electronic payment platforms for the small and medium sectors in Zimbabwe. This study was conducted to understand the way how banks operate, how best to integrate merchants’ ecommerce platforms with the new model of the electronic payment system (EPS). A mixed research approach was used with an emphasis of qualitative approach meant to describe, decode, and translate the collected data. A thematic approach was applied in the analysis of data that was recorded from interviews and was transcribed to retain the needed information. Semi-structured interviews for merchants and banks and questionnaires to buyers which include 45 University of Zimbabwe students were used to maintain qualitative research approach. The population consisted of 23 banks in Zimbabwe of which 5 were from Harare, 25 merchants in Harare and 200 people who performed online transactions.

The survey discovered that the electronic payment model will create a road to design a light weight e-payment system offering better integration to all merchants and SMEs in Zimbabwe. The electronic payment model was regarded with anonymity, traceability, security, portability, atomicity, cost effectiveness, standardization and universality and level of integration. It was also discovered that new security aspects on the e-payment model need to be addressed to cope up with the ever-changing technology and also to incorporate other payment instruments on the e-payment mode.

The National payment systems department conducted a survey in 2005 on the framework for oversight of payment system in Zimbabwe. The survey was conducted to help the payment systems operators, clients and users. The survey was conducted to give an insight on the Reserve Bank of Zimbabwe’s oversight role in the Zimbabwean payment systems. It states that the regulatory principles of the RBZ apply in the assessment of the infrastructure, the operations of the existing and latest payment systems. Its major aim was to make awareness of the requirements when operating a sound and secure payment system to all stakeholders.

The Financial Institutions Examination Council (2016) conducted a survey on the retail payment systems to explore and control the risks faced by the retail transacting systems and related banking transactions. The study aimed to identify the extent of risk in retail
payment platform function, to explore the different types of retail payment products available, to identify the extent to which retail payment products and the invention of technologies has posed risk among others. It was discovered that cyberspace payment platforms offers efficiency, improved the transmission of payment information process between the participants. The invention of cyberspace payment platforms enabled the development of various types of fraud, money laundering as well as disruption of operations when data is compromised. The study also discovered that the increase in the participation of nonbank third parties in retail payment systems and a lengthened transaction chain are susceptible to an increased risk in the transaction process.

2.5.2 Summary of previous studies and research gap identification

The previous studies aimed to shed light on electronic payment system in various sector. Nzaro et al (2014), Kavu (2013) and Mbwayo (2017) focused on electronic payment system on the banking sector with little consideration of the retail sector as they are the major clients of the banks in terms of deposits in cash and use of POS machines. Mugari et al (2016) and Mugari (2017) dwelt much on the cybercrime and cyberspace threats of electronic payment in the financial institutions and in the retail sector respectively. Thus shedding light on the cyber risks associated with the adoption of electronic payment system in these sectors. The above researches will assist the current research to find a research gap and to look electronic payment system in a different view specifically in the retail sector.

The previous researches conducted on electronic payment systems did not dwell much on the retail sector. The researchers concentrated more on the bank’s perspective while overlooking the retail sector. The study of Nzaro et al (2014) and Mbwayo (2017) seem to concur since they concentrated much on the electronic payment system in banks. Mbwayo (2017) concentrated on assessing the extent to which the Kenyan commercial banks have adopted cyberspace payment platforms, and discovering the major factors affecting the uptake of electronic payment platforms by commercial banks.

To add on, Kavu et al (2013) also concentrated on electronic payment platforms focusing much on the banking sector since they aimed to understand the way how banks operate,
how best to integrate merchants’ ecommerce platforms with the new model of the electronic payment system (EPS). Kavu et al (2013) although they took into consideration of the bank’s adoption of electronic payment system in line with its acceptance by its clients including the merchants, they gave a generalized view for the retail sector on issues such as the risks, benefits and opportunities posed by the adoption of electronic payment.

Since the electronic payment platforms are meant to substitute currency objects such as coins and notes, there is room for a further research on how the retail sector has implemented the electronic payment system to its clients and various stakeholders. The empirical evidence above on electronic payment system shows that there has been very little research on electronic payment system particularly in the retail sector. This gives a research gap for this current study to conduct a survey of electronic payment system looking specifically in the retail sector in Rusape Town which is the capital city of Zimbabwe where most of the retail sectors are represented.

2.5.3 Summary

This chapter concentrated on the theories that inform of the risks posed by the adoption of electronic payment system and criticized their applicability in the retail sector. As the theories have roots in criminology, they had to be assessed for their applicability in the risks posed by the electronic payment system in the retail sector and they need to be supported by previous findings about electronic payment system. The previous studies on electronic payment system had their findings selected to identify the gap that was inherent in the previous studies and justify how the research attempts to fill the cracks that are there in the body of knowledge on electronic payment system. The interventions in the payments space should be carefully done in such a way that does not stifle the potential for creating new payment systems out of practices that escape the gaze. The next chapter will go on to outline the methodology that was adopted in carrying out the survey.
CHAPTER III

RESEARCH METHODOLOGY

3.1 Introduction

Chapter three describes the methodology used during the survey. The research design and the brief explanation of the survey approach that was used are outlined. The researcher also provided a justification for selecting Rusape Town as the centre for the survey. The study population, the population sample and sampling techniques, the instruments used in this research, the procedure used for data collection, the presentation of data and the procedure of analysis will be discussed in this chapter.

3.2 Research design

Mounton (2001:55) postulated that “a research design is a plan or blue print of how one intends to conduct the research.” (A research design is defined by Kothari (2004) as specific ways and criterion of acquiring the required information. For the purpose of this study, the researcher adopted a descriptive survey research design, aimed to provide a clear and accurate picture of electronic payment system in the retail sector. The research topic of electronic payment system is relatively new in the retail sector and very few researchers have done a study on this topic. The researcher explored onto the types of electronic payment systems available for the retail sector, the associated risks and reasons for rise of these risks that had not been dealt with by previous researchers. The descriptive survey research design helped to shed light for a better understanding of what risks are inherent in the usage of electronic payment facility, considering the reasons for the rise in these risks in the retail sector in Rusape Town.
3.3 Study population

Wgener (2003) defined a population study as a category of individuals, people, and items that are of interest to the researcher, from which samples will be drawn for measurement and to whom the research results can be generalized. The researcher used Rusape Town as the study population, due to its size, geographical location and proximity since it has some retail entities operating in it.

The research concentrated on the grocery, clothing and hardware retailers who adopted the electronic payment systems. These included the retailers who use electronic payment system for facilitating customer payments for goods acquired and customer withdrawals such as cash backs upon purchases of goods of worth a prescribed minimum value. The employees acted as good sources to the study because they directly involved the risks posed by electronic payment system during the course of their employment, thus authentic and reliable information was obtained concerning the risks of electronic payment system in the retail sector in Rusape Town.

3.4 Sample population

Saunders et al (2007) discovered that “a sample as the size or number of units in a sample, it is a subset of the population and represents the whole population.” A Sample of 15 retail outlets was picked from Rusape Town, in which 7 respondents per retail outlet were chosen to complete the questionnaires resulting in 105 respondents. In addition, one management staff, one security personnel, one general employee were interviewed from 5 randomly selected retail outlets translating to 15 respondents being interviewed. Therefore, a sample size of 120 respondents was chosen in which 15 were for interviews and 105 were for questionnaires.
3.5 Sampling procedures

Cooper and Schindler, (2003) defined a sampling procedure as a means by which the elements of a certain population are chosen to represent the whole population. In this survey the researcher used stratified random sampling to collect data.

3.5.1 Stratified random sample

Kothari (2004) stated that the population is categorized into a non-intersecting subpopulation in which a sample of objects is chosen from every stratum. Stratified random sampling method is adopted in a population where the sample is not homogenous and will represent the sample (Kothari 2004). A stratified random sampling method was adopted by the researcher in gathering data. Questionnaire and interview respondents were grouped in accordance with size and nature of the products sold such as grocery, hardware and clothing retail outlets.

To add on, this sector was grouped into small, medium and large retail outlets. Seven respondents were selected basing on the types of products being sold and in consideration of the three sizes of the retail outlets mentioned above to answer the questionnaires making a total of 105 respondents. This enabled the researcher to have a fair evaluation from both the previous risks posed by the brick and mortar system of payment and the new risks posed by the adoption electronic payment system.

3.5.2 Purposive sampling

Purposive sampling technique involves the intentional selection of certain items from the universe to constitute a sample that represents the entire universe (Kothari 2002). The researcher used this method since he wanted to secure data from the users of electronic payment system in the retail sector, he selected 5 retail outlets from a total sample 15 retail outlets in Rusape Town for interviews. Kothari (2004) posits that ‘‘the investigator follows a rigid procedure and seeks answers to a set of pre-conceived questions through personal interviews.’’
Personal interviews were conducted by the researcher on one management staff, one security personnel, one general employee from the 5 randomly selected retail outlets translating to 15 respondents being interviewed. The researcher conducted a purposive sampling so as to complement the stratified random sampling method. Purposive sampling was used by the researcher since he wanted to deduce a conclusion of the best information needed to achieve objectives of the survey.

3.6 Research instruments

Leedy (2003) defined research instruments as appropriate tools needed for the collection of data and information required to come up with solutions to a problem that is being investigated. The researcher used questionnaires and interviews as his research tools which enabled him to obtain first hand information and also requested for secondary data so as to obtain adequate information about his research problem.

