## ELECTRONIC MONEY TRANSFER SYSTEMS AND BUSINESS PROCESS MANAGEMENT AMONG COMMERCIAL BANKS IN KENYA

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#### **Abstract**

Conversion of ordinary business into e-business has forced organizations to be redesigned and reshaped. E-business is a combination of economic, technology and market forces that reinvented strategies of traditional business. The business process is counted to use the power of computers and communication networks which are known as Internet. This can allow organizations to stay competitive and more efficient. Also, new business models have been introduced and implemented in a variety of ways.

Electronic banking, also known as electronic fund transfer (EFT), uses computer and electronic technology as a substitute for checks and other paper transactions. EFTs are initiated through devices such as cards or codes that you use to gain access to your account. The study intended to establish how value can be created in business management through electronic money transfer systems in commercial banks in Kenya. This complements an earlier study on money transfer systems in Tanzania and Uganda. This was a descriptive study where the researcher visited the selected commercial banks in Nairobi Area and asked them about the benefits of using EFT in their banks. The study targeted forty five (45) commercial banks in Kenya. Primary data were obtained using a self administered questionnaire. The data were analyzed using procedures within the Statistical Package for Social Sciences (SPSS), PC version 10.

Out of 25 respondents targeted for this study 20 of them responded to the questionnaire giving a response rate of 80%. The study found out that the study found out that various

short comings such as cost, long queues, losses as a result of foreign exchange and difficulty dealing with the technology of money transfer systems affected the value of business process management. Many respondents used money transfer systems because of the benefits associated with them. Among the most preferred benefits was efficiency while others that came in where reliability and speed. Most of the respondents were willing to bear any cost of an MTS as it was efficient. In addition of value to BPM, EFTs and direct debit were found to be of great importance. However the cost of MTS and other shortcomings associated with them were found to have a significant effect on the value of Business process management. The researchers recommend an improvement in the efficiency of electronic Money transfer Systems so as to reap the maximum benefits out of them in BPM.

**Keywords**: Electronic Money Transfer Systems, Business Process Management, Commercial Banks, Kenya

#### Introduction

As we enter the twenty-first century, business conducted over the Internet (which we refer to as 'e-business'), with its dynamic, rapidly growing, and highly competitive characteristics, promises new avenues for the creation of wealth. Established firms are creating new online businesses, while new ventures are exploiting the opportunities the Internet provides. E-business has the potential of generating tremendous new wealth, mostly through entrepreneurial startups and corporate ventures. It is also transforming the rules of competition for established businesses in unprecedented ways. One would thus expect e-business to have attracted the attention of scholars in the fields of management information system, (Hitt and Ireland 2000)

Indeed, the advent of e-business presents a strong case for the confluence of the entrepreneurship and strategy research streams, as advocated by, McGrath and Macmillan (2000). Yet, academic research on e-business is currently sparse. The literature to date has neither articulated the central issues related to this new phenomenon, nor has it developed theory that captures the unique features of virtual markets.

IT has long been identified by many IT business value studies as indispensable in transforming business processes, which in turn may affect IT business value, (Benjamin and Levinson, 1993; Huang and Hub, 2007). For example, Brynjolfsson and Hitt (2000) identify that IT business value depends on complementary business processes when an organization implements a new electronic purchasing system. Brynjolfsson and Hitt indicate that the whole purchasing process may have to be redesigned while new activities or procedures such

as an electronic supplier search for public or private electronic markets are introduced at the same time. The new information systems and process redesign have to go jointly to make IT as valuable as possible for the implementing organization.

As we enter the twenty-first century, business conducted over the Internet with a lot of competitive characteristics, promises new avenues for the creation of wealth. Established firms are creating new online businesses. New ventures are also exploiting the opportunities the Internet provides, (Kenneth, 1974). E-business has the potential of generating tremendous new wealth, mostly through entrepreneurial startups and corporate ventures. It is also transforming the rules of competition for established businesses in unprecedented ways. E-business is therefore expected to attract the attention of scholars in the fields of business and management.

Mukwana and Sander, (2003) noted that Sending or receiving money for either payment of salaries, settlement of business transactions, payment of school fees, or for family support is common both for businesses and individuals. It requires efficient, reliable and affordable money transfer services whereby money can be deposited in one location and withdrawn in another in both urban and rural areas, (Loudon, 2010)

The new electronic age has differentiated the marketing of banking services. Customers nowadays demand new and differentiated financial products and services. In the essence banks must search for new strategies of marketing their products and services. With pressure from dynamic and advancement of IT, different electronic distribution channels have been adopted to meet the demands of customers in Kenyan banks, (Orbeta, 2001).

