THE EFFECTIVENESS OF THE ADOPTION OF PLASTIC MONEY TO EASE CASH
CHALLENGES IN ZIMBABWE: A CASE STUDY OF BULAWAYO.

BY

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The effectiveness of the adoption of plastic money to tackle cash challenges in Zimbabwe: A case study of Bulawayo.

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I declare that, “The effectiveness of the adoption of plastic money to tackle cash challenges in Zimbabwe: A case study of Bulawayo is my own work; that it has not been submitted before any degree or examination in any other university; and that all the sources used or quoted in this document have been indicated and acknowledged as complete references.

____________________
MELODY K MUDEFI SIGNATURE DATE
DEDICATION
This research is dedicated to all the Zimbabweans who have endured the nonavailability of money in banks; remember there is God above; thus far He has taken us, to my husband Emmanuel for his continual support and my lovely children Shekinah, Zoe and Shammah for their patience during the period of study. This is the Lord’s doing it is marvelous in our eyes.
ACKNOWLEDGEMENTS

This dissertation has been a huge success owing to the support I received from a number of people. Their support emotionally, financially and physically gave me strength in this dissertation journey.

Firstly I would like to thank my supervisor Dr J. Mwenje for guidance and encouragement throughout this journey. It was a learning process as she took me through each step and her vision and foresight was greatly appreciated as it led to the success of this study.

Secondly, I would like to acknowledge all my MBL classmates for great leadership skills that they have imparted in me during the period of study.

Thirdly would like to extend sincere gratitude to my family who believed in me more than anyone else and for their prayers and encouragement throughout my studies. Special mention goes to Dr and Mrs Nyoni, Mr and Mrs E. L. Mudefi, Mr and Mrs Dube, my mother and my mother-in-law who babysit my children during my studies.

May the Lord richly bless you all.
ABSTRACT

The main aim of this study was to explore the effective adoption of plastic money to tackle cash challenges. The research sought to find out why the long bank queues continued even after the introduction of plastic money in the Zimbabwean economy. A conceptual framework based on the principles of effectiveness was developed and theoretical literature was reviewed. The study incorporated pragmatism research philosophy and the deductive approach. The research methodological choice employed was mixed methodology and the strategy was a case study of Bulawayo. The questionnaire survey was administered to a sample of 100 comprising merchants, consumers and banks that were judgementally selected in Bulawayo City Centre and semi-structured interviews were held with associations representing different market players. Non probability sampling methods were applied in the selection of the participants and data collected presented using tables and figures analysed using discourse, context and content analysis centred on the research theme, research objectives and questions. The literature review describes, summarises and evaluates the relevant literature in order to establish any knowledge gaps in the area of interest and to create a clearer understanding of plastic money. Major findings of the study were that, plastic money has only been adopted to a lesser extent in the market and that it is not the panacea to combating cash crisis challenges overwhelming the nation. Study findings demonstrate that cash emerged as the mode of transacting for all market players including consumers, merchants and banks. This in a way justifies demand for cash in banks and even in the ‘black’ money markets. However, this should not be confused with what termed by respondents as ‘technical bank queues’ where a good number of individuals who don’t necessarily need cash were found to be causing a hive of activity on banks for all sort of reasons ranging from political staging to unscrupulous means of gleaning some cash from people’s pockets. There is also this fuzziness, as to which mode of transacting is secondly preferred after cash between mobile money and plastic money. The study findings unearthed a dichotomy where consumers were found to prefer mobile money over plastic money, while vice versa was true for merchants. In this regard, consumers argued that mobile money was not only easily accessible as everyone has a mobile phone, but was also convenient for transacting any time anywhere, something which is not possible with plastic money. In addition to that the respondents highlighted general lack of knowledge among intended users, network problems, charges that come with plastic money transactions, insufficient POS machines and lack of confidence in bank sector as factors that made embracing plastic money difficult. In contrast to this, some few respondents highlighted that plastic money was a noble and worthwhile banking initiative which only lacked adequate support in its implementation. This study further established that the goods bought on plastic money were purposively over priced because of the three tier pricing system. This resulted in people preferring other forms of payment. This research established bank queues were a result of speculation to the banking sector due to lack of confidence and trust in it. The study recommends that awareness campaigns should be initiated in order to inform and educate people on how to use plastic money. There is need for control measures to deal with the three tier pricing system that differentiates price for modes of transacting. The study also recommends that implementers of plastic money should be well abreast with the global technological advancement. A further study which covers all the provinces of Zimbabwe need to be conducted in order to ascertain the nature and character of plastic money countrywide.
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# LIST OF ABBREVIATIONS AND SYNONYMS

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<th>Description</th>
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<tr>
<td>RBZ</td>
<td>RESERVE BANK OF ZIMBABWE</td>
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<td>POS</td>
<td>POINT OF SALE</td>
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<td>ATM</td>
<td>AUTOMATED TELLER MACHINE</td>
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CHAPTER ONE: INTRODUCTION

1.1 Introduction

Technological advancement in the banking sector has taken centre stage at global level in an attempt to expand facilities and improve efficiency in service delivery, thereby providing total satisfaction to bank clients. This has significantly contributed to the use of plastic money which has also been embraced here in Zimbabwean. In this regard, this chapter lays the foundation and sets out pillars upon which this study shall be built. The chapter provides background to the study, historical overview, problem statement, significance of the study, justification, objectives, research questions, hypothesis, assumptions and delimitations and limitations of the study.

1.2 Background to the study

This study investigates the effectiveness of plastic money as a mechanism to ease up the cash crises currently bedeviling the Zimbabwean economy. The Zimbabwean economy has been experiencing cash shortages, evidenced by long queues at banks, as well as limited cash availability on Automated Teller Machines (ATMs) (Reserve Bank of Zimbabwe, (RBZ), 2016c). More so, given that it is not within the jurisdiction of the RBZ to print multi-currencies and the unavailability of smaller denominations of less than a dollar created change problems in the market (Kaseke, 2012). The ‘change dilemma’ has become the driver for merchants to improvise and issue small items such as matches, ball point pens and sweets in lieu of change.

In response to the liquidity crunch quandary, the RBZ adopted a number of policy measures to ameliorate the cash challenges (RBZ, 2016a). These included among others; the importation of cash, the use of other currencies within the multi-currency basket, the introduction of cash withdrawal limits and the promotion of the usage of plastic money. The first three policy measures deal with physical cash while plastic money, according to Diza, Munyanyi & Gumbo (2017) is a result of technological advancement in the banking sector where banks issue customers with bank cards which in turn would be used for buying goods and services.

In view of technological advancement in the banking sector, the RBZ seeks to promote cashless payment systems that include the use of plastic money through point of sale (POS) machines, on-
line banking, transfers and other electronic banking systems (RBZ, 2016a). However, it would be meaningless and wasteful to embark on expanding plastic money mechanism without understanding its effectiveness in tackling cash crises in Zimbabwe. In light of this, key questions would include investigating whether market players have embraced plastic money from the time it was adopted, whether the implementation process was properly administered for effectiveness and whether plastic money has positively relieved the cash-strapped economy.

It is from this background that the researcher is keen to unravel the complexities around plastic money usage in the Zimbabwean economy in a bid to showcase the gaps that inhibit the attainment of desired results through this mechanism. The fact that bank queues have apparently become the norm despite the persistence lobby for people to adopt and embrace plastic money as an alternative mode of transactions could also be explained from this perspective.

1.3 **Historical overview of the cash crisis in Zimbabwe**

The pride of Zimbabwe as the once “bread basket” of Africa for decades was hinged on its strong and vibrant agricultural sector, which produced not only bulk food for local consumption, but also for cash and generation of foreign currency through exports. In terms of employment, about 67% of the population was absorbed in the agricultural sector (Chisango, 2016), which also supported the manufacturing sector for many commodities through its raw materials. More so, the mining sector was also a key pillar to the Zimbabwean economy as it attracted Foreign Direct Investment in the country.

However, the advent of Fast Track Land reform Programme in the year 2000, together with indigenization and economic empowerment policies enacted into law on 17 April 2008 (Munzara, 2015), witnessed a backward shift of the Zimbabwean economy in every respect. According to Chisango (2016), the catastrophic impact of these programs did not spare the country’s productive and banking sector as their coffers dried up owing to central bank’s inability to lure direct foreign investment. It was during this time, that Zimbabwe was stricken with punitive measures in the form of sanctions which exacerbated the economic situation. This witnessed unique challenges for the Zimbabwean banking sector which witnessed withdrawal of some players in the sector and the closing shop of many financial institutions (Chisango, 2016).
Shambare (2013) states that, the banking sector in 2004/2005 were in much distress as a direct result of poor economic performance. As a result, liquidity or cash crises set in, and this paralyzed the entire banking sector. The Zimbabwean dollar for the first time became hyperinflationary, with most banks characterized by cash shortages. Financial institutions grappled to stay afloat as they battled hyperinflation and unprecedented levels of customer attrition (Shambare, 2013). The local manufacturing sector was heavily affected and paralyzed and the only hope left was to rely entirely on imports for all groceries. Another setback for importing goods according to Chisango (2016) was lack of foreign currency, and this promoted the emergency and growth of black markets for both commodities and foreign currency in streets of urban areas.

Later in 2009, the banking sector rebounded with the formation of the Government of National Unity between the country’s three major parties; that is ZANU PF, MDC-T and the MDC. More so, Mlambo & Raftopoulos (2010) argued that the suspension in use of the Zimbabwean dollar in 2009 as the country adopted the American Dollar as the official currency helped to ease further economic meltdown and instability. However, the Government of National Unity was dissolved in 2013 to pave way for a newly elected government. The return of ZANU PF into power saw the economy returning to doldrums mainly due to the economic waves of 2005 which had only been suppressed by the Government of National Unit. The banking sector suffered yet another setback in 2012 when at least three banks were placed under curatorship and another’s license being revoked by the central bank (Reserve Bank of Zimbabwe, 2012).

On the other hand, Reserve Bank of Zimbabwe (2011b) notes that acquiring small denominations has been a challenge ever since the country adopted a multicurrency regime in February 2009. Retailers consequently struggle to provide change for transactions, especially the non-even bills (Shambare, 2013). Customers in such scenarios had to either buy additional items so as to round off the transaction or accept a ‘credit note’ from the retailers to use at a later stage (Moyo, 2010). In this, consumers were forced to buy unnecessary items such as sweets, while on the other hand carrying two forms of money in bank notes and credit notes.
The current cash crises in Zimbabwe is described by Mlambo (2016) as having been caused by thin deficits (trade imbalances and fiscal deficits), low external inflows, falling commodity prices, overreliance on the United States Dollar (USD) for all transactions and low confidence in the economy. In the same vein, the impact of cash crunch has put pressure on Nostro balances of commercial banks to meet international obligations, for instance the delays in acquitting invoices, the credit facilities for importers were reduced or removed completely and long queues at banks to withdraw cash (Mlambo, 2016).

In an attempt to ameliorate cash crisis in the economy, the Reserve Bank of Zimbabwe came up with a set of policy measures which according to RBZ (2016a), was expected to normalize the situation. These included among others; the promotion of plastic money usage and POS machines, the setting of a withdrawal limit of US$1000 per day, limiting traveler’s cash threshold to US$1000 per trip, the reduction of lending rates from upper limit of 18% to 15%, as well as the promotion of the usage of other currencies within a multi-currency basket. However, the key question for this study is to find out whether these interventions have delivered expected results, particularly plastic money usage. The researcher is keen to explore the effectiveness of plastic money in tackling cash crisis in the Zimbabwean context.

1.4 Statement of the research problem

Everyday experiences on financial matters in the Zimbabwean economy demonstrate that plastic money has not been effective in tackling the cash crises. The introduction of plastic money and other cashless payment systems by the RBZ to ameliorate the cash crises was expected to reduce the demand for cash in the economy. This however did not materialise as the reverse has been evidenced by incessant bank queues in urban areas, persistent black money markets along the streets of urban areas and bus terminus points (Kaseke, 2012), queues for cash backs in shops, inadequate change to settle all consumers even after the introduction of the bond notes and coins, and the introduction of the Three Tier Pricing System where retailers charge their commodities in accordance to the customer’s mode of payment (Diza, Munyanyi & Gumbo, 2017). In this, those paying with the US dollar are charged less than those paying with the bond or by swiping.

Moreover, Diza, Munyanyi & Gumbo (2017) asserts that the POS density, at 300 machines per one million inhabitants was, however, far below the world’s average of 1,300 machines per one
million people. More so, the bulk of the POS devices are concentrated in urban areas against a background where 70% of the Zimbabwean population lives in the farms and rural areas (Diza, Munyanyi & Gumbo, 2017). This suggests that there are gaps in the implementation phase of plastic money mechanism. As such, the main thrust of this study is to explore why plastic money has not been effective in addressing cash crises in the Zimbabwean economy and to understand how this mechanism could be restructured to achieve intended results in the future.

1.5 Research objectives

The major aim of this study is to investigate the effectiveness of plastic money in tackling cash crises in Zimbabwe in a bid to establish why it has failed to avert the situation. However, sub-research objectives will include the following:

- To explore the extent to which plastic money has been adopted in the market.
- To explore why people continue to queue for cash on banks when plastic money is available.
- To explore pathways on how the plastic money mechanism could be restructured to effectively tackle cash crises in Zimbabwe.

1.6 Research questions

The major research question for this study is premised on understanding the effectiveness of plastic money in tackling the cash crises in Zimbabwean? However, key sub-research questions are as follows:

- To what extent has plastic money been adopted in the market?
- What are some of the reasons why people continue to queue for cash on banks when plastic money is available as a substitute
- How can the plastic money mechanism be restructured to effectively tackle cash crises in Zimbabwe?

1.7 Hypothesis of the Study

Ho: Plastic money is not the panacea for the Zimbabwean cash crisis.
H1: Plastic money is the panacea for the Zimbabwean cash crisis.
1.8 Research assumptions

This study is premised on the following assumptions:

- It is assumed that plastic money mechanism is the major instrument in addressing cash crisis in Zimbabwe.
- It assumed that proper channels and steps were taken in implementing plastic money mechanism, including educating market players.
- It is assumed that market players are neutral in their behaviour and do not seek to sabotage the government for political reasons.

1.9 Justification of the study

Different perspectives regarding the adoption of plastic money have emerged in different studies. Diza, Munyanyi & Gumbo (2017) focused on the accessibility perspective of financial products by the rural folks. In their study titled ‘Use of plastic money in Zimbabwe: Threats and opportunities for rural communities’, Diza, Munyanyi & Gumbo (2017) argued that rural communities have remained marginalized in terms of access to financial products and services. They further notes that financial institutions in Zimbabwe have failed to financially include the rural market through provision of plastic money services thereby making it difficult for people to effectively transact.

In a different note, Kaseke (2012) and Bisht et al (2015) focused on the payment mode perspective where they assessed how easy consumers found plastic money use to be, whether they liked using it and in particular how they compared it to using cash. This is in line with ‘the going plastic perspective’ where Sullivan & Wang (2005) asserts that governments in conjunction with their financial sectors in many countries were exploring ways to encourage the use of plastic money. In another note, the popularity of plastic money perspective by Bindu (2016) assessed the popularity and importance of plastic money in the financial sector. In this perspective, Bindu explored why plastic money is preferred over hard cash.

However, not a single study has explored why plastic money has failed to address the cash crises in the Zimbabwean context. As opposed to Bindu (2016), this study is an attempt to explore why the Zimbabwean economy has remained cash-strapped after the introduction of plastic money. For example, people continue to queue on banks for cash and for cash backs in shops, illegal
money dealers continue to sell cash in streets on black market and merchants continue to experience change problems for their customers. What this means is that there is a scholarship gap which needs to be explored on why plastic money has failed to tackle the cash crises as expected. It is my hope that this current study will close this knowledge gap.

1.10 Significance of the study
Zimbabwe’s cash crises situation has painstakingly affected everyone. It is from studies of this calibre that hopes for drawing new pathways and discoveries for resolving our economic challenges as a nation are hinged. Key stakeholders who are direct beneficiaries of this study are economists, public policy makers, bankers, merchants and customers. Economists will understand plastic money from a different perspective, public policy makers will master the art of crafting, restructuring and monitoring policies to achieve set targets; while merchants, customers and bankers will be furnished with rich knowledge on how plastic money mechanism could be incorporated into everyday financial system for profit purposes and to simplify financial challenges. It is my hope that this study will be of significant impact to the aforementioned stakeholders.

1.11 Delimitations
This study is designed to explore why the plastic money facility has not been effective in addressing the cash crises in Zimbabwe. As such, a case study of Bulawayo has been selected for this study. Bulawayo was selected for the fact that, firstly; it has high economic activity centers, and second, the number of merchants and banks offering plastic money services are more because it is the second largest city in Zimbabwe. The time period for the study is from February 2018 to May 2018.

1.12 Limitations
This study is not without its draw backs. Firstly, representing the entire of Zimbabwe with a sample of Bulawayo may not give the correct picture of issues under study, considering that the majority of the population resides in other towns and rural areas. However the researcher will stick to Bulawayo, considering the fact that ample time is needed to carry out this study with sufficient resources. Given that the researcher is working within a short time frame and under limited resources, the researcher will work with a small sample size but not compromising the quality of findings.
1.13 Ethics
This study does not have threats from the ethical point of view. The researcher will only need to adhere to research principles and standards as expected by law. For instance, the confidentiality of each respondent will not be compromised. The researcher will clarify the purpose of the study to each respondent before conducting interviews. It shall be made clear that participation in this study by every respondent shall absolutely voluntary. Lastly, the age bracket of 16 years and above will only be considered to participate in this study as these are deemed to be mature and independent.

