

## **Electronic Money or Cash? In Face of Liquidity Crisis in Zimbabwe**

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**DOI Link:** <http://dx.doi.org/10.6007/IJARBS/v7-i11/3433>

**Published Date:** 03 November 2017

### **Abstract**

The aim of the study was to assess whether plastic money can be a therapy to the cash crisis in Zimbabwe. This was done through investigating when the population of Zimbabwe would fully and willingly adopt and implement the use of plastic money using a sample of 200 respondents. The results showed that the use of plastic money is still a bit far from acceptance by individuals as people still prefer cash to electronic money reflected by a 66% cash preference vis-à-vis 3% electronic money preference. The reasons for unwillingness to change emanate from lack of understanding the concept of plastic money, lack of trust in the banking sector, fear of the unknown, exploitive charges in the use of plastic money and poor network services. Therefore in order to have a cashless society, it was recommended that the network service quality should be improved, the public should be educated, points of sale (POS) should be increased, transaction costs should be reduced, financial inclusion should be considered and confidence in the banking sector should be restored.

**Key words:** Cash Crisis, Cash or Plastic (Electronic) Money

### **1.0 Introduction**

The development in the financial sector of Zimbabwe has been triggered by the advancement of technology especially in the 21<sup>st</sup> Century. A considerable number of products have been ushered to customers including plastic money. It has become rare for a client to think of banking without the use of plastic cards. The use of plastic money tends to make banking easy by enhancing security, portability and easy access to account balances; and transfer of funds between accounts as well as payment of utility bills. However, in spite of these advantages, the uptake of plastic money has been poor, whilst the Reserve Bank of Zimbabwe (RBZ) and the financial sector are devising ways to encourage the uptake and use of plastic money. The

problem is attributed to the lack of confidence in the banking sector due to memories of hard-earned money lost during the hyperinflationary period during 2008; resultantly clients prefer holding hard cash to plastic money.

Zimbabwe experienced an economic meltdown in the 21<sup>st</sup> Century up to 2008, however, the situation improved after the adoption of the multicurrency system resulting in abandonment of its own currency, the Zimbabwean dollar in March 2009. Since then up to January 2016, the multicurrency system was being used. Inevitably, early January 2016, the economy was hit by a cash crisis, which affected the social and economic wellbeing of the general populace. The authorities attribute the shortage of cash to imbalances between exports and imports as well as overreliance on a single currency (US dollar) in an economy, which is in a multicurrency system. The shortage was signalled by long queues at some banks and automated teller machines (ATMs). This co-occurred with the opening of schools where parents needed cash immediately to fulfil all the school requirements. Resultantly, many students were affected as their parents and guardians failed to access their fees and money for other related needs. The general populace was also affected, as they were not able to pay accommodation rentals on time as well as meeting other social needs. A lot of anxiety arose.

In response to the crisis, the Reserve Bank of Zimbabwe announced policy measures meant to address the problem and “simultaneously stabilising and stimulating the economy” on 4 May 2016. Some of the measures among others were that:

“The Reserve Bank established a USD200 million foreign exchange and export incentive facility which is supported by the African Export-Import Bank (Afreximbank) to provide cushion on the high demand for foreign exchange and to provide an incentive facility of up to 5% on all foreign exchange receipts.

In order to mitigate against possible abuses of this facility through capital flight, the facility shall be granted to qualifying foreign exchange earners in bond coins and notes, which shall continue to operate alongside the currencies within the multicurrency system and at par with the USD. The Zimbabwe Bond Notes of denominations of \$2, \$5, \$10 and \$20 shall, be introduced, as an extension of the current family of bond coins for ease of portability in view of the USD200 million backed facility. Withdrawal limits were also pegged at \$1000 per day but in reality banks are limiting to as low as \$150 per day.

Promotion of the widespread use of electronic platforms for settling domestic transactions across all forms and sizes of businesses, that is, the use of point of sale machines to conduct all transactions in USD, euro and rand.”