3.6.1 Questionnaires

Questionnaires are the common tools widely adopted method of collecting primary data (Leedy 2003). The researcher used questionnaires to conduct his research by distributing to all the participants chosen in the retailers in the sample. The questionnaires contained two structures which are open and closed ended questions. A standardized questionnaire was designed to bring solution to research objectives and to allow results to be comparable. The questionnaire respondents were required to indicate by ticking the most applicable response, and these responses were used to allow the analysis of a data in a systematic manner. Factors like educational level, experience in retailing, gender, types of risks and risks awareness measures were also considered in the questionnaire as this played a vital role on the analysis of the data that was gathered from the respondents. The questionnaires were distributed to the 15 randomly selected retail outlets in which 105 respondents were asked to fill them.
Advantages

- The questionnaire helped to shape up the information needed from the respondents as the information was standardized by the closed ended questions on the questionnaire.

- Much time was saved since the questionnaires were not collected the same day they were be distributed, thus the respondents were given a timeframe to complete the questions on their free time.

- Bias towards certain electronic payment system providers was reduced as the respondents were not given room to disclose the name of their electronic payment service providers.

- The researcher used the questionnaires in data collection because many people were familiar with it and it was relatively cheap and easy to administer.

- Questionnaires guaranteed respondents anonymity and privacy which encouraged honest answers being given and respondents felt to be honored since they were chosen as the sample population.

Disadvantages

- The term risks confused other respondents upon answering the open ended questions, some respondents failed to explain the risks that were inherent in the electronic payment system.

- Some respondents were not at liberty to disclose the risks on the paper since they feared victimization by their superiors since they were required to submit the completed questionnaires to the management who in turn handed them over to the researcher.

The researcher broke the barrier set up by the disadvantages mentioned above by briefing the respondents on any areas that the respondents needed clarity. The researcher took at least 5 minutes to clarify on the kind of information he needed. The researcher collected the
completed questionnaires in person for confidentiality purpose which assured the respondents that the research is carried out for academic purpose only.

3.6.2 In-depth interview

An interview method was used to obtain primary data through questioning the respondents. The questioning process can be conducted in three ways namely the personal interview, telephone and postal. The researcher is a resident in Rusape and the retail sector to be used in data collection process are located in the town, hence personal interview method was the most appropriate for the survey. The interviews were structured and guided by the objectives. The responses were written and recorded as the conversations proceeded. The interview guide ensured that the purpose of the interview was not altered, and as a way to ensure that the designed objectives of the research were accomplished. The researcher jotted down the responses from the interviewees on a note pad and kept them for comparison with the results on the questionnaires. To add on, the interview answers was used to augment the information on the questionnaires to ensure justice was done on the research.

Advantages

The face to face interviews were useful in this research for the following outlined reasons:

- The interviews gave the researcher a chance and opportunity to seek clarification on the way in which the electronic payment system is being used in the retail sector.
- The researcher was given an opportunity to rephrase the questions in areas that were not well responded to by the respondents.
- The interviews helped to explain the term risks in an unusual way thereby it enabled the respondents to understand what the term risks means, a problem that was not addressed well by the questionnaire.
Disadvantages

Below are the major challenges that were encountered by the researcher in conducting interviews.

- Some of the respondents had bias towards certain electronic payment systems which made it difficult to wean them off from making comparative analysis.
- Some information that seemed to be confidential was difficult to obtain due to fear of being victimized by superiors although confidentiality was assured.
- Interviews were time consuming with arrangements being difficult to make due to tight schedules on the part of the respondents, hence some interviews were canceled.

As a way to curb the above mentioned challenges, the researcher emphasized much on confidentiality on the information disclosed to avoid victimization by the superiors. The researcher continued to refer back to the aims of the study to avoid divergence of the interview by the respondents and tried to give allowance to have independent answers. The interviews and questionnaires were blended to ensure that these research instruments assisted each other to shed light pertaining to the impacts of electronic payment systems by the retailers of Rusape Town.

3.7 Methods of data collection

Best and Khan (1989) postulated that data collection basically involve steps done in order to administer research instruments and data collection from the selected respondents. Wegner (2001) posits that “data collection methods for statistical analysis include direct observation, interview method, questionnaire method and experimentation.” Prior conducting the interviews with the retail sector employees, the researcher designed an interview guideline which included all relevant questions pertaining to the survey.

Appointments were made by the researcher via mobile phone with the management of the retail sector prior dates of the interview, and some copies of interview guidelines were forwarded to the chosen retail outlets. The researcher delivered these guidelines in person, and then made follow ups on the mobile phone to verify that they reach the intended
respondents. The motive behind so was to enable respective respondents enough time to familiarize and prepare for the interview to avoid biased information thus improving data reliability. The researcher gathered data using from primary and secondary sources to obtain the required information. A total of 105 questionnaires were printed and distributed around in Rusape Town.

2.8 Validity and reliability of instruments

The researcher ensured that the instruments used are valid by conducting a pilot survey on 20 randomly selected recipients of the questionnaire and 5 interviewees. The questionnaire and interview guides were taken to the audit and experts in the security field for correction on issues that seemed to be unclear. Corrections and suggested improvements were considered before the final questionnaire was distributed.

The gap that was found between objectives and the data that was gathered by questionnaires was taken back into the organizations in the interview questions on the guide. The response required was obtained from the respondents, and then there was consistency in the results which made the researcher to feel that the research instruments were reliable.

3.9 Data presentation and analysis

After gathering the data, the researcher ensured that the large quantities of data were made understandable. The researcher processed all data he collected by means of qualitative and quantitative techniques meant for the analysis process.

3.9.1 Quantitative data

The data obtained through quantitative method was illustrated by a combination of tables and graphs. The tabulations allowed the researcher to arrange data in a tabular format and basic tables were used. The researcher also used articulate depiction of a tabulated data such that comparisons were simplified. Some of the data was quantified in percentage
computations which resembled the proportion of the respondents which makes it easier to compare and interpret.

3.9.2 Qualitative data

The researcher interpreted and analysed qualitative data so as to extract meaning from it, through summative content analysis. The obtained data was used to deduce conclusion through words, such as those answers from open ended questions from which data which is not standardised was collected, which required a conceptualisation approach to be used in classifying and analysing data. A qualitative technique was used to compliment quantitative data.

3.10 Ethical consideration

The researcher also considered the ethical aspect during the survey to ensure the effectiveness of the research methodology as it ensured the confidentiality of the data that was collected. To add on, the names of the respondents was not required at any point of the study. However, the researcher faced a challenge of interviewee bias as some respondents answered the questions to please the interviewer. The respondents participated voluntarily according to their own free will. The researcher designed a consent form that outlined survey purpose and attached it at the back of questionnaire to insure that the respondents do not think otherwise.

3.11 Summary

Chapter three focused outlined the research design, research instruments and data collection procedures that were used by the researcher. The presentation and analysis of data procedures were highlighted in this chapter. From this chapter a way was for chapter four in which research methodology was adopted to present and analyse data. The following chapter deals with data analysis and tabulated presentation data, used graphs, as well as pie charts. Chapter four also discussed the survey results in relation to independent
variables, correlation to one another, reliability of the research data and instrument and finally the conclusions were deduced in relation to survey’s goals and objectives.
CHAPTER IV

DATA PRESENTATION, INTERPRETATION AND ANALYSIS

4.1 Introduction

This chapter gives a presentation and an interpretation of data obtained from the survey conducted in relation to the impacts of electronic payment system in the retail sector of Rusape Town. The findings obtained through questionnaires and interviews were used in the evaluation of data, linking them to those of literature review and research objectives. The researcher used the interview and questionnaires (appendix 1 for questionnaire and 2 for interview guide) which are the data sources being referred to in this chapter.

4.2 Response Rate

The researcher used both questionnaires and interviews in gathering data relating to the impacts of electronic payment system in the retail sector in Rusape Town.

4.2.1 Questionnaire response rate

The questionnaire response rate shows the rate at which the researcher was successful in attaining the intended responses from the respondents. The questionnaire response rate for the retail sector in Rusape town is shown in the table below. A total of 105 questionnaires were distributed in 15 randomly selected retail outlets in Rusape town. The responses were gathered from the branch managers, supervisors, and general employees in retail outlets. Table 4.1 below shows the questionnaire response rate
Table 4.1 Questionnaire response rates

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Questionnaire Issued</th>
<th>Questionnaire Returned</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small retail outlets</td>
<td>35</td>
<td>33</td>
<td>94.3</td>
</tr>
<tr>
<td>Medium retail outlets</td>
<td>35</td>
<td>30</td>
<td>85.7</td>
</tr>
<tr>
<td>Large retail outlets</td>
<td>35</td>
<td>28</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>105</td>
<td>91</td>
<td>86.7</td>
</tr>
</tbody>
</table>

*Source: primary data*

The ninety-one returned questionnaires were computed to give 86.7% response rate. The higher percentage of the response rate showed the higher contribution of the respondents in the data gathering stage. However fourteen questionnaires were not returned to the researcher for unknown reasons.

4.2.2 Interview response rate

The researcher conducted 15 interviews which targeted one management staff, one security personnel, and a general employee from the 5 randomly selected retail outlets.

Table 4.2: Interview response rate

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Interview Administered</th>
<th>Successful Interviews</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small retail outlets</td>
<td>5</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>Medium retail outlets</td>
<td>5</td>
<td>4</td>
<td>80</td>
</tr>
<tr>
<td>Large retail outlets</td>
<td>5</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>14</td>
<td>93.3</td>
</tr>
</tbody>
</table>

*Source: primary data*
As shown in the table above a total of 14 interviews were conducted out of the 15 interviews which were booked by the researcher for this survey. A total response rate of 93.3% was obtained resulting from an interviewee from the medium retail outlet who was absent on the day of the interview which resulted in 80% response rate in medium retail outlet.