1.14 Organisation of the study
The research project consists of five chapters. Chapter one is the introductory chapter which contains the background of the study, statement of the problem, research objectives and questions, the significance of the study as well as the limitations and delimitations and assumptions of the study. Chapter two contains the literature review where definition of terms where clarified together with the conceptual framework and the theoretical framework. This chapter ends with the empirical review that focuses on key study objectives. Chapter three provides the methodology used which consist of the research philosophy, research approach, research strategy, research time horizon, study population, sampling, data collection, and instruments used. Chapter four presents the data presentation analysis of results based on the collected data. Chapter five is the final chapter which contains the summary, recommendations and conclusions based on the results in Chapter four.

1.15 Chapter summary
This chapter introduced the effectiveness adoption of plastic money to tackle cash challenges research, highlighting the background of the research, the research problem that of long bank queues and persistent black market in urban areas. The research objectives, research questions and assumptions were presented as well as the significance of the study. The delimitations of carrying out a case study in Bulawayo.
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction
The purpose of this study is to explore the effectiveness of the adoption of plastic money in tackling cash crisis in Zimbabwe. The chapter describes, summarises and evaluates relevant literature in order to establish any knowledge gaps in the area of interest and to create a clearer understanding of issues at stake in the study (Boote & Belie, 2005). The first section is focused on the conceptualization of the term ‘effectiveness’, crafted to guide the study. The second section presents a theoretical framework upon which this study is premised. The third section is a discussion of the concepts of plastic money and cash crisis in detail, which is followed by a review of empirical literature linked to study objectives. The researcher ties up the chapter by summarising critical issues that emerged from prominent writers on the subject in question.

2.2 Conceptual Framework
A conceptual framework grounds a study in the relevant knowledge base that lay the foundation for the importance of the problem statement and research questions (Creswell, 2008). This study investigates the effectiveness of the adoption of plastic money in tackling cash crisis in Zimbabwe; whose problem is centered on the persistence of cash crisis in the face of policy measures such as the adoption of plastic money. In this, Neuman (2006) states that a conceptual framework sets out the approach on how the researcher will tackle the research problem.

As such, the conceptual framework of this study is built upon the concept of ‘effectiveness’. In general, effectiveness is the extent to which stated objectives are met; where the policy achieves what it intended to achieve (AGPC, 2013). In measuring effectiveness or achievement, the goal can be as broad or as narrow as is deemed appropriate (AGPC, 2013), where a continuum exists, ranging from achieving very specific outputs (such as increasing number of POS machines across the country) to very general outcomes (such as reducing the demand for cash as merchants and consumers embark on plastic money).

Effectiveness in terms of this study implies a relationship between outputs and outcomes. In this sense, the distinction between the output and the outcome must be clarified. According to Mihaiu, Opeana & Cristescu (2010), the effects resulting from the implementation of a program
(outcomes) are influenced by the results (outputs), as well as by other external factors. For example in a plastic money policy, an output would be represented by the number of POS machines installed in Bulawayo market and the outcome would be a decrease in demand for cash by both merchants and consumers as they embrace and adopt plastic money. Effectiveness therefore illustrates the success with which resources were used in order to achieve the objectives pursued (Mandl, Dierx & Ilzkovitz, 2008). However, external factors (such as lifestyle and various socio-economic influences) exercise a major influence over ‘effectiveness’ (Mihaiu, Opeana & Cristescu, 2010).

The Steering Committee for the Review of Government Service Provision has divided the concept of effectiveness into two parts namely “cost effectiveness” and “program effectiveness” (SCRGSP, 2006). The first part is cost effectiveness which according to SCRGSP (2006) entails technical efficiency which is akin to productive efficiency. Cost effectiveness actually estimates the unit costs of producing well-defined outcomes.

The second part of the concept of effectiveness is ‘program effectiveness’. This according to SCRGSP (2006) is based on agreed measures of access, appropriateness and quality. These indicators aim to reflect the extent to which the objectives of government policies are achieved. For the purpose of this study, the researcher adopts ‘program effectiveness’ as it captures the core parameters of the conceptual framework of this study. In this context, the researcher assumes that effectiveness of plastic money can only be realized with the attainment of a certain measure of access to POS machines and plastic cards, provision of appropriate POS machines which accommodates different consumers’ plastic cards and the provision of quality POS machines and plastic cards which do not need frequent replacement.

Indicators of program effectiveness generally focus on measuring the changes in outcomes that reflect the objectives of the program (AGPC, 2013), yet outcomes depend not just on the program outputs but also on external influences, while outputs too may depend on other inputs, in addition to program inputs. Building on this, the researcher develops an “effectiveness” conceptual framework as follows:
A conceptual framework based on ‘effectiveness’ therefore adopts a system that entails inputs, processes, outputs and lastly outcomes. External factors are just next to outcomes where the
influence the nature and character of outcomes that results from the introduction of plastic money to address cash crisis. A successful measurement of plastic money effectiveness can only be realized when the entire system from inputs to outcomes has been set up and effectively monitored.

To measure effectiveness, it is quantified by the ratio of the actual result to its expected level (AGPC, 2013). However, AGPC (2013) argues that the process of measuring effectiveness faces difficulties concerning the assessment and the quantification of the results, which often have non-physical form, and cannot be directly measurable. More so, it is even difficult to quantify resources in the public sector because most of the times public services overlap and resources from several sources are used. On the other hand, outputs are more difficult to quantify in the public sector than inputs, because they can have both an economic and a social dimension. This according to AGPC (2013) is different from the private sector where outputs have a market value, and are easily evaluated, while in the public sector, this process is cumbersome, and involves much more forecasting. As a result, it is crucial to first define indicators that will be evaluated as outputs from the non-market sector (public sector).

2.3 Theoretical framework

2.3.1 The Market Interaction Model
This study adopts the market interaction model between consumers (buyers or borrowers) and merchants (sellers or lenders) conceptualized by Zhang, & Lotz (2013) in an attempt to understand why plastic money has failed to address the cash crises in Zimbabwe. This model captures the two sided nature of actual payment systems, suggesting why consumers and merchants may end up opting for either cash or credit transactions. According to Zhang, & Lotz (2013), every time merchants accept credit, the gain for consumers from using and redeeming credit increases, in the end relaxing the credit constraint. By so doing, this increases the consumer’s ability to repay which then raises the incentive to invest in plastic money.

Zhang & Lotz (2013) argues that this complementarity leads to feedback effects that generate multiple equilibria, including outcomes where both money and credit are used. A situation where
both cash and credit are used is a desirable positive outcome in a cash constrained economy like the Zimbabwean scenario. However it is difficult to attain such equilibria in Zimbabwe where both consumers and merchants have developed the habit of hiding cash in houses especially the US dollar.

However, McAndrews & Zhu (2008) contend that merchants are more willing to accept credit cards that have many cardholders, while cardholders prefer cards that are accepted by many merchants. The reason for this is that merchants want to reduce the cost of acquiring a number of different Point of Sale machines to accommodate all consumers. At the same time consumers are not prepared to carry so many credit or debit cards in their wallets to be able to conduct transactions with different merchants. In this, McAndrews & Zhu (2008) asserts that consumers may still coordinate on using cash due to hold-up problems in technological adoption of plastic money.

The market interaction model between consumers and merchants suggest that economies with similar technologies, institutions and policies can still end up with very different payment systems, some being better in terms of social welfare than others (Zhang & Lotz, 2013). In cases where the society prefers plastic money as a payment system, the government which will introduce special policies such as information campaigns, advertisements or even financial literacy programs on using plastic money will attain different results as compared to a government which does not. As such, this model not only provides policymakers a useful framework for understanding how consumers substitute between hard cash and plastic money, but also makes clear the channels through which their policies affect prices, trade and social welfare. In the same vein, the study is grounded on this model which provides a framework on how merchants and consumers interact in the market; in the end determining whether both parties prefer hard cash or plastic money in their transactions. This in a way provides the departure to explore the effectiveness of plastic money in tackling cash crisis in the Zimbabwean economy.

2.3.2 The Baumol-Tobin Model
In another part, the Baumol-Tobin model of the transaction demand for money provides a base upon which this study is also grounded. In this model, households hold cash to make transactions
and decide upon the amount of cash held by minimizing the sum of the cost of transactions and
the opportunity cost of holding cash (Hiroshi & Migiwa, 2009). The cost of transactions as stated
by Hiroshi & Migiwa (2009) include the time cost of making transactions, which increases with
the frequency of withdrawals and decreases with the amount of cash withdrawals in each bank.

In Zimbabwe where maximum withdrawal amount is sometimes set below $50, the opportunity
cost of using cash is therefore very high. However, the general public seem not care about this as
they continue to queue for cash on banks. The key question is why people opt for cash with such
transactional cost when according to Hiroshi & Migiwa (2009) there is an alternative medium to
cash for making transactions, namely plastic money. The use of plastic money in transacting
does not need one to queue at the bank and this means that it reduces the transaction cost by
shortening the transaction time.

However, plastic money does not provide interest rate earnings (Hiroshi & Migiwa, 2009) that
would have been earned if cash remained as interest bearing asset; for example, in a savings
account. Could this be the reason why the demand for cash over plastic money in Zimbabwe is
still high? In this, Hiroshi & Migiwa (2009) argues that there is no major difference between the
opportunity cost of holding cash and that of holding plastic money. A household adopts the
technology of plastic money if the benefits of the technology exceed the cost of adoption.
Drawing from the Baumol-Tobin model, the researcher has a good starting point to investigate
the effectiveness of the plastic money technology in tackling cash crisis in Zimbabwe.

2.4 Unit of analysis

2.4.1 Plastic money
Plastic money predominantly refers to the plastic bank cards that are issued to account holders
for their everyday use, in place of hard cash or cheques (Diza, Munyanyi & Gumbo, 2017). These
according to Manivannan (2013) are credit cards or the debit cards with a magnetic strip
which are used to make purchases every day. The emergence of plastic money can be traced
back from the evolvement of the medium of exchange from barter system to money (Sindhu,
2016). However, money has evolved over the years from coins to paper cash and today, is
available in formless form as electronic or plastic money (Ramasamy et. al., 2006). These
changes are a result of technological advancement in the banking sector in its innovative efforts to introduce products which are an alternative to cash.

In Zimbabwe, Diza, Munyanyi & Gumbo (2017) asserts that these plastic cards are generally called “ATM cards” because of their predominant use for making withdrawals at Automated Teller Machines (ATMs). The problem with this perception is that people are hold back by the ideology that plastic cards are not money per se, but are instruments to be used in acquiring cash. This perception casts a shadow on the minds of people to fail to read between the lines as they end up underutilizing the card just for acquiring cash, when the card in itself has actually become plastic money. People fail to recognize that plastic cards afford the customer an opportunity to buy goods and services on non-cash bases. In many countries, plastic cards have since been named as ‘plastic money’ (Ramasamy et. al., 2006) to indicate their role as medium of exchange perfectly substituting cash. In fact, plastic cards according to Sindhu (2016) are also designed to facilitate small value retail payments by substituting cash.

Understanding parties involved in plastic money transactions and their roles is a critical component of this study upon which market dynamics in plastic money usage and its effectiveness shall be assessed. McAndrews & Zhu (2008) and Golden & Regi (2015) provide a detailed description of the various parties involved in plastic cards payment platforms. These include, first the customer or cardholder who is an authorized person to hold the card and to use it for purchases of goods and services; secondly is the card issuing bank or financial institution which issues the card to its eligible customers ; then the merchants or entities which sell the goods and services to the cardholder and duly agree to accept the card for payment and lastly, Bank Card Associations such as VISA, Master Card and American Express which act as an intermediate between card issuing bank and merchant’s bank and authorize the transaction. Plastic money usage is birthed out of the interrelationship between these parties and their collaborative efforts. For example, Hiroshi & Migiwa (2009) contents that if any of these parties become uncooperative, then plastic money usage automatically flops. For instance, if merchants rebuff plastic money from consumers at pay-points, then plastic money will lose its purpose and won’t be useful either in tackling cash crisis. A million dollar question for the plastic money
initiative is whether these parties are eager to embrace it at all cost. However, plastic money is offered in different forms such as debit cards, credit cards and smart cards.

### 2.4.2 Debit cards

A debit card is defined as a magnetically encoded plastic card issued by banks in place of cash and cheques (Sindhu, 2016). The cash in one’s bank account is thus replaced by this card which can be used in transacting. From another angle, Mishra (2007), asserts that a debit card is a plastic card issued free of cost with the savings or current account balance. In other words, it is a card that relies only on the amount of money available in one’s account. For the purpose of this study, patterns in debit card usage also determine whether consumers like or dislike plastic money. The card does not tempt consumers to overspend as only the available bank balance is used. The use of debit cards involves swiping the card through the terminal with magnetic code reader where the customer’s bank and account number are recorded. The customer will then be requested to enter the PIN code in the terminal in order to perform the transaction. Once the transaction gets approved, the customer’s account is duly debited and merchant’s account is credited with that amount (Golden & Regi, 2015). A debit card is multipurpose in that it can be used by customers to pay for goods and services without carrying cash with them as well as to withdraw cash on ATMs and to check account balances. Sindhu (2016) argues that debit cards have not only overcome the delayed processes of cheques in which sometimes merchants have to suffer, but have also provided a platform for promoting a cashless society. These advantages in a way justify why plastic money must be adopted in the market.

### 2.4.3 Credit cards

According to Sindhu (2016) a credit card is generally defined as a plastic card issued to a cardholder, with a credit limit, that can be used to purchase goods and services on credit or obtain cash advances. In distinction, credit cards differ from debit cards in that they provide an overdraft facility to the cardholder who can also purchase over and above the amount available in his account. However, Mishra (2007) notes that interest charges are levied on the unpaid balance after the payment is due. Cardholders should therefore be careful to pay off their balances before the due date. In assessing effectiveness of plastic money, these issues should not be downplayed as they impact on consumer’s willingness to adopt plastic money. This card is very tempting for consumers who lack self-discipline to the extent that they may plunge into debt.
and fail to pay back. However, the overdraft privilege offered by credit cards may also lure consumers to adopt plastic money.

2.4.4 Smart cards
Smart card also known as Electronic Money is issued by banks to its customers having the size as of credit cards (Sindhu, 2016). According to Golden & Regi (2015) these are plastic cards, with or without magnetic stripe, capable of storing, retrieving and manipulating data and used in variety of applications. The value or amount of foreign currency is stored in smart cards and hence, customers may need not to carry with them foreign currency in cash. Sindhu (2016) notes that smart cards are reloadable cards in which money is loaded into it by transferring the required amount from customers account via internet, telephone or even ATMs. Smart card is the ultimate solution for merchants who may need to import their wares from abroad. It is a form of plastic money that is used at international level and this applies to this study in that it will eliminate black foreign currency markets which have dominated streets of urban centers in Zimbabwe. In other words, smart cards can tackle cash crisis in the form of foreign currency.

2.5 Mobile payments
Plastic money should never be confused with other non-cash modes of transacting such as mobile money. According to Jeckings (2008), mobile money refers to a digital repository of electronic money developed and implemented on mobile devices, allowing peer-to-peer transactions between mobile devices from users of the same service. It is a type of payment in which the payer uses mobile communication techniques in conjunction with mobile devices for initiation, authorization and confirmation of an exchange of financial value in return for goods and services (Pousttchi, 2008). This is centered on mobile network providers such as Econet, Netone and Telecel here in Zimbabwe, where the holder of a mobile device should open an account with the network provider and first load money into the account before making any transaction. It is from this context that Au and Kauffman (2008) suggest that mobile payment is only realized when at least the payer employs mobile telephone device connected to a service provider for the realization of payment.

However, mobile payment based systems differ from plastic cards in that, the later though they have a degree of mobility require a technology external to the card for it to function. These
technologies may include ATMs for cash withdrawal and Point of Sale (POS) machines for swiping in order to transact. Khan and Craig-Lees (2009) notes the two forms of mobile payments which are mobile credit and mobile wallet. In essence, mobile wallet according to Flatraaker (2008) is a smart card application stored in a mobile device that functions in a similar manner to debit cards and has bank accounts and security authentication tools. On the other hand, a mobile credit card uses a mobile handset and it functions as a credit card in permitting online purchases (Dahlberg et al., 2006). However, the majority of people in Zimbabwe use the mobile wallet system for their transactions. Plastic money which exists among such cashless modes of transacting may face stiff competition to penetrate the market if the later are flexible, simple and easily accessible to consumers. Low rate of plastic money adoption in the market may be explained from this perspective.

2.6 Cash crisis
Cash crisis has been defined as an acute drying up or shortage of liquidity in the real economy (Amihud, Mendelson and Pedersen, 2013). However, Mishkin (1990) define cash crisis as a disturbance of the financial markets which causes a sharp deterioration of a group of financial and economic indicators, an imbalance between the supply and demand of money, the fall of asset prices, accompanied by the failure of financial institutions such as banks. This according to Brunnermeier (2009) could lead to difficulties in trading and a reduction in market participants. In other terms, cash crisis is simply a negative financial situation characterized by sudden and prolonged evaporation of both market and liquidity, lack of cash flow, with potentially serious consequences for the stability of the financial system (Borio & Drehmann, 2009).

For the purpose of this study, a simplified definition of cash crisis by Dlamini & Mbira (2017) is adopted. Cash crisis which is also known as liquidity crisis, credit crunch or financial meltdown was defined as a shortage of physical cash and lending funds where banks could be running out of cash. Cash crisis is characterized by cash shortage in banks, defaults, layoffs, bankruptcies and failing financial institutions among others. Implications of cash crisis are much lower in economies that have progressed into cashless societies. Plastic money is one of such initiative that allows cashless transactions. Cash crisis is a thorny issue that needs to be addressed at all cost. This calls studies of this nature to explore the effectiveness of plastic money in tackling the problem of cash shortages in an economy.
In other ways, Dlamini & Mbira (2017) suggests that an important factor in preserving liquidity within an economy is by limiting illicit financial flows. This is because a research by the RBZ (2016a) revealed that there have been a lot of illicit financial flows that have exacerbated the liquidity situation in Zimbabwe as funds have been transferred out of the economy with rampant externalization of funds by individuals and companies. More so, Mashakada (2016a) argues that cash crisis becomes apparent in an environment where there is rampant corruption and lack of transparency and accountability.