## **1.2 Motivation of the Study**

The announcement to introduce the bond note by the RBZ was followed by a massive bank run, severe long queues (worse than before) at ATMs and in banks. The study by ZIMCODD (2016) asserts that the development eroded the little confidence, which people still had in the financial sector. In such a condition, any government policy measure towards the financial sector is under serious threat. Trust and confidence are critical factors for the success of any monetary policy. The introduction of the bond note, which happened on 30 November 2016, was accompanied by a withdrawal limit of \$50 per week in a bid to encourage the use of plastic money. In the backdrop of the policy, there was the idea that individuals would shift their demand for hard cash to the demand for e-money, thus adopting the use of plastic money. However, cash shortages remained the talk of the day as long queues could be still noticed at some banks like POSB, ZB Bank, Steward, CBZ, and CABS among others. This prompts for a need for investigation on whether plastic money could be an exact solution for

the cash shortage. This study aims to come up with ways and conditions, which promote use of electronic money.

### **1.3 Objectives**

The main objective of this study is to investigate the role of plastic money or e-commerce in resuscitation of liquidity crisis in Zimbabwe. This would be achieved by evaluating how effectively Zimbabwe can adopt and implement e-commerce and investigating the possible hindrances that may affect full adoption of e-commerce in Zimbabwe.

### **1.4 Research Questions**

- ✓ What role can e-commerce play in resuscitating the liquidity crisis in Zimbabwe?
- ✓ To what extent is Zimbabwe prepared to fully implement e-commerce?
- ✓ What are the particular factors affecting the full adoption of e-commerce in Zimbabwe?

## **2.0 Literature Survey**

### *2.1 Theories of Demand for Money*

The modern theory on demand for money can be traced back to the British Economist Keynes (1936) who argues that rational economic agents would hold money for transactions, precautionary and speculative motives. Transaction motive is based on the Cash In Advance (CIA) model by Clower (1967), where all transactions need cash upfront therefore agents hold cash in order to make transactions on daily basis. The precautionary motive is based on the need to safeguard against the unseen, thus cash should be available for uncertain events. The speculative motive is based on the opportunity cost of holding money, where agents will not hold cash if it can bear high returns elsewhere. In this liquidity preference theory, transactions and precautionary demand for money are a function of income while speculative holding depends on expected return.

Baumol (1952) and Tobin (1956) coined the fact that money is function of interest rates. Their separate analyses reached a conclusion that an individual who constantly get income over a fixed interval will be rational in minimising costs by choosing to withdraw an amount that minimises both transaction costs and opportunity cost. Therefore, as Tobin (1958) emphasizes that an economic agent will balance between bonds and money, thus the demand for money is a function of both income and interest rate, which is the opportunity cost.

Friedman (1956) came up with the modern version of the quantity theory of money adopted from Irving Fisher (1911). In this case, the demand for money can be explained by any other factor that affects the demand for assets. Therefore, economic agents maximise utility by considering money in generalised asset portfolio framework. Hence, the demand for money is explained by income, interest rates and even other assets available.

Goldfeld (1976) alluded the issue of missing money in cases of the use of technology in the monetary sector. He explored that financial innovation has impact on the demand for money where it can result in missing money problems. Missing money refers to a situation where the estimated demand for money would be greater than the actual demand for money. This results in policy implementation problems as the target would be in excess of the actual. Hence, the introduction of technology in the financial sector has significant impact on the demand for money.

## **2.2 Theory of Technology Adoption: Technology Acceptance Model (TAM)**

The TAM is an information system model that tries to explain ways in which individuals adopt and use technology. According to Davis (1989) the profounder of the model, when users are faced with new technology, they consider a number of factors which determine their choice about when and how to use it. These factors are perceived usefulness and perceived ease of use. These two factors would then affect the attitude and behavioural intention to use the technology. If the technology is perceived to be complex and sophisticated, the attitude of adoption and use would be low. There is a strong theoretical and empirical relationship between usefulness, ease to use and the system use, which is supposed to be positive. The application of this theory of technology use in money demand requires much extension of the model such as done by Lowry et al. (2013). Lowry et al. (2013) extended it to be called the Hedonic-Motivation System Adoption Model (HMSAM). This implies that technology can be adopted based on the hedonic (pleasure) derived from using it. There should be an intrinsic motivation for online shopping or banking. This should be true, since if some people derive utility from the time they do shopping in supermarkets, then online shopping should be giving a unique utility, which will make people prefer it.