Electronic money transfer systems use computer and electronic technology as a substitute for cheques and other paper transactions. Andam (2003) noted that, electronic banking, also known as electronic fund transfer (EFT), uses computer and electronic technology as a substitute for cheques and other paper transactions. EFT is initiated through devices such as cards or codes that you use to gain access to your account. Many financial institutions use an automated teller machine (ATM) card and a personal identification number (PIN) for this purpose. The federal Electronic Fund Transfer Act (EFT Act) covers some consumer transactions. It offers different services like Direct Deposit, Automated Teller Machines, and Pay by Phone Systems etc.

Money Transfer Services refer to services in which money or funds can be transferred from one location to another with the help of several methods. Mukwana and Sander, (2003), noted that the methods are quick, dependable, and easy to process; with which money can be sent or received all over the world without any hassles. The sending payments or purchasing

money orders have never been so easy. Nowadays, the Internet has also become a highly popular method for transferring money and has services that are quick, affordable, and safe in comparison to other conventional methods.

Accumulated balance digital payment systems enable users to make micro payments and purchases on the web, accumulating a debit balance that they must pay periodically on their credit card or telephone bills. Examples are Valista's payments plus used by ABL, Vodafone, and NTT, and disk share, which is widely used by the online newspaper and publishing industry, (Mukwana and Sander, 2003)

Online stored value payment systems enable consumers to make instant online payments to merchants and other individuals based on the value stored in an online digital account. A stored card stores information electronically on a magnetic stripe or a computer chip and can be used to purchase goods or services, (Chakrabarti, 2002). The balance recorded on the card is debited at a merchant's point of sale terminal when consumers make a purchase. Generally stored value cards contain all the information necessary to identify the card and its value. This enables point of sale terminals in most systems to be "off line". Stored value cards are not cash and they do not have the finality of cash. It must move through a complex payment system before a payment is completed. Some online stored value payments systems such as valista are merchant platforms; others are focused on peer-to-peer payments such as Paypal. Pay pal is owned by eBay and makes it possible for people to send money to vendors or individuals who are not set up to access credit card payments.

Digital checking systems such as Pay-By-Cheque extend the functionality of existing checking accounts so they can be used for online shopping payments. Digital cheques are processed much faster than traditional paper based checking, (Andam, 2003).

Electronic billing presentment and payment systems are used for paying routine monthly bills. They enable users to view their bills electronically and pay them through electronic fund transfers from the bank or credit card accounts. Electronic bill presentment and payment (EBPP) is a process that enables bills to be created, delivered, and paid over the Internet. The service has applications for many industries, from financial service providers to telecommunications companies and utilities. These services notify purchasers about bills that are due, present the bills and process the payment. Some of these services such as check free consolidate subscriber's bills from various sources so that they can all be paid at one time, (Laudon, 2010).

Although buying products over the Internet with a credit card has become a common occurrence, viewing the credit card bill itself and making payments to settle the bill

electronically has not. This has dramatically changed as new EBPP products have been introduced that include features such as secure e-mail delivery. EBPP technology has become more common in business-to-business e-commerce (Chaum, 1992).

Andam (2003) pointed out that, in Kenya commercial banks operate under the Banking Act of 1995 and are regulated and supervised by the Central Bank of Kenya. This also places restrictions on the types of services banks can offer and imposes limits on risks a bank can take with its capital.

The five largest commercial banks in Kenya are Kenya Commercial Bank, Barclays Bank, Standard Chartered Bank, Cooperative Bank and National Bank of Kenya; they dominate the banking system with 300 of the total 494 branches and accounting for 72.1% of the total deposit base of KShs. 344 billion (Oketch,2001). The majority of the 494 branches are concentrated in the major urban areas (Nairobi, Mombasa, Kisumu, Nakuru and Eldoret) (Economic Survey 2002). (Central Bank, 2002) Commercial bank products in Kenya are fairly standard in nature and include savings accounts, current accounts, credit or debit cards, and money transfer services catering mainly for corporate clients and high-income individuals.

In recent years, commercial banks have invested significantly in products that require high levels of automation and expensive equipment for online transfers and home banking. Services such as ATMs, different card products, branchless banking and online transfers greatly improve the efficiency of banks; at the same time the required initial investment is high and has increased costs to the client. Factors such as the locations of bank networks, minimum balance requirements, and levels of automation are among the main factors which limit the access of low-income people to bank services, (Argwings Kodhek and Jayne, 1996).