Interestingly, Negueruela (2014) in his presentation on cash crisis at the International cash conference of 2014 in Germany, dubbed “the usage, costs and benefits of cash-revisited”, grouped cash crisis into four categories. These were grouped as follows:

(i). Large-scale counterfeiting - According to Negueruela, the first and most fundamental form of cash crisis occurs in the event of large-scale counterfeiting of the national currency. According to Sowmyashree et. al (2015), is replicating the original currency with fake currency without proper authentication in a fraudulent way. This reduces the value of money and it can only happen if the quality of counterfeit is so high such that its scale and dissemination must breed doubt among the general public regarding their ability to distinguish between genuine and counterfeit banknotes.

A striking finding about counterfeiting has been that in the extreme, it eliminates the use of a currency altogether (Shao, 2013). Another study by Li & Rocheteau (2011) demonstrates that counterfeiting can affect the value and velocity of money, as well as output and welfare, even when counterfeits do not actually circulate. In the same vein, Monnet (2005) suggests that counterfeiting can be inflationary if the production costs of counterfeiting are low enough. These findings allude to the fact that cash crisis in the form of counterfeiting has unbearable consequences on the lives of people. Non cash transacting models such as plastic money are potential weapons that could be used to address the problem of counterfeiting. However, effectiveness of plastic money still needs to be assessed.
Negueruela (2014) asserts that the multiplier effect of bad news, rumour and fear turn this into a socially dangerous phenomenon that must be countered by a sophisticated and well-coordinated plan of action to avoid collapse in confidence. When a country is facing such a challenge, the central bank must act promptly by providing new banknotes, with different security features; withdrawing from circulation as soon as possible the counterfeit notes.

(ii). Hyperinflation - A second type of cash crisis according to Negueruela (2014) arises in situations of hyperinflation when money in general (not just cash) suffers a very significant loss of value. Hyperinflation is broadly defined as more than increase in the cost of living, generally measured in terms of consumer price index rising at a rate of 100% or more in any one year (Siklos, 2000). In such a scenario, money becomes very useless to the extent that it cannot buy. Hyperinflation comes with an increase in demand for cash as prices of commodities in the market will keep skyrocketing. As such, the adoption of plastic money will be useful in reducing the demand for cash.

(iii). High demand for cash - The third type of cash crisis occurs when a loss of confidence in alternative payment system leads to an extraordinary increase in the demand for cash, which is sought by the public as a safe haven (Negueruela, 2014). For example, the general public and merchants in particular, may not have confidence in the mobile payment system, as they prefer cash in transacting. Such a sudden and unexpected rise in demand for cash may result in a cash crisis if the central bank does not have the capacity to respond to crisis situations.

(iv). Perfect Storm - The fourth and final form of cash crisis involves what Negueruela (2014) called ‘perfect storm’. Such a scenario takes place when trust in the issuer is lost and cash loses the basic pillar that provides its justification. It is difficult to restore trust when a perfect storm hits an economy. The fortunate thing about perfect storms is that such cases are few and do not occur frequently. However, introducing cashless modes of transacting like plastic money won’t solve the problem in a perfect storm. Lack of trust in the issuer becomes even worse in modes of transacting that are cashless.
2.7 Plastic money Usage

In exploring the effectiveness of plastic money, it is crucial to first map out the extent to which this mode of transacting has been adopted or put to use. If consumers demonstrate reluctance, unwillingness and a general resistance in embracing plastic money, then it won’t be effective in tackling cash crisis. A research paper by Manivannan (2013) titled “Plastic Money a way for cashless Payment System” demonstrates that plastic money previously regarded as a luxury in Bangladesh has nowadays become a need. The study revealed that plastic money which was only being used by higher income groups had extended as a banking facility not only to customers in urban areas or cities, but also to customers residing in rural areas. The idea that plastic money usage in this new era has become a need in our economies is emphasized by Bansi & Urvi (2012) in their research paper dubbed “Plastic Money: Roadmap Towards Cashless Society”. In this paper, the authors argued that plastic money has nowadays become inevitable part of every transaction and with it, life has become easier and development would take place better.

In another case, Subhani (2011) carried out a study titled “Plastic Money/Credit Cards Charisma for Now and Then” with the intent of assessing the charisma of plastic money, its usability and affordability and its impact on its preference to use. The study revealed that the preference to go for plastic money has a positive association with the easy use of plastic money which again is alluded to by the Baumol-Tobin model. From a consumer behavior perspective, the study found out that the precept of credit card usability is linked with psychological phenomena that people are likely to spend less with credit card and more with the same amount of cash on hand in the same budget.

In another study by Bisht, et al., (2015), an analysis of the use of plastic money was made, and it was revealed that majority of respondents use plastic money in one form or another. The majority of plastic money users were found to have been using it for more than three years, which implies that customers are well aware of plastic money and its usage. Findings from the same study also revealed that majority of respondents prefer using plastic money in one form or another, over cash. This again is explained well in both the market interaction model by Zhang, & Lotz (2013) which argues that market players will embrace a mode of transaction that has perceived benefits with it. Furthermore, the study found out that the majority of respondents
using plastic money as a mode of payment were satisfied with their Debt/Credit cards and the services provided by the company. Thus, customers mostly prefer to use plastic money over cash in their transactions.

According to Sultana & Hasan (2016), the perception regarding usage of plastic money is broadly persuaded by three factors namely; influential factors, beneficial factors and the problems of using plastic money. These factors influence usage of plastic money in Zimbabwe together with individual factors noted by Kaseke (2012) such as knowledge and consumer resources which include money, information, processing capabilities and lifestyle. In the event that the adoption of plastic money is facing some resistance due to some of the factors noted above, then something will have to be done at policy level to deal with the bottlenecks and promote and drum up support for plastic money usage.

Kaseke (2012) notes that there are two main platforms in Zimbabwe from which the card system operates, namely Point of Sale (POS) and Automated Teller Machines (ATMs). Plastic money usage in Zimbabwe is dominated by debit and credit cards which are functional online. These include International Visa and MasterCard being offered by banks such as Standard Chartered Bank, NMB, CBZ and ZB bank (Kaseke, 2012). The availability of POS machines for plastic money users makes the objective of tackling cash crisis attainable. In this, consumers can make use of their plastic money to do some purchases in place of cash thereby reducing the demand for hard cash.

However, the Reserve Bank of Zimbabwe (2016c) noted that Electronic Funds Transfer Point of Sale (EFTPOS) machines as at 30 September 2015 were over 16,000 countrywide, located in retail shops and banking halls as well as some holiday resorts. The density of POS machines at 300 machines per one million inhabitants was however, far below the world’s average of 1300 machines per one million people (Diza, Munyanyi & Gumbo, 2017). Moreover, the devices were duplicated or clustered in few shops apart from the fact that the bulk of the POS devices were concentrated in urban areas (Diza, Munyanyi & Gumbo, 2017). This according to Shambare (2013) is against a backdrop where 70% of the Zimbabwean population lives in rural areas. Drawing from this analysis, it could be said that plastic money adoption and usage in Zimbabwe
is still low as it is marred with technical challenges basically at implementation level. The situation is different from what is happening in other countries cited in literature where plastic money is at an advanced stage in terms of adoption and usage. A lot needs to be done at policy level to rectify the existing anomalies in order to establish a fully fledged plastic money mechanism that is capable of addressing cash crisis.

2.8 The Impact of Plastic money in a Cash crises situation

Impact of plastic money in a cash crisis situation demonstrates the extent to which plastic money is able to contain cash crisis. In a way, it assesses the effectiveness of plastic money in quelling the demand of cash in a cash crisis situation. A study conducted by Loewenstein & Hafalir (2012) on “The Impact of Credit Cards on Spending” revealed interesting results. The study focused on two types of customers, those who carry debt and those who do not carry debt and measured their expenditure patterns in a cafeteria. It emerged from this study that there was change in the diner’s payment medium from cash to a credit card when an incentive to pay with a credit card was given.

This resonates well with the Baumol-Tobin model (Hiroshi & Migiwa, 2009) which suggests that households adopt plastic money technology if there are benefits with it which outweighs cost of adoption. In other words, the impact of plastic money is felt more when its usage has some meaningful benefits that accrue to users in the process. The scenario given above suggests the incorporation of benefits in the form of rewards for using plastic money at policy level. The same study further revealed that credit cards do not increase spending as assumed by many. However, when induced to spend with a credit card, the study found out that customers who carry cash spend less as opposed to those who do not.

Although customers are keen to move from cash to plastic money usage when meaningful benefits are attached to it, research demonstrates that cash still remains the dominant means of payment, particularly for small transactions despite the increased availability of plastic money. This pattern has been documented by researchers such as Stavins (2011) in the United States Klee (2008) again in the United States and Arango, Huynh & Sabetti (2011) in Canada. Reasons cited by these researchers as to why plastic money was failing to dominate transactions were that agents generally prefer to use cash for small transactions in order to avoid costs associated with
plastic money. They also indicated that since plastic money transactions are synonymous, both merchants and consumers may favour cash over plastic money in their transactions. In a way, consumers and merchants prefer cash because of the challenges that are associated with plastic money usage. These must be addressed in order to encourage a paradigm shift from queuing for cash on banks into a cashless society.

In response to cash crisis, the Reserve Bank of Zimbabwe adopted a number of policy measures to tackle cash challenges including promotion of the usage of plastic money, cash withdrawal limits and the use of other currencies within the multi-currency basket (RBZ, 2016a). However, these policies were received differently by main stakeholders; that is, bankers, merchants and customers. According to Mabenge & Kasiamhuru (2017), bankers felt that the wider use of plastic money and alternative currencies, cash withdrawal limits and the limits placed on the exportation of cash should all tackle the cash crisis in the economy. They felt that the much exerted pressure on banks to meet the high demand of hard cash was going to be suppressed by the promotion of a cashless society. However, Zimbabwe is still grappling with cash crisis well after the introduction of the measures proposed by the Reserve Bank of Zimbabwe. This calls for studies of this nature to explore why people continue to queue for cash on banks when plastic money is available. In a way, the effectiveness of plastic money in tackling cash crisis will be explored.

On the other hand, the impact of measures by the RBZ to promote a cashless society was received with mixed feelings by consumers and merchants. Mabenge & Kasiamhuru (2017) argues that merchants and consumers reacted with fear and anxiety as they had lost confidence in the financial sector. In one part, merchants who needed to restock their shops by imports were hesitant to deal with online transactions which could not give them the hard cash (foreign currency) they needed in order to remain in business. In another part, both consumers and merchants generally did not trust plastic money as they had been failed by banks due to the liquidity crunch (Mabenge & Kasiamhuru, 2017).

Lack of confidence and trust is a serious perception that could impede people from using plastic money. As long as people lack confidence in the banking sector, they will continue to demand
cash in the presence of plastic money. However, consumers felt that the use of plastic money would serve them the hustle of hunting for cash and queuing on banks for long hours (Mabenge & Kasiamhuru, 2017). This positive towards the embracing of plastic money should be cultivated by restoring confidence in the banking sector. This will see many people shifting from queuing for cash to plastic money usage.

However, the impact of plastic money in Zimbabwe from the time the central bank began to promote it as a policy to quell the credit crunch till June 2016 was summarised by Mlambo (2016) in a graphical representation as shown below.

The first graph on the left clearly denotes that plastic money usage was intensified from January to June 2016 as indicated by the volumes of POS transactions which kept increasing on weekly bases. However, the impact of plastic money in this case was measured by the volumes of cash which were withdrawn on weekly bases during the same period. Under normal circumstances, a

Adopted from Mlambo (2016), Page 19.
rise in plastic money usage should lead to a decrease in cash withdrawals as customers can now carry out most of their transactions with plastic money.

However, this was not the case with the Zimbabwean situation. The Deputy Governor of the Reserve Bank of Zimbabwe, Mr Mlambo (2016) clearly indicated with the graph on the right that the volumes of cash withdrawal on ATMs was almost equivalent to the volumes of plastic money transactions through point of sale machines. This demonstrated that the impact of plastic money in quelling cash crisis in Zimbabwe was still very low up to the given period. This calls for studies of this nature to investigate the effectiveness of plastic money in tackling cash crisis situations.

2.9 Why the adoption of plastic money is resisted

Understanding the reasons why plastic money is resisted offers the opportunity for implementers to identify issues that must be addressed in order to woo people into plastic money. A study conducted by Bisht et al (2015) in Pune on the use of plastic money offers a good picture as to why plastic money is often resisted. The study revealed that 58% of the respondents had insecurity concerns regarding the use of plastic money. About 63% of respondents in this study were against the issue of going through formalities when using plastic money; something which is unnecessary when using cash. These formalities may include entering pin codes and putting down signatures during the transaction process. The study also revealed that 62% of respondents were generally afraid of losing the cards (plastic money); while 55% of the respondents were of the view that plastic money has high processing fees and therefore is expensive to use as compared to cash.

As such, Ullah et al (2014) notes that people are reluctant to use plastic money in some countries mostly because of misperceptions about it. According to Sultana & Hasan (2016), lack of education, poor banking systems, and insecurity of transactions are also the responsible factors for the reluctance. Furthermore, findings from a study by Soman & Cheema (2002) show that the propensity to spend rises as credit limit increases. As such, plastic money becomes a trap for consumers who own credit cards as they may end up in impulse buying.
From a social perspective, Kaseke (2012) asserts that gender and educational background sometimes play a pivotal role in holding the usage of plastic money. Kaseke explains that women have a tendency of spending more than men when holding plastic money. In the same vein, those who have a strong educational background are calculative and spend less in plastic money that those who have poor educational backgrounds. Moreover, young adults have a tendency to seek fulfilment through activities such as shopping, hanging out and high life styles by using plastic money (Hausman, 2000). Lack of self control which often leads to excessive use of plastic money, particularly credit cards become a matter of concern for causing huge debts to customers. Often, consumers end up getting hesitant to adopt plastic money because of such challenges.

Patil (2014) also note some of the reasons why people end up resisting the use of plastic money. These include worn out Magnetic Strip on plastic cards due to massive use, increased debt and high interest rate, fraud and shops which accept credit cards of a specific company only. However, Diza, Munyanyi & Gumbo (2017) concluded that in Zimbabwe, the greatest challenge in the acceptance and use of plastic money were high transaction costs, shortage of POS facilities and general lack of confidence in the whole banking sector. These challenges certainly militate against the adoption and usage of plastic money. In a way, these challenges negatively impact on the effectiveness of plastic money in tackling cash crisis as consumers and merchants end up drifting from plastic money to cash and other modes of transacting that do not pose challenges to them.

2.10 Plastic money as a noble banking facility

The promotion of plastic money usage for effectiveness in tackling cash crisis is all based on the ability to communicate its benefits to consumers and merchants. Bisht et al (2015) provides a very good point of departure to deliberate more on the importance of plastic money drawing from findings of his study in Pune titled, “Analysis of the use of plastic money: boon or a bane”. In this study, 65% of respondents were of the view that plastic money is convenient to use in many circumstances. This is not possible with cash which has to be withdrawn first from the bank for transactions to be carried out. The same study also revealed that 77% of the respondents were of the opinion that plastic money is much portable as compared to carrying cash around. In terms of accessibility, 63% of the respondents alluded to the fact that plastic money is easily accessible as compared to cash which requires one to queue on banks within clearly marked time
frames. However, plastic money can be accessed anytime anywhere where there are ATMs and POS machines.

In this, Patil (2014) also points out reasons why plastic money usage should be promoted. First he notes that it saves time as debit card or credit card can purchase anything from anywhere without fare or cash transaction. The second reason is that plastic money has extra safety as one does not need to carry cash around which is very risk. In the event that the card got lost, one can simply contact the bank to block the account and be issued with a new card. The third reason is that plastic money has purchasing power which is equivalent to cash. Therefore, it is a perfect substitute of cash which makes life much easier. These benefits attest to the fact that using plastic money in an economic environment ailing with cash crisis will actually serve consumers and merchants from going through the gruelling processes of acquiring cash which is not available. However, as long as plastic money users are not acquainted with the benefits associated with its usage, they will remain reluctant in adopting plastic money. Thus, lack of awareness campaigns to educate and inform plastic money users is a significant gap that must be closed in plastic money policy.

2.11 Promoting plastic money usage

In Zimbabwe, plastic money is more concentrated in urban areas at the expense of rural areas where the majority of the populace resides. In this regard, Chisango (2017) suggests that POS machines and ATMs be distributed evenly across the whole country be it in rural areas or urban areas. Diza, Munyanyi & Gumbo (2017) argued that there is need for a rural empowerment programs for plastic money to be effectively adopted in the rural areas. On the other hand Chisango 2017 recommends the installation of network boosters in rural areas to reduce network congestion and to minimize disruption for users. In the same vein, Zimbabwe must strive to reach recommended standards in plastic money usage as the density of POS machines at 300 machines per one million inhabitants is far below the world’s average of 1300 machines per one million people (Diza, Munyanyi & Gumbo, 2017).

These strategies and suggestions mentioned in literature for specifically for Zimbabwe marks the roadmap to an effective plastic money policy. However, literature does not indicate how these strategies should be implemented to achieve intended results. For example Chisango (2017)
recommends the installation of network boosters in rural areas but does not explain how this should be promoted. In the same manner, Diza, Munanyi & Gumbo (2017) mentioned the need to add more POS machines but does not show how this should be done considering that these machines are locally not available and should be imported. These are issues to be considered in this current study exploring ways that could be employed in promoting plastic money usage.

