CHRISTIAN SERVICE UNIVERSITY COLLEGE

BACHLOR OF BUSINESS ADMINITRATION

ELECTRONIC RETAIL PAYMENT SYSTEMS: USER ACCEPTABILITY AND PAYMENT PROBLEMS IN KUMASI

(EVIDENCE OF THE CENTRAL BUSINESS DISTRICT IN THE KUMASI METROPOLIS)

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A PROJECT RESEARCH SUBMITTED TO THE DEPARTMENT OF BUSINESS STUDIES, CHRISTIAN SERVICE UNIVERSITY COLLEGE IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF BACHELOR OF BUSINESS ADMINISTRATION

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A RESEARCH PROJECT

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DEGREE IN BACHELOR OF BUSINESS ADMINISTRATION

(ACCOUNTING OPTION)

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JUNE, 2012

DECLARATION

WE, THE PROJECT GROUP TEN (10) hereby declare that the work herein presented is the result of our own investigations and research and that, except for other people's work, which have been acknowledged, this book has never been to the University or elsewhere for the award of any degree.

However, we wish to emphasize that, we are solely responsible for all shortcomings that may be found in this work.

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We declare that, we have supervised the students in undertaking the study reported herein and confirm that, the students have my permission to present it for assessment.

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DEDICATION

TO OUR FAMILIES; FOR YOUR SUPPORT AND GUIDANCE AND TO OUR DEAR FRIENDS AND LOVED ONES; FOR YOUR WARMEST AFFECTION AND ENCOURAGMENT. WE DEDICATE THIS PIECE OF WORK TO YOU ALL.

ABSTRACT

The payment system in Kumasi has undergone considerable change as electronic payment has gained increasingly popularity, especially in the central business district.

Payment for goods and services in the Kumasi metropolis is characterized by long queues; long distance travelling coupled with vehicular traffic and time wasting that adversely affects business activities and ultimately economic development. Indeed, most people in Kumasi are now realizing the benefits of the technological advances made in banking services like networking of business branches, electronic transfers and use of automated teller machines. The few electronic payment mechanisms that are available are not being well patronized by bank's customers and other users.

The purpose of the study is to assess the issue of user acceptance in the existing electronic retail payments and also to ascertain the impact in solving some of the problems in retail payment for goods and services in the Kumasi Metropolis.

This study used primary sources in a form of "consumer survey" questionnaire in obtaining the perceptions of bank customers (mostly individual customers) and interviews of bank's staffs. With an extensive review of the available literature, data was collected from secondary sources such as the Internet, articles, databases, and books, and were analyzed and interpreted.

Our study shows that electronic payment systems have the potential to eliminate if not reduce the problems consumer face in the payment and settlement system.

ACKNOWLEDGMENT

We wish to first of all, express our profound gratitude to the Almighty Lord of Host for making the pursuance of our degree programme in CSUC a complete success and above all, a successful completion of this project work.

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We wish to also acknowledge the contributions from officials and management of some of the commercial banks in the central business district we contacted for taking time out of their busy schedule to answer some pertinent questions concerning our work. We are also greatly indebted to the bank's customers and other users who responded to our questionnaire.

Finally, all and sundry who have contributed in diverse ways and their names could not appear on this page, we say *'thanks a million.'*

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND TO THE STUDY

The world has witnessed an upsurge of electronic payment instruments meant to facilitate trade and simplify payments. (Abor, 2004) Before the introduction of electronic payment into the Ghanaian banking system, all customers had to walk into the actual bank to do transaction of all kinds. Customers had to queue up and spend more hours to talk to a teller to make their transactions. (Abor, 2004) The inconveniences caused by these long queues can discourage someone to make payment.

For many years, bankers, technology specialists, entrepreneurs, and others have advocated for the replacement of physical cash and the introduction of more flexible, efficient and cost effective retail payment solutions. Countless conferences and seminars have been held to discuss the concepts of cashless and "chequeless" society. (Bank for International Settlement, 1998) Electronic retail payment has been designed to help individual customers and companies as well as the banks itself in eliminating or reducing some of the problems inherent in the settlement and payment process. (Federal Reserve Bank of New York, 1996) Customers can pay their bills without having to actually move to the bank's premises. They may also have access to their account information and even transfer money to other accounts in the comfort of their homes.