## **Problem of Research**

The world has witnessed an IT revolution which has touched every aspect of people's life including banking, (Siam, 2006). Technology has introduced new ways of delivering banking services and products to the customers such as ATMs, and internet banking (IB). Hence banks have found themselves at the forefront of technology adoption in the past three decades (Sing, 2002). These changes and developments in the banking industry have impacts on the quality and future of the banking activities, and consequently on its continually competitive ability in the world markets since going along with technology is one of the most important factors of economic organizations success in general and banks in particular (Siam, 2006). This motivates banks to spend more on technology and information to achieve maximum returns and attract a large number of clients. According to Sing (2002) efficient

and reliable communications and computer systems, including management information system (MIS), are essential in operating a money transfer service. This is because speed and reliability are key product features for entering the market. Bus and courier companies, for instance, have become popular because of their ability to provide overnight or even same day physical transfer of money. On the other hand, POSTA lost significant business when it withdrew its telegraphic money orders that could provide same day or overnight delivery.

Commercial banks are the major players in the money transfer business in Kenya, servicing mainly large users and, to a smaller extent, low-income users, (Andam, 2003). Among the commercial bank instruments, telegraphic transfers, electronic funds transfers and bank drafts are typically used for large value transfers, as they offer the cheapest service for the transfer of large amounts.

The study intended to establish how value can be created in business management through electronic money transfer systems in commercial banks in Kenya. This complements an earlier study on money transfer systems in Tanzania and Uganda. The team used Micro-Save Africa's (MSA) qualitative research methods with in-depth interviews and focus group discussions with service providers and with users, particularly in the low-income segment. Therefore there was a need for a study to be conducted on the value of electronic money transfer systems in business process management in commercial banks in Kenya. Although Research has been done in money transfer systems none has been done in commercial banks in Kenya, (Katherine L. 1998)

#### **Research Focus**

This study sought to find out how an electronic money transfer system is both a strategic and a turnaround activity in the banking sector. Banks that were slow on their feet in embracing this technology have found a large chunk of their market niche grabbed from under their feet by the banks that revamped their money transfer system and services capabilities and are offering fast and better services coupled with a wide variety of banking products. This study sought to identify the value of electronic money transfer services in commercial banks which operate in Kenya by addressing the following research questions: - What are the benefits associated with the use of electronic money transfer systems in business process management in commercial banks in Kenya? What are the challenges facing electronic money transfer system in commercial banks in Kenya?

The main objective of the research was to investigate how value can be created in business process management through electronic money transfer systems in commercial banks. The two specific objectives of this study were: to establish the benefits of electronic money transfer systems in business process management in the commercial banks in Kenya; and to determine the challenges facing the use of electronic money transfer in the commercial banks in Kenya.

## Methodology of Research General Background of Research

This was a descriptive study where the researcher visited the selected commercial banks in Nairobi Area and asked them about the benefits of using EFT in their banks. The study employed both quantitative and qualitative methods through the use of questionnaires to provide predominantly quantitative and qualitative data to the study. The qualitative data were used to shed some light on the quantitative data to enable the investigation of the research problem in more depth. The respondents were interviewed in their natural setups so as to provide more information freely.

Mugenda and Mugenda, (2003) noted that descriptive research design is used when the problem has been well designed and where the researcher can engage in a survey by going to the population of interest in order for the respondents to explain certain features about the problem under study. Primary data collected from such study is more reliable and up to date.

## Sample of Research

Mugenda and Mugenda (1999), define population as an entire group of individuals, events or objects having common observable characteristics. The study targeted forty five (45) commercial banks in Kenya. The target population in this study was the staff in the commercial banks that included top level managers, middle level managers and lower level managers. This made it easy to get adequate and accurate information necessary for the research.

Interviewees included: top managers, middle and lower managers of medium and large commercial banks under study. Based on the number of banks within the Province an appropriate sample size was selected. Random sampling was applied to select the identified number of banks to be studied and thereafter a sample of managers and senior staffs were selected.

#### **Instrument and Procedures**

Primary data were obtained using a self administered questionnaires. Primary data is fact, assumptions and premises contained in various documentary sources (Kothari C.R, 1990). The questionnaires with both open and closed ended questions—were used to collect both qualitative and quantitative data to answer related questions. The "Drop and Pick" method was used to obtain feedback alongside personal and telephone interviews especially for those respondents who need clarification and filling of the questionnaires.