2.12 Chapter summary
To sum up, a conceptual framework based on the principle of effectiveness was developed. This was followed by a presentation of the theoretical framework which upholds this study. The study theoretical base was drawn from the Market Interaction Model by Zhang, & Lotz (2013) as well as the Baumol-Tobin model (Hiroshi & Migiwa, 2009) of the transaction demand for money. The researcher showcased the relevance of these theories to this current study by explaining how each theory works. The researcher also singled out and explained in depth key study terms which include plastic money, cash crisis and mobile payments. In the end, empirical review on plastic money usage, why plastic money is resisted in favour of cash, benefits of plastic money usage and how plastic money could be promoted is all presented in this chapter.
CHAPTER THREE: METHODOLOGY

3.1 Introduction
This chapter sets out the methodology that was adopted in collecting and analyzing empirical data to be used in addressing study objectives. The components of the methodology which includes the research design, area of study, target population, sampling techniques and sample size, research instruments, validity and reliability of instruments, data collection procedures, data analysis and ethical considerations were upheld during the study. The current study followed an outline illustrated in a research onion coined by Saunders, Lewis & Thornhill (2016) as follows:

3.2 Research Philosophy
According to Bryman (1989), the term research philosophy relates to the development of knowledge which represents a researcher’s perception of the way knowledge is constructed. The present study employed a research philosophy described by Feilzer (2010) as ‘pragmatism’ which is oriented towards solving practical problems in the real world. Cash crisis in Zimbabwe
is a real economic challenge that the nation is struggling with and need studies of this nature to find pathways on how to tackle it.

In addition, Saunders et al (2009) argues that pragmatism is the most important determinant of epistemology, ontology and axiology to be adopted in constructing and questioning research questions in order elicit meaningful and practical responses. The philosophy was most relevant to this present study as it focuses on the research problem and uses pluralistic approaches to derive knowledge about the problem (Creswell, 2014). In the same vein, pragmatism offers multiple research methods, different worldviews as well as different forms of data collection and analysis (Feilzer, 2010) that best suits the researcher’s needs and purpose.

3.3 Research design

3.3.1 The nature of research design

A research design is a comprehensive plan for data collection in an empirical research project (Bhattacherjee, 2012). It was a “blue print” for empirical research aimed at answering specific research questions or testing specific hypotheses, and must specify at least three processes, namely the data collection process, the instrument development process, and the sampling process (Bhattacherjee, 2012). Creswell (2014) sees a research design as the glue that holds the research project together and designates the logical manner in which a research project is going to be carried out and how the individuals or other units in such a study are compared and analyzed.

Seema (2013) described a research design as the arrangement of conditions for collecting and analyzing data in a manner that aims to combine relevance to the research purpose with economy in procedures. He viewed, a research design as having four key components namely: sampling design; observational design; statistical design, and operational design. According to Kothari (2006), the purpose of a research design is to ensure a comparison that is not subject to alternative interpretations. In other words, a research design ensures that research findings are both valid and reliable and the research itself is replicable by other researchers with an interest in the area of study, as a result the researcher made use of multiple methods other than one research
method. This research employs the case study strategy and the research choice was mixed method based on a cross sectional time horizon.

3.3.2 Research Approach
Creswell (2014) states that research approach can either be deductive or inductive. In a deductive approach, the researcher develops a hypothesis which is examined to establish a theory (Saunders, Lewis & Thornhill, 2016), while in inductive approach; results of the analysis would formulate theory after beginning with observations that are specific and limited in scope (Feilzer, 2010). In this current study, a deductive approach was employed which accorded the researcher the opportunity to test a suggested hypothesis. Drawing from this approach, the researcher has build theory obstructively by collecting both quantitative and qualitative data which is then integrated using distinct design and theoretical framework to derive a new theory.

3.3.3 Research Strategies
The current study employed a research strategy of a case study which allows the researcher to narrow down the study on one geographical area, Bulawayo to explore in depth the effectiveness of plastic money in tackling cash crisis in Zimbabwe. According to Saunders et al (2009), a research strategy can be explained as a tool for addressing the research questions and these may include case studies, action research, surveys, experiments, ethnography and archival research. A case study is defined by Seema (2003) as a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence. The present study looks at real life set up in Bulawayo Zimbabwe.

The case study strategy has been selected because it is concerned with understanding a variable in depth and context (Saunders, Lewis & Thornhill, 2016), which allows the researcher to produce reliable findings. As such, a case study allowed the researcher to gather detailed information about the effectiveness of plastic money in tackling cash crises in Zimbabwe, with the view of obtaining in-depth knowledge. The researcher was able to elicit views and perceptions from respondents regarding the effectiveness of plastic money, why it is sometimes resisted in the market and how plastic money usage could be promoted in Zimbabwe.
Within the matrix of a case study, the researcher adopted a descriptive survey which is described by Seema (2013) as a method of collecting information by interviewing or administering a questionnaire to a sample of individuals. A descriptive survey was much more relevant to this study considering that the study must be carried out in the shortest possible time. Other study types such as experimental design, correlation research design, historical research design and case study approaches can only be conducted when the researcher has ample time. However, one major technical issue in case studies was selection bias whereby the choice of cases biases the findings of the research, particularly with respect to excluding cases that contradict favored theory (Saunders, Lewis & Thornhill, 2016).

3.3.4 Research methods
Saunders et al (2009) demonstrates that research methods include mixed method approach, multi-method approach and mono-method approach. The mixed method approach combines quantitative and qualitative data collection techniques and analysis procedures as well as combining quantitative and qualitative approaches at other phases of research such as research question generation (Feilzer, 2010). For the purpose of this study, a mixed method approach was adopted which according to Tashakkori and Teddlie (2003), involves the collection or analysis of both quantitative and qualitative data in a single study in which the data was collected concurrently or sequentially, was given a priority, and involve the integration of the data at one or more stages in the process of research. Bryman (2016) further supported the above position when they saw a mixed methods research as a type of research design in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches for the broad purposes of breadth and depth of understanding.

In line with the above thoughts, the study triangulates qualitative and quantitative data collection, presentation and analysis procedures to come up with a hybrid research design that ideally should yield research findings with ‘hybrid vigour,’ (Bryman, 2016) in terms of both validity and reliability. Hanson et al (2005) supported the use of such a research design in academic research when they said that, because all methods of data collection have limitations, the use of multiple methods can neutralise some of the disadvantages of certain methods. For example, thick
descriptions associated with qualitative research designs can provide insights not available in general quantitative surveys (Hanson et al, 2005).

Strauss and Corbin (1997) defined qualitative research as “… any kind of research that produces findings not arrived at by means of statistical methods.” It uses natural settings as the source of data as the researcher attempts to describe, interpret and explain social settings as they operate naturally in the social world. It is a system of inquiry which seeks to build a holistic, largely narrative, description to inform the researcher’s understanding of a social, phenomenon, and takes place in natural settings employing a combination of observations, interviews, and document reviews (Silverman, 1993).

On the other hand, a qualitative research is about exploring issues, understanding phenomena, and answering questions by analyzing and making sense of unstructured data (Bhattacherjee, 2012). This was supported by Creswell (2014) who posits that, focus groups, in-depth interviews, content analysis, ethnography, evaluation and semiotics are among many approaches that are used, but qualitative research in its most basic form involves the analysis of unstructured data, including; open ended survey responses, literature review, interviews, audio recordings, videos, pictures, social media and webs. The mixed method approach afforded the researcher the opportunity to make accurate conclusions from the triangulation of quantitative and qualitative data. The researcher made use of qualitative data to explain why plastic money was resisted at times and why it was failing to tackle cash crisis. On the other hand, statistic obtained through quantitative research helped to showcase the effectiveness of plastic money in the market. As noted by Bryman (2016), quantitative and qualitative research methods complement each other from the weaknesses of each approach.

3.3.5 Research and time horizons
According to Saunders et al (2009), most research studies undertaken for academic purposes are necessarily time constrained. The snap shot time horizon is called the cross- sections while the diary perspective is called the longitudinal (Saunders et al, 2009). The study was cross-sectional because of its short time frame and nature of the research study. However, the researcher did not compromise quality of the study due to time constraint. The researcher managed to work hard to submit the finished document before the end May 2018.
3.4 Area of Study
This study was centred on Bulawayo urban, which is located south-west of the country. The city of Bulawayo was founded in 1840, and today is the second largest city in Zimbabwe after Harare. Economically, the city was strategically located and consequently forms the axis of road and rail network links to the rest of the country and the Southern Africa region providing important railway linkages to South Africa, Botswana and Zambia (Parliament of Zimbabwe, 2011). It was also the manufacturing and industrial centre with large presence of heavy industries, although over the years much of the industrial infrastructure has been decrepit and deteriorated owing to the poor economic performance and de-industrialization (Parliament of Zimbabwe, 2011). The city was flooded with so many merchants especially those in the category of informal sector and the Small to Medium Enterprises.

The city of Bulawayo was a multicultural city inhabited by people of the various ethnic groups in Zimbabwe such as the Ndebele who are a majority, Shona, Tonga, Kalanga, Venda, and Sotho. Its proximity to some of the most sensational national tourist attractions such as Victoria Falls and Hwange National Park (Karimakwenda, 2012) gives it an impetus. The city has a relatively well-developed infrastructure system, relative to other African Nations. The population of Bulawayo has steadily increased over time to around 700 000 in 2009, in line with urban areas across Zimbabwe (Karimakwenda, 2012). With all these characteristics, Bulawayo was one of the vibrant economic zones in Zimbabwe which is worthwhile to be considered for studies of this nature, especially to assess the effectiveness of plastic money in this economic environment. The study area was purposively selected for the reasons cited above. More so, the study area is a city centre which has recorded the highest usage of plastic money in Matabeleland.

3.5 Target Population
A population is a complete set of individuals, cases or objects with some common observable characteristics (Mugenda & Mugenda, 2003). The purpose of this study was to assess the effectiveness of plastic money in tackling cash crises in the Zimbabwean economy, a problem which was deeply rooted in the market. Therefore the target population of this study consisted of three market players that include all merchants, all consumers and all banks in Bulawayo city centre. The researcher targeted the various established associations that represent the aforementioned three market players in Bulawayo. These are summarised in Table 3.1 as shown below:
<table>
<thead>
<tr>
<th>Market Player</th>
<th>Approximate population Targeted</th>
<th>Targeted Associations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumers</td>
<td>700 000</td>
<td>Consumer Council of Zimbabwe</td>
</tr>
<tr>
<td>Merchants</td>
<td>10 000</td>
<td>Confederation of Zimbabwe Retailers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Informal Traders Association of Zimbabwe</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Zimbabwe National Chambers of Commerce</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Zimbabwe Energy Regulation Authority</td>
</tr>
<tr>
<td>Banks</td>
<td>15</td>
<td>Bankers Association of Zimbabwe</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reserve Bank of Zimbabwe</td>
</tr>
</tbody>
</table>

Table 3.1 Target Population

Therefore the researcher administered a survey questionnaire to the three market players; that is the consumers, the merchants and the banks. The researcher also conducted semi-structured interviews with selected associations that represent the three market players to collect in-depth data on why plastic money has not been effective in tackling cash crises. The major reason why the researcher has opted to interview associations was the fact that these represented the views and perceptions of all of their members in totality. They were a custodian of a true picture of the dynamics encountered by their members in the market. For example the Consumer Council of Zimbabwe represented consumers in every respect including consumers in both the commodity and the service sector; consumers in both private and public entities as well as consumers in either the informal or formal sectors, amongst others. The second reason for interviewing associations was the fact that the study was conducted within a very short time period and as such the researcher could not interview the large numbers of individual players, for example the 700 000 consumers under the Consumer Council of Zimbabwe. However, it should be noted that the individual market players had shown their responses on the questionnaires that were rolled out.

3.6 Sampling techniques and sample size

Saunders et al (2009) defines sampling as the selection of some part of an aggregate or totality on the basis of judgement in order to obtain information about an entire population by examining only part of it. The researcher used non probability sampling techniques. Non probability
sampling is the sampling procedure which does not afford any basis for estimating the probability that each item in the population has been included in the sample and may be chosen based on the convenience of the researcher, judgement of the researcher and snowballing (Saunders et al, 2009). In this study the researcher chose the purposive and snowballing sampling. The primary consideration in purposive sampling is judgement as to who can provide the best information to achieve the objectives of the study (Kumar, 2011). Snowball sampling is a process of selecting a sample using networks (Kumar, 2011). Networks were useful in identifying types of merchants and banks to contact. The study was on the effectiveness of the adoption of plastic money to tackle cash challenges and consumers were purposively selected depending on the nature and type of customers. The samples were drawn in each targeted population as follows:

<table>
<thead>
<tr>
<th>Market Player</th>
<th>Approx population size</th>
<th>Sample size</th>
<th>Purposively selected Associations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumers</td>
<td>700 000</td>
<td>50</td>
<td>Consumer Council of Zimbabwe</td>
</tr>
<tr>
<td>Mercantile Institutions</td>
<td>10 000</td>
<td>40</td>
<td>Confederation of Zimbabwe Retailers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Informal Traders Association of Zimbabwe</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Zimbabwe National Chambers of Commerce</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Zimbabwe Energy Regulation Authority</td>
</tr>
<tr>
<td>Banks</td>
<td>15</td>
<td>10</td>
<td>Bankers Association of Zimbabwe</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Reserve Bank of Zimbabwe</td>
</tr>
</tbody>
</table>

Table 3.2: Established Samples

In total, the researcher rolled out 100 questionnaires for the market players and conducted about 7 semi-structured interviews with associations representing market players. The reason for triangulating the two data collection instruments was to ensure that accurate information for the study has been collected.

3.7 Research instruments

The researcher made use of questionnaire surveys as well as semi-structured interviews. Questionnaire surveys were administered to a sample of merchants, consumers and banks that
were randomly selected in Bulawayo City Centre, while semi-structured interviews were held with associations representing different market players. However, the questionnaire contained both close ended and open ended questions to allow for both qualitative and quantitative data responses to be captured. Questionnaires helped in generating statistical data that was very useful in tracing trends of the variable under study. They were also flexible and easy to administer as respondents managed to fill them on their spare time. The researcher used semi-structured interviews which according to Saunders et al (2009) help in gathering valid and reliable data that are relevant to the research questions. In fact, Kumar (2011) defines an interview as a purposeful discussion between two or more people. Therefore the discussions were guided but open for further probing to elicit important issues that speak to study objectives. The researcher recorded these interviews to ensure that important information is not lost before documentation.

3.8 Validity and reliability
Validity and reliability of research instruments used is very important in every study. Validity actually refers to whether the research instrument truly measure that which it was intended to measure and determines how truthful the research results are (Golofshani, 2003). On the other hand, reliability according to Adams & Schvaneveldt (1991) is defined as a degree to which responses are due to systematic sources of variance and that a reliable measure is one that gives the researcher consistent results overtime, places and occasions. Within the context of reliability, steps taken become clear, errors can be easily spotted and fixed and arguments can be followed easily (Hofstee, 2006).

However, Saunders et al (2009) notes that, the validity and reliability of research findings and the response rate achieved depends largely on the design of questions, the structure of the questionnaire, and the rigour of the pilot testing. In this study, the researcher captured the aspect of ‘content’ and ‘detail’ on study objectives (Golofshani, 2003) in both semi-structured interviews and the survey questionnaire to ensure validity. The researcher also attempted to sequence questions properly to avoid confusing the respondents in order to enhance validity. More so, the researcher ensured validity of the data collection techniques by constructing semi-structured interview guides and survey questionnaires which were simple for all respondents to understand and asking straight forward interview questions from complications in interpretation. Finally, a pilot test was conducted in which the researcher distributed six (6) questionnaires to
six (6) respondents outside Bulawayo to test the ability of the questionnaire to elicit valid responses from respondents. The necessary adjustments to the semi-structured interview guide and survey questionnaire were made to ensure the attainment of validity on the instruments.

3.9 Data collection procedures

3.9.1 Secondary data
The researcher has started by collecting secondary data commonly referred to as literature review. Secondary data is the data that has been collected for some other purpose, perhaps processed and subsequently stored (Saunders et al 2009). Saunders et al (2009) notes, that secondary data include both quantitative and qualitative data and they are used principally in both descriptive and explanatory research. This data is largely available on the internet. In this study we used the publications from the Reserve Bank of Zimbabwe which is the regulator of plastic money through its national payments system reports. The researcher has also made use of other academic publications such as journals, books, working papers and thesis manuscripts to compile secondary data.

The main advantage of using secondary data is the enormous saving in resources, in particular time and money (Ghauri and Grønhaug, 2005). In addition, they are likely to be higher-quality data than could be obtained by collecting your own (Stewart & Kamins, 1993). However, the disadvantages with this are that secondary data will have been collected for a purpose that differs from your research questions or objectives (Denscombe 2007). More so there is no control over data quality, aggregations and definitions may be unsuitable to the research and where data was collected for commercial reasons, gaining access may be difficult or costly (Saunders et al 2009).

3.9.2 Primary data
Primary data was empirical data collected from the field for the purpose of this study. According to Bryman & Bell (2014), primary data is data which is captured at the point where it is generated with a specific purpose in mind. In this study, primary data was extracted through semi-structured interviews and a survey questionnaire. The researcher acquired a signed Bindura University clearance letter with both a letter head and a stamp in March 2018. This was produced to every respondent as part of the introductory documents that authenticate that the study is purely for academic purposes. This has also helped with clarification of other ethical issues. The
researcher started by eliciting the views and perceptions of the banking sector in assessing the effectiveness of plastic money in quelling cash crises in Zimbabwe. The banking sector was an intermediary between market players (merchants and consumers) and was in a position to give a balanced response to study questions. The Bankers Association of Zimbabwe and the Reserve Bank of Zimbabwe were interviewed.

