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# Assessing the Role of Electronic Payment Systems in Financial Institutions. A Case of a Savings Bank in Zimbabwe

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ASSESSING THE ROLE OF ELECTRONIC PAYMENT SYSTEMS IN FINANCIAL INSTITUTIONS A CASE OF A SAVINGS BANK IN ZIMBABWE

*Strictly as per the compliance and regulations of:*



# Assessing the Role of Electronic Payment Systems in Financial Institutions. A Case of a Savings Bank in Zimbabwe

Robert Nzaro <sup>α</sup> & Norest Magidi <sup>σ</sup>

**Abstract-** This research sought to evaluate the role of electronic payment systems in financial institutions using a case of a Savings Bank in Zimbabwe. The research objectives were; to find the types of electronic payment systems used by the savings bank, to assess the role of electronic payment systems on operations of the savings bank and to find the merits and demerits of using electronic payment systems in savins banking. This research used a descriptive survey design. The findings were based on data obtained from 20 savings bank employees, 40 savings bank customers and five savings bank top managers from Causeway and Bindura branches. Questionnaires and face to face interviews were used to obtain primary data and secondary data was obtained through studying information from internet online publications, textbooks as well as latest newspaper articles. The study found out that the types of electronic payment systems that was offered by the savings bank were; Real Time Gross Settlement (RTGS), ATMs, credit cards, cell phone banking, western union money transfer, Eco cash and telegraphic transfers. It was also found that the adoption and use of electronic payment systems affected such issues as; convenience, product and service variety, cost reduction, speedy payment, security and accessibility. The researcher also found that the demerits of electronic payment systems were safety, flexibility, reliability, cost reduction, independence and speed and the challenges facing companies seeking to invest in electronic payment systems like the savings bank in the study were; high set up costs, web thievery, auditing challenges and long query solving time. It was thus concluded that electronic payment systems investments were important to savings banking business operations. Electronic payment systems, if properly implemented and utilized resulted in positive results on the profitability of the bank. The major recommendations resulting from this study were that the banks properly implement and utilize electronic payment systems to their full capacities so that positive results can be achieved.

**Keywords:** *electronic payment system, ecocash, western union, telegraphic transfers.*

## I. INTRODUCTION

Zimbabwe is a developing country trying to cope with the ever changing nature of conducting business in the twenty first century. One way that business is being affected the world over today involves the use of modern electronic payment systems. The

intense competition for funds on the financial market place and the need to survive such high levels of competition leaves financial institutions with no option but adopt the use of modern electronic payment systems. This is believed to go a long way in ensuring that the financial institution delivers a quality service to its clients at the lowest cost possible. An electronic payment system refers to cash and associated transactions that are implemented using electronic means (Humprey et. al, 2001). The use of the internet and digital stored value systems are typical in this regard, thereby allowing bill payments or debit transfers done directly from the bank. It can be argued that Zimbabwe is lagging behind when it comes to adoption and use of modern electronic payments systems when the country is compared with developed nations, but when the same comparison is done with its sub-Saharan counterparts the adoption and use of modern electronic systems in the country is not far off from the country's regional counterparts.

## II. LITERATURE REVIEW

### a) *Electronic Payment System*

Agimo (2004) define an electronic payment system as that payment by direct credit, electronic transfer of credit card details, or some other electronic means as opposed to payment by check and cash. Accordingly, an electronic payment system is any means used to make payment using an electronic network such as internet. Many new payment services have come into existence in recent years, most of which are based on technological innovations such as card, telephone and the internet (Abor 2004).

### b) *Types of Electronic Payment Systems*

#### i. *Real Time Gross Settlement (RTGS)*

RTGS refers to funds transfer systems where transfer of money or securities takes place from one bank to another on a real time and on a gross basis. 'Real time' means payment transaction is not subjected to any waiting period and 'gross settlement' means the transaction is settled on one on one bunching or netting with any other transaction. Once processed, the payments are final and irrevocable. RTGS is controlled by the central bank of the country and is most suitable for low volume but high value transactions.

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ii. *Automated Teller Machines (ATMs)*

This is a combination of a computer terminal, with cash vault that allows a bank customer to access their funds by punching in a PIN (Humphrey et al (2001). Most ATMs are located outside the bank and on public places that are far away from home bank offices offering retail banking services to customers. In the banking halls, there are Point of Sale (POS) machines where the ATM cards are swiped and a customer can access their funds after punching the pin. The customers make deposits, view mini statements and pay their bills over the POS machines (Abor 2004).

iii. *Credit Cards*

These is defined by Pierce (2001) as a plastic card that assures a seller that a person using it has a satisfactory credit rating and that the issuer will see to it that the seller receives payment for the goods delivered. In Zimbabwe, the card holder can go to retail outlets that have Zimswitch to buy their groceries and demand cash backs provided that the account of the card holder has sufficient funds.