4.3 Demographic data

The data gathered included demographic variables such as employment position, duration of employment, academic qualifications and gender.

4.3.1 Respondents Gender

![Gender distribution of respondents](image)

**Fig 4.1 Gender distribution of respondents**

*Source: Primary data*
Fig 4.4 presents the gender of the respondents who were involved in this survey of assessing the impacts of electronic payment facility in the retailer of Rusape. The above pie chart shows that males participated more than females, the statistics being 57.14% and 42.85% respectively. A total of fifty-two males and thirty-nine males participated in answering the questionnaires.

4.3.2 Employment position of respondents

4.3.2 Employment position of respondents n=105

![Employment position chart]

Fig 4.2 Employment status of respondents

Source: Primary data

Fig 4.1 shows the employment position of the selected respondents who were involved in the study. The respondents were categorized into three distinct classes namely: Branch manager, Supervisor and General employee. The bar graph above shows that 8.79% of the respondents were the branch managers, 14.29% were supervisor and finally 76.92% were general employees. Fig 4.1 illustrates that the majority of the respondents were the general employees of the retail sector.
4.3.3 Duration of employment

Fig 4.3 Duration on employment

Source: Primary data

Fig 4.2 shows the employment duration of the participants who worked in the retail sector of Rusape Town. The pie chart above shows the statistics that 18.68% were employed by the retail sector for duration below a year, 35.16% respondents were indicated that they were employed by the retailers a for duration between 1-5 years, 15.38% had a duration between 6-10 years and finally 30.77% were employed for a period above 10 years. The researcher targeted those respondents with duration above 5 years, since he anticipated that they have much knowledge about the electronic payment system since it was launched after the dollarization era.
4.3.4 Level of education

Fig 4.3.4 Level of Education

Source: Primary data

Fig 4.3.4 presents the education level of all chosen respondents for the survey of assessing the impacts of electronic payment system in the retail sector. The education level was categorized into secondary, diploma, under graduate and post graduate and the statistics were as follows 14.29%, 26.37%, 39.56% and 19.78% respectively. The statistics gave a balance since employees of all education level were included in the responding to questionnaires thus enhancing the reliability of the survey.

4.4 Electronic payment system available

The researcher looked at the commonly used electronic payment system in the retail sector in Rusape Town in addressing his research questions and to answer research objectives. Table 4.3 shows the widely adopted electronic payment system in the retail sector of
Rusape Town. The researcher used the table in order to obtained data from respondents to determine which electronic payment system available for the retail sector in the area of survey. The respondents were given chances to indicate by ticking the available electronic payment system in the retail sector.

Table 4.3 Electronic payment systems available

<table>
<thead>
<tr>
<th>Electronic payment type</th>
<th>Number of Respondents</th>
<th>Availability %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debit cards</td>
<td>85</td>
<td>93.41%</td>
</tr>
<tr>
<td>Credit cards</td>
<td>17</td>
<td>18.68%</td>
</tr>
<tr>
<td>Ecocash/ Telecash/Onemoney Point of Sale (POS)</td>
<td>80</td>
<td>87.91%</td>
</tr>
<tr>
<td></td>
<td>85</td>
<td>93.41%</td>
</tr>
<tr>
<td>Mobile banking</td>
<td>29</td>
<td>31.87%</td>
</tr>
<tr>
<td>RTGS</td>
<td>69</td>
<td>75.82%</td>
</tr>
</tbody>
</table>

Source: Primary data

Debit cards and POS topped the list amongst the electronic payment system in the retail sector, with 93.41% apiece Mobile money (Ecocash/Telecash/Onemoney) followed with 87.91% of the respondents indicating that they use this platform. RTGS was ranked to be the third electronic payment type adopted by the retailers as indicated by 75.82% respondents. Mobile banking and credit cards were ranked at the bottom of the list of electronic payment system in the retail sector with 31.87% and 18.68% respectively indicating that these platforms were not used frequently.

Electronic payment system was being used by all retail outlets in Rusape despite the size and nature of goods sold. The electronic payment system was used to facilitate convenience and security on customer payments. The adoption of electronic payment system enabled the use of point of sale machines which were integrated into the retail outlet’s computerized accounting system. With debit and credit cards, the customer swiped his card on a point of sale machine which has an effect of debiting the account of the customer with the authorized amount by entering the correct pin and crediting the retail outlet’s account.
linked to the point of sale machine. In supporting Pierce (2001) postulated that with debit cards, the money for payment of a service or purchased item comes directly out of the holder’s account that is a demand deposit account.

The mostly adopted mobile money electronic payment system was Ecocash. The interviewee said that the use of ecocash was very simple since they were enabled to pay the purchases price of goods in the retail sector by entering four digit ecocash pin to authorize the transaction. The same criterion was used for telecash and onemoney although they were not commonly used in the retail sector in Rusape. The point of sale machine was used to access funds from ecocash, debit and credit cards. Nzaro et al (2014) cited that the point of sale issued an authorized receipt when the transaction is successful which is signed by the client in duplicate and the customer would then go with one copy and the other one is left with the cashier for accounting and reconciliation purpose.

Mobile banking was also used to transfer funds upon purchases of goods from corporate accounts such as clinics, school and church accounts which were not authorized to own a debit card. An interview respondent said that the use mobile banking was very convenient since transaction were done at the school premises without necessarily writing large volumes of RTGS and internal transfers and submitting them to the bank where they spent much of their time in the long queues which was so boring and tiresome process. Retailers used agent codes as they acted as agents of the banks that financed mobile money transfers. Thus the retailers acted bother bankers and retailers to their clients for instance they offered cash-backs to their clients. Masauso (2016) noted that mobile banking was introduced by the RBZ and all other commercial banks are required to comply with this banking system.

Finally the RTGS was used as interbank funds transfer by corporate account holders who purchased goods such as schools, clinics and churches. The customers wrote RTGS forms and submitted them to their respective banks with an authorization of funds transfer from that client’s account to that of retailers, and they were required to carry a stamped copy to the retailers as proof of payment for them to collect the purchased goods. This was evidenced by Nzaro et al (2014) who noted that RTGS are usually used for high value transaction which required immediate clearing. An interviewee indicated that no goods
were dispatched without proof of payment and they were now submitting RTGS forms a day before the collection of goods or till they received a transaction alert sms that confirms the successfulness of the payment.

4.4.1 Other electronic payment system available

The retailers in Rusape also indicated that there are other electronic payment facilities available for retailers. Paynet was adopted by the retailers to process the salaries and wages for their employees. A manager of one of the retail entities said that his bank encouraged them to adopt paynet as an alternative for processing salaries instead of using RTGS and internal funds transfers which was a cumbersome process to them as a bank. This method was adopted due to technological advancement, for convenience and to relieve pressure to the bankers.

Another electronic payment adopted by the retailer besides those outlined in the questionnaires was ZIPIT. The ZIPIT platform was used by clients to make payments of goods and services acquired from the retail sector. Chaparadza (2018) said that “ZIPIT is designed to enable interconnectivity between banked mobile subscribers by allowing money to be sent instantly to any cell phone in Zimbabwe.” This mechanism is meant to enable bank clients to transfer funds immediately to other banks that accept ZIPIT on a real time basis, like what RTGS system does.

4.5 Reasons for the adoption of electronic payment system

The adoption of electronic payment facility by the retailers in Rusape was a result of various factors which included liquidity crisis, technological advancement, high demand of electronic payment system by clients, competition amongst retailers and recommendation by the banks just to mention but a few.
Table 4.4 Reasons for the adoption of electronic payment system

<table>
<thead>
<tr>
<th>Reason</th>
<th>Number of respondents</th>
<th>Respondents %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity Crisis</td>
<td>84</td>
<td>92.31%</td>
</tr>
<tr>
<td>Technological advancement</td>
<td>49</td>
<td>53.85%</td>
</tr>
<tr>
<td>High demand for electronic payment by clients</td>
<td>62</td>
<td>68.13%</td>
</tr>
<tr>
<td>Due to competition from other retailers</td>
<td>59</td>
<td>64.84%</td>
</tr>
<tr>
<td>Recommendation by the bank</td>
<td>34</td>
<td>37.36%</td>
</tr>
</tbody>
</table>

*Source: Primary data*

Liquidity crisis topped the list among the reasons that posed by the adoption of electronic payment system by the retailers with 92.31% apiece high demand for electronic payment system by clients with 68.13% respondents showing that these were the major reasons that caused the adoption of electronic payment system by the retailers. Competition from other retailers who had adopted electronic payment system was ranked the third reason that resulted in the adoption of electronic payment system with 64.84%. The questionnaire respondents indicated that technological advancement and recommendation by the bank were ranked as the list among the reasons that resulted in the adoption of electronic payment system by the retailers with 53.85% and 37.36% respectively.

4.5.1 Liquidity crisis

The survey discovered that liquidity crisis and lobbying by the monetary regulators was a major pushing factor that caused the adoption of cyberspace based payment facilities. The statistics in table 4.4 shows that liquidity crisis was the major reason resulting in the adoption of electronic payment system by the retailers. In supporting Mugari et al (2016) found out that “the current liquidity crisis in Zimbabwe has led to an increase in the use of facilities such as payment cards and Real Time Gross Settlement (RTGS).” The cash crisis
resulted in very large queues outside banking halls and customers being given a weekly withdrawal limit of $300 per account.