The researcher interviewed the Consumer Council of Zimbabwe which has the position of all consumers regarding plastic money usage. Lastly, the researcher visited a number of associations representing merchants. The researcher purposively selected three such associations from the category of merchants to make a total of six associations when combined with consumer associations and bankers associations. To ensure that the information provided by associations was accurate, the researcher administered questionnaires to 10 banks, 50 consumers and 40 merchants operating in Bulawayo. These 100 respondents were selected purposively on the basis of their ability to answer to the study questions.

3.10 Data analysis
The data analysis for this study was done in two parts, namely quantitative data and qualitative data. Quantitative data was gathered using scales of instruments such as the Likert scale which was useful in generating a database of statistical results and themes or patterns (Saunders et al, 2009) that will emerge from study findings. This helped to enable the analysis of cross-cutting issues around cash crises and plastic money as well as comparing respondent’s views and perceptions regarding effectiveness of plastic money. The quantitative data was analysed using the Statistical Package for Social Sciences (SPSS).

In the same vein, qualitative data collected in open-ended questions of the survey questionnaire and the semi-structured interviews was analysed using discourse, context and content analysis (Singleton, Straits & Straits, 1993) centred on research theme, research objectives and research questions. Qualitative data helped in answering the question ‘why’ and provide greater understanding of the reasons behind quantitative trends and results. This allowed the researcher to identify and compare themes, meanings, patterns, connections and contrasts regarding the effectiveness of plastic money in tackling cash crises in Zimbabwe. Presentation of the data shall be in table formats and figures that include pie charts and bar graphs.
3.11 Ethical considerations

Research ethics according to Saunders et al (2009) relates to questions about how we formulate and clarify our research topic, design our research and gain access, collect data, process and store our data, analyse data and write up our research findings in a moral and responsible way. Key principles of research ethics must always be guaranteed to respondents for a research to pass ethics test. This starts by explaining to the respondents the nature and character of the research being conducted and how data is to be collected. In this study, the researcher employed the principle of freedom of participation for respondents by seeking their consent. The researcher also assured respondents of the confidentiality and privacy of the information provided during interviews. Respondents were assured that they were protected from harm and risks associated with the study. The researcher explained clearly that the names of respondents were not going to be mentioned in the study.

3.12 Summary

Chapter three has synthesised the procedures, methods, strategies, techniques and steps that had been taken to make this study a success. In particular, a comprehensive design of this study has been presented; often known as the research onion (Saunders, Lewis & Thornhill, 2016) and this ends with a detailed description of how data was collected and analysed. More, so the research ethics which were considered in the study were documented.
CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction
Data collected through survey and semi-structured interviews is presented, analyzed and discussed in this chapter. The findings respond to the overall aim of the study which is to assess the effectiveness of plastic money in tackling cash crisis in Zimbabwe, with a special attention to the case of Bulawayo. Data is presented, analyzed and discussed in tandem with study objectives which were listed as: (i) to explore the extent to which plastic money has been adopted in the market, (ii) to explore why people continue to queue for cash on banks when plastic money is available and (iii) to explore pathways on how the plastic money mechanism could be restructured to effectively tackle cash crises in Zimbabwe. The researcher also related the study findings to research questions and the reviewed literature as part of the discussions.

4.2 Response rate analysis
The researcher administered a questionnaire targeting consumers, merchants and banks in Bulawayo. This was triangulated with in-depth interviews that were carried out with associations of consumers, merchants and banks. The idea was to generate accurate and comprehensive information on the effectiveness of plastic money in tackling cash crisis. The response rate of respondents was as shown in Table 4.1.

Table 4.1: Response Rate of Respondents

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Respondents</th>
<th>Targeted Respondents</th>
<th>Actual Respondents</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionnaires</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumers</td>
<td>50</td>
<td>48</td>
<td>96%</td>
<td></td>
</tr>
<tr>
<td>Merchants</td>
<td>40</td>
<td>40</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Banks</td>
<td>10</td>
<td>10</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Interviews with associations of:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumers</td>
<td>1</td>
<td>1</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Merchants</td>
<td>4</td>
<td>3</td>
<td>75%</td>
<td></td>
</tr>
<tr>
<td>Banks</td>
<td>2</td>
<td>2</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Based on Tables 4.1 above, the response rate for this study was generally good. In the most, response rate was 100% for different categories of respondents. However, 96% was recorded
among consumers who had a shortfall of 2 respondents from a target of 50. The same was also noted on merchant associations where 4 such associations were targeted and only 3 were interviewed. The researcher achieved this high response rate as she personally administered the research instrument in the form of a survey questionnaire and semi-structured interviews.

4.3 Demographical data of respondents

The researcher sought to establish the demographical data of respondents in a bid to unearth any relationships with plastic money usage. Key demographical data captured included gender, age, education and occupation.

4.3.1 Gender composition of respondents

![Gender Composition](image)

**Figure 4.1: Gender Composition**

The market is dominated by female consumers (67%) against their male (33%). Therefore woman perceptions regarding plastic money usage or either sticking to the conventional way of cash transactions have a bearing on the impact of plastic money in tackling cash crisis. In contrast to this, 62.5% of respondents among merchants were males while only 37.5% of
merchants were females. This implies that the majority of merchants are being operated by men who hold different perceptions regarding plastic money usage in the market.

4.3.2 Age of respondents

Figure 4.2: Age of Respondents

Figure 4.2 above demonstrates that respondents from all categories dominated age group 35-44 years which was followed by age group 25-34 years. The major reason for this is that these two age groups represent respondents who are economically active in the market; who take part in everyday merchandising and purchasing. As such, the researcher interacted with the majority of them in the study area. In the same manner, banks had no representatives in the age groups 15-24 years, 55-64 years and 65+. The major reason for this trend is that banks do not employ young and old people falling in those age groups.
4.3.3 Level of Education of respondents

Figure 4.3: Level of Education

Figure 4.3 above show that 100% of consumer respondents and merchant respondents had acquired at least Advanced Level or Ordinary Level. However, the majority of respondents from banks were degreed. As such, Figure 4.3 demonstrates that respondents were very literate, having the capacity to make informed decisions on either to use or not to use plastic money. The researcher concludes that resistance to plastic money usage associated with illiteracy is limited in Bulawayo.

4.3.4 Occupation category of respondents

Figs 4.4 below revealed that the highest number of respondents from consumers (42%) were in the service industry where the most of them are the Small to Medium Enterprises. The majority of merchants (45%) relied more on the retail sector as they engage in buying and selling. However, the researcher hooked up with respondents whose livelihoods were rooted in different sectors such as manufacturing, service industry, health, mining and retail. This was not the case with respondents from the banking sector who depended solely on the financial service sector.
These occupation categories are market platforms where recipients are forced to choose modes of transacting.

**Figure 4.4: Respondent's Occupation**

4.4 Question 1: To what extent has plastic money been adopted in the market?

**Table 4.2: Preferred Mode of Transacting**

<table>
<thead>
<tr>
<th>Mode of transacting</th>
<th>Consumers</th>
<th>Merchants</th>
<th>Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile money</td>
<td>31%</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>Plastic money (Debit/Credit Cards)</td>
<td>17%</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>Cash</td>
<td>44%</td>
<td>45%</td>
<td>40%</td>
</tr>
<tr>
<td>Internet/Online banking</td>
<td>6%</td>
<td>4%</td>
<td>20%</td>
</tr>
<tr>
<td>RTGS</td>
<td>2%</td>
<td>3%</td>
<td>10%</td>
</tr>
</tbody>
</table>
Table 4.2 above demonstrates that the most preferred mode of transacting for consumers, merchants and banks was cash which is rated at 44%, 45% and 0% respectively. However, the dichotomy that the second preferred mode of transacting for consumers is mobile money against plastic money which is the second preferred mode of transacting for merchants leaves questions as to how these should trade off in the market. More so, banks were found to be in unison with merchants as their second mode of transacting was also marked as plastic money. This could be illustrated clearly in Figure 4.5 below where responses from consumers, merchants and banks were merged to show the most preferred to the least preferred mode of transacting. This is in line with the findings documented by researchers such as Stavins (2011) in the United States Klee (2008) again in the United States and Arango, Huynh & Sabetti (2011) in Canada.

![Figure 4.5: Respondent's Preferred Mode](image)

Figure 4.5 illustrates that 44% of respondents preferred to transact in cash and this was the highest. This was followed by mobile money and plastic money which were both rated at 23, 5%
as the second preferred mode of transacting. These responses do not make a clear distinction on whether mobile money or plastic money is the second preferred mode of transacting as consumers’ second preference was mobile money while that for merchants’ was plastic money. This is followed by online banking where 6% of respondents only preferred it after cash, mobile money and plastic money. However, RTGS was the least preferred as it only recorded 6% of respondents.

However, from a qualitative point of view, it emerged from the interview that was conducted with the Consumer Council of Zimbabwe that plastic money has only been partially adopted in the market. One respondent in this case was quoted saying, “To a greater extent, consumers prefer to transact with cash. This is evidenced by long queues on banks during pay days and the rampant growth of black money markets. Moreover, the advent of mobile money seems to have negatively impacted the expansion of plastic money as consumers now have an alternative.” Thus consumers seem to prefer transacting in mobile money when they do not have cash instead of plastic money.

In line with this thinking, the Reserve Bank of Zimbabwe complemented what was said by the Consumer Council of Zimbabwe citing the fact that consumers and merchants were partially resisting plastic money due to lack of adequate knowledge about the whole discourse of plastic money. The respondent in this interview noted the following: “I can confirm that plastic money has been partially embraced. However part of the resistance from consumers and merchants is a result of their ignorance on the nature and character of plastic money and how its usage will be of advantage in their everyday life. I think this can be addressed by holding nation-wide plastic money awareness campaigns that are educative in nature, particularly targeting consumers and merchants.”

In the same vein, the Zimbabwe National Chambers of Commerce alluded to the fact that plastic money had only been adopted to a lesser extent. This came out clear in the following utterances of the respondent: “I think plastic money has been adopted to a lesser extent in the market due to a myriad of challenges associated with plastic money usage. These include the burden of transactional charges placed on consumers for each transaction, poor network in processing
transactions, inability to convert plastic money into foreign currency for those relying on imports to restock their shops, lack of confidence in banks as good custodians of money through plastic money as they failed clients in the past and the fact that POS machines are not locally available and therefore have to be imported.” This was a showcase on some of the reasons why plastic money has been partially adopted in the market of Bulawayo. The respondent was in a way suggesting that dealing with such bottlenecks would ultimately promote the adoption and usage of plastic money.

In contrast to this, the Zimbabwe Energy Regulatory Authority felt that plastic money had been adopted to a greater extent in Bulawayo. This is what the respondent said in an interview: “I think plastic money is gaining prominence in the market as the majority of shop and fuel stations are transacting with plastic cards. In fact, everyone is swiping in order to transact. I agree that people may be complaining about plastic money, but the bottom line is that it serves its purpose of effectively helping consumers to transact. What is important is the fact that one is able to transact even though cash is not available.”

This respondent argued that plastic money usage had become a norm in the markets of Bulawayo as witnessed by huge numbers of consumers who were using plastic money for their transactions. Although plastic money had some challenges, the respondent was of the view that this was normal especially for something new. The respondent suggested that things were going to normalize in the future if the government was going to come up with measures that would address the complaints of users of plastic money.

4.5 Question 2: Why do people continue to queue for cash when plastic money is available?
Table 4.3: Effectiveness of Transacting

<table>
<thead>
<tr>
<th>Mode of transacting</th>
<th>Consumers</th>
<th>Merchants</th>
<th>Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1  VE</td>
<td>2  E</td>
<td>3  N</td>
</tr>
<tr>
<td>Mobile money</td>
<td>3  6  4  2  0</td>
<td>0  4  2  2  0</td>
<td>0  2  0  0  0</td>
</tr>
<tr>
<td>Plastic money</td>
<td>0  2  3  1  2</td>
<td>1  7  3  1  0</td>
<td>1  1  0  0  0</td>
</tr>
<tr>
<td>Cash</td>
<td>5  16 0  0  0</td>
<td>11  7 0  0  0</td>
<td>2  1 0  0  0</td>
</tr>
<tr>
<td>Online banking</td>
<td>0  0 0  1  2</td>
<td>0  0 1  0  0</td>
<td>1  1 0  0  0</td>
</tr>
<tr>
<td>RTGS</td>
<td>0  0 0  0  1</td>
<td>0  0 1  0  0</td>
<td>1  0 0  0  0</td>
</tr>
</tbody>
</table>

Where score 1=Very Effective (VE), 2=Effective (E), 3=Neutral (N), 4=Ineffective (I) and 5= Very Ineffective (VI).

Table 4.3 above is a showcase of the perceptions of respondents with regards to the effectiveness of each mode of transaction. Consumers, merchants and banks responded to this question in conjunction with their preferences in terms of the mode of transaction they either like or dislike. As illustrated in figures 4.6.1 to 4.6.5 below, cash emerged as the most effective mode of transacting as 57% of respondents were under Effective mode of transacting. This was followed by mobile money rated at 48% and plastic money at 46%. Cash again came out as the highest at the level ‘Very Effective’ where it was rated as 43%, followed the by the level of ‘Neutral’ which rated plastic money at 27% and finally mobile money which was tagged at 24%. This implies that cash is a generally effective mode of transacting in the market compared to all other modes.
Figure 4.6: Effectiveness of Transacting

The use of cash in transacting does not need extra charges as is with the other modes of transacting. More so, transacting with cash is much more quicker as compared to other modes of transacting which rely more on network waves which in other places and at times may be weak. Respondents felt that hard cash in their hands was real wealth as compared to other forms of transacting which are non-physical.
Table 4.4: Perception of Plastic Money

<table>
<thead>
<tr>
<th>Perceptions on plastic money</th>
<th>1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree (F=Frequency)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>F</td>
</tr>
<tr>
<td>Reliable</td>
<td>64</td>
</tr>
<tr>
<td>Convenient and saves time</td>
<td>18</td>
</tr>
<tr>
<td>Reduces the risk of theft</td>
<td>86</td>
</tr>
<tr>
<td>Reduces liquidity challenges</td>
<td>11</td>
</tr>
<tr>
<td>Easy to use</td>
<td>3</td>
</tr>
<tr>
<td>Accessible</td>
<td>22</td>
</tr>
<tr>
<td>Technologically Advanced</td>
<td>82</td>
</tr>
<tr>
<td>Recognised internationally</td>
<td>68</td>
</tr>
<tr>
<td>Transactions are easily</td>
<td>46</td>
</tr>
<tr>
<td>traceable</td>
<td></td>
</tr>
</tbody>
</table>

The researcher compiled a number of perceptions which are associated with plastic money usage and organized them in a manner that respondents would rate them using the Likert Scale. These included among others reliability, convenience, and risk of theft, accessibility and easiness to use. Respondents were then asked to indicate if they Strongly Agree, Agree, Disagree or Strongly Disagree with the assertion (perception). Responses were tabulated and arrayed in Table 4.4 as shown above.

Figure 4.7 below demonstrates that plastic money is ‘reliable’ to use as 65% of respondents strongly agreed while 21% agreed with the same notion. Reliability in this context means that market players are able to carry out their transactions with plastic money without fail. Respondents indicated that plastic money transactions were to a greater extent successful and therefore plastic money was reliable as it served its purpose. The study also revealed that plastic money is ‘convenient and saves time’ as 53% and 18% of respondents Agreed and Strongly Agreed with this perception respectively. Respondents felt that plastic money is convenient and
saves time as they needed not to waste time queuing on banks to get cash in order to carry out their transactions. Plastic money became a perfect substitute for cash as it could be used anytime and anywhere as a form of money.

![Figure 4.7: Perception of Plastic Money](image)

Of more interest is the fact that 88% of respondents strongly agreed with the notion that plastic money ‘reduces the risk of theft’. Respondents felt that with plastic money, they no longer needed to carry huge sums of cash around as this could easily get stolen. Respondents alluded to the fact that plastic money which operates with pin codes was much safer to carry around as compared to hard cash which could be stolen by thieves easily. However, other respondents still felt that there was a risk of losing a pin code to swindlers especially for those individuals who may be slow to grasp this technology.
Figure 4.7 further revealed that respondents were against the notion that plastic money ‘reduces liquidity challenges’. In fact, 44% and 26% of respondents disagreed and strongly disagreed respectively with the notion that plastic money reduces liquidity challenges. Respondents felt that plastic money had failed to reduce liquidity challenges as these had persisted for long well after the introduction of plastic money. Everyday experiences in the market demonstrated that plastic money had failed to reduce liquidity challenges. For example, respondents indicated that the demand for cash in banks was still high and illegal money markets in streets were thriving and gaining momentum and prominence in the face of plastic money.

The notion that plastic money is ‘easy to use’ received mixed feelings from respondents in the sense that 57% of respondents were neutral against a backdrop where only 16% were in agreement while only 19% were in disagreement with the same issue. In one part, respondents felt uncomfortable in using plastic money as they now needed to master a pin code and keep it secure; something which is inconsistent with the use of hard cash.

More so, when the magnetic strip at the back of plastic cards get scratched, they become very difficult to swipe as the machine may not easily decode read it. Resultantly in some instances, accounts are debited without commence rate provision of services, respondent highlighted that the process of recovering the money was not only cumbersome but difficult. In another part, respondents felt that plastic money was easy to use as the process of swiping and inserting a pin code was simple and straightforward. However, the majority of respondents who were neutral felt that plastic money was both easy and sometimes difficult to use.

The study also revealed that plastic money was easily accessible as 49% and 22% of respondents agreed and strongly agreed respectively with the same notion. Respondents felt that plastic money was accessible as all banks in Bulawayo were offering plastic cards to all their account holders. In addition to that, the government embarked on a program of intensifying the supply of Point of Sale (POS) machines in different market points so that consumers would easily access POS machines and use their plastic cards whenever they wish to do so.
Findings from figure 4.7 also indicate that 84% of respondents strongly agreed with the notion that plastic money was a technologically advanced initiative. Respondents noted that plastic money transactions through the POS machine were quick and accurately verified and carried out between the consumer, merchant and the bank. This technology aspect is so accurate and quick.