The questionnaire comprised of (3) sections to determine the fundamental issues including the demographic characteristics of the respondents. The second section focused on money transfer systems and the third part focused on the identification of the value of money transfer systems in e-business management banks

The questionnaire was self administered by the researcher and each questionnaire was coded and only the researcher knew which person responded. The coding technique was used for the purpose of marching the completed questionnaire with those delivered to the organizations.

Before commencing data collection permission to conduct the research was sought from the management of the commercial banks. Thereafter the researcher visited the top managers of the banks under study in order to bond with those who were to participate and make arrangements when to administer the questionnaires. The questionnaires were delivered to the respondent at the agreed venue on the appointed date. The respondents were given humble time to fill the questionnaire. Lastly' the filled questionnaires were collected after one week for analysis.

## **Data Analysis**

Raw data collected from the field was sorted and summarized in tables and diagrams. The process of data analysis involved several stages. Completed questionnaires were edited for completeness and consistency. The data was then being coded and checked for any errors and omissions (Kaewsonth & Harding, 1992). The data were analyzed using procedures within the Statistical Package for Social Sciences (SPSS), PC version 10. The responses from part one to part three were analyzed to answer the research objectives. The responses from the open-ended questions were coded; the mean and standard deviation were used for likert-scale responses. For closed questions, a comparative analysis using distribution tables, quartiles (percentiles) and graphical analysis were done to improve the presentation of the analyzed results for ease of interpretation.

## **Results of Research**

Out of 25 respondents targeted for this study 20 of them responded to the questionnaire giving a response rate of 80%. This was a good turn-up and adequate enough for the study since according to Mugenda 2003, 50% of the response rate are adequate enough to carry out a study.

#### **Demographic Information**

The research sought to establish the gender of the investors sampled. The majority of the respondents involved in the study were male representing 79.2% whereas 20.8% were female. The majority of the respondents had worked in the banking sector for a period of

between 3-5 years while the minority had worked for a period of 6- 10 years. These results indicated that many of the respondents had a clear understanding of the value of money transfer systems on business management as their years of work had allowed them to learn more from their organizations.

## **Preference in Electronic Money Transfer**

The study sought to find out the respondent's important preference in electronic money transfer. The results indicated that 11 (55%) of the respondents preferred efficiency ,7 (35%) preferred speed while 2 (10%) preferred reliability. None of the respondents preferred low cost of money transfer systems while majority 55% of the respondents preferred efficiency while minority (2%) preferred reliability. This indicated that managers were willing to bear the cost of money transfer system as far as it was bringing efficiency. Respondents further added that electronic money transfer facilitated them to live in a more relaxed way since they could easily access banking services. They further commented that electronic money transfer systems has substituted traditional banking as well as reduced wastage.

## **Use of Various Money Transfer Systems in the banking Industry**

The study sought to establish the extent to which banks use various money transfer systems. The respondents were asked to indicate this on a five – likert scale where 1=Not at all; 2=less extent; 3=Moderate extent; 4=Large extent; 5=very great extent. The descriptive and factor analysis output are as in table 1 below.

Table 1 Money Transfer Systems.

Tuble 1 Wolley Transfer Bystems.										
Money Transfer Systems.								$\sum fx/\sum f$	Std. D	
						f	fx			
EFT	20	00	00	00	00	20	100	5.0000	.00000	
Telegraphic MTS	12	02	02	02	02	20	84	4.2078	.40839	
Mail transfers	08	09	00	02	00	20	80	4.200	.1678	
Direct debit	09	07	04	00	00	20	85	4.250	.40839	
Ordinary cheque	08	09	00	02	00	20	80	4.200	.1678	

Source: Research Data

From the research data in table 1, the respondents' opinion is that to a very high extent banks use EFT (Mean  $\geq 4.5$  = very high extent, with a significant standard deviation), as a money transfer system. Whereas telegraphic MTS, mail transfers, direct debit and ordinary cheque are used to a high extent (Mean  $\geq 3.5$  = high extent, with a significant standard deviation) as money transfer system

## **Efficiency of Money Transfer Systems**

The study sought to establish the efficiency of the money transfer systems used by the banks. The respondents were asked to rate the efficiency on a five-point likert scale; 5=Very Efficient; 4=efficient; 3=Neutral; 2=Fairly Efficient; 1=Inefficient.