The cash crisis resulted in all employees being encouraged to open bank accounts and ecocash accounts for their employers to transfer electronically their salaries on pay days. This was so, because the employers were no longer able to withdraw cash that was sufficient to pay their employees. At some time the banks in Rusape set the daily limit per account holder at $20, thus forcing the clients to use that cash on paying minor goods like vegetables at the market and bus fares and resort to use electronic payment system in the retail outlets. The cash crisis caused all customers to use various electronic payment systems when purchasing goods.

Banks introduced simple accounts which did not require documents needed when opening a savings or current account, for instance CBZ introduced a smartcash account with a limit of $1000 that required photocopy of ID and $5 initial deposit only upon opening the account. The account targeted those who were not formally employed. Econet also facilitated electronic payment system by encouraging all Econet sim card holders to register for free and it was discovered that the Econet sim card costed $1 only. The cheaper the price of the Econet sim card and its wide acceptance by the retailers worked as an incentive to the adoption of ecocash as convenient electronic payment system since almost everyone was able to afford to have a mobile phone.

4.5.2 Technological advancement

The survey discovered that another contributing factor that caused the adoption of electronic payment system was technological advancement. Chaparadza (2018) said that the adoption of electronic payment system was due to the discovery and upgrading of banking and payment systems by the payment service providers. This upgrading resulted in sophisticated payment systems being developed such as the use of credit cards, debit cards, point of sale machine and mobile money among others. The technological advancement resulted retailers adopting electronic payment system since it reduces risk such as cash larceny.
The technological advancement also reduces the time spend on banking cash and robbery since funds are transferrable directly by debiting the client’s account and crediting the retailer’s account linked via a point of sale machine. Nzaro et al (2014) postulated that technological advancement has reduced the manual way of executing task, thus efficient service delivery and more security was enhanced. An interviewee said that “during the brick and mortar era, there were very large queues in the retail outlets and I as a cashier would spend much of my time on one customer counting the notes and coins paid by the client and service delivery was poor by then.” In order to improve service delivery and minimize risk associated with cash and cheque payments, the retailers adopted electronic payment system.

4.5.3 High demand for electronic payment platforms by clients

The adoption of electronic payment platforms by the retailers in Rusape was also attributed to the high demand by clients. A manager of one of the retailers said that “many clients demanded to use electronic payment platforms in our retail outlet since they have no access to cash which forced me as the manager to seek for this cyberspace payment platforms from our CBZ bank where the retail account is based”’ Cash shortages resulted in long queues in banks and long waiting period for a few notes and coins which was not sufficient for them to make cash payments in retail outlets. Chaparadza (2018) noted that the more the cash shortage resulted in the higher demand of cyberspace payment platforms in the retail sector by clients. The retailers were compelled to adopt electronic payment platforms so that they can meet to the increasing demand of such payment systems by clients.

4.5.4 Competition from other retailers

The adoption of electronic payment system was also attributed to stiff competition from other retailers who were the pioneers in adopting electronic payment systems. A supervisor from one of the retailers noted that “our retail outlet lost their clients to other huge retailers like Metropeech, TM and Ok supermarkets who were the pioneers in adopting the cyberspace payment platform before them and they had suffered from a reduction of
profits. In order for our firm to withstand the heat in the kitchen, we had to adopt the electronic payment system immediately so as to get rid of the stiff competition.’’ The reduction in profits of such small retailers encouraged its management to go to their banks and request point of sale machines and also to request merchant code from Econet for them to accept ecocash from their clients. The competition among retailers resulted in some retailers to adopt electronic payment system so as to withstand the heat in the market since profit is the bloodstream of retailers and the sole purpose of operation.

4.4.5 Recommendation by the bank

The survey also discovered that another reason that resulted in the adoption of electronic was the recommendation by the banks. An interviewee noted that ‘‘due to the cash crisis that left the banks without sufficient cash to give to all their clients, our firm encouraged all clients to use electronic payment systems when making payment of goods and services in our shop.’’ A customer who was interviewed noted that we are now using the little cash that we withdraw from the banks where electronic payment is not acceptable for instance at the vegetable market and bus fares to and from Rusape town since we resides in rural areas. The banks introduced simple bank accounts to accommodate those who were not formally employed.

Banks like CBZ introduced a smartcash account and Cabs introduced a textacash account that targeted those not formally employed. The bank encouraged all retailers to accept electronic payment system by issuing point of sale machines to each all retailers, and supplied point of sale rolls on which receipts were printed when a transaction was performed. It was discovered that those retailers who were resistant to the other reasons of adopting electronic payment system were then compelled by the banks to comply with this move. Masauso (2016) posits that the Reserve Bank Governor also encouraged all retailers to accept electronic payment systems to reduce the devastating effects of the cash crisis.
Other reasons for the rise in the usage of electronic payment system by the retailers

The survey conducted in the retailers in Rusape Town indicated that there are other reasons that resulted in the rise in the adoption of electronic payment platforms besides those listed in table 4.4 above. The rise in the usage of electronic payment system by retailers was attributed to its security aspect. The statistics indicated that electronic payment platform was more secure comparable to its predecessor of the brick and mortar way of payment. Credit cards, debit cards, Ecocash and mobile money requires a correct pin to be entered to approve a transaction unlike cash which is less secure, it was noted that once one has cash in hand he or she can perform a transaction without knowing the origins of money. Also RTGS required correct signatures of the account signatories which were verified by the bankers upon submission of the form before they authorize the transaction to be processed. An anomaly or mismatch on the RTGS form resulted in the decline of the application of that transaction thus being more secure than cash.

To add on, it was also discovered that the usage of large volumes of cash provided an opportunity and motivation to offenders as they observe the daily activities of the retailers. The risk of cash larceny and robbery was supported by the Routine activity theory propounded by Lawrence Cohen and Marcus Felson in 1979. The theory linked crime to the everyday mundane that’s the everyday features of the society. In the survey the usage of large volumes of cash were reported to pose the risk of robbery and cash larceny. In the commission of these crimes three ingredients were required; these were motivated offender (the perpetrator), suitable target (large volumes of cash) and lack of guardianship (security personnel). Cloward (1959) and Cullen (1984) concurred that, “even if the offenders desire to commit crime, they cannot do so unless the opportunity to break the law is present.” The crime of robbery and cash larceny was eliminated by the adoption of electronic payment system by retailers.

The rise in the usage of electronic payment system by retailers was also credited to its convenience characteristic to many clients. It was indicated that electronic payment systems like RTGS, internal funds transfers, mobile banking and ecocash was more
convenient when making payments as clients would simply transfer funds without necessarily going to the retail outlet. Some transaction were even carried during the night and during holidays for example the payment of funds by RTGS on CBZ touch was more convenient as the confirmation of transfer was sent on email and the goods were collected without waiting in large queues.

Ecocash was also regarded as more convenient since transfers were made to the retail merchant code and the proof of payment was shown to the cashier and goods were collected. The usage of electronic payment system was indicated to be easy to process transaction since the funds were directly transferred to the account of the retail outlet. The direct crediting of the retailer’s account reduced the time which was spend on counting cash and going for banking. It was also noted that electronic payment system brought efficient service delivery by reducing the long queues and time spend per transaction as compared to that of cash.

The other reason for an increase in the usage of electronic payment platform by the retailers was the potential for increase in profits. It was noted that the introduction of electronic payment system resulted in increased sales unlike with cash transaction. Many clients were affected by impulsive buying, where they purchased more goods than they had budgeted for simply because they did not use cash and the funds were debited from their accounts. The only realized it when the funds were no longer able to meet their needs, but this boosted the profits of the retailers.

4.6 Risks posed by the adoption of electronic payment system

The survey looked at the extent to which the adoption of electronic payment system has posed in the retail outlets in Rusape Town.
Table 4.5 Major risk posed by electronic payment system

<table>
<thead>
<tr>
<th>Risk type</th>
<th>Number of respondents</th>
<th>Risk %</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Card Fraud risk</td>
<td>79</td>
<td>86.81%</td>
</tr>
<tr>
<td>b) Mobile money fraud risk</td>
<td>65</td>
<td>71.43%</td>
</tr>
<tr>
<td>c) Impulsive buying risk</td>
<td>52</td>
<td>57.14%</td>
</tr>
<tr>
<td>d) Reputational risk</td>
<td>32</td>
<td>35.16%</td>
</tr>
<tr>
<td>e) Malware risk</td>
<td>3</td>
<td>3.29%</td>
</tr>
</tbody>
</table>

Source: Primary data

Card fraud risk topped the list among the risks posed by the adoption of electronic payment system by the retailers with 86.81% apiece mobile money fraud risk with 71.43% respondents showing that these were the major risks posed by the adoption of electronic payment system by the retailers. Impulsive buying risk was ranked the third risk posed by the adoption of electronic payment system with 57.14%. The questionnaire respondents indicated that reputational and malware risk were ranked as the list among the risks posed by the adoption of cyberspace payment platforms by the retailers with 35.16% and 3.29% respectively.

4.5.1 Card fraud risk

Electronic card fraud was perpetrated when fraudsters use another person’s credit or debit card for self enrichment whilst the card owner and issuer are not aware. An interviewee noted that “poverty and unemployment were the most reasons resulting in card fraud risk in the retailer sector.” When someone gains unauthorized access to someone’s debit or credit card and its password and security question, he gained access to that person’s funds and can use the card for fraudulent transaction. The interview respondents indicated that card fraud was categorized into two major types, which were internal card fraud where an employee of the retail outlet defrauds the client either by adding another transaction on legitimate ones for his personal benefit, of by giving the client a wrong card after
performing a transaction and use it for his personal benefit. The second type is external card fraud which is perpetrated by third parties with intention to defraud the innocent parties.