iv. *Western Union*

This is defined as money transfer systems were the funds are transferred electronically between countries from the sender to the receiver. The agents are paid a commission for transferring the funds on behalf of Western Union. In Zimbabwe, the western union's agents can only receive but not send money from abroad. They are only allowed to send money from one city to another around Zimbabwe.

v. *Ecocash*

This is a mobile cash transfer facility that was launched by Econet Wireless a mobile cell phone service provider on 30 September 2011 in Zimbabwe. This service allows users of the system to send and receive money, buy airtime and make other payments using their mobile phones. Money can be transferred across different Zimbabwean networks throughout the country using the assistants of agents who include POSB.

vi. *Telegraphic Transfers*

These refer to an electronic means of transferring funds overseas or from one country to another (Annon 2003). It also known as TT which means a cable message from one bank to another in order to effect the transfer of money. The use of telegraphic transfers is believed to reduce cost of transaction considerably and this reduction in cost easily can be transferred to the banks' customers. In the end, the concerned bank will be able to create a competitive edge over its rivals.

c) *Impact of Electronic Payment System on Income Streams and Profitability*

Electronic payment system affects the profitability of a financial institution in a number of ways.

These include issues to do with; convenience, offering variety of services, cost reduction, speed payments, security and accessibility [Birch and Young 1997; Sokolov 2007; Tan and Teo 2000; Aliaskari et al, 2011; Sana et al, 2011; Whitman and Mattord 2005; O' Connell 1996]. In addition, the increase in the use of ATM and POS has a positive impact on economic development, consumption, and trade. Increased presence and adoption of new technologies facilitate payment transactions and in turn has positive impact both on consumption, in particular leisure goods, and trade (AL-Adwan et al. 2013).

### III. RESEARCH DESIGN

A descriptive survey design was used because the study required the collection of data that were descriptive in nature. Questionnaires and face to face interviews were used to obtain primary data and secondary data was obtained by studying information from internet online publications, textbooks as well as newspaper articles. Data was obtained from five top managers of a savings bank, 20 employees drawn from finance and accounting departments from the same company as well as 40 customers belonging to the same company. To ensure data validity and reliability, the researcher carried out a pre-test of the questionnaire first before engaging into a fully fledged data gathering exercise. This was done to ensure that the required data would be collected.

### IV. RESULTS AND DISCUSSION

a) *Commitment towards the Use of Electronic Payment Systems.*

From the surveyed sample, 75% of the surveyed clients reflected little commitment and showed a negative attitude towards the adoption of electronic payment systems on transaction processing. Some clearly pointed out that the use of electronic payment systems such as credit cards would make their funds unsecure. This was so despite the fact that, in Zimbabwe cases of card fraud are not as rampant as those of other countries. Birch and Young (1997) once stated that if the web site holding the customers money does not follow strict security recommendations including strong passwords, the online transaction would become unsecure and the people's funds may be stolen. The surveyed management and staff did not share the same sentiments to those raised by the clients in as far as commitment to electronic systems use and adoption was concerned. The majority of the sampled employees (65%) argued that intensive employment of electronic payment systems would lead to reduced demand for labour hence, would likely lead them losing their jobs as a result. The whole 100% of the surveyed managers supported the use of extensive electronic

systems arguing that it would enhance the profitability of the financial institution.

*b) Types of Electronic Payment Systems used by the savings bank.*

The surveyed sample reflected the following electronic payment systems;

*Table 4.1 : Electronic Payment Systems used by the Savings Bank from all interviewees*

System Type	Often Used (%)	Not sure (%)	Not used (%)
Credit Cards	55	25	20
RTGS	70	10	20
Western Union	35	40	25
Telegraphic Transfers	10	85	5
Cellphone Banking	90	10	-

Source: Survey Data 2013

From the data on table 4.1 above, it is clear that the popular electronic payment systems were cellphone banking which had 90%, RTGS which had 70% and credit card which had 55% responses. Western Union and Telegraphic Transfers were not popular as they had 35% and 10% usage respectively. Abor (2004) stated

*Table 4.2 : Impact of Electronic Payment System on Convenience, Choices Variety, Cost Reduction, Speed Payment, Security and Accessibility to clients*

Response	SA		A		N		SDA		D		Total
Convenience	22	55%	17	42.5%	3	7.5%	0	0	0	0	100%
Choices Variety	22	55%	17	42.5%	3	7.5%	0	0	0	0	100%
Cost Reduction	22	55%	17	42.5%	3	7.5%	0	0	0	0	100%
Speed Payment	22	55%	17	42.5%	3	7.5%	0	0	0	0	100%
Security	22	55%	17	42.5%	3	7.5%	0	0	0	0	100%
Accessibility	22	55%	17	42.5%	3	7.5%	0	0	0	0	100%

Source: Survey Data 2013 Key: SA-Strongly Agree, A-Agree, N-Neutral, SDA-Strongly Disagree, D-Disagree