## **2.3 Empirical Literature**

Kaseke (2012) studied how consumers use cash or plastic or electronic money during the post multi-currency period in Zimbabwe. The main aim was to find out how consumers viewed plastic money in relation to cash. A qualitative survey approach was used where plastic money referred to ATM/Debit cards, Master/VISA cards and credit cards. It was found that gender and educational level had an influence on the use of plastic money. Its use was found to be associated with problems related to security, complexity in use and speed, but there was hope that electronic money could be a preferable way of transacting.

Bisht et al. (2015) analysed the use of plastic money by investigating the awareness and the use of electronic money among consumers in Pune. Using Stratified Random Sampling Method of a sample consisting students, government officials, working professionals and house makers, the study found out that plastic money is more preferable to paper money as it is convenient and accessible. However, it was found to be associated with increasing transaction costs and unnecessary formalities in procuring the cards from financial institutions. In light of the future, plastic money was considered to be the most viable and even the use of digital signatures.

Hafalir and Loewenstein (2009) studied the impact of credit cards on spending. The study grouped customers into revolvers (those who carry debt) and convenience users (those who do not carry debt). The results were that there was a change in the diner's payment medium from cash to a credit card when an incentive to pay with a credit card was given. The use of credit cards had a differential impact on spending between revolvers and convenience users. Convenience users spend more when induced to spend with a credit card whilst it was opposite with revolvers.

Patil (2014) investigated the impact of banking trends in India. Questionnaires and interviews were used, taking a sample of 100 respondents. It showed that people preferred plastic money to paper money. Mandeep Kaur and Kamalpreet Kaur (2008) reviewed the development of plastic money in the case of Indian Banks. They concluded that adopting plastic money was still a challenge in India, since about 90% of consumption transactions were still being done using cash.

Manivannan (2013) viewed plastic money a cash less payment system. This study showed that traditionally, plastic money was viewed as luxury, and it was used by only high-income earners. However, due to financial innovations, plastic money has become a common way of transacting especially with salaried classes or fixed income groups. Not only is it used in urban areas, but also in rural areas.

Sharma (2012) researched how plastic money results in frauds and counter measures thereof. The results were that, frauds have increased more considerably with the use of electronic money. The most affected part are the merchants of goods and services, whereas bank are affected indirectly, but cardholders are less affected due to consumer liability.

The research by Patel and Amin (2012) alluded the viewpoint that plastic money is the roadway to a cashless society. In their discussion, plastic money has definitely become a common way of transacting and it has become the best way of controlling money laundry and ensuring tax legislation.

### 3 Methodology

The research used a cluster sampling technique, having a sample of 200 respondents from the city of Harare in June. This was to ensure that the correct target group has been selected. The sample included traders, economists, general public, Information Technology and Economics students. Structured questionnaires, interviews, documentary reviews, focus group discussions were used to gather data. This was to make sure that objective information was obtained. Data was then analysed using Small Stata 13.

### 4 Findings

The major findings of this study are presented in this section. The questionnaire had a 100% response rate.