The situation is no different in the Kumasi Metropolis; banks are making huge investments in technology to upgrade their infrastructure, in order to provide new electronic information-based services. Electronic services such as online retail banking are making it possible for individuals and small institutions to take advantage of new technologies at quite reasonable costs. Hardly do people use electronic payment systems to transact businesses.

In Kumasi, electronic retail payments are being continuously developed, to replace or reduce paper-based payments. Many new payment services have come into existence in recent years, most of which are based on technological innovations such as e-zwich cards, telephone and the Internet.

1.2 STATEMENT OF THE PROBLEM

The major problems associated with Payment for goods and services in Kumasi can be discussed as follows;

People always have to travel long distances in order to make payment for goods and services at the biller's locations and this could be time wasting and can generally affect business activities and ultimately economic development.

The banking halls for instance continue to be immersed with long queues as people come in to collect their monthly wages or salaries. Many people have been holding large sums of money outside the banking system as a result of the ordeal one has to go through before withdrawing money or making payment.

Settling utility bills, payment for goods and services, and money transfers have been a major headache for individuals and firms in the Metropolis resulting in declined business activities and huge debt to most of the utility providers.

Apart from the commercial banks, only a hand full of the business and utility service providers has these electronic payment schemes. Cash still remains the most popular retail payment instrument, despite the increase in the introduction of electronic payment schemes in the country. Whether consumers are adopting the current and emerging payments mechanisms is another issue confronting the banks.

The payments and clearing system in the Metropolis is under developed and needs an upgrading. For instance, cheques drawn in Kumasi against accounts held in others banks in Accra could take several days. There is no central clearing system to clear debit card transactions between banks.

In fact, the Metropolis has not yet realized the full benefits of the technological advances in electronic payment such as the use of e-zwich cards, automated teller machines (ATM), the Internet, mobile phones, and etc.

1.3 OBJECTIVES OF THE STUDY

The objectives and structure of this study attempts;

- To identify problems inherent in the existing retail payment system (cash) in the Metropolis.
- To assess the issue of user acceptance in the existing electronic retail payment systems.

- To ascertain the impact in solving some of the problems in retail payment for goods and services in the Kumasi Metropolis.
- To assist customers, businesses and service providers in Kumasi to understand the various electronic payment alternatives.
- To briefly analyze current and potential future trends in electronic payments in Kumasi.

1.4 RESEARCH QUESTIONS

For this study, the following are the major research questions:

- ❖ Can electronic payment system replace existing payment systems and solve payment problems?
- ❖ How are customer attitudes about electronic payments changing?
- ❖ What are the impediments to market development and innovation in electronic payments?

1.5 SCOPE OF THE STUDY

The discussion will concentrate on electronic retail payment systems – focusing particularly on the needs of consumers. While there are many emerging types of electronic retail payment schemes, special emphasis will be given to payment methods that utilize the services of banks.

Such schemes include ATMs, the Internet, mobile phone, debit and debit cards e-zwich, etc.

It is not possible to capture all the important details about an entire payment application; however, an insight into a selection of these payment systems can be

valuable in helping people understand different payment systems in relation to ones that they may already be familiar with.

Due to mass of different payment schemes, it is necessary to limit our scope of this study. This study also limits its focus to schemes available in Kumasi and sometimes comparisons are made with schemes pertaining to other parts of the Country. This study is not intended as an exhaustive survey of all developments in the field of electronic retail payments nor intended to cover all the issues relevant to these developments. Rather, the study aims to put the current developments into a broader context, to describe, classify and analyze a specified segment of initiatives.

1.6 LIMITATION

The study could have been extended or related to problems associated with electronic retail payment in other Metropolis in Ghana but have been limited to the Kumasi Metropolis particularly the Central Business District due to inadequate funds and constraint of time.

1.7 ORGANIZATION OF THE STUDY

This study has been sectioned into five (5) chapters and has been arranged as below.