From the table above, it can be deduced that the majority of the respondents were in agreement that the six pillars of electronic payment systems affected the income streams of a financial institution. Sixty five percent of management and employees strongly agreed that the electronic payment systems had a great impact on the income streams of POSB. AL-Adwan et al, (2013) asserted that electronic funds transfer reduced cost, saved time, improved accuracy, improved reliability and quality of service and this eventually improved the profitability of banks. This was in line with findings of AL-Adwan et al, (2013) who highlighted that countries with more developed retail payment services had better performing banks in terms of both accounting ratios and their profit and cost efficiency. Nader (2011) in a study of Saudi Arabian commercial banks however concluded that the availability of electronic payment systems such as POS terminals did not improve the profit efficiency of the banks in that particular country for the period 1998 to 2007.

that telephone/ cellphone banking, the RTGS and the credit cards were the main types of electronic payment systems that had a significant impact on the income streams of financial institutions. ATMs were singularly pointed out as having the greatest influence on the income streams of financial institutions. A large number of respondents (60%) revealed that cellphone banking had the greatest impact on the income stream of a financial institution. These findings concur to those found by Annon (2003) who postulated that there were different types of electronic payment systems that affect the income streams of a bank but, the most common one being cellphone banking. The findings also discovered that the least expensive type of electronic payment system was electronic banking.

The responses concerning whether or not the six positive impacts of electronic payment system namely; convenience, offering choices/ variety, cost reduction, speedy payment, security and accessibility had an impact on POSB profitability varied though they were in consistent with previous findings. The table below highlights the findings concerning these positive impacts. Clients were asked on whether or not they felt that above factors affected service delivery and the responses are shown in table 4.2 below;

*c) Other Factors Affecting Income Streams of Financial Institutions*

Respondents were asked to show how other factors affected the operations of the savings bank and the responses were as follows;

Factor	Response	Percentage (%)
Internal Control	8	32
Corporate Governance	15	60
Adherence to RBZ Guidelines	2	8
<b>Total</b>	<b>25</b>	<b>100</b>

Source: Survey Data 2013

The majority of the respondents (60%) comprising management and staff indicated the importance of corporate governance on income flows. The issue of corporate governance is strongly supported by the Zimbabwean Banking Act [Chapter 24:20] and the RBZ Banking Regulations Guideline No.1-2004/BSD

on Corporate Governance. Proper internal controls were also cited as having an impact on income flows by 32% of the respondents. Failure to observe central bank guidelines was also cited by 8% of the respondents as causing a fall in profitability. Other issues raised by one of the managers included the political situation as well as the quality of assets owned by the bank. These were heightened as having a great impact on the income streams of the institution.

d) *Challenges of adopting Electronic Payment systems*

The respondents comprising employees and management noted five major shortcomings of adopting electronic payment systems namely; high set up costs, web thievery, and long query solving time as well as auditing challenges. On these issues, the respondents were asked to show whether or not they believed that these factors affected the adoption of electronic payment systems. Table 4.4 below shows the results;

Table 4.4 : Challenges of Adopting Electronic Payments Systems.

Alternative	Respondents	Percentage (%)
Strongly Agree	21	35
Agree	25	42
Neutral	14	23
Disagree	0	0
Strongly Disagree	0	0
TOTAL	60	100

Source: Survey Data 2013.

The above findings concurs with the findings of Birch and Young (1997) who highlighted that if banks failed to use up to date anti viruses or firewalls, personal accounts could be hacked resulting the accessing of confidential customer account information and the making of unauthorized transactions in the customers accounts. According to Mc Andrews (1997) if an error is made when making a payment or if there is a fraudulent transaction made in a certain account, it may become tedious and time consuming to reconcile that because of different laws and legislations of different countries. These findings were also in line assertions raised by Vartanian (2000) that auditing of the system is quite difficult and complicated as compared to auditing of paper which could have been done over years.

V. CONCLUSION

The major types of electronic payment systems used by the savings bank were the RTGS, ATMs, credit cards, cell phone banking, Western Union, ecocash and Telegraphic Transfers. The adoption of electronic payment systems by the savings bank resulted the following benefits; convenience, offering of a variety of services, cost reduction, speed payment, security and accessibility. From the study, it is recommended that the savings bank and other banks in Zimbabwe shift their focus to electronic payment systems to enhance

profitability. Banks were also encouraged to continue investing in more modern electronic payment systems and new technologies as these would result in improved income streams and enhance their profitability. Banks were also encouraged to engage in training and manpower development so as to ensure that staffs become aware of all the electronic payment systems as well as to ensure the growth of e-commerce in the country. The government on the other is advised to constantly review policies that are related to the promotion and adoption of electronic payment systems that affect financial institutions. In this way, it is believed that scarce resources (money) can be efficiently allocated and utilized thereby positively affecting the gross Domestic Product (GDP).

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