Card fraud risk is well explained by the routine activity theory propounded by Cohen and Marcus in 1979 which linked crime to the everyday features of the society. The necessary conditions for the commission of crime were outlined by Felson (1998) as motivated offender, suitable targets and lack of guardianship. The interview respondents concurred with this theory as they indicated that card fraud was perpetrated by offenders who are motivated to commit crime when there is a suitable target and in absence of guardianship. According to Tibbets (2012) “the convergence in time and space of suitable targets and the absence of capable guardians can lead to large increase in crime rates.” This was the major reason for the rise in card fraud among the retailers. Card fraud risk was indicated as the highest risk posed by the adoption of electronic payment system.

It was noted from the interviews that external card fraud was perpetrated by the unemployed and skilled criminals who were motivated by everyday usage of cards for payments in the retail outlets. The fraudsters were motivated and took advantage of the elderly and illiterate citizens who asked for help when punching their personal identification number (pin) when making payments in the retail outlets since they had challenges with this electronic payment system. Tibbets (2012) noted that “opportunity is a necessary condition for any specific crime to be committed and involves a person or object providing a suitable target for the offender, and there must be the absence of guardians capable of preventing violations.”

It was indicated by interview respondents that the elderly and illiterate citizens disclose their secret pin in trusting these strangers, who in turn take note of the card pin and request the balance from that card. Once the fraudster was aware of the balance it was reported that he then either swap the card with another which was obtained through this fraudulent trick, or the fraudster follows that client, stole the card and use all the funds by purchasing goods in a different retail outlet. It was indicated by a cashier that many people walk around carrying their debit cards and written PIN in their wallets and purses, and they were likely
to be victims of motivated offenders in circumstances were guardianship is lacking. Another retailer indicated that a tobacco farmer was a victim of card fraud and lost $3500 after asking for help from a stranger to punch her pin when she made a payment of goods worth $270 in May 2017.

The interview respondents indicated that card fraud is rampant during the tobacco sale season in the retailers. The farmers are reported to disclose their pin and balances to strangers who are then motivated to defraud. The tobacco farmers, elderly and illiterate are suitable targets for card fraud and fraud was perpetrated since the was absence of guardianship especially in small retailers who lacks close circuit televisions and security guards thus providing a conducive environment for card fraud.

Internal card fraud is well explained by the Fraud theory which was propounded by Donald Cressey, (1919-1987). According to Cressey cited in Tibetts (2012) “most people who commit fraud against their employers are not career criminals. They are trusted employees who have no criminal history and who do not consider themselves as law breakers.” Three essential elements should be present which are pressure, opportunity and rationalization. Fraud is committed by trusted employee who has a non-sharable financial need which the employee failed use legitimate means, such that he decided to commit has been discovered by Cressey cited in Lilly (2015).

The interview respondents indicated that the non-sharable financial burdens emerged to the retail employees from the liquidity crisis and the inconsistent daily rising exchange rates of United States Dollar to the Zimbabwean bond dollars as well as the Ecocash which saw exorbitant percentages being charged upon cash withdrawals. Some non-sharable financial needs which were not solved by legitimate means caused some retail employees to be card fraudsters. The pressures indicated by the interview respondents were failure to pay bills when they fall due, addiction of drugs and gambling, and a desire for status assets like bigger house, latest cars and very expensive school for their children just to mention but a few.
Cressey as cited in Lilly (2015) noted that opportunities are the circumstances which allow an employee to carry out the fraudulent activities. It was noted that some retail employees abused their trust positions to address their non-sharable monetary needs. The card fraudsters were reported to abuse the opportunity of having access to client’s card and PIN whilst transacting to commit card fraud. It was discovered that some retail employees engaged in card swapping scams who worked in connivance with third parties when a client gives his debit card for payment, and a different card is returned to unsuspecting victim.

The fraudster used the card to make fraudulent payments which were then discovered by the victim through transaction alerts SMS. It was indicated by the respondents of a major retail in Rusape that they fired 7 employees on accounts associated with card fraud in the last quarter of 2018. The interview respondents noted that these employees engaged in card fraud when they were entrusted by the clients to do them a favor of cash-backs since these clients were having cash access challenges. The fraudsters were reported to rationalize their fraudulent acts by justifying that they committed card fraud to provide for their families to catch up the escalating US, Bond, RTGS and Ecocash rates. According to Gwanyanaya (2017) ‘‘rationalization is a frame of mind that allows employees to intentionally misappropriate cash or other organizational assets and justify their dishonest actions.’’

4.6.2 Mobile money fraud risk

Mobile money fraud risk was indicated the second highest risk posed by the adoption of electronic payment system by retailers. Mobile money fraud is a crime that involves the illegal or unauthorized use of mobile money for self enrichment. It is perpetrated when the fraudster had access to someone’s mobile phone and the personal identification number (pin) and performs a transaction whilst the owner is not aware. There are two types of mobile money fraud which were identified as the provision of fake proof of transaction and theft of the physical mobile phone when the fraudsters got access to the pin.

The interview respondents indicated that at first when the mobile money payment system was adopted, mobile money fraud risk was rampant in the retail sector especially to the
new cashiers who were being trained on the till. Mobile money fraud can be explained by the routine activities theory which linked crime to the everyday features of the society. The fraudsters were motivated by the initial lack of security of mobile money transfers. The new cashiers at the tills were identified as the suitable target that lacked close guardianship of their supervisors once they were approved off serving clients with close monitoring.

It was discovered that fraudster identified new cashiers and presented a counterfeit ecocash proof of payment and collected goods. The supervisors picked the anomaly upon end of day reconciliation and at first they thought it was a failed transaction until they picked that it was fraud. Many retailers were defraud by this trick by the fraudsters until they introduced the checking the transaction alert SMS from both the sender and the receiver’s mobile phone. It was noted that mobile money fraud resulted in the retailers losing thousands of dollars to the fraudsters.

To reduce this risk, it was discovered that Econet developed a merchant code for the retailers to mitigate the mobile money fraud. Econet was also reported to encourage all its agents to ask for the national ID of the client and record the name, ID number amount and date of transaction for all clients so as to easily identify the fraudsters. Due to technological upgrading, Econet also developed a system of performing ecocash transaction by punching the client’s mobile number on POS machine such that the massage is automatically send to the client’s mobile phone requesting him to enter the pin to approve and authorize the transaction.

The second type of mobile money fraud was identified as the theft of the physical mobile phone by fraudster who initially got access to the pin. This type was explained by the rational choice and exchange theory which was propounded by Coleman (1990) and was based on rationality and exchange. The fraudsters were reported to take advantage of their personal attributes of technology literacy when approached by the elderly and illiterate citizens to assist them by entering their ecocash pin. The interview respondents explained that, when illiterate and elderly citizens purchased goods they request assistance from the cashier or other customers to perform the transaction on their behalf.
The rules of the mobile money clear states that the holder of the account should not disclose their pin to anyone for security reasons. The fraudster took advantage of assisting such people to gain access to the pin number and balance which is received from the transaction alert SMS. Once the pin was disclosed to this fraudster, a gang of other fraudsters was then sent to cause confusion in disguise and stole the mobile phone from the victim. The funds were then used in a different retail outlet whilst the owner is not aware. A purchase was made to disguise the audit trail since a transfer of such funds to another ecocash account was traceable at Econet.

To add on, mobile money fraud is also explained by the routine activity theory in which the elderly, most tobacco farmers and illiterate citizens fall prey as suitable targets to motivated offenders in the absence of vigilant guardianship. The theory linked crime to everyday features of the society thus the usage of mobile money as a payment system on daily basis created an opportunity for the commission of mobile money fraud. It was noted that the elderly usually wrote their pin on a piece of paper that was indicated to be placed either at the back cover of the mobile phone or in wallets and gave the mobile phone and pin to the cashier in presence of other customers thus becoming victims.

The distribution of opportunities and individual’s access to these opportunities is the reason why mobile money fraud was the reported as the second highest risk posed by the adoption of electronic payment system by the retailers. The interview respondents indicated that the rise in mobile money fraud was a result of social and economic challenges being faced by Zimbabwe which saw the enlarged pool of motivated fraudsters trying to earn a living by illegal means. Tibbets (2012) postulated that “the convergence in time and space of suitable targets and the absence of capable guardians can lead to large increase in crime rates.” The retailer sector was reported as hot spot of mobile money fraud since it was associated with high risk because of the intersection of offenders who are motivated, suitable targets in the absence of capable guardianship. The mobile money fraud was reported to increase during the tobacco selling season in Rusape which resulted from the opening of Boka tobacco floors in 2016.
The interview respondents outlined the measures that were put in place by the retailers to identify and minimize the mobile money fraud risk posed by the adoption of electronic payment system. This was explained by Eck (2003) who expanded the approach of guardianship alike to that of controllers by using a triangle to visually represent this intersection and how controllers can limit opportunity.

### 4.5.3 Impulsive buying risk

Impulsive buying risk was rated as the third type of risk that was brought by the adoption of electronic payment system in the retail sector in Rusape Town. Nicole (2018) noted that the risk of impulsive buying is magnified when making a payment of goods using a debit or credit card by simply swiping and entering PIN on the POS machine. This type of risk was indicated as unique among other risk which were outline since it was associated with negative impacts to the clients and positive impact to the retailers. The interviews indicated that clients overspend their funds in the retail outlets at the expense of other basic needs. One respondent said that when paying with electronic payment system it seems as if one underestimates the real value of money and tends to buy more goods that were not budgeted for and usually such goods were for luxury.