Chapter One introduces the background to the study and presents the statement of the problem with respect to the research topic. Moreover, the research objectives, the research questions and the scope of the study as well as the limitations are all contented in chapter one.

Chapter Two looks at the theoretical framework, or basically the literature review. The research group sought for relevant theories that would meet the purpose and set

objectives of the study and then included them. It also introduces the empirical information and also talks about the various electronic payment delivery channels in the metropolis.

Chapter Three comprises the research methodology; the choice of research method, research strategy and the research process.

Chapter Four is the part which talks about the data presentation, analysis and discussion. We have the findings of the study explained here as well as the tables and figures that represent the response of the consumer survey via questionnaires and interviews prepared and sent to them.

The last chapter five is about the summary and conclusion of the study. The recommendations of the study are also included in this chapter.

CHAPTER TWO

LITERATURE REVIEW

2.1 THEORETICAL FRAMEWORK

The theories explained in this chapter deals with the reasons why consumers adopt electronic payment and whether this can alleviate some of the problems inherent in the traditional payment schemes (i.e. cash payment). There are no single or widely accepted theories that explain the adoption of electronic payment instruments. We will develop our own theories which would be used to analyze whether electronic payment mechanisms have reduced or eliminate the problems associated with cash payments in the Metropolis.

Payment methods based on electronic instruments have undergone many changes recently. This chapter will also provide a brief overview of the recent trends and map the current situation as well as to look into the empirical information with respect to the topic.

2.2 RESEARCH GAP

New electronic payment systems are being introduced into Ghana at an increasing rate. Forecasts indicate that this trend will continue for foreseeable future. Early work by Abor (2004) was concerned with technological innovations and banking in Ghana. Additional work by Deutche Bank Research (2001), Vartanian (2000) and Birch (1998) look at the future of electronic payments.

Several researchers have addressed the problem of retail payment, Ferguson (2000), Malek (2001), Bank for International Settlements (2000), Mester (2000) and OECD Information

Technology Outlook (2000) studied various aspects of this subject.

The work carried out by Abor's analyses the perception of bank customers pertaining to the effect of technological innovations on banking services in Ghana. A number of studies have also concluded that information technology has appreciable positive effects on bank productivity; cashiers' work, banking transaction, bank patronage, bank services delivery, and customers' services (Balachandher et al, 2001; Hunter, 1991; Yasuharu, 2003). However, this research is in a bid to fill in the gap of user acceptability and related payment problems in the electronic retail payment systems, in the Kumasi Metropolis.

2.3 DEFINITIONS OF ELECTRONIC PAYMENT SYSTEMS

Due to the nature of electronic payment systems, there have not been a widely or universal definition for it. But we have attempted to bring some few notable definitions given by some writers. These range from now-familiar automated teller machines (ATM) to Internet bill payments.

According to Humphrey et al (2001), electronic payment refers to cash and associated transactions implemented using electronic means. Typically, this involves the use of computer networks such as the Internet and digital stored value systems. The system allows bills to be paid directly from bank accounts, without being present at the bank, and without the need of writing and mailing cheques.

E-payment can be defined as 'payment by direct credit, electronic transfer of credit card details, or some other electronic means, as opposed to payment by cheque and cash'. (Agimo, 2004) It was also defined as "a payer's transfer of a monetary claim on a party acceptable to the beneficially." (European Central Bank, 2003) According to Kalakota & Whinston (1997, p. 153), "electronic payment is a financial exchange that takes place online between the seller buyer and the seller. The content of this exchange is usually the form of digital financial instrument (such as encrypted credit card numbers, electronic checks, or digital cash) that is backed by a bank or an intermediary, or by a legal tender."

For the purpose of this thesis, the term "electronic payment" refers to as convenient, safe, and secure methods for payment of bills and other transactions by electronic means such as card, telephone, the Internet, EFT, and etc. Electronic payment gives consumers an alternative to paying bills and debts by cash, cheque, money order, etc. Its main purpose is to reduce cash and cheque transactions.