In the same vein, 69% and 22% of respondents indicated that they strongly agreed and agreed respectively with the fact that plastic money was internationally recognized. This technology has spread across the globe and has become a common mode of transaction in the market. Moreover, the beauty about this technology is the fact that transactions can be easily traced. About 47% and 39% of respondents strongly agreed and agreed respectively with the notion that plastic money transactions were easily traceable. This minimizes the risks of double entry and theft as the record of all transactions carried out can be traced.

### Table 4.5: Challenges of Plastic Money

<table>
<thead>
<tr>
<th>Challenges of plastic money usage</th>
<th>1=Strongly Agree</th>
<th>2=Agree</th>
<th>3=Neutral</th>
<th>4=Disagree</th>
<th>5=Strongly Disagree (F= Frequency)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>Not accepted at small retail outlets</td>
<td>72</td>
<td>73%</td>
<td>17</td>
<td>17%</td>
<td>2</td>
</tr>
<tr>
<td>Cannot be used for all daily transactions</td>
<td>86</td>
<td>88%</td>
<td>12</td>
<td>12%</td>
<td>0</td>
</tr>
<tr>
<td>The cashback dilemma</td>
<td>55</td>
<td>56%</td>
<td>41</td>
<td>42%</td>
<td>2</td>
</tr>
<tr>
<td>Service charges</td>
<td>19</td>
<td>19%</td>
<td>78</td>
<td>80%</td>
<td>0</td>
</tr>
<tr>
<td>Plastic money not 100% safe</td>
<td>12</td>
<td>12%</td>
<td>21</td>
<td>21%</td>
<td>2</td>
</tr>
<tr>
<td>Transactions are sometimes duplicated</td>
<td>7</td>
<td>7%</td>
<td>16</td>
<td>16%</td>
<td>5</td>
</tr>
<tr>
<td>Network problems</td>
<td>22</td>
<td>22%</td>
<td>46</td>
<td>47%</td>
<td>12</td>
</tr>
</tbody>
</table>

The researcher sought to weigh the magnitude of the perceived challenges associated with plastic money usage and again used a Likert Scale to measure perceptions of respondents against each
challenge. Table 4.5 shows how respondents reacted to this question on each challenge. These responses are simplified in Figure 4.8 below.

**Figure 4.8: Challenges of Plastic Money**

Figure 4.8 indicates that the major challenge with plastic money was that it could not be used for all daily transactions as 88% of respondents strongly agreed with this assertion. Respondents elaborated that plastic money could not be used for instance in buying tomatoes from a hawker, in paying a fare to a commuter omnibus in town, or in buying airtime from an agent. These
transactions are carried out every day and they come in very small amounts which may be expensive for one to use plastic money.

More so, merchants of these products or services normally do not possess POS machines. This frustrates efforts to promote plastic money usage in the market. Respondents were quite amused with the fact that not all retail outlets in Bulawayo accept plastic money. In fact, 73% and 17% of respondents strongly agreed and agreed respectively with the fact that not all retail outlets accept plastic money in town. In this, respondents indicated that the majority of retail outlets in Bulawayo demanded cash from consumers when they only had plastic money. Retail outlets could not accept plastic money. Consumers were forced to put back what they wanted to buy after being informed that only cash was being accepted. This was mind boggling to many consumers who wondered whether it was because the outlets had no POS machines or it was just a strategy of the outlets to raise the desperately needed cash.

The third challenge of plastic money was depicted in Fig 4.8 as the cashback dilemma. Findings from this study revealed that 56% and 42% of respondents strongly agreed and agreed respectively with the notion that plastic money comes with the cashback dilemma. Respondents complained that as they needed cash for those transactions where plastic money cannot be used, they were now forced to indulge into impulse buying as they had to make some purchases in order to get cash backs. In a way, consumers highlighted that they could easily swing into over expenditure when they visit the market with plastic money.

Moreover, Fig 4.8 demonstrates that respondents were baffled by charges associated with plastic money usage. Respondents indicated that they agreed (80%) and strongly agreed (19%) with the fact that plastic money was accompanied with charges which made it costly for them to use plastic cards often. These charges are deducted by the bank and are paid by the card holder for every transaction carried out. Respondents complained that these charges were discouraging them from using plastic money as this was not the case with cash which they were used to.

The other challenge which emerged in this study was that of network hiccups where 47% and 22% of respondents agreed and strongly agreed respectively with the notion that plastic money
suffered network challenges. In this case, network hiccups slowed down and sometimes interrupted plastic money transactions. According to respondents, network challenges had become one of the major reasons why plastic money was being resisted. Plastic money relies on the network which if not effective automatically nullifies the whole purpose of promoting a cashless society. Respondents emphasized that network providers needed to upgrade and boost their systems in order to promote smooth plastic money usage.

From a different perspective, 48% and 16% of respondents disagreed and strongly disagreed respectively with the notion that plastic money is not 100% safe. What this meant was that respondents felt that plastic money is rather safe. Their argument was based on the fact that plastic money is portable to carry around as compared to carrying around cash. More so, plastic money operates with pin codes which act as a blocking system for unauthorized users or thieves from embezzling the money. In this same line of thinking, respondents disagreed (63%) and strongly disagreed (8%) with the notion that plastic money transactions are duplicated. Respondents felt that cases of duplication in plastic money transactions were rare and very minimal. As such, this was regarded as a minor challenge in as far as plastic money usage is concerned.

However, the researcher incorporated the views and perceptions of respondents of associations who were also interviewed on why people continue to queue for cash when plastic money is available. This is what a respondent from the Confederation of Zimbabwe Retailers had to say: “The dynamics in the market are such that transacting with cash is much cheaper for consumers than transacting with plastic money. Some shops have introduced what is called ‘a three tier system’ where those who transact in the US$ are charged much lower prices, followed by those who transact in bond notes and finally those who transact in plastic money. In fact, those who transact in the US$ can even pay half of what plastic money users will pay. This demonstrates that plastic money is much more expensive to transact with as compared to cash. This alone is a very good incentive for consumers to hunt for cash while plastic money is available.

Moreover, a respondent from the Reserve Bank of Zimbabwe noted the following: “The existing demand for cash in the presence of plastic money is pessimistic. It is pessimistic in the sense that
consumers and merchants are anticipating that the economic situation may further worsen any day and any time. That is why merchants prefer consumers to transact in cash which they actually do not bank, but hoard in their homes. Cases where merchants store tens of thousands of US$ in their homes have been recorded as they fear to lose their money if the anticipated sets in. It is important to note that the huge chunk of money collected by consumers from banks is not for expenditure as some may think, but for setting aside in anticipation for rainy days. The objective for queuing for this money on banks is to keep it in their homes. However, circumstances of life which are uncalled for end up pushing them to spend the cash in shops if they have emptied their plastic cards. The impression we get from this view is that economic anticipation is such a powerful force that can drive the behavior of both merchants and consumers along a particular dimension. In this case, a policy instrument which intends to encourage consumers and merchants to move away from cash transactions into a cashless society, all of a sudden falls in the drain due to some beliefs.

One of the interesting response came from the Bankers Association of Zimbabwe with regards to why people continue to queue for cash when plastic money is available. This is what the respondent had to say: “The so called ‘massive bank queues’ for cash are just ‘technical gatherings’. We discovered that these are just technical gatherings after our own investigations and assessments. First, we discovered that there are people who queue on banks especially during pay days not because they really need cash but because they want to sell their queue positions to people who genuinely need cash. You will be surprised to note that half of the people queuing on banks may be composed of such people. Secondly, we discovered that there are political elements associated with the queuing of people on banks. What I am trying to say is that there are people who come in the guise of wanting to withdraw some cash, yet they are agents of certain political parties who want to cause unnecessary hive of activity on banks in order create the impression that Zimbabwe is still stung by cash crisis. The purpose for such maneuvers is of course to tarnish the image of the current government. Thirdly, not all people who queue on banks need cash, but may be in need of other services. For example, some want to deposit money, others want to carry out RTGS transfers while others still want to resolve some administrative issues pertaining to their accounts.” A close analysis to this response demonstrates that indeed tedious queues for cash on banks may be caused by people technically
gathering for other reasons. This implies that the numbers of people who may be in need of cash during pay days are fewer than what is often purported.

In another interview, the Consumer Council of Zimbabwe indicated that queues for cash on banks were unavoidable as plastic money posed a lot of challenges to consumers. A representative of the Consumer Council of Zimbabwe who was contacted for this interview noted the following: “In as much as plastic money is being promoted, a number of merchants do not accept it and therefore consumers need to have some cash to be able to transact in such instances. More so, transacting with plastic money has exhibited to be a bit expensive as compared to transacting with cash, and as such, consumers would rather queue for cash in order to save their money. Furthermore, plastic money users complain that credit cards are much more tempting for consumers to overspend as they permit consumers to transact beyond their account balances. This has put many in to jeopardy after plunging themselves into unplanned debts.”

What this means is that plastic money has technical issues which must be addressed in order to improve its uptake which in the end will discourage cash usage. For example, the issue of poor network was also raised as a concern for processing plastic money transactions.

According to the Zimbabwe Energy Regulatory Authority, “Queues for cash we witness in Bulawayo are not necessarily queues of our fellow Bulawayo residents. I think these are people coming from communal areas surrounding Bulawayo who need cash to be able to transact in their communal areas where POS machines are still very few since they are rural areas. These are mostly civil servants such as teachers, Agritex officers, nurses and the police. If the government can speed up the process of multiplying the number of POS machines in rural areas, I am convinced that we will witness a decline in the number of people who queue for cash on banks.” The respondent was confident that Bulawayo residents do not necessarily queue for cash as they are acquainted with plastic money usage and have adopted it for most of their transactions. Rather, his view was that only outsiders coming from neighboring communal areas around Bulawayo were responsible for making such queues especially during pay days.
4.6 Question 3: What are the pathways on how plastic money could be restructured to tackle cash crisis in Zimbabwe?

To adequately address this question, the researcher largely compiled views and perceptions of respondents from a qualitative perspective. These were captured from the interviews that were held with associations of consumers, merchants and banks. The researcher made use of the following critical sub-research questions to showcase the views and perceptions of respondents on how plastic money could be restructured to effectively tackle cash crisis in Zimbabwe.

4.6.1 What must be done to encourage the use of plastic money?

A number of issues were raised in response to this question. For example, the Consumer Council of Zimbabwe noted the following: “I want to stress that consumers in Zimbabwe have already embraced and are very keen to use plastic money. However, they are being discouraged by the fact that POS machines are still very few and are only found in wholesalers, supermarkets and big retail outlets. This is against a backdrop where the majority of consumers prefer to do their purchases in small retail shops which do not as yet possess the POS machine.” The Consumer Council of Zimbabwe spelt out clearly that it was necessary for the government to intensify a program that promotes and support merchants to install such machines in their shops. The council suggested that the government imports the machines and sell them on a subsidized price to merchants as a means of increasing the number of POS machines in shops.

The Confederation of Zimbabwe Retailers revealed that business dynamics in this current economic environment was very difficult for retailers to adopt plastic money. They emphasized that government together with the Reserve Bank of Zimbabwe should put in place a policy system that allows retailers to change plastic money into foreign currency.

Moreover, the Zimbabwe Energy Regulatory Authority suggested that network for plastic money transactions be improved in order to encourage plastic money usage. In fact, the Zimbabwe Energy Regulatory Authority put it this way: “Our fuel stations are grappling with long queues caused by network delays in clearing off plastic money transactions. Energy suppliers have adopted plastic money but the major challenge is that clients complain for being delayed on queues as they wait for their turn to also process their transactions. I can assure you, the process
is painstakingly slow and very boring especially if you are in a hurry. Something must be done on the network to speed up the processing of plastic money transactions.”

Indeed consumers and merchants who took part in a questionnaire survey were also concerned about the existing poor network waves in processing plastic money transactions. Network providers such as Econet, TelOne and Telecel needed to revamp their network systems in order to provide a quality service that is quick and effective.

When presented with the question of what must be done to improve plastic money usage in Zimbabwe, the Reserve Bank of Zimbabwe descended the following sentiments: “To a greater extent, more campaign work to educate consumers and merchants on why they should embrace plastic money usage is necessary. The Reserve Bank of Zimbabwe in collaboration with the government and local banks will have to join hands in rolling out these campaigns. This is a very important stage in implementing plastic money policy which was not effectively administered. Part of the reason why plastic money is shunned in the market is simply the fact that people do not have information. We have to educate them on how to acquire plastic money and how they will benefit from using it. We have to inform them on anticipated challenges of using plastic money such as the temptation to overspend through credit cards.” In this, the Reserve Bank of Zimbabwe made it clear that much work has to be done in the form of awareness campaigns that aim to inform and encourage consumers and merchants to embrace plastic money fearlessly.

4.6.2 How can plastic money policy be transformed to effectively tackle cash crises?

The suggestions of the Bankers Association of Zimbabwe with regards to this question are worth taking note of. “The need for increased awareness on usage of plastic money among consumers and merchants should not be overemphasized in the manner in which the policy must be implemented. However, these awareness campaigns must be designed in such a way that they comprehensively attend to critical issues bothering consumers and merchants’ in as far as plastic money usage is concerned. In addition to this, government must make it compulsory for every merchant to acquire POS machines. This will go a long way in ensuring that the number of POS machines is increased. In this, measures must be put in place to enforce merchants to
acquire POS machines. For example, those without POS machines may be forced to pay a penalty fee every month.”

In the same vein, the Consumer Council of Zimbabwe pointed out that the Reserve Bank of Zimbabwe must gazette minimal charges on all plastic card users. This is what they have to say on transforming plastic money policy: “Plastic card holders are suffering the scourge of high charges on every transaction carried out. These charges in a way scare away plastic card holders from using plastic money. Holders of plastic cards are the once bearing alone the burden of these charges and yet we say we want to promote usage of plastic money. I believe that responsible authorities should descent on banks and enforce them to lower their transactional charges to reasonable and minimal amounts.” This initiative basically rests with the Reserve Bank of Zimbabwe, banks and the government to negotiate on reasonable rates/charges that must be placed on plastic card holders. In the end, plastic money usage policy will be gladly embraced with low transactional bank charges.

More so, the Zimbabwe National Chambers of Commerce insisted that the general populace of Zimbabwe lack confidence in plastic money. In this, the Zimbabwe National Chambers of Commerce noted the following: “Business people lost out millions of dollars housed in banks during the hyperinflation era. Drawing from this background, merchants are not very confident and keen to keeping their money in the form of plastic money in banks which betrayed them in the past. Lack of trust/confidence in plastic money easily translates into resistance by merchants to receiving plastic money from consumers. As such, there is a need for the Reserve Bank of Zimbabwe and all banks to ensure that this confidence and trust is restored. In one part, this could be packaged and integrated into awareness campaigns and on another, banks need to build sound relationships with clients as well as demonstrating to them that as custodians of their money, it is kept safely.”

However, the Confederation of Zimbabwe Retailers indicated that plastic money is only a cog of some of the measures that could be employed in addressing cash crisis. The engaged respondent representing the Confederation of Zimbabwe Retailers had the following to say: “I think we all agree that plastic money is not a panacea for tackling cash crisis. There are other policy
measures that promote a cashless society such as mobile money and RTGs transactions that must be promoted so that they augment the impact being made by plastic money. Driving plastic money policy alone will not yield the desired results of effectively tackling cash crisis in Zimbabwe. Cash crisis must be approached in its wholesome state such that different policy mechanisms can be employed to try and ameliorate the challenge in an integrative manner.”

The respondent was of the view that over-relying on the plastic money policy to tackle cash crisis would in the end cripple its effectiveness as people get frustrated when they continue to grapple with the same challenge after employing a government policy that is tagged as the solution. To avoid this, he opinionated that a wide spectrum of policy mechanisms be considered to address cash crisis.

4.6.3 What are your views regarding the future of plastic money in Zimbabwe?
Respondents in different interviews had their own views and perceptions with regards to the future prospects of plastic money in Zimbabwe. For example, the Bankers Association of Zimbabwe was of the view that plastic money will gain prominence in the future as the promotion of a cashless society has become the mantra world over. This is what the representative of the Bankers Association of Zimbabwe had to say: “A new order has dawned all over the world on how transactions are carried out in the market. Governments are advocating for a shift from hard cash transactions to electronic transactions which include plastic money, mobile money, RTGS and internet banking. Zimbabwe has to keep abreast with these technological changes and cannot be left out as the world has become a global village. People may try to resist plastic money in the present moment but I can assure you, three to four years down the line, plastic money will become the order of business transactions in the market.”

In contrast to what the Bankers Association of Zimbabwe said, the Consumer Council of Zimbabwe was of the view that plastic money usage would dwindle in the near future as people are shifting towards mobile money. These were the words of the representative of the Consumer Council of Zimbabwe: “I am convinced that people will abandon plastic money as they embrace mobile money which is gaining much prominence. I mean who doesn’t have a phone with either an Ecocash account, One Wallet or Telecash? Even our grandmothers in the villages rely more on mobile money for their transactions as they do not have bank accounts. Remember only bank
account holders are issued out with plastic cards and the challenge with this is that very few individuals who are gainfully employed, expecting a salary have bank accounts.” The iron of this was that mobile money is easily accessible even to the most ordinary people who do not have bank accounts. This is different from bank accounts which are even difficult to maintain as they need service charges which may not be available for non-regular income earners.

However, the Zimbabwe Confederation of Retailers was worried about insatiable growth of black money markets in streets citing that this was sufficient evidence to prove that Zimbabweans were cultured to transact only in cash and were not yet prepared to embrace plastic money. The respondent in this interview indicated that people were rather prepared to buy cash in streets which they would in turn use for their routine shopping. The respondent emphasized that the Zimbabwean economy well known as a cash economy has cultured people to only transact in cash to the extent that if the economy stabilizes, bringing the cash crisis to an end, it is most likely that people will go back to transacting in cash. This means that the future of plastic money in Zimbabwe is still bleak, given these conditions.