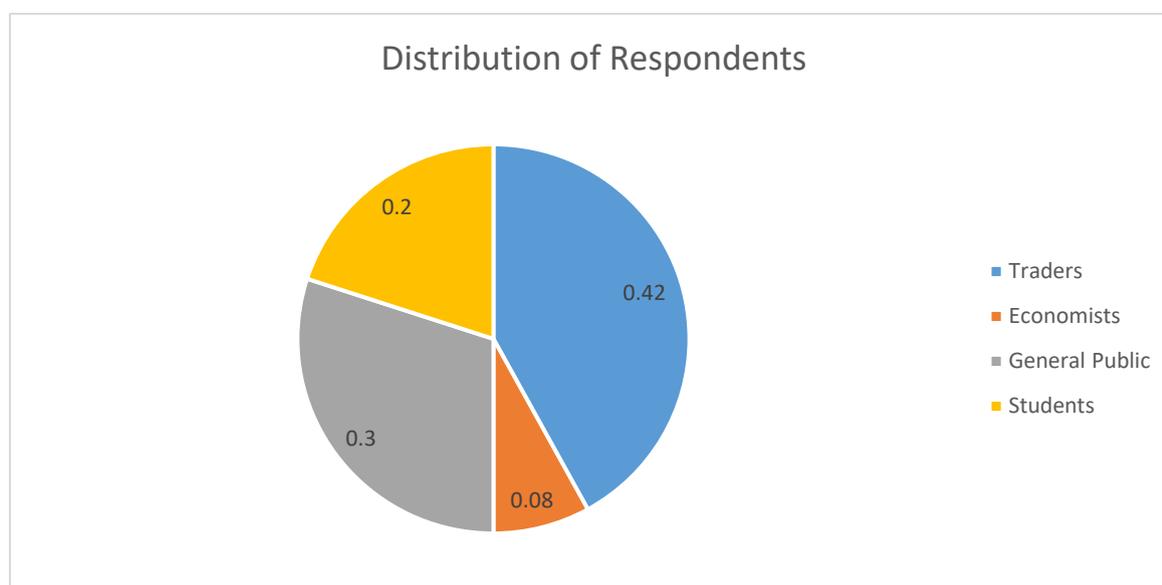


Figure 1: Characteristics of Respondents

Source: Author's Computations, N=200

The composition of respondents had traders 42%, economists 8%, the general public 30% and students 2%. Traders and the general public were the two groups with the largest proportions. Intuitively, in a market set up traders would represent suppliers and the general public being consumers.

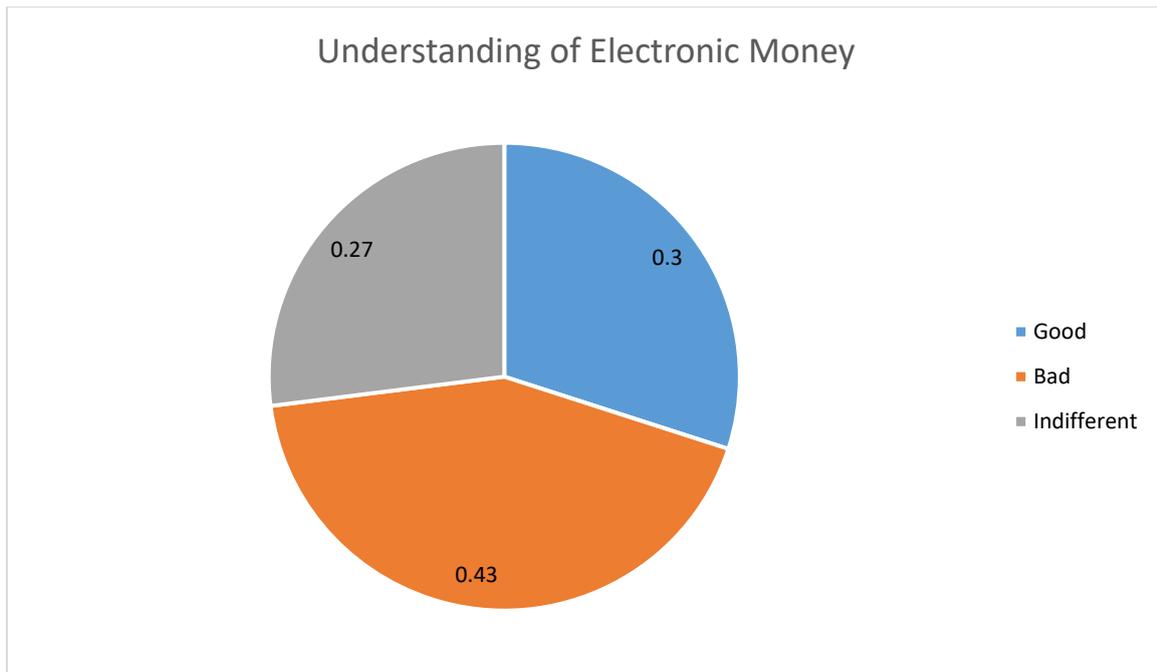


Figure 2: Understanding of Electronic Money

Source: Survey Results

The understanding of electronic money is an important result. The technology acceptance model proposes that it is through understanding of technology, which will make the perception towards it being positive or negative. Only 30% of the sample proved that they understand plastic money and how it operates. The largest proportion of 43% had a poor understand of it. 29% were indifferent if the concept sounded clear to them or not.