Table 2 Efficiency of Money transfer systems

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Efficiency of Money transfer systems						f	fx	∑fx/∑f	Std. D
EFT	20	00	00	00	00	20	100	5.0000	.00000
Telegraphic MTS	12	02	02	02	02	20	84	4.2078	.40839
Mail transfers	02	04	10	02	02	20	44	2.200	.1678
Direct debit	09	07	04	00	00	20	85	4.250	.40839
Ordinary cheque	08	09	00	02	00	20	80	4.200	.1678

**Source:** Research Data

From the research data in table 2, the respondents' opinion is that EFT is very efficient (Mean  $\geq 4.5$  = very efficient, with a significant standard deviation), as a money transfer system. Whereas telegraphic MTS, direct debit and ordinary cheque were said to be efficient (Mean  $\geq 3.5$  = efficient, with a significant standard deviation) as money transfer system. Mail transfer was rated as fairly efficient.

The study had also sought to establish the Efficiency of service delivery by various Money transfer systems used by the banks. The respondents were asked to rate the efficiency on a five-point likert scale 5=Very Efficient; 4=efficient; 3=Neutral; 2=Fairly Efficient; 1=Inefficient.

**Table 3** service delivery Efficiency of Money transfer systems

Table 3 service derivery Efficiency of World transfer systems									
MTS and service delivery								$\sum fx/\sum f$	Std. D
						f	fx		
EFT	18	02	00	00	00	20	100	5.0000	.00000
Telegraphic MTS	12	02	02	02	02	20	84	4.2078	.40839
Mail transfers	02	04	10	02	02	20	44	2.200	.1678
Direct debit	09	07	04	00	00	20	85	4.250	.40839
Ordinary cheque	08	09	00	02	00	20	80	4.200	.1678

Source: Research Data

From the research data in table 3, the respondents' opinion is that EFT is very efficient in service delivery (Mean  $\geq 4.5$  = very efficient, with a significant standard deviation), as a money transfer system. Whereas telegraphic MTS, direct debit and ordinary cheque were said to be efficient in service delivery (Mean  $\geq 3.5$  = efficient, with a significant standard deviation). Mail transfer was rated as fairly efficient in service delivery (Mean  $\geq 1.5$  = fairly efficient, with a significant standard deviation).

From the research data, the respondents indicated that to a very often extent they perform transactions online  $\geq 4.5$  = Very high extent, with a significant standard deviation). The respondents equally indicated that it is very difficult to perform transactions online (Mean  $\geq 4.5$  = Very high extent, with a significant standard deviation). This was a clear indication of the challenges encountered in using the EFT.

## **Electronic Money Transfer Systems and Value in Business Process Management**

The study sought to establish the extent to which electronic money transfer systems create value in business process management. The rating was done on a five point likert scale : 1=Not at all; 2=less extent; 3=Moderate extent; 4=Large extent; 5=very great extent. The descriptive and factor analysis output are as in table 4 below.

Table 4 Electronic money transfer systems and value in business process management

Electronic money transfer systems and value in business process management						f	fx	∑fx/∑f	Std. D
EFT	18	02	00	00	00	20	100	5.0000	.00000
Telegraphic MTS	12	02	02	02	02	20	84	4.2078	.40839
Mail transfers	02	04	10	02	02	20	44	2.200	.1678
Direct debit	09	07	04	00	00	20	85	4.250	.40839
Ordinary cheque	08	09	00	02	00	20	80	4.200	.1678

Source: Research Data

From the research data in table 4, the respondents' opinion is that EFT to a very great extent (Mean  $\geq 4.5$  = very efficient, with a significant standard deviation) contributes to value creation in business process management as a money transfer system. Whereas telegraphic MTS, direct debit and ordinary cheque were said to contribute to value in business process management to a high extent (Mean  $\geq 3.5$  = efficient, with a significant standard deviation). Mail transfer was rated to be contributing to and process management to a less extent (Mean  $\geq 1.5$  = less extent, with a significant standard deviation.

# **Major Shortcomings Facing Electronic Money Transfer Systems in Business Process Management**

Among the responses given by respondents on major shortcoming of facing electronic money transfer systems was skills gap, poor information communication structure, there were no clear guidelines / policies guiding infrastructure and problems of audit trail issues.

The study sought to establish the extent to which various challenges affect the value of MTS in business process management. The respondents were asked to rate the effect on a five-point likert scale 5=Very high extent; 4=high extent; 3=Neutral; 2=low extent; 1=very Low extent.