4.7 Discussion of Findings
This section has been divided into three components that address the three research questions. The first section discusses the views and perceptions of respondents regarding the extent to which plastic money has been adopted in the market. The second section focuses on the reasons why people continue to queue for cash when plastic money is available. The third and final section is a discussion on pathways and strategies that could be employed to improve the effectiveness of plastic money in tackling cash crisis in Zimbabwe.

4.7.1 Question 1: To what extent has plastic money been adopted in the market?
This question received mixed feelings from questionnaire respondents. Although all respondents indicated that the most preferred mode of transacting was cash, consumers and merchants differed on the second and third preferred mode of transacting. For consumers, mobile money rated at 31% was the second preferred mode of transacting contradicting with merchants who preferred plastic money rated at 30%. At the same time, consumers’ third preferred mode of
transacting was plastic money rated at 17%, which again differed from merchants whose third preferred mode of transacting was mobile money rated at 20%.

However, preference on the mode of transacting easily translates into adoption of that particular mode in the market. Zhang & Lotz, (2013) postulated the Market Interaction Model which captures the two sided nature of actual payment systems, suggesting why consumers and merchants may end up opting for a certain mode of transacting. This model provides the cost benefit analysis for both consumers and merchants as to which mode of transacting they should opt for as they interact in the market. According to Sultana & Hasan (2016), the perception regarding usage of a mode of transacting is broadly persuaded by 3 factors namely influential factors, beneficial factors and the problems associated with its usage. These factors together with individual factors noted by Kaseke (2012) such as knowledge, processing capabilities and lifestyle, are determinants of the mode of transaction to be chosen.

To this end, consumers were of the view that plastic money has been adopted to a lesser extent as it only fell on the third position after mobile money. However, power-play takes precedence as merchants who suggested that plastic money has been well adopted, have the power to accept or refute any other mode of transacting.

The Zimbabwe Energy Regulatory Authority revealed that plastic money has been adopted to a greater extent in Bulawayo agreeing with findings of Bisht et.al (2015) on the analysis of the use of plastic money, where the majority of respondents were found to be using plastic in one form or another. This again resonates well with a study conducted in Bangladesh by Manivannan (2013) which demonstrates that plastic money previously regarded as a luxury has nowadays become a need. These arguments allude to the fact that plastic money is gaining prominence and has been adopted to a greater extent in Bulawayo.

However, the Consumer Council of Zimbabwe, the Reserve Bank of Zimbabwe and the Zimbabwe National Chambers of Commerce maintained that plastic money has been adopted to a lesser extent in Bulawayo, supporting their line of thinking with facts. For instance, the Reserve Bank of Zimbabwe noted that there was a general lack of knowledge among consumers
and merchants on plastic money usage which could only be addressed by country-wide awareness campaigns. Limited adoption of plastic money in Bulawayo was confirmed by Diza, Munyanyi & Gumbo (2017) who argued that the density of POS machines at 300 machines per one million inhabitants in Zimbabwe was far below the world’s average of 1300 machines per one million people. The researcher thus concludes that plastic money has been adopted to a lesser extent as evidence from the majority of respondents from both semi-structured interviews and the survey were in agreement with this sentiment. Although evidence in literature drawn from other countries demonstrates that plastic money has been adopted to a greater extent, this was not the case in the Zimbabwean context where there is a bit of some resistance in embracing plastic money.

4.7.2 Question 2: Why do people continue to queue for cash when plastic money is available?

In addressing this critical question, respondents configured the effectiveness of plastic money as a key marker of some of the reasons why people continue to queue for cash in the presence of plastic money. In this, respondents rated the effectiveness of plastic money as follows: 9% very effective, 45% effective, 27% neutral, 9% ineffective and 9% very ineffective. These statistics demonstrate that plastic money is generally an effective mode of transacting in which people should not be found hunting for cash when such a platform is available. However, the reverse has been proven to be true as people continue to queue for cash on banks. This trend could be explained by the Baumol-Tobin model of the transaction demand for money by Hiroshi & Migiwa (2009) in which households prefer to hold cash by minimizing the sum of the cost of transactions and the opportunity cost of holding cash. The model is of the view that households generally prefer to hold cash in their hands to the extent that they can do everything within their capacity to minimize the cost of transacting with cash and the opportunity cost of holding cash. This is what drives people to keep queuing on banks in an attempt to fulfill the craving for cash explained through the Baumol-Tobin model.

In the same vein, the major perception regarding plastic money usage emerged as its inability to reduce liquidity challenges. Findings from this study revealed that 44% and 26% of respondents disagreed and strongly disagreed respectively with the notion that plastic money reduces liquidity challenges. This means that plastic money cannot be used as a mechanism to address
cash crisis. Researchers such as Stavins (2011) and Klee (2008) in the United States and Arango, Huynh & Sabetti (2011) in Canada alluded to the fact that cash still remains the dominant means of payment, particularly for small transactions despite the increased availability of plastic money. In other words, there is a tendency for consumers to keep using cash as the majority of them dwell on small transactions on a daily bases for survival. Such transactions include purchases of vegetables from hawkers or paying commuter omnibus fares in local towns.

From a qualitative perspective, the Reserve Bank of Zimbabwe indicated that the existing demand for cash in the presence of plastic money was pessimistic. The explanation given in this regard was that people continue to queue for cash as they anticipate that if their money remains in banks, they may lose it if unfavorable economic conditions set in as has happened in the past. This is in agreement with Mabenge & Kasiamhuru (2017) who argues that merchants and consumers reacted with fear and anxiety as they had lost confidence in the financial sector in Zimbabwe. More so, Ullah et al (2014) contents that people are reluctant to use plastic money in some countries mostly because of misperceptions about it. These revolve around unjustifiable views, perceptions or even beliefs.

However, the Bankers Association of Zimbabwe with regards to why people continue to queue for cash when plastic money is available, noted that the so called ‘massive bank queues’ for cash were just ‘technical gatherings’. What was emphasized in this perspective was that not all people queuing on banks necessarily need cash. Some of the people contributing to these numbers were said to be engaging in other businesses such as furthering their political motives, queuing to sell queue positions, queuing to address certain administrative issues that are related to their bank accounts or even queuing to steal. This was alluded to by the Zimbabwe Energy Regulation Authority which indicated that people who were queuing were not necessarily local residence of Bulawayo, but civil servants from communal areas surrounding the city where there are no POS machines. This is in agreement with Kaseke (2012) who indicated that rural area have been neglected in this area as they have very few POS machines, yet 70% of the population reside in these places.
Moreover, the Consumer Council of Zimbabwe stated that plastic money was not being accepted by all merchants and therefore consumers needed to set aside some cash which they could use in such instances. The Confederation of Zimbabwe Retailers also added that the dynamics in the market were such that transacting with cash was much cheaper for consumers than transacting with plastic money. This is why Diza, Munyanyi & Gumbo (2017) concluded that the greatest challenge in the acceptance and use of plastic money in Zimbabwe were high transaction costs, shortage of POS facilities and general lack of confidence in the whole banking sector. Sultana & Hasan (2016) also indicated that lack of education, poor banking systems, and insecurity of transactions are also the responsible factors for the reluctance in plastic money usage. It also emerged from a study conducted by Loewenstein & Hafalir (2012) that lack of incentives for plastic money usage had caused people to continuously queue for cash on banks.

4.7.3 Question 3: What are the pathways on how plastic money could be restructured to tackle cash crisis in Zimbabwe?

The Zimbabwe Energy Regulation Authority suggested that network system need to be improved in order to encourage plastic money usage. They complained that consumers were grappling with tedious queues on fuel stations caused by network delays in clearing off plastic money transactions. This is why Chisango (2017) recommended the installation of multiple network boosters in Zimbabwe to reduce network congestion and to minimize disruption for users. Indeed plastic money usage will improve is such bottlenecks are counteracted.

Furthermore, the Reserve Bank of Zimbabwe suggested that engaging in more campaign work to educate consumers and merchants on why they should embrace plastic money is necessary. This is in line with the views of Patil (2014) who pointed out some of the reasons why plastic money should be promoted. He indicated that consumers and merchants need to be informed about the benefits of plastic money usage which include the fact that it has extra safety as one does not need to carry around cash which is very risk, its purchasing power is equivalent to that of cash—therefore value for money is not lost, and the fact that plastic money is convenient as it can be used to transact from anywhere without wasting time queuing for cash. In this, the researcher is of the view that plastic money will never yield the intended results if targeted users are not well informed about the benefits and general implications of adopting it. Rolling out such awareness
campaigns would made a difference provided that the audience are captivated to participate in these programs.

Next was the Consumer Council of Zimbabwe which suggested that minimal transactional charges on all plastic card users be gazetted by the Reserve Bank of Zimbabwe. This came out as a complaint by respondents who noted that transactional charges for plastic cards were a bit hefty. The problem has been exacerbated by the fact that some merchants have introduced a Three Tier Pricing System where retailers charge their commodities in accordance to the customer’s mode of payment (Diza, Munyanyi & Gumbo, 2017). Those who transact in cash pay less than those who transact in plastic cards and this discourages plastic card holders from using them. Such contradictory initiatives to the promotion of a cashless society should be put to an end by the government.

The Confederation of Zimbabwe Retailers and the Consumer Council of Zimbabwe further noted that POS machines are still very few in Zimbabwe. They suggested that the government should ensure that merchants install POS machines in their shops. Chisango (2017) also suggested that POS machines and ATMs be distributed evenly across the whole country be it in rural areas or urban areas. This means that there are some places even in Bulawayo where POS machines may be fewer as compared to other places. Zimbabwe must therefore strive to reach recommended standards in plastic money usage by meeting the required density of POS machines (Diza, Munyanyi & Gumbo, 2017).

Finally, the majority of interviewed associations felt that the future of plastic money is such that it will hit a hard rock as new modes of transacting such as mobile money are taking over. These associations indicated that financial technology is evolving so fast. This puts plastic money at the risk of being abandoned as people embrace new electronic modes of transacting. However, Diza, Munyanyi & Gumbo (2017) argued that there is need for the government to craft plastic money empowerment programs that will speed up the rate at which recipients will embrace it. If the majority of people adopt plastic money before new technological innovations sets in, then there is a chance for them to continue using plastic money as a mode of transaction.
4.8 Chapter summary

In conclusion, the researcher presented, analyzed and discussed study findings in relation to the three research questions. To start with, the majority of respondents were of the view that plastic money has been adopted to a lesser extent supporting this with concrete evidence and reasons. In the same manner, respondents justified clearly why people continue to queue for cash in a dispensation where plastic money is being popularized. In addressing the first two research questions, findings from this study demonstrated why plastic money is not effective in tackling the cash crisis in Zimbabwe. However, respondents suggested ways and strategies that could be employed to eliminate bottlenecks in the implementation of plastic money.
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction
This chapter wraps up the whole study which sought to explore the effectiveness of plastic money in tackling cash crisis. The key driver for undertaking this study was the fact that the Zimbabwean economy remains stung with cash crisis despite the introduction of mechanisms that promotes a cashless society such as plastic money. This chapter therefore starts by summarising major findings that emerged from the study in response to research objectives. This is followed by a presentation of concluding remarks that were drawn directly from research findings in sync with key study questions. The researcher finally provides recommendations for policy and for further studies, after which an overall conclusion for the chapter is given.

5.2 Summary of major findings
Major findings of this study were grouped into three categories defined by key sub-research objectives. These include: (i) to explore the extent to which plastic money has been adopted in the market, (ii) to explore why people continue to queue for cash on banks when plastic money is available and (iii) to explore pathways on how the plastic money could be restructured to effectively tackle cash crises in Zimbabwe. However in overall, the study revealed that the complex nature of plastic money makes it ineffective in tackling cash crisis if proper support systems are not put in place. This emerged from the following major findings.

5.2.1 The extent to which plastic money has been adopted in the market
Study findings from this research indicate that:

- Plastic money has been adopted to a lesser extent by all the market players consumer and the merchants.
- Cash emerged as a major mode of transacting in the market for all respondents; that is merchants, consumers and banks at 44%. Respondents revealed that they were keen to transact with cash more than all other modes of transacting as they were yet to come to terms with new modes of transacting which they didn’t fully trust. Respondents indicated that they were prepared to acquire cash in whatever means before they could transact in the market.
Consumers ranked mobile money as the second most preferred mode of transacting in the market at 31.25% followed by plastic money which was ranked at 17%. Consumers felt that plastic money had only been adopted to a lesser extent in the market as it only came as a third option. Their argument was that the majority of consumers own mobile phones which are connected to at least one mobile money service provider. This was not the case with plastic money where one must first become an account holder before being issued with a plastic card.

Plastic money was ranked as the second most preferred mode of transacting by merchants at 30% followed by mobile money recorded at 20%. In contrast to consumers, merchants were of the view that plastic money has been adopted to a greater extent in the market as they placed it on second position in terms of preference after cash. This was also supported by banks who perceived that plastic money was on the second position after cash. Merchants felt that plastic money was better than mobile money for business purposes as they could at least carry out other transactions with their banks such as RTGS and internet banking.

When responses of merchants, consumers and banks are merged, study findings revealed that mobile money and plastic money were equally preferred in the market as both of them were recorded at 23.5%. These findings in a way support the notion that plastic money has been moderately adopted in the market as respondents equally prefer mobile money after cash. Thus, the adoption of plastic money in the market has not reached high or extremes levels as people are still relying more on cash to a greater extent and on mobile money in other instances.

However, the majority of interviewed associations alluded to the fact that plastic money has only been adopted to a lesser extent in the market. This was the case with the Zimbabwe National Chambers of Commerce, the Consumer Council of Zimbabwe and the Reserve Bank of Zimbabwe which cited a number of reasons why plastic money has been adopted to a lesser extent. Their reasons ranged from lack of adequate knowledge about plastic money on the part of its intended users to challenges associated with plastic money usage.

The three tier pricing in the market was highlighted as the main catalyst for the demand of cash in acquiring goods and services.
Considering the above cash emerged as the most preferred mode of transacting for consumers, merchants and banks. There is need of more awareness campaigns and infrastructure development for the market to adopt plastic money.

5.2.2 Why people continue to queue for cash on banks when plastic money is available

- Plastic money was generally found to be an effective mode of transacting in the market. Statistics drawn from study findings indicate that 9% of respondents considered plastic money to be very effective while 46% of them regarded plastic money as an effective mode of transacting in the market. What is startling is the fact that people continue to queue for cash on banks despite the availability of plastic money which was marked as an effective mode of transacting in the market. What this implies is that, though plastic money is effective in transacting, there are other factors that render it useless that must be explored. These factors either discourage people from using plastic money or promote the use of cash.

- A major perception regarding plastic money usage emerged as its inability to reduce liquidity challenges. Study findings revealed that 80% of respondents were against the notion that plastic money reduces liquidity challenges. This statistic clearly indicates that plastic money in itself cannot resolve cash crisis challenges. This perception may help explain some of the reasons why people ignore plastic money in their continuous pursuit for transacting in cash.

- The Reserve Bank of Zimbabwe indicated that the existing demand for cash in the presence of plastic money is all pessimistic. The argument regarding this perspective was that people have been betrayed in the past by banks when they lost a lot of money during the hyperinflation era. As such, people have since lost their trust and confidence in banks as they fear for their money in the event that such economic down turns set in. The result of this has been that people continue to queue for cash on banks as they feel uncomfortable in using plastic money.

- Continuous bank queues for cash when plastic money is available were labeled by the Bankers Association of Zimbabwe as just a ‘technical gathering’. The Bankers Association of Zimbabwe argued that not all people queuing on banks necessarily for cash. It was revealed that some of the people who queue on banks aim to further their
political motives, while others intend to sell queue positions to those who genuinely need money, and yet others queue to address certain administrative issues that are related to their bank accounts.

- The study revealed that queues on banks in Bulawayo were not necessarily of local residents of Bulawayo, but civil servants from communal areas surrounding the city where there are no POS machines. The Zimbabwe Energy Regulatory Authority indicated that lack of POS machines in rural areas had contributed to growth of queues in urban areas like Bulawayo as these people could not transact in any way apart from cash.

- Challenges associated with plastic money usage discouraged people from adopting it; hence continuous queues on banks for cash. For example the Consumer Council of Zimbabwe noted that plastic money was not being accepted by all merchants and therefore consumers needed to set aside some cash which they could use in such instances. Other respondents such as the Zimbabwe Regulatory Authority indicated that poor network systems for processing plastic money transactions were a huge blow to the adoption of plastic money. Moreover, the Confederation of Zimbabwe Retailers also added that the dynamics in the market were such that transacting with cash was much cheaper for consumers than transacting with plastic money. This again discouraged people from adopting plastic money resulting in continuous queues for cash on banks.

Bearing the above in mind one might conclude that, the reason why people continue to queues even after the availability of plastic money it’s for speculative purposes. However they are some pensioners and people who stay in rural areas who are in need of cash as these areas have no access to plastic money. In addition to that the three tier pricing in the market forced the consumer to resort to the use of cash instead of plastic money.

5.2.3 Restructuring plastic money mechanism to effectively tackle cash crises in Zimbabwe

- The study revealed the necessity of more campaign work to educate people on the nature and character of plastic money and how they will benefit from adopting and embracing it as a mode of transacting in the market. Study findings demonstrated that lack of basic knowledge on plastic money, coupled with challenges associated with its usage was one of the major factors why people shunned it. Informative and educative awareness
campaigns according to the Reserve Bank of Zimbabwe have the potential to close the existing knowledge gaps and to build a new set of value systems and beliefs that promote a move towards a cashless society.