The respondent went on to say that overspending of money in the retail outlets resulted in financial burden since it resulted to inability to pay other bills and basic needs. Nicole (2018) posits that when impulsive buying becomes habitual, following the budget become impossible. It was reported that the impulsive buying risk was a common scenario during public holidays especially the festive seasons, which saw many people overspending their salaries for the Christmas holiday. Many parents were reported to be affected by the so-called January disease, which means the struggle when the school opens and there will be high demands in terms of new uniforms, new exercise and textbooks, school fees just to mention but a few. The end result of impulsive buying was indicated as the application of loans from the banks, micro-finances and other financial institutions which charged interest rates for the loans disbursed.
However despite its negative impacts to the clients, impulsive buying was reported to have a positive effect to the retailers in terms of increased profits. It was reported that the public holidays were characterized with high sales especially the festive season since many customers bought goods to enjoy the Christmas and the New Year celebration with their families. The impulsive buying risk was identified to increase during the annual promotions conducted by large retailers like Ok with its grand challenge and TM supermarkets. These promotions were put in place to boost sales and profits of such retailers annually. Many clients participated in anticipation that they can win the competition hence they were reported to buy more goods than they actually budgeted for because they were attracted by the cheaper prices of goods and the prizes set for the winners of the competition. Impulsive buying risk was identified as posing negative effects to the customers but at the same time it raised the profits of the retailers in Rusape Town.

4.5.4 Reputational risk

The adoption of electronic payment system in the retail sector posed reputational risk to its clients and its various stakeholders. Reputational risk involved activities which create a long term negative public perception of overall retail functioning which ruin the ability to introduce and retain customer relations. The interview respondents indicated that reputational risk damaged the confidence of the clients who used the electronic payment system in the retail sector. This risk resulted from the electronic payment system providers failing to satisfy client expectations during delivery process of retail payment stage for instance failed point of sale transaction due to network challenges. One responded indicated that the network challenges resulted in failed pos transaction that frustrated the elderly and the illiterate and those coming from rural areas whose mentality was crafted with threats of being victims of fraud. Many of such clients resented the use of electronic payment system.

Nicole (2018) posits that “this risk usually occurs when the systems or products do not work as expected and cause a widespread negative reaction and also when customers experience problems with a service but have not been given adequate information about product use and problem resolution procedures.” The retailers suffered as they relied on
electronic payment system providers and clients experienced some challenges with those services but were not forewarned and notified of the mitigation procedure. According to the Members of European Central Bank Oversight Division (2007) “the loss of reputation in the electronic payment system may further increase actual problems of retail sector and result in loss of the public confidence in the electronic payment system.”

The interview discovered that the some retailers encountered the above mentioned risk which resulted in their clients losing their funds. Some of the risk mentioned was failed point of sale transactions, failed swipe into ecocash for CBZ smartcash account which was not linked to ecocash, and failed ecocash transaction which debited the client’s account but due to systemic challenges the funds then failed to credit the retailer’s account. The lost funds were recovered by writing a letter to the bank explaining what transpired and the banks were required to issue a bank statement that showed what happened and request for reversals. Funds lost due to failed ecocash transaction were recovered by writing a letter with customer details and sending an email to Econet for reversals. One respondent complained that the reversal took so long to be reversed and they had to make some follow ups thus incurring other expenses especially the rural dwellers thus losing confidence in electronic payment system.

The retailers minimized the risk associated with the adoption of electronic payment system by encouraging clients not to disclose their PINs to strangers and cashiers to avoid mobile money and card fraud and also avoid writing their pin numbers on papers that were put in the wallet or at the back cover of the mobile phones. It was indicated that the public received education awareness campaign from the electronic payment system providers such as banks and Econet as a way to reduce the outlined risks associated with electronic payment systems. The customers were encouraged not to use the electronic payment system when they suspected of any tempering signs with the system to avoid losing their funds. Some retailers indicated that they encouraged the usage of cash as an alternative method of payment when there were network challenges.
4.6.5 Malware risk

Malware was indicated as a minor risked posed by the adoption of cyberspace payment platforms by the retailers. Only 3 respondents indicated that malware risk was brought by the adoption of electronic payment system by the retailers. Uppal et al (2014) cited by Mugari et al (2016) noted that “malware is when an unauthorized programme is installed into a computer system secretly with the intention of stealing information.” It was noted that the perpetrators worked in connivance with retail employees who had access to the retail computers and point of sale which contains accounting information, sales and stocks among others.

The perpetrators used malicious softwares to scan the hard drive and collected information needed such as card numbers and PIN numbers. Roderic (2006) cited by Mugari et al (2016) went on to mention that “malicious software can be designed to intercept communication or log key board strokes, therefore recording entry made by the user and the information can be sifted electronically for password and related information.” The lower response rate indicates that malware risk is not a popular type of risk posed by the adoption of electronic payment platforms by the retailers of Rusape Town. The obtained client information was then used to produce counterfeit cards which were used for self gain by the perpetrators to unaware victims resulting in them losing their funds.

4.6 Rating of the risk posed by the adoption of electronic payment system

The researcher looked on the prevalent risk posed by the adoption of electronic payment system in Rusape Town in addressing the research questions and in achieving research objectives.
Table 4.6 Rating of the risk posed by the adoption of electronic payment system

<table>
<thead>
<tr>
<th>Electronic payment type</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Debit cards</td>
<td>6.25%</td>
<td>25%</td>
<td>68.75%</td>
<td>100%</td>
</tr>
<tr>
<td>b) Credit cards</td>
<td>93.75%</td>
<td>6.25%</td>
<td>-</td>
<td>100%</td>
</tr>
<tr>
<td>c) Ecocash/ Telecash /Onemoney</td>
<td>18.75%</td>
<td>25%</td>
<td>56.25%</td>
<td>100%</td>
</tr>
<tr>
<td>d) Point of Sale (POS)</td>
<td>25%</td>
<td>56.25%</td>
<td>18.75%</td>
<td>100%</td>
</tr>
<tr>
<td>e) Mobile banking</td>
<td>18.75%</td>
<td>50%</td>
<td>31.25%</td>
<td>100%</td>
</tr>
<tr>
<td>f) RTGS</td>
<td>18.75%</td>
<td>56.25%</td>
<td>25%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Key: 1- No risk, 2- Low risk, 3- High risk*

*Source: Primary data*

Table 4.5 shows the extent of risk posed by the adoption of electronic payment system in the retail outlets in Rusape Town. The researcher used a table for the respondents to determine the extent to which the adoption of electronic payment system has posed. The respondents were given the opportunity to tick in the space provided as indicated by the key which starts from 1 up to 3, from no risk to high risk respectively.

Debit cards topped the risks rating list amongst the electronic payment system in the retail sector, with 68.75% apiece Mobile money (Ecocash/Telecash/Onemoney) followed with 56.25% of the respondents indicating that this platforms are associated with high risks. Mobile banking was ranked to be the third on the risk rating list of electronic payment type with 31.25% respondents. RTGS and Point of sale were ranked at the bottom of the risk rating list of electronic payment system in the retail sector with 25% and 18.75% respectively indicating that these platforms were associated with less.

4.6.1 Debit cards

Table 4.6 shows various electronic payment systems available for the retailers of Rusape Town, debit card was classified as the high risk electronic payment type. The majority of the respondents computed to 68.75% confirmed that debit card was of high risk by
ticking number 3 which symbolized the fraudulent activities associated with this payment type. A minority 6.25% indicated that debit cards had no risk and the other 25% indicated that debit cards were associated with low risk thus summing up to a total of 100%. Both the questionnaire and interview respondent indicated that card fraud and card cloning were the most rampant risk associated with debit cards in the retail sector of Rusape.

The respondents reported that the customers were blamed to a greater extent in many card fraud cases since they were reported of not exercising due care and caution in safeguarding their funds. Another respondent said that card fraud was due to negligence and ignorance of the clients and the retailers were to blame to lesser extent since some disclose their pin numbers to strangers and cashiers. Some customers were reported to give their debit cards to cashiers to withdraw cash on their behalf, some requested balance in front of other customers thus exposing themselves to be suitable targets of fraudsters. However in responding to the card fraud, the banks blocked the balance inquiry function from point of sale machines, and customers were educated to rely on the transaction alert SMS send after a transaction or to visit the bank for balance inquiry.

4.6.2 Ecocash/ Telecash /Onemoney

Among the three types of mobile money electronic payment systems, ecocash was indicated as the most popular and the widely accepted by the retailers in Rusape Town. Telecash and Onemoney were not common and acceptable in many retail outlets. Mobile money in particular ecocash was rated as the second high risk electronic payment type as indicated with 56.25 in the statistics given in table 4.6 above. Ecocash was reported to be susceptible to mobile money fraud and had resulted in clients losing their funds especially the tobacco farmers with a remote rural background, the elderly and illiterate citizens. A minority of 18.75% stated that the adoption of mobile money had no risk in the retail sector and the remaining 25% stated that mobile money was characterized with low risk.
4.6.3 Mobile banking

Mobile banking was rated as the 3rd risk electronic payment type in the retail sector with 31.25% response rate from the questionnaires who indicated by ticking 3 which represents high risk on the key of table 4.6 above. Mobile banking was commented to be susceptible to mobile money fraud risk. Mobile money fraud is a crime that involves the illegal or unauthorized use of mobile money for self enrichment. It is perpetrated when the fraudster had access to someone’s mobile phone and the personal identification number (pin) and performs a transaction whilst the owner and the service provider is not aware.