The preferences on concerning the form in which money should exist was questioned. It was found that most people prefer cash to other forms of money. The reasons were associated to the market conditions existing in Zimbabwe. 66% prefer using hard cash, 20% preferred both, 11% were indifferent between the two and only 3% supported plastic money! In such a situation where the monetary authorities are encouraging a cashless society, only 3% would be pro the policy.

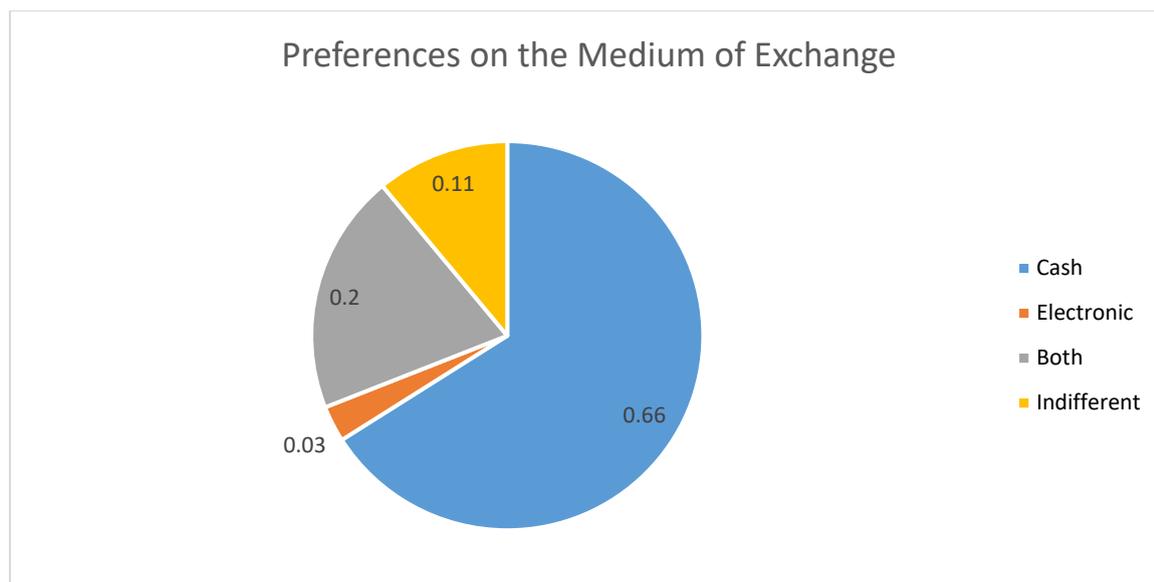


Figure 3: Preferences on the Medium of Exchange

Source: Survey Results

Table 1:

Reasons for Preferences: Cash to Plastic

Reason	Frequency
Easy to manage	72 (55%)
Cash is not subject to bank charges and transaction charges (POS charges)	130 (98%)
Holding cash gives satisfaction	123 (93%)
Not all transactions allow plastic/electronic money	132 (100%)
Electronic money is subject to network facilities which may drop	92 (70%)
Inflation may erode the value of money whilst in banks	125 (95%)

Source: Survey Results

People are more concerned about inflation, poor networks, bank charges, unavailability of points of sale (POS) and the utility of holding cash. Resultantly, they are unwilling to switch from cash to electronic money. There is fear of the past disadvantages of inflation pointed out in Table 1 by 125 people corresponding to 95% of the people who are unwilling to change. 70% of them point out issues of poor network facilities which results in some transactions failing whilst all of them agree that lack of POS facility in some market place makes them unwilling to use the electronic system. There are high charges associated as reviewed by 130 people corresponding to 98% and the utility of holding cash as posited by 123 people with a frequency of 93%.