- The study underscored the need to establish effective network systems that permit the speedy processing of plastic money transactions in the market. The Zimbabwe Energy Regulatory Authority suggested that network system need to be improved in order to encourage plastic money usage. This will involve in one part, the setting up of new network processing centers and in another, the renovation of the existing systems. This work should be carried out by service providers but plastic money promoters must be involved in mobilising relevant stakeholders to play their role. Effective network systems will increase the efficiency and effectiveness of plastic money thereby promoting users to adopt it especially those who were complaining about delays that are caused by the system.

- Study findings demonstrated that POS machines are still very few in Bulawayo and in communal areas surrounding the city. Therefore a program that will promote their installation in all retail shops will go a long way in alleviating the shortage and in promoting the adoption of plastic money. Respondents indicated that the challenge with POS machines was that they could not be secured locally. Merchants were therefore not prepared to take up the responsibility of acquiring POS machines from abroad as foreign currency is a challenge. The Confederation of Zimbabwe Retailers suggested that the government in collaboration with the Reserve Bank of Zimbabwe should import POS machines and sell them to merchants on a subsidised price.

- Based on study findings, plastic card transaction charges should be minimized as much as possible as these were now discouraging consumers from using plastic money labelling it expensive. Respondents such as the Consumer Council of Zimbabwe argued that consumers were bearing alone the whole burden of transaction charges and this was not fair. What works in this instance is to lower such charges to the extent that consumers at least feel leveraged. This will take the efforts of the government in collaboration with banks to decide on how transaction charges should be calculated.

- The study further revealed that plastic money was not the panacea for tackling cash crisis. Respondents were of the opinion that alternative mechanisms should be concurrently
affected together with plastic money in order to realize meaningful results. By so doing, the burden of cash crisis will be spread evenly across different strategies, thereby allowing plastic money to contribute what is within its capacity.

With the above in mind one might conclude that, there is need for infrastructure development in terms of POS machines, Network boosters for the plastic money to meet the technological changes. More so there is need for more plastic money awareness campaigns for its effective implementation.

5.3 Conclusions

5.3.1 The adoption of plastic money in the market
In this context, cash and mobile money emerged as the leading modes of transacting competing and in a way, militating against the adoption of plastic money. The dominance of cash in terms of preference by market players demonstrates that plastic money has a long way to go in cracking adoption and operational lines in the market. If consumers do not prefer a plastic money transaction, they will have to walk away and look for another merchant. If the merchant is not interested in carrying out a mobile money transaction, the consumer will have to either comply in paying through plastic money or walk away. The discourse of plastic money adoption in the market is complex and diverse encompassing among other things the impact of other existing modes of transacting, the nature of plastic money users (which may either be merchants or consumers) and the type of market in question.

Findings have demonstrated the existence of conflicting rationalities between plastic money users in the market over the decision on which mode of transacting to adopt. In addition to that, consumers who constitute the majority of plastic money users prefer mobile money over plastic money. This contradicting dichotomy is revealed in that merchants who are on the receiving end of plastic money actually prefer plastic money over mobile money. As such, there is room for power-play as merchants who proved to be powerful in deciding what mode of transacting to adopt during a transaction can infringe on consumers’ preferences. However, the Market Interaction Model according to Zhang & Lotz, (2013) captures the two sided nature of actual
payment systems, suggesting why consumers and merchants may end up opting for a certain mode of transacting.

This theoretical principle alludes to the fact that consumers who prefer mobile money have to meet on the middle with merchants who prefer plastic money. It can therefore be concluded that plastic money has only been moderately adopted in the market and has to be done to intensify its adoption.

5.3.2 The demand for cash versus the promotion of plastic money

Therefore it could be concluded that not everyone queuing on banks has an intension of acquiring some cash. Some consumers queued in the banks for speculative purposes whilst some are in need of cash to buy goods which being sold at a three tier pricing and obtaining cash from the bank will reasonable cheaper compared to the use of plastic money which is more than 50% inflated price. In addition to that the POS machines which facilitate the usage of plastic money are not adequate to cater for the general populace and some merchants does not have the POS machine they rely on cash or mobile money. Researchers have described Zimbabwe as a cash economy in which people were cultured for a long time to transact in cash alone (Diza, Munyanyi & Gumbo, 2017). Moving away from this culture by embracing new modes of transacting such as plastic money is therefore not a day’s journey as people’s value and belief systems must be transformed first. In fact, the Reserve Bank of Zimbabwe indicated that some of the resistance in embracing plastic money was all pessimistic as people lack confidence in the banking sector. Such unwillingness, reluctance and resistance in embracing plastic money is not only related to bottlenecks associated with plastic money, but a function of people having been schooled and cultured in transacting with cash alone.

This calls for a comprehensive and non-obsolete plastic money mechanism that is appealing, efficient and effective in order to convince people to embrace it. Current study findings allude to the fact that robust, informative and educative awareness campaigns about plastic money should be rolled out to ensure that people are on the same footing. In the same vein, Loewenstein & Hafalir (2012) argued that lack of incentives for plastic money usage was responsible for the observed continuous queues for cash on banks. This implies that proper systems must be put in place that will facilitate a smooth sailing of plastic money in the market to substitute cash.
However, it must not be taken for granted that bank queues may be technically organized in a politically and economically volatile environment like that of Zimbabwe. Indeed certain political parties may cause mayhems on banks in a bid to create an impression that the situation is terrible and people are struggling. The same goes with individuals who may queue for economic gains by trading off their positions to individuals who genuinely need money.

5.3.3 Restructuring plastic money for efficiency and effectiveness

Plastic money as a policy needs to be revisited and assessed on how it was crafted and how implementation was done on every stage in order to ascertain the gaps that must be closed. This came out loudly in this current study as respondents highlighted some of the areas that need attention to improve on efficiency and effectiveness of the policy. This is in line with Diza, Munyanyi & Gumbo (2017) who argued that there is need for the government to craft plastic money empowerment programs that will improve the policy as a whole.

To a greater extent, a conceptual framework proposed by the researcher has a great deal of relevance in this part where the policy must be regarded as a system that consists of inputs, processes and outputs. Policy formulators and implementers of the plastic money mechanism must therefore be acquainted with what inputs must be put in place and how these should be acquired, what processes must be carried out in order to achieve the intended results and how best results should look like.

The need to populate POS machines as raised by respondents will automatically be addressed at input level. In the same manner, equipping consumers and merchants with accurate knowledge about plastic money will fall under the stage of processes where awareness campaigns will close the existing knowledge gape. The stage of processes must be handled with care is it is the one which defines nature of output to be produced. Implementers of the policy can actually use this opportunity to deal with issues of lack of confidence in plastic money and the banking sector. The issue of poor network systems could also be addressed at the stage of processes.

At output level, proper monitoring and control of the system will be crucial to fish out and eliminate unwanted practises that may sprout out of the policy, for example, what Diza,
Munyanyi & Gumbo (2017) call ‘a three tier pricing system’. This system actually works against plastic money as consumers transacting with cash are actually charged much less than those who transact with plastic money by merchants. Such systems must therefore be prohibited for people to embrace plastic money. It is also at the output level that the issue of transaction charges burdening consumers can be rectified. Thorough monitoring at each stage is therefore necessary for plastic money to achieve efficiency and effectiveness.

5.4 Recommendations

5.4.1 Recommendations for policy considerations
Findings from this current study resonates well with reviewed literature (Diza, Munyanyi & Gumbo, 2017) which indicated that Zimbabweans are schooled and cultured to only transact in cash. The researcher therefore recommends that programs be rolled out that are aimed at diluting this culture and ideology by educating people to embrace emerging and technologically advanced modes of transacting which will spare them the scourge of cash crisis. Findings have also revealed that people generally lack adequate knowledge on plastic money. In this, the researcher recommends that awareness campaigns be initiated that will inform and educate both merchants and consumers on the nature of plastic money and how they will benefit from it.

Enlisted findings further demonstrate that transacting with plastic money is expensive for consumers. This was also confirmed by researchers such as Patil (2014) who pointed out that the burden of transaction charges in plastic money was a bit hefty for consumers. These charges together with the fact that consumers using plastic cards are required to pay more than those transacting with cash makes plastic money expensive. The researcher therefore recommends that measures be put in place that will control the charges and prohibit a three tier pricing system that differentiates prices for modes of transacting.

The researcher also recommends that implementers of plastic money policy should keep abreast with technological changes taking place in plastic money. This is very important as it will keep plastic money as a financial technology up to date and therefore efficient in the of using the cards when transacting. It is also recommended that network service providers be advised to upgrade and expand their networks to accommodate even remote areas effectively.
The researcher also recommends that POS machines be populated as findings indicated that few merchants were in possession of the machines. The underlying reason for the possession of few POS machines was that they were being imported from abroad as they are locally unavailable. Government should therefore facilitate their importation and sell them on a subsidy to merchants as a way of promoting the increase of such machines among merchants.

In dealing with the cash crisis, findings revealed that a variety of policies and cashless modes of transacting must be employed apart from plastic money. The researcher therefore recommends that government should relook into the basic principles of demand and supply of money and try to address the production side of the economy which has been paralyzed for long. This is because the production side of the economy generates exports which bring in foreign currency. By so doing, an equilibrium point will be reached where demanded cash will be equivalent to cash in supply thereby averting the cash crisis.

5.4.2 Recommendations for further studies
This study only focused on the case of Bulawayo and the researcher recommends that a countrywide study be conducted to ascertain the nature and character of plastic money across the various provinces of Zimbabwe. This is important in establishing the geographical and spatial distribution of POS machines and in rating the extent to which plastic money has been adopted by different tribes and population groups. The researcher further recommends that an investigation be made on ways that could be used to transform the views and perceptions of people regarding the cultural cash mode of transaction so that they could shift their focus to current initiatives that promotes a cashless society. This study is worthwhile as it is a platform to craft ways and strategies that will make it easy for plastic money to gain prominence and dominate the market as a mode of transacting.

5.5 Chapter summary
Plastic money is an ideal initiative in promoting a cashless society that alleviates cash crisis. However, the effectiveness of plastic money in tackling cash crisis lies with the ability of implementers in putting proper support systems in place, in the form of inputs and processes that will ensure the attainment of a cashless society. This is drawn from the backdrop of reviewed literature and current study findings which demonstrate that bottlenecks in the implementation of
plastic money were to blame for its inefficiency and ineffectiveness in tackling cash crisis. That is why findings revealed that plastic money had only been adopted moderately to the extent that banks were still subjected to immense pressure as crowds still flocked and queued for cash. This means that a lot still need to be done to improve adoption of plastic money. However, it must be noted that plastic money alone is not the panacea for addressing cash crisis in Zimbabwe. As enlisted in study findings, more policy measures must be adopted to buttress the efforts being made through plastic money to tackle cash crisis.
REFERENCES


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Loewenstein, G. and Hafalir E.I. (2012). “The Impact of Credit Cards on spending for revolvers and convenience users” with emphasis on hardly any usage of credit card among both the groups of consumers. Carnegie Mellon University, Tepper School of Business (JELcodes:C9,D1)

Loewenstein, G., and Hafalir, E. I., (2012).”The Impact of Credit Cards on spending for revolvers and convenience users” with emphasis on hardly any usage of credit card among both the groups of consumers. Carnegie Mellon University, Tepper School of Business (JELcodes:C9,D1)  http://www.andrew.cmu.edu/user/incekara/CreditCardStud. Accessed on: 02/02/2018.


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APPENDICES

BINDURA UNIVERSITY OF SCIENCE EDUCATION

APPENDIX A: COVER LETTER

My name is Melody Mudefi, I am conducting a research on the effectiveness in the adoption of plastic money to tackle cash challenges in Zimbabwe. I am a student at Bindura University of Science Education (BUSE), where I am currently studying Masters in Business Leadership (MBL).

Please answer the questionnaire below. The information you provide will be treated with confidentiality and will only be used for the purposes of the project research as stated above. Please do not write your name.

For any further clarification you may call me or send whatsapp and text messages on 0712935350. You may also email on mkmakumbirofa@gmail.com.

I am looking forward to hearing from you, thank you so much for your assistance in my research project.

Yours faithfully

Melody Mudefi
BUSE MBL Student
Student Number: B1646856
Email: mkmakumbirofa@gmail.com
APPENDIX B: QUESTIONNAIRE

[A] Demographic

Please provide the following information about yourself by marking the appropriate box with a tick (√).

1. Gender
   - Female
   - Male

2. Please state your occupation.................................................................

3. Age (Years)
   - 15 - Less than 25
   - 25 - Less than 35
   - 35 - Less than 45
   - 45 - Less than 55
   - 55 - Less than 65
   - 65 and above

4. Level of education
   - PhD
   - Masters Degree
   - Undergraduate Degree
   - Diploma
   - A and O level

5. What type of industry do you work in
   - SMEs
   - Retail
   - Service Industry
   - Manufacturing
6. In ranking order of 1, 2, 3 etc, 1 representing the most preferred, please indicate your preference of transacting using the below listed forms of payment.

<table>
<thead>
<tr>
<th>Method of Payment</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Justify your ranking order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecocash</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swipe with Debit /Credit card</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet/online banking</td>
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<tr>
<td>ZIPIT</td>
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<tr>
<td>RTGs</td>
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<tr>
<td>Telecash</td>
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<tr>
<td>Onewallet</td>
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<tr>
<td>Other-specify</td>
<td></td>
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</tbody>
</table>

7. Using the likert scale can you rate the effective use of the following methods of plastic money models which are common in Zimbabwe.


<table>
<thead>
<tr>
<th>Methods of Plastic Money</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecocash/ Telecash/ One wallet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automated Teller Machine</td>
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</tr>
</tbody>
</table>
8. Using the following likert scale indicates your level of perception regarding plastic money usage in transacting?


<table>
<thead>
<tr>
<th>Perceptions regarding Plastic money usage</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safe and reliable</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Convenient and saves time (Making transactions in the comfort of your home)</td>
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<tr>
<td>Reduces the risk of theft (carrying a large amount of cash)</td>
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<tr>
<td>Reduces liquidity challenges</td>
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<td></td>
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<tr>
<td>Easy to use</td>
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<td></td>
</tr>
<tr>
<td>Accessible</td>
<td></td>
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<tr>
<td>In line with the current trends (Technological Advancement)</td>
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<tr>
<td>Recognised internationally</td>
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<td></td>
<td></td>
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<tr>
<td>You can easily trace your transactions</td>
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</tbody>
</table>

**Challenges with plastic money usage**

<table>
<thead>
<tr>
<th>Challenges</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non acceptance at small retail outlet</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Cannot be used for all daily needs</td>
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<tr>
<td>Cash management (Buying goods of a certain amount in order to get cash back)</td>
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<tr>
<td>Service charges</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Plastic money not 100% safe</td>
<td></td>
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<tr>
<td>Transactions are duplicated</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Network problems (Bank are offline)</td>
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</tbody>
</table>
9. What must be done to encourage the use of plastic money?

10. In your view how far has plastic money gone in alleviating the cash shortages?

11. Tell us your view regarding the future of plastic money in Zimbabwe?

12. What do you prefer to use cash or plastic money? State the reason of your choice.

13. Do you have any other comments with regards to plastic money?

Thank you
APPENDIX C: SEMI-STRUCTURED INTERVIEW PLAN RBZ AND BANKERS ASSOCIATION OF ZIMBABWE

1. Please can you tell us a brief overview/background on the drummed up campaign towards utilisation of plastic money since 2013 to date.
2. What were the overall objectives of the plastic money usage and to what extent these have been attained?
3. What are the challenges observed by the regulator or association to be limiting the use of plastic money this far (challenges experienced by merchant, banks, users)?
4. What are the actions/strategies taken by the RBZ or Association to ease the above mentioned challenges?
5. What is your overall comment on the continued existence of queues at banks despite the availability of plastic money as an appropriate alternative to cash usage?
6. Do you have any available statistical information that could be made available since 2013 to date (eg 1. Usage of plastic money trends/volumes 2013 to date V cash usages, 2. Reports and trends of challenges escalated by users, merchants and service providers to the RBZ, 3. Trends of cash availability in the form of notes and coins in the banking system)?
7. Do you have any other comments
APPENDIX D: SEMI-STRUCTURED INTERVIEW PLAN (MERchants AND RETAILERS)

1. What are the plastic money methods you have implemented in your organization? How effective are these methods of transactions?

2. To what extent does plastic money affects your business growth in terms of sales and market share?

3. What are the challenges that you encounter in implementing the plastic money? How do you manage these challenges as an organization?

4. What do you think should be done for the plastic money to be effective in tackling the liquidity challenges?

4. How do you handle different payment methods for customers who are using bond notes cash, USD cash and swiping?

5. Tell us your views regarding future plastic money in Zimbabwe?

6. Do you have any other comments before we conclude the Interview?
APPENDIX E: SEMI-STRUCTURED INTERVIEW PLAN CONSUMER COUNCIL OF ZIMBABWE

1. What are the plastic money methods you have implemented in your organisation? How effective are these methods of transacting?
2. What is the proportion of your plastic money income v cash income;
3. In terms of your payments as an organisation what is the common method used.
4. The introduction of plastic money has changed the national payments landscape in Zimbabwe. As an organisation, what sort of consumer issues or complains have your handled and how have you resolved such complains.
5. Do you think that products/service quality have been compromised following the adopted of plastic money since 2013 to date?
6. Are there instances where consumers have suffered unjustified price hikes due to plastic money, for example in November 2017?
7. What is the general consumer challenges experienced in the use of plastic money from 2013 to date? As the Council, do you think these are being addressed over time?
8. What are your views regarding the future use of plastic money in Zimbabwe and the most likely consumer behaviour or challenges, if any?
9. What could be the likely factors why consumers continue to queue at banks despite this plastic usage platform that is available?
10. What do you think should be done for the plastic money to be effective in tackling the liquidity challenges Zimbabwe from a consumer perspective?
11. Do you have any other comments before we conclude the Interview?