According to Pariwat & Hataiseere (2004), for the achievement of effective and efficient retail payment systems, the following considerations that shape the choice of payment method for consumers and businesses should be taken into account; the convenience, reliability and security of the payment method, the service quality, involving such features as the speed with which payment are processed; the level and structure of fees charged by financial institutions; taste and demographic; and technological advances which have improve the speed, convenience and flexibility of different payment systems.

2.4 FACTORS AFFECTING PAYMENT CHOICE

2.4.1 Customers' Wealth/Levels of Income

Consistent with Kwast and Kennickell (1997) research, wealth has an important role to play in terms of consumer's decisions on payment choice. Consumers' wealth may influence payment choice and the availability of payment instruments that one can choose. For instance, while wealthy consumers may be able to fund their obligations generally, consumers that experience brief financial shortfalls may not find electronic bill payment desirable as a payment instrument. (Mant el, 2000) In such a situation, the consideration of the risk factor will let some consumers to avoid using pre-authorized electronic bill payment.

2.4.2 Educational Level

On the bank customers' survey, we also focused on education, because this might affect the demand for electronic banking products. For example, Kwast and Kennickell (1997) have illustrated how education play important role in determining household use of e-money products. Kwast and Kennickell concluded that the US market for such products is still highly specialized, with the demand coming almost entirely from higher income, younger, and more educated households that have accumulated significant financial assets.

Educational levels of customers determine whether consumers will adopt electronic payment or not. Studies have shown that highly-educated people patronize electronic payment products than less-educated people. The technicalities involved in some electronic payment transactions discourage less educated customers to patronize its use. (Annon, 1999)

2.4.3 Employment Levels

Those employed who receive their pay through the banks are more likely to use electronic means of payment. Employees, through their constant contacts with banks are more exposed to payment products, and are therefore, likely to patronize the products. According to Ferguson (2000), more than half of the workers in the US, in 2000 receive a direct deposit of their pay through the Automated Clearing House (ACH).

2.4.4 Personal Preferences

Another factor influencing payment instrument choice pertains to customers' personal preferences. The following six general consumer preferences were identified:

1. Control and customer service
2. Budgeting and record keeping
3. Incentives and low cost
4. Convenience
5. Safe, easy and convenience; and
6. Privacy and security

In our analysis of the empirical data, we may highlight these preferences but not in detailed.

2.4.5 Transaction-Specific Factors

Transaction-specific is another factor that influences consumer decision-making in payments.

This relates to the specific nature of the payment being made, where it is being made, and how the consumer views their relationship with the merchant. (Mantel, 2000) The use of a particular payment instrument may depend on the value of the bill (whether it is large or small). Also the availability of payment infrastructure determines the choice of payment instrument. (Mantel, 2000)

2.4.6 Marketing Campaigns

Another factor that influence consumer decision-making relate to marketing campaigns.

Increased use of electronic payment instruments are believed to have been achieved through large-scale consumer marketing campaigns funded by some financial institutions. The marketing activities employed by the financial institutions are expected to aid utilities by educating consumers as to the benefits, ease of use, convenience, and security of paying bills electronically. (Mantel, 2000)

2.5 RECENT TRENDS IN ELECTRONIC PAYMENTS

In this section, we will provide a brief background to some of the rapid emergence of methods which use electronic means to make payment. Some of the new techniques represent automation of existing methods of payment, whereas others are new or revolutionary.

2.5.1 Automated Teller Machine (ATM)

ATM is a combined computer terminal, with cash vault and record-keeping system in one unit, permitting customers to enter the bank's book keeping system with a plastic card containing a Personal Identification Number (PIN). It can also be accessed by

punching a special code number into the computer terminal linked to the bank's computerized records. (Rose, 1999)

Mostly located outside of banks, it can also be found at airports, shopping malls, and places far away from the home bank offices, and offering several retail banking services to customers.