Mobile banking refers to the balancing checking, accounting transactions, financial settlement, credit facility applications via mobile phone or a Personal Digital Assist (PDA). Kokkola (2010) reported that this method was widely developed in Zimbabwe after the dollarization from 2010. A majority of 50% indicated that mobile banking was associated with law risk since the banks developed more secured systems to protect funds of their clients which is their mandate. The other 18.75% indicated that there was no risk posed the adoption of electronic payment system by the retailers. Some interview respondents indicated that mobile banking was at low risk since Rusape was a small town with very few professional fraudsters who were technologically literate unlike large cities like Harare and Bulawayo.

4.6.4 Real Time Gross Settlement (RTGS)

The RTGS was commented as the 4th high risk electronic payment type in the retail sector with 25% respondents who ticked 3 representing high risk. A majority of 56.25% indicated that RTGS was associated with low risk since it included the transfers being performed by the bankers who were trained to do customer due diligence and checking the computerized account details of client in comparison with those presented on the RTGS before accepting and processing the RTGS. However it was discovered that the 25% was of forged signatures of account signatories and those of the RTGS transaction
which were performed using the mobile phone which was stolen and used to make unauthorized transaction by the account holder.

It was also indicated that some fraudsters submitted RTGS to their banks with wrong accounting details to obtain a stamped copy from the bank that they used as proof of payment and collected goods when they actually knew that the transaction was not going to be processed because of such anomaly. Some fraudsters were reported to withdraw funds after submitting their RTGS such that when the transaction was processed there was insufficient funds, of which they collected the goods already by providing a stamped copy as proof of payment from the bank thus resulting in the retailers suffering some loses although follow ups were made and the funds recovered. The retail management introduced measures to mitigate the loss by avoiding the customers to collect goods until the payment was processed and reflected to their account.

4.6.5 Point of Sale (POS)

The point of sale was ranked as the 5th risk electronic payment type with a minority response rate of 18.75% from the questionnaires. A majority of 56.25% commented that pos had low risk in the retail sector and the remaining 25% commented that pos had no risk at all thus summing up to 100%. The interview respondents commented that the pos were susceptible to malware risk which is perpetrated by secret installation of unauthorized programme in a computer system to steal confidential information. These malicious softwares were reported to have an effect of scanning the hard drive of the computer to record card and PIN numbers during the transaction process. Roderic (2006) cited by Mugari et al (2016) went on to mention that “malicious software can be designed to intercept communication or log key board strokes, therefore recording entry made by the user and the information can be sifted electronically for password and related information.”
4.6.6 Credit cards

The respondent of both the questionnaires and interviews indicated that the usage of credit cards was not a common scenario in the retail sector as indicated by 93.75% no risk response rate. In supporting Mugari (2016) postulated that ‘‘financial institutions in Zimbabwe are not issuing credit cards to customers. A credit card provides the holder with a credit to a limit fixed by the card issuer and they are charged high interest on their unpaid balances.’’

The scarcity of credit cards in Zimbabwe was reported to be a result of the economy crisis and lack of a hard currency in the country thus the credit facility was not predictable and the banks suffered lose during the 2005 -2008 economic crunch. The usage of credit cards in Zimbabwe is very limited due to economic challenges and where they were adopted it was reported that they were susceptible to card fraud and card cloning like the debit cards as indicated by a response rate of 6.25% of low risk. However, Mugari (2016) postulated that credit cards were not acceptable to the retail payments in Zimbabwe.

4.6.7 Recommendations on retail electronic payment systems

The retailers put some recommendations on security steps to be taken when using the cyberspace payment platforms. An interviewee indicated that ‘‘our cashiers should warn the elderly and illiterate clients not to disclose their pin codes to strangers to minimize the external card and mobile money fraud. In addition we encourage such clients to bring with them a close trusted relative to assist them when making payments in our entity.’’

When there is network challenge or tempering signs on the cyberspace payment platforms the retailers recommended the use of alternatives such as cash to minimize the associated systemic risk that can result in failed pose transaction. The clients were warned not to trust cashiers and give them their debit cards and pin for a cashback favor to minimize internal card fraud. A supervisor of one of the retailers said that
“to minimize shoulder surfing of pin codes from our innocent clients, we now recommend the maintenance of a gap of at least two meters between the client being served and the following one, to try to keep as secret as possible the pin of our clients. By so doing we also ensure that if fraud is perpetrated, our first suspect will be our cashiers. In addition we have adopted electron surveillance through the use of CCTV system that is monitored by the management. The CCTV is then used to trace any fraudulent activity since the system allows us to play back the activities of each and every day which are saved to the server in our computer room which is accessible to the management only. Also we have hired physical surveillance security guards in uniforms and undercover security to monitor and identify any of the physical criminal activity that can be perpetrated in our entity.”

Clients were encouraged to report to the retail security guards, to their banks and to Econet if they suspect any fraudulent activity before loss is suffered.

Another interview noted that they are now encouraging their clients to use cash since most of their suppliers accepts cash upon supplying their products. The interviewee went on to say that “our demand of cash was even worsened by the introduction of 2% tax by the government. The tax is a lot of money to us, imagine 2% of $20000 is $400 which is depriving us our profit hence we now encourage clients to use cash to avoid this tax that was implemented by the government.” The retailers recommended their cyberspace payment providers to upgrade their system and to improve the reversal duration of failed transaction which was reported to be taking so long to be auctioned.

4.7 Summary

This chapter described and explained the demographic attributes of the subjects of research. Discussion was centered on the electronic payment system available for the retailers in Rusape, the risks associated with such risks and measure put in place to minimize such risks. The researcher made his data presentation by graphs, tables, pie charts, and narrations to explain the attributes of the demographic data. This chapter
involved the discussion and evaluation of the major findings of the survey that seeks to assess the impacts of electronic payment platform in the retail sector of Rusape Town. Chapter five gives details on the survey summary, conclusion and recommendations.
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter intends to sum up the whole survey of assessing the impacts of electronic payment system in the retail sector in Rusape Town. The researcher started by summarizing the major findings of the research, followed by deducing conclusions and then outlined the recommendations based on the research findings of the survey.

5.2 Summary of the study

Chapter One covered the general introductory part of the research, background of the study, statement of the problem, research objectives, research questions, significance of the study, assumptions, delimitations and limitations of the study. The major objective of the research was to assess the impacts of electronic payment system in the retail sector in Rusape Town. The researcher also looked at sub-objectives which were outlined as follows:

1) To identify the electronic payment systems that is available to retail sector in Rusape Town.
2) To investigate the reasons for the rise in electronic payment systems in the retail sector.
3) To explore the risks posed by the retail sector electronic payment system.

Chapter Two comprised of literature reviews which looked at the theoretical framework and empirical evidence by other researchers who conducted studies on the impacts of electronic payment platforms. The framework contained the definition of electronic payment system, types of electronic payment systems available for the retailers, the risks
associated with the adoption of electronic payment platforms and the theories that explained such risk.

Chapter three covered the research methodology of the survey which was done using descriptive survey design methods. Research instruments in the form of questionnaires and interviews were used for data collection from the respondents. Primary data was collected and used from a sample size of 105 retail employees of Rusape Town who represented assumed to represent the total population in the area.

5.3 Summary of the major findings

The main thrust of the study was to assess the impacts of electronic payment system in the retail sector. The study was premised on three objectives, the first one being designed to identify the electronic payment systems that are available to retail sector in Rusape Town. The researcher identified that debit cards, Ecocash, point of sale, mobile banking and RTGS were the major electronic payment platforms available for the retailers in Rusape Town. These platforms were adopted by the retailers due to various reasons which included cash shortages in the circulatory system, the advancement in technologies that resulted in the invention of cyberspace payment devices such as the pos machine and mobile banking software being installed in mobile phones and PDAs. The cyberspace payment platforms were advantageous since they are more efficient, improved service delivery and it enhanced security of funds.

The second objective was designed to investigate the reasons for the rise in the usage of electronic payment systems in the retail sector. The researcher discovered that the rise in the usage of electronic payment platforms was mainly caused by liquidity crisis which saw very few notes and coins being available in the monetary circulatory system which were not sufficient enough to sustain the operations of the retailers. Another reason discovered was the advancement in technology which availed the cyberspace payment platforms such as the POS, debit cards and mobile banking at a reasonable price. The higher the demand of electronic payment platforms by clients who were recommended by
their banks to adopt such payment platforms to reduce the cash shortages also raised the usage of electronic payment systems in the retail sector. A stiff business competition amongst the retailers caused some bigger retailers to adopt the electronic payment platforms which raised their profits at the expense of the smaller entities who were then forced to adopt cyberspace payment platforms for them to remain operational.

The last objective was designed to explore the risks posed by the retail sector electronic payment system. The researcher discovered that the electronic payment platforms were susceptible to risks such as card fraud and mobile money fraud which is the unauthorized use of debit card and mobile device without the awareness of the holder and the issuer. The card and mobile money fraud resulted from the harsh economic, social and political environment. These risks resulted in clients losing their funds and exposed the retailers to reputational risk which had long term public negative perspective of the retailers. The last risk was the impulsive buying which was associated with negative impacts to the clients who failed to stick to their budgets and retail products spending but however this risk benefited the retailers in terms of increased sale and profits.