Figure 4: Distribution of Bank Account Holders

Source: Survey Results

The researcher was concerned about the level of financial inclusion among respondents in the sample. Respondents were asked whether they have bank accounts or not since their ability to fully use plastic money depends on them having bank cards. According to Figure 4, about 63% of them had bank accounts whilst 37% had no bank accounts. Impliedly 37% are financially excluded. Reasons for not having bank accounts are given below.

Table 2:

*Reasons for not having Bank Accounts*

Reason	Frequency
Lack of confidence in the banking sector	62 (84%)
Not Employed	55 (74%)
High Bank charges	20 (27%)

Source: Survey Results

Table 2 above shows that 62 people out of 74 who have no bank accounts gave reasons of lack of confidence in the banking sector whilst 55 thereof were not employed, therefore no need for an account. Finally, 20 were escaping high bank charges.

### Results from focus group discussions

Different groups had mixed opinions on the viability of electronic money in Zimbabwe. Individuals had a feeling that the encouragement by the Reserve Bank of Zimbabwe of the use of electronic money is a mere manipulation of the public to deposit money in to banks in order for the government to make use of the money. Consequently, the willingness to accept electronic money is low. People prefer to withdraw their money from the banks and keep it home where they can see it every day and make use of it whenever they wish to. There is much fear that the hyperinflation of 2008 may return especially with the introduction of the bond notes, where the Reserve Bank is in the position to be able to print them. As a precautionary measure, individuals prefer to hoard US dollars at home so as to hedge against any uncertainty that may arise in the unforeseen future.

Problems concerning banks faced by individuals when using plastic money

As customers belong to different banks, it is important to note which customers from which banks had problems. Problems of transaction failure and subsequent deductions of amounts from customers' bank accounts were more with Steward and ZB banks. More complains had to do with slow processing of manual transactions like Real Time Gross Settlements (RTGS). Associated explanations were to do with network problems. However, problems of high POS charges were uniform across all banks.

## **5. Conclusions and policy recommendations**

The aim of the study was to assess whether plastic money can be a therapy to the cash crisis in Zimbabwe. This was done through investigating when the population of Zimbabwe would fully and willingly adopt and implement the use of plastic money. The results showed that the use of plastic money is still a bit far from acceptance by individuals as people still prefer cash to electronic money reflected by a 66% cash preference and only 3% plastic money preference. The reasons for unwillingness to change emanate from lack of understanding the concept of plastic money, lack of trust in the banking sector, fear of the unknown, exploitive charges in the use of plastic money and poor network services. There is need to shift preferences from cash to plastic money. Understanding of electronic money has to be increased so as to reduce queues for cash as people would be demanding electronic money. Given that the economy is under dollarization, ways to increase cash are not possible, hence the Reserve Bank has to strengthen its stance of adoption of plastic money but after putting the following recommendations in order. Therefore in order to have a cashless society, the following were recommended:

- ✓ The network service quality should be improved. There should be investment aimed at improving Information Communication Technology infrastructure in the sector. This will increase the efficiency and reliability of the electronic payment system.
- ✓ Education of the general populace to increase financial literacy. This increases understanding of electronic money thus enabling changing of preferences from cash to electronic money.
- ✓ The Reserve Bank should make sure all traders have points of sale before encouraging people to use plastic money. This will make it easy to use plastic money whenever needed.
- ✓ Transaction costs should be reduced to insignificant or zero. Transaction costs such as bank charges are discouraging electronic payments. Reducing them may improve the acceptability of the facility.
- ✓ Individuals should be included in the financial sector costless and easily to encourage financial inclusion so as to enable the public to use plastic money well.
- ✓ The Reserve Bank should make sure confidence of the public in the banking sector is well restored before encouraging them to use banks.

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The authors would like to thank all respondents to the questionnaire as well as all those who participated in focus group discussions. Profound gratitude goes to the anonymous reviewers from the Journal for their comments and Fwasa Singoko from Zambia the constructive remarks.