First introduced as cash dispensing machines, it now provide a wide range of services, such as making deposits, funds transfer between two or more accounts and bill payments. (Abor, 2004)

2.5.2 E-zwich or e-zwich smart card

E-zwich is the brand name for the common platform (the National Switch) that links the payment systems of all banks, savings and loans companies and rural banks in Ghana.It is an electronic platform that enables LOADING and SPENDING of e-cash and also allows the SETTLEMENT of inter-bank claims in addition to online transactions. Customers are able to effect transactions "offline" in underdeveloped areas where power and communication infrastructure maybe lacking. All transactions occur between a customer card and another card in a POS or ATM. (www.infozone.com)

2.5.3 Electronic Purses/Wallets

There are two categories of e/wallet, these are;

a. E-wallets that store card numbers. This is a virtual wallet that can store credit card and debit card information. Other information that can be stored on this card is

passwords, membership cards, and health information. Some of the e-wallets make it easier for consumers to buy goods using the card. (Rudl, undated)

b. E-wallets that store card numbers and cash. The second category of a digital wallet is where consumers store digital cash, which has been transferred from a credit card, debit card or virtual cheque inside their e-wallets. It operates like having a virtual savings account where charges are made for ongoing purchases, particularly micro-payments. (Rudl, undated)

2.5.4 Electronic Funds Transfer At Point Of Sale (Eft/Pos)

EFT/POS is an online system that involves the use of plastic cards in terminal on merchants' premises and enables customers to transfer funds instantaneously from their bank accounts to merchant accounts when making purchases. It uses a debit card to activate an EFT process. (Chorafas, 1988) It actually comprises two distinct mechanisms: debit and credit cards.

2.5.5 Credit Cards

This is a plastic card that assures a seller that the person using it has a satisfactory credit rating and that the issuer will see to it that the seller receives payment for the goods or items delivered.

This represents the automated capture of data about purchases against a revolving credit account. (Pierce, 2001)

2.5.6 Debit Cards

These were a new form of value-transfer, where the card holder after keying of a PIN, uses a terminal and network to authorize the transfer of value from their account to that of a merchant.

Introduced more recently, debit together with credit cards represent the most rapidly growing method of payments in several OECD countries. (Pierce, 2001)

When a payment is made through a debit card, the funds are immediately withdrawn from the purchaser's bank account. The advantage is that the buyer has the funds to make the purchase and paid for right away, so there's no credit card shock when the statement arrives in the mail. (Pierce, 2001)

2.5.7 Smart Cards

A smart card is a plastic card with a computer chip inserted into it and that store and transacts data between users. (Smart Card Basics, 2004) The data, in a form of value or information is stored in the card's chip, either a memory or microprocessor. "Smart card-enhanced systems are in use today throughout several key applications, including healthcare, banking, entertainment and transportation." (Smart Card Basics, 2004) One of the features of this card is that it improves the security and convenience of transactions. The system works in virtually any type of network and provides security for the exchange of data. (Smart Card Basics, 2004)

2.5.8 Mobile

According to Zika (2005), "a mobile payment is an electronic payment made through a mobile device (e.g., a cell phone or a PDA)." 1 This uses a mobile device to initiate and confirm electronic payment. In the field of payments, mobile phones opportunity

is seen in the embedded SIM (smart) card used to store information of users. The advantage of not needing to use other devices such as modems, point of sale terminals, and card readers for mobile payments is also quite clear. (Zika, 2005)

Costello (2003) envisaged that further developments in the mobile payments content were inevitable in the near future. Mobile devices might be used in micro-payments such as parking, tickets, and charging mobile phones. A Personal Digital Assistant (PDA) is a small handheld computer.

2.5.9 Telephone Banking

Telephone banking or tele-banking is a form of virtual banking that deliver financial services through telecommunication devices. Under this mechanism, the customer transacts business by dialing a touch-tone telephone connected to an automated system of the bank. This is normally done through Automated Voice Response (AVR) technology". (Balachandher et al, 2001)

Tele-banking has numerous benefits for end users. For the customers, it provides increased convenience, expanded access and significant time saving. Instead of going to the bank or visiting an ATM, retail banking serves the same purpose for customers to get the services at their offices or homes. This saves customers time and money, and gives more convenience for higher productivity. (Leow, 1999)

2.5.10 Personal Computer Banking (Home Banking)

This term is used for a variety of related methods whereby a payer uses an electronic device in the home or workplace to initiate payment to a payee. In addition to computer technology, it can be performed using the telephone and IVR2. (Chorafas 1988).