**Table 5** Challenges affecting the value of MTS in business process management

Challenges								$\sum \mathbf{f} \mathbf{x} / \sum \mathbf{f}$	Std. D
						f	fx		
Delays in transferring money	20	00	00	00	00	20	100	5.0000	.00000
Long queues to send or receive payment	12	02	02	02	02	20	84	4.2078	.40839
Long identification procedure	09	07	04	00	00	20	85	4.250	.40839
Network limitations and illiquidity of branches	08	09	00	02	00	20	80	4.200	.1678
Unreliable communication systems	12	02	02	02	02	20	84	4.2078	.40839
Foreign exchange losses due to lower exchange- Rates paid for money sent	02	04	10	02	02	20	44	2.200	.1678
High cost of transactions	02	04	10	02	02	20	44	2.200	.1678

Source: Research Data

From the research data in table 5, the respondents' opinion is that delays in transferring money to a very large extent (Mean  $\geq 4.5$  = very high extent, with a significant standard deviation), are a challenge affecting value of MTS in business process management as a money transfer system. Whereas Long queues to send or receive payment , Long identification procedure , Network limitations and illiquidity of branches , Network limitations and illiquidity of branches , Unreliable communication systems, and Foreign exchange losses due to lower exchange rates paid for money sent affect value of MTS in business process management to a high extent (Mean  $\geq 3.5$  = high extent , with a significant standard deviation). High cost of transactions to a low extent (Mean  $\geq 1.5$  = low extent, with a significant standard deviation) affects value of MTS in business process management.

## **Summary of the Findings**

The response rate for the study was 80% with 65% being male while 35% were female. The age bracket for the respondents ranged was 21 to over 45 years with the majority of the respondents aged between 21-30 years. 35% of the respondents which formed the majority had worked in the banking sector for a period between 6-10 year.

The study revealed that the majority (55%) of the respondents preferred efficiency, 7 (35%) preferred speed while the 2 (10%) preferred reliability. None of the respondents preferred low cost of money transfer systems while majority 55% of the respondents preferred while minority (2%) preferred reliability. This indicated that managers were willing to bear the cost of money transfer system as well as it was bringing efficiency. Respondents further added that electronic money transfer facilitated them to live in a more relaxed way since they could easily access banking services. They further commented that electronic money transfer systems has substituted traditional banking as well as reduced wastage.

It was also revealed that that to a very high extent banks use EFT (Mean  $\geq 4.5$  = very high extent, with a significant standard deviation), as a money transfer system. Whereas

telegraphic MTS, mail transfers, direct debit and ordinary cheque are used to a high extent (Mean  $\geq 3.5$  =high extent, with a significant standard deviation) as money transfer system

In terms of efficiency of Money transfer systems, the study found out that EFT is very efficient (Mean  $\geq 4.5$  = very efficient, with a significant standard deviation), as a money transfer system. Whereas telegraphic MTS, t debit and ordinary cheque were said t be efficient (Mean  $\geq 3.5$  = efficient, with a significant standard deviation) as money transfer system. Mail transfer was rated as fairly efficient. in relation to service delivery the study found out that EFT is very efficient in service delivery (Mean  $\geq 4.5$  = very efficient, with a significant standard deviation), as a money transfer system. Whereas telegraphic MTS, t debit and ordinary cheque were said t be efficient in service delivery (Mean  $\geq 3.5$  = efficient, with a significant standard deviation). Mail transfer was rated as fairly efficient in service delivery (Mean  $\geq 1.5$  = fairly efficient, with a significant standard deviation)

Relating to E-commerce the study revealed that to a very often banks perform transactions online  $\geq 4.5$  = Very high extent, with a significant standard deviation) further it was revealed that it is very difficult to perform transactions online (Mean  $\geq 4.5$  = Very high extent, with a significant standard deviation). This was a clear indication of the challenges encountered in using the EFT

The shortcomings facing electronic money transfer systems were identified as skills gap , poor information communication structure, there were no clear guidelines / policies guiding infrastructure and problems of audit trail issues . It was further revealed delays in transferring money to a very high extent (Mean  $\geq 4.5$  = very high extent, with a significant standard deviation), are a challenge affecting value of MTS in business process management as a money transfer system. Whereas Long queues to send or receive payment , Long identification procedure , Network limitations and illiquidity of branches , Network limitations and illiquidity of branches , Network limitations and illiquidity of branches , Unreliable communication systems, and Foreign exchange losses due to lower exchange- Rates paid for money sent affect value of MTS in business process management to a high extent (Mean  $\geq 3.5$  = high extent , with a significant standard deviation). High cost of transactions to a low extent (Mean  $\geq 1.5$  = low extent, with a significant standard deviation) affects value of MTS in business process management

The study further found out that EFT is that to very great extent (Mean  $\geq 4.5$  = very efficient, with a significant standard deviation), contributes and value in business process management as a money transfer system. Whereas telegraphic MTS, direct debit and ordinary cheque were said to contribute to value in business process management to a high extent (Mean  $\geq 3.5$  = efficient, with a significant standard deviation). Mail transfer was rated

to be contributing to and value in business process management to a less extent (Mean  $\geq 1.5$  = less extent, with a significant standard deviation)