The respondents recommended that security measure should be put in place to minimize or to eliminate the risks associated with cyberspace payment platforms. The elderly and illiterate customers were recommended to be assisted by trusted and close relatives whenever they use these platforms to minimize card and mobile money risks. All clients were recommended not to disclose their ecocash and card pin to reduce the associated frauds. The respondents went on to recommend that clients were encouraged not to use the cyberspace payment platforms when there is network challenges or any tempering signs that has a potential of causing some loss of funds but rather to use alternatives like cash. As a measure to minimize also card frauds, the clients were discouraged to trust cashiers to the extent of giving them their cards and pin in favor of cashbacks since this provides a possibility of card fraud. The respondents recommended the usage of both physical and electronic surveillance through the hiring of security cards and usage of closed circuit televisions (CCTV) respectively.
5.3.1 Conclusions

The research findings showed that they are major electronic payment systems available for the retailers which included debit card, mobile money, ecocash, point of sale and RTGS platforms. These platforms caused efficient service delivery among the retailers in terms of time spend per client as well as automatic electronic accounting whilst the transactions progresses. Cyberspace payment platforms also reduced the risk of cash larceny and cash robbery in transit to for banking since the funds a directly credited to the retail account without the involvement of hard cash. The cyberspace payment platforms like mobile banking, RTGS and ecocash were very convenient since funds transfer was available 24/7 basis, which means payments were done at night, during public holidays and even when the client is not in the retail shop and simply provide a proof of payment either via SMS or email when goods are dispatched.

The rise in the adoption of electronic payment platforms was attributed to factors like liquidity crisis that is cash shortages in the circulatory system which could not be available for clients to use when paying for goods. Technological advancement caused the banks and payment service providers to embrace cyberspace platforms from which these firms recommended their clients to also embrace and adapt since they were incapable of providing them with sufficient cash for all their transactions.

Various types of risks were made inevitable due to the adoption of electronic payment platforms by the retailers in Rusape. The EPS was susceptible to card fraud and mobile money fraud which where the major types of risk that had direct negative impacts to the clients. Impulsive buying was a unique risk which does not include any fraudulent activity but clients suffered as they loosed funds by failing to stick to their budgets, conversely the retailers benefited from increased sales. There is a room for improvement to mitigate and minimize the risk by the retailers when they join hands with the electronic payment service providers in Rusape Town.
Recommendations

The study respondents made some recommendation pertaining to the usage of electronic payment system in the retail sector which are outlined below.

5.3.1 Increase in security when using electronic payment system

There is need to further increase security by all three players of electronic payment namely the payment service providers, the retailers and the customers. The current structure is that the retail employees were indenitified to included in most fraudulent activities hence there is need to put in place deterrent penalties to fraudsters such that the consequences outweighs the benefits. The is need to implement codes of conduct that are omni-partial and close monitoring of employees especially cashiers by the management through various methods such as the CCTV and undercover security guards who rotates retailer outlets time and again.

5.4.2 Adoption of compliance policies by all retailers and customer within their various service providers

The researcher recommends that all retailers and their staff members should be educated in line with electronic payment system and the associated types of risk and sign a compliance policy that should be adhered to always. Also upon opening account with banks and mobile money service providers, all customers should be educated about the potential risks associated with electronic payment system and acknowledge by signing the compliance policy. The compliance policy is important when a risk occurs, and should be used as a yardstick to identify the one at fault and who will be liable for the loss posed by the risk that would have occurred.

5.4.3 Development of laws that regulates electronic payment system in Zimbabwe

The government should develop and implement laws that regulates and controls the usage of electronic payment system in the nation as a whole. Since the lack of such laws was
taken advantage by some fraudsters, implementation of such laws would minimize these risks.

5.4.4 Repair and installation of infrastructure

The electronic payment service providers must repair and maintain all defected machines on time to avoid systemic error and malfunctioning of the system. Also the payment service providers should always advise their clients of any challenges that are likely to happen before customers and the retailers became victims. The electronic payment system should be subject to upgrading on a regular basis to catch up with the technological advancement.
REFERENCES LIST CITED


IV, A. R (209). Payment Systems and Intra-African Trade


Journal, March (1998), Risk management for electronic banking and electronic money activities, Electronic money


www.compliance101.com/pci-compliance-resources/visacompliance


Reserve Bank of Zimbabwe Banking Regulation Policy No.1-2004/BSD on Corporate Governance RBZ Publications, Harare.


The payment system in Zimbabwe. (N.D.) Overview of the national payment system in Zimbabwe, 241

The reporter, Daily News, Tuesday October 16, 2018, Eight Risks With Electronic Payments


Zimbabwean Banking Act (Chapter 24:20) of 2004 Harare, Zimbabwe
APPENDIX I: COVER LETTER

I am a student at the Bindura University of Science Education pursuing a Bachelor’s of Commerce honours Degree in Financial Intelligence. I have developed this questionnaire to solicit information for a research study in partial fulfillment for the award of an BCOMF.I degree.

I kindly request for your participation in this research study on the topic entitled “Assessing the impacts of electronic payment system in Retail Entities. A survey of Rusape Town” The objective of this research study is to assess and evaluate the impacts electronic payment system which was introduced to retail entities due to the liquidity crisis. The study also attempts to determine the risks posed by the adoption of the electronic payment system in Zimbabwe.

Please note the researcher would like to make the following assurances:

- Your responses are confidential and anonymous.
- The researcher values both your organizational and personal views.
APPENDIX 11: QUESTIONNAIRES

Section A: Demographic Data

1. Indicate your sex
   Male [ ] Female [ ]

2. Kindly indicate your current position in the Retail entity. (Tick in the space provided).
   Branch Manager [ ] Supervisor [ ] General Employee [ ]

3. Duration of Employment with the retail entity. (Tick in the space provided)
   Less than 12 months [ ] Between 1-5 years [ ] Between 6-10 years [ ] Above 10 years [ ]

4. Indicate your highest level of education.
   Secondary [ ] Diploma [ ] Under Graduate [ ] Post Graduate [ ]

Section B: Electronic payment systems available for the retail sector.

6) Which electronic payment systems are available for your retail outlet. Please tick the electronic payment systems available for your retail outlet from the table below.

<table>
<thead>
<tr>
<th>Electronic payment type</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debit cards</td>
<td></td>
</tr>
<tr>
<td>Credit cards</td>
<td></td>
</tr>
<tr>
<td>Ecocash/ Telecash /Onemoney</td>
<td></td>
</tr>
<tr>
<td>Point of Sale (POS)</td>
<td></td>
</tr>
<tr>
<td>Mobile banking</td>
<td></td>
</tr>
<tr>
<td>RTGS</td>
<td></td>
</tr>
</tbody>
</table>
7) Besides the electronic payment system listed above what other electronic payment system that are available for your retail outlet. Specify

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Section C: Reason for the adoption of electronic payment system.

8) What are the reasons that resulted your retail outlet to adopt electronic payment system. Tick the most appropriate response.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity Crisis</td>
<td></td>
</tr>
<tr>
<td>Technological advancement</td>
<td></td>
</tr>
<tr>
<td>High demand by clients</td>
<td></td>
</tr>
<tr>
<td>Due to competition from other retailers</td>
<td></td>
</tr>
<tr>
<td>Recommendation by the bank</td>
<td></td>
</tr>
</tbody>
</table>

9) In your opinion, what are the other reasons for a rise in the usage of electronic payment system in the retail outlet.

1. ........................................................................................................................................................

2. ........................................................................................................................................................

3. ........................................................................................................................................................
Section D: Risk posed by the adoption of Electronic Payment System

10) Of the following, what would you consider to be the major risk posed by electronic payment system.

<table>
<thead>
<tr>
<th>Risk type</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card Fraud risk</td>
<td></td>
</tr>
<tr>
<td>Malware risk</td>
<td></td>
</tr>
<tr>
<td>Mobile money fraud risk</td>
<td></td>
</tr>
<tr>
<td>Reputational risk</td>
<td></td>
</tr>
<tr>
<td>Impulsive buying risk</td>
<td></td>
</tr>
</tbody>
</table>

11) Please mark with a tick the extent to which you would rate the risk posed by the adoption of electronic payment system in retail sector. (In your rating, please use the scale 1-3, where 1= No Risk , 2= Low risk, 3= High Risk )

<table>
<thead>
<tr>
<th>Electronic payment type</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debit cards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit cards</td>
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<tr>
<td>Ecocash/ Telecash /Onemoney</td>
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<tr>
<td>Point of Sale (POS)</td>
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<td>Mobile banking</td>
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<tr>
<td>RTGS</td>
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</table>

12) What recommendations do you suggest should be done by retail sector when using electronic payment system as a means of payment?

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INTERVIEW QUESTIONS


QUESTIONS

1) Which electronic payment systems are available to your retail outlet?

2) Besides electronic payment systems, what other payment system are available to your retail outlet?

3) What motivated you to use electronic payment system as a method of accepting payment from your clients in the retail sector?

4) How long have you been using electronic payment system in you retail outlet?

5) What recommendations do you suggest should be done by retail sector when using electronic payment system as a means of payment?

6) What are the risks posed by the use of electronic payment systems in the retail sector?

7) Does the retail sector require any identity documents when one is performing a transaction to minimize the chances of risk associated with the use of electronic payment system?

8) Have you encountered any risk that resulted in your clients losing their funds? If so, what were the steps taken by the retail outlet to address the loss.

9) What do you think should be done by retail sector to educate their clients about the risk associated with electronic payment system?

10) What measures were put in place by the retail sector to identify and minimize the risk that are likely to posed by the use of electronic payment system?

END