"PC- Banking is a service which allows the bank's customers to access information about their accounts via a proprietary network, usually with the help of proprietary software installed on their personal computer". (Abor, 2004) It is used to perform a variety of retail banking tasks, and offers the customer 24-hours services. "PC-banking has the advantage of reducing cost, increasing speed and improved flexibility of business transactions." (Balachandher et al, 2001)

2.5.11 Online/Internet Payments

This is the means by which customers transact business with a bank through the use of the Internet network. Customers can access their bank accounts and make transfers through a web site provided by the bank and complying with some rigorous security checks.

The Federal Reserve Board of Chicago's Office of the Comptroller of the Currency (OCC) Internet Banking 2 Interactive Voice Response (IVR) is a software application that makes use of both touch-tone keypad and voice telephone input selection and ensures that response is received by way of fax, voice, email, callback or other media. Handbook (2001), describes Internet Banking as "the provision of traditional (banking) services over the internet". The Internet is able to offers instantaneous settlement of transactions and the prospect of a highly cost effective payment system for low value transactions. The Internet has the potential to reach majority of customers since it can disseminate "advertising material" through World Wide Web home pages and product databases. (Neuman & Medvinsky, 1996)

2.5.12 Electronic Cheque

Electronic cheques are used in the same way as paper cheque – the clearing between payer and payee is based on existing and well known banking settlement system. The only difference between paper and electronic cheques are the dematerialization of the payment instrument which is passed on via computer networks like Internet in the later technology. ECheck proposed by Financial Services Technology Consortium (FSTC) is an example of the electronic cheque. (United States Department of the Treasury Conference, 1996).

Electronic cheques also known as e-cheques are virtual cheques that allow consumers to use Internet in making cheque payments. The buyer fills out a form (that looks like a cheque on the screen) with the necessary information, and then clicks the "send" button. The information then goes through a computer or a transaction service, depending on which way one chooses to accept check payments. (Rudl, undated).

2.5.13 Digitized 'E-Cash' Systems

E-cash payment system takes the form of encoded messages and representing the encrypted equivalent of digitized money. One key attraction is that it avoid the time and expense associated with becoming an approved credit card accepting merchant. It does not require the use of intermediary; therefore anyone can effect payment directly. (Crede, undated).

However, most present schemes require the direct involvement of a bank for its system of digital cash issuance. According to Crede (undated), “a bank is integral to

the scheme, since it is required to hold collateral and to provide ultimate settlement of e-cash to more directly convertible currencies".

2.5.14 Digital P2P Payments

Bank-based P2P3 system allows users to send money from bank accounts and credit cards electronically. It employs e-mail services to notify recipients of an impending funds transfer.

Most bank-based P2P requires the sender to register with the P2P site. Most of the providers allow users to move money a limited amount of money around the world. (Rudl, undated). P2P e-mail payments are offered mainly through Yahoo!, the Postal Service, and some banks.

Example of companies that offers P2P payment services is MasterCard which enable users to use digital wallet to make payments from a credit or debit account to any person in the world, in their local currency, directly into their bank account or as a check mailed to that person. (Rudl, undated) 3 Person-to-Person (P2P) enables anyone with an email address or a mobile phone number to send and receive payments.

2.6 EMPIRICAL INFORMATION

The empirical information provides firsthand information on the existing payment practices by looking at the range of payment products provided by banks in the Kumasi Metropolis. It describes the various forms of electronic payment mechanisms integrated into the banking system in the Kumasi Metropolis, particularly the Central Business District. Each of these evolved in different ways, but in recent years different groups and industries have recognized the importance of working together (networking). As pertains in many other countries (both developed and developing),

cash is by far the most widely means of payment in the Metropolis. Whereas cash is use for payment of low values in other developed countries, a significant portion of both medium and large-value transactions are made through cash in the Kumasi Metropolis. This is evident in the Business District. The intent of this section is to provide some key information necessary for a more detailed analysis in subsequent chapters.