#### **Conclusions**

The study was carried out to investigate the value of electronic money transfer systems on business process management. The study finding indicated that money transfer systems affected business process management in one way or another. Although there were many advantages attached to money transfer systems, the study found out that various short comings such as cost, long queues, losses as a result of foreign exchange and difficulty dealing with the technology of money transfer systems affected the value of business process management

Many respondents used money transfer systems because of the benefits associated with them. Among the most preferred benefits was efficiency while others that came in where reliability and speed. Most of the respondents were willing to bear any cost of an MTS as it was efficient.

In addition of value to BPM, EFTs and direct debit were found to be of great importance. However the cost of MTS and other shortcomings associated with them were found to have a significant effect on the value of Business process management.

#### **Recommendations for Further Study**

Although electronic MTS was found to add some value on business process management, the study found out that the shortcomings of electronic MTS, limited the benefits they could add on the BPM. The researcher therefore recommends an improvement in the efficiency of electronic Money transfer Systems so as to reap the maximum benefits out of them. Since the study was carried out on banking institutions, the researcher recommends a similar study to be carried out at other institutions to establish other practice that value on business process management.

#### **References:**

Andam, Z.R.B.(2003) "e-commerce and e-business" Available at: www.apdip.net/publications/iespprimers/eprimer\_eCom.pdf (Accessed on 18 January 2007) Anderson, M.M. (1998), "Electronic Cheque Architecture, Version 1.0.2", Financial Services Technology Consortium, September

Argwings-Kodhek, G. and T. Jayne, (1996) "Maize and Market Liberalization and Food Consumption Patterns in Urban Kenya", Tegemeo Institute, Nairobi. ketch, H., "Commercial Bank"

Baddeley, M. (2004) "Using E-Cash in the New Economy: An Electronic Analysis of Micropayment Systems", Journal of Electronic Commerce Research, Vol. 5, No. 4,

Benjamin R, Levinson E. (1993). A framework for managing IT-enabled change. Sloan Management Review 34(4): 23–33. Markus M. 2004. Techno change management: using IT to drive organizational change. Journal of Information Technology 19(1): 4–20

Berg, Bruce L. 1998. Qualitative Research Methods for the Social Sciences. Needham Heights, MA: Allyn and Bacon

Bhatia, Varinder (2000), E-Commerce (Includes E-Business), New Delhi: Khanna Book Publishing Co.

Boly, J. P. et al., (1994), "The ESPRIT Project CAFÉ-High Security Digital Payment System", ESORICS 94, Third European Symposium on Research in Computer Security, Brighton, LNCS 875, Spring- Verlage, Berlin, pp 217-230.

Brynjolfsson E, Hitt L. (2000). Beyond computation: information technology organizational transformation and business performance. Journal of Economic Perspectives 14(4): 23–48.

Carvallo De Freitus, "Virtual Banking and consumer protection, 2000 International Bar Association 2000 Conference

Cason, Katherine L. 1998. Electronic Benefits Transfer: New Strategies in Improving Public Assistance

Central Bank of Kenya, November 2002 Programs. Information Brief no. 6, Southern Rural Development Center.

Central Bank of Kenya Prudential Regulations for Banking Institutions", Central Bank of Kenya Nairobi, September 2000.

Cheney, Julia S. 2006. The Role of Electronic Payments in Disaster Recovery: Providing More than Convenience. Discussion Paper no. 06 – 09, Federal ReserveBank of Philadelphia.

Chakrabarti, Rajesh and Kardile, Vikas (2002), E-Commerce: The Asian Manager's Handbook, New Delhi: Tata McGraw Hill.

Charkrabarthi, Rajesh et al (2002), The Asian Manager's Handbook of E-Commerce, New Delhi: Tata McGraw Hill.)

Chaum, D. (1992), "Achieving Electronic Privacy", Scientific American, August,pp 96-101 accessed on http://www.digicash.support.nl/publish/sciam.html.

Comninos, A., Esselaar, S., Ndiwalana, A. & Stork, C., (2008). Towards evidence-based ICT policy and regulation m-banking the unbanked, (Policy Paper 4.

Danial, Amor (2002), E-Business (R) evolution, New York: Prentice Hall.

Dennis, Abrazhevich (2001), "Classifications and Characteristics of Electronic Payment Systems", Lecture Notes in Computer Science, Vol. 21, No. 5, pp. 81-90.