2.6.1 Central Business District In Kumasi Metropolis

The central Business District is the hub of merchandising activities in the Kumasi Metropolis. Adum, Kejetia, Bantama, Asafo and Amakom are the emcompasses of the Central Business Districts in the Metropolis. For official purposes, Adum is in the Center of the Business District of KMA and on average, almost a quarter of the population in Kumasi go to Adum to transact business activities of all sort. Moreover, it is in the central business district that one can find all the financial institutions that meet their financial needs-banks.

There are twenty-seven banks (here, the banks refer to the commercial banks as in the directive of the Bank of Ghana) in the Business District. For the sake of this research fifteen (15) banks were studied with respect to the case study.

The various electronic delivery channels that were discovered are discussed below;

2.6.2 ATM Card

A major advance in the electronic aspect of the payment systems was the introduction of automatic teller machines (ATMs). The goal is to reduce over-the-counter workload of human tellers. As a directive from the Bank of Ghana, all commercial Banks are required to install ATMs in front of their bank premises and other vantage

areas they may deem fit. Banks in the Metropolis providing this service are currently engaged in finding ways whereby they could have reciprocal use of each other's ATMs. This would imply that customers would not be limited to the use of their bank's ATM, thus providing greater convenience for their customers.

The first bank to introduce this service in Ghana was The Trust Bank, which has installed ATMs since 1995 that allow customers 24-hour access to their funds. The Trust Bank has networked all its branches to an ACH4 so that customers can withdraw funds at any of their branches.

Following closely are Standard Chartered Bank and Barclays Bank. The two banks have centralized operations at their respective head office, and have networked all their branches to 4 Automated Clearing House enable customers to check their balances, make withdrawals, or deposit funds into their accounts. (Abor, 2004).

According to Abor (2004), Ghana Commercial Bank (GCB) in collaboration with Agricultural Development Bank started to offer ATM in 2001. Today, all the banks operate ATMs in Kumasi and it has been the most successful package for the banking customer. ATMs have made it possible for people to transact business without having to visit their branch for the same services. GCB have is known as READYCASH where customers can access his/her current or savings account.

Through any of their READYCASH dispensers networked, customers can do all sort of transactions throughout the day.

2.6.3 Credit Card

Major international credit cards such as Visa, MasterCard, American Express and others such as Maestro are accepted as a medium of payment in major shops, hotels, restaurants, supermarkets and travel agencies in Ghana. Most of these cards may be also used at ATMs belonging to some of the banks to collect small amounts of local currency. (Ghanaweb, undated).

2.5.4 Debit Card

Standard Chartered Bank was the first bank to lunch debit card in Ghana in 2001. This has been incorporated with the ATM cards, which have increased its availability to the public. The card gives customers access to their funds through SCB ATMs or any VISA branded ATM throughout the world. In 2004, the First Atlantic Merchant Bank (FAMB) introduced the widely regarded American Express into the Ghanaian market. Most of the categories of the Express card – the Basic Green Card, the Golden Card, and the Platinum Card, are on offer to its customers with appropriate credit rating.

SG-SSB5 Limited in collaboration with the Visa International has lunched four Visa Debit Card Products for its domestic and international customers. The Visa Trump Card has a PIN protection unique to each customer and can be used in various points of sale terminals and ATMs both in Ghana and in 150 countries across the world. (Bank of Ghana, 1999).

2.5.5 Electronic Cards

SG-SSB introduced the first major cash card in May 1997. This card is known as 'Sika Card', onto which a cash amount is electronically loaded. (Abor, 2004)

Transaction Management Services (TMS) based in Ghana introduced a domestic online debit card POS (point of sale) services in June 2002 that allows consumers to effect immediate payment for goods and services from their accounts through the online electronic transfer of funds with banks connected to TMS inter-bank switch. Three banks – Ecobank, Cal Merchant Bank and The Trust Bank with their domestic debit card "E-Card" was the first to utilize the system in 2002. The card is online in real time, and permits holders to instantly purchase goods and services without paying cash but simultaneously debiting the cardholder's account and crediting the merchant's bank account.

Barclays Bank Ghana has launched another unique product called Travelex Cash Passport. It is a card that enables customers to carry funds easily and access the Visa ATM machine with a PIN.

The cash is loaded with US dollars but can be withdrawn in local currency from any of Visa ATM machines worldwide. The bank has also partnered with VISA and Trevelex World Wide Money (Wildcard) to make the product accessible in all countries. (Accra Daily Mail, 2004).

2.6.6 PC Services

Most of the banks in the Metropolis now offer PC banking services, mainly to corporate clients, to initiate a range of automated transactions from their own offices or homes. "The banks provide the customers with the proprietary software, which they use to access their bank accounts, sometimes via the World Wide Web (WWW). This is on a more limited scale though, as it has been targeted largely at corporate clients." (Abor, 2004) Four banks currently offer PC banking 5 Société Générale –

Social Security Bank services in Ghana – GCB, Ecobank, SCB, and Barclays. Stanchart with their Domestic Payment Service (DPS), allows subscribers to transfer payment and direct debit information in an electronic format from their computers to the bank.

2.6.7 Mobile

Currently, only Standard Chartered Bank provides active mobile banking services known as SMS Banking. This allows customers to do some banking enquires on their mobile phones.

Customers do not need to go to their branch to do the following transactions: balance enquiry, transaction enquiry, cheque book request, statement request, and payment of utility bills.

SG-SSB Bank also lunched a product called Sikatext. This is a smart banking service that enables customers' access to their financial information by a text message via their Spacefon mobile phone any time in the day. With this product, customers can easily check their account balance. Although, the services this offered do not include payment services, the bank has indicated to include such service in future. (SG-SBB, undated).

2.6.8 Internet

Stanchart has started the first Internet Based On-line Banking Service in Ghana. SSB Bank Ghana is one of the three banks in Ghana to offer Internet banking services via the installation of the state-of-the-art software called Flexcube. Twelve (12) branches

of the bank have already gone live on Flexcube. (Mishra, 2002) Currently, Internet payment is not well-developed in Kumasi.

2.6.9 Telephone

Telephone banking is on the ascendancy in Ghana. "Barclays Bank (Gh.) launched its telephone banking services in August, 2002. SSB Bank also launched its "Sikatel" or SSB Call Centre telephone banking in 2002. The services available with this system are; to ascertaining credible information about the bank's products, the customers' complaints, bank statements and cheque book request and any other complaints and inquiry." (Abor, 2004).

2.6.10 Electronic Purse

Standard Chartered Bank Ghana and Visa International lunched the first domestic Visa Horizon – a chip-based, pre-authorized card, offline payment card (COPAC). The chip is an electronic purse that enables funds to be loaded from their account and has offline capabilities. The card can be used to make purchases or withdraw cash.

Other cards that can be regarded as e-purse are SSB's "Sika Card", Trust Bank's "Auto Cash Card", SCB's "Money Link Card", and Barclays Bank's "Barclay Cash Card".

CHAPTER THREE

METHODOLOGY

3.1 RESEARCH METHODOLOGY

In this section, we will concentrate on the method we adopted throughout this study. First the choice of method for the study will be accounted for. We will then discuss the research method, research strategy, and the research process.

3.2 CHOICE OF RESEARCH METHOD

Two different approaches can be used in writing a study of this nature – inductive or deductive. Deductive approach generates hypotheses from a particular theoretical framework and then tests these by observing reality. It is concerned with developing propositions from existing theory and making them testable in the real world. (Dubois & Gadde, 2002).

An inductive approach identifies a real phenomenon from which patterns are identified and described, and appropriate theories selected to explain and interpret the phenomenon. It starts with empirical observations, translated into generalizations that are in turn serving as a foundation for developing theories or models. (Carneiro & Merzoug, 2001).

An inductive approach is more appropriate when performing case studies of this nature. The inductive approach can be seen as a first step on the way of creating knowledge in a field where there is no prior theories. (Yin, 1994) We used inductive approach in the writing of this study.

Two reasons inform our judgment in using the inductive approach; first there is lack of established theoretical frameworks that deal with electronic retail payment. Throughout our