Diwan, Parag and Sharma, Sunil (2001), E-Commerce: A Managerial's Guide to E-Business, New Delhi: Excel Books.

Diwan, Parag and Singh, Dharmvir (2000), Computer Networks Driven E-Commerce Technologies, New Delhi: Amexcel Publisher Pvt. Ltd

Dib, Joulia, Anastasia Dodson, and Celina Schocken. 2000. Electronic Benefit t Transfer (EBT) Programs: Best Practices to Serve Recipients

Economic Survey 2002, Central Bureau of Statistics and Ministry of Finance and Planning of the Republic of Kenya

Gay Lussac, J.L., Mem. de la Soc. d'Arcuel, 1809, translation reprinted in ref. 19, pp. 804 -- 818.

Hamilton, William et al. 1987. The Impact of an Electronic Benefit Transfer System in the Food Stamp Program, Cambridge, Massachusetts, Abt Associates Inc.

Herzberg, A. (2003) "Payments and banking with mobile personal devices", Communications of the ACM, Vol. 46, No. 5, pp 53-58.

Huang C, Hu Q. (2007). Achieving IT-business strategic alignment via enterprise-wide implementation of balanced scorecards. Information Systems Management 24(2): 173–184.

Kabbucho, K, Sander, C, and Mukwana, P. (2003) "PASSING THE BUCK: Money Transfer Systems: The Practice and Potential for Products in Kenya",

Kothari C.R, (1990), Research methodology: methods and techniques. Second edition, wachira prakashan.

Kumar, Anjali, Nair, A., Parsons, A., & Urdapilleta, E,. (2006). expanding bank outreach through retail partnerships: correspondent banking in Brazil, Working Paper No. 85.

Laudon, C. Kenneth and Traver, Carol (2010), E-Commerce, New Delhi: Pearson Education. Lawerence, Stacy (2000), "Study Peeks into Worldwide Wallets", The Industry Standard, April. pp 34-54.

Lyman, T., Ivatury & Staschen (2006). Use of agents in branchless Banking for the Poor: rewards, risks, and regulation.

Mann. C., S. Eckert, and S. C. Knight. Global Electronic Commerce: A Policy Primer. Washington, D.C.: International Institute of Economics, 2000.

McKenzie, Mark. 2004. Money Laundering: What Will Criminal Elements think of Next? Journal of Money Laundering 8 (2): 122 – 26.

Monthly Economic Review", Central Bank of Kenya, November 2002

Mugenda O.& Mugenda A. (1998), Research Method: Qualitative and Quantitative Approaches.

Murthy, C.S.V. (2002), E-Commerce: Concepts, Models and Strategies, New Delhi: Himalaya Publishing House, p. 626.

NACHA — The Electronic Payments Association .2003. Electronic Disbursement Options . http://ebt.nacha.org/docs/E-DO\_white\_paper\_-\_FINAL. PDF [accessed August 6, 2008].

Oh, S., Kurnia, S., Johnston, R.B., Lee H. and Lim, B. (2006) "A Stakeholder Pers pective on Successful Electronic Payment Systems Diffusion", Hawaii International Conference on Systems Sciences (HICSS-39), Hawaii.

Oketch, H., "Commercial Banks in Microfinance in Kenya", an Unpublished Report, 2001.

Orbeta, "Enabling E-commerce in Developing Countries: The Mongolian Case". Report prepared for Pan Asia Network, International Development Research Centre (IDRC), Singapore, 2001.

PricewaterhouseCoopers — APEC. "SME Electronic Commerce Study". Telecommunications Working Group (TEL), Asia Pacific Economic Cooperation (APEC), Ottawa, Canada, 1999.

Sander, K.K.C, and Mukwana P, (2003) Money Transfer Systems: The Practice and Potential for Products in Kenya .

Sharma, Sunil and Diwan Parag (2000), E-Commerce: A Manager's Guide to E-Business, New Delhi: Excel Books.

Siam, Z, A, (2006) "Role of Electronic Banking services on the profits of Jordan banks" American Journal of Applied Sciences, 3 (9), pp.1999-2006

Sing, S.S, Yahyabhoy, T.N, Yeo, CH., (2002) "Dynamics of innovation in E-banking. Monthly Economic Review",

Turban, E.; King, D. and D. Viehland (2004), Electronic Commerce: A ManagePerspective: Prearson Education.

Wright, David (2002), Comparative Evaluation of Electronic Payment System, INFO 2002. Theory of Choice Under Risk. *Econometrica*, Vol.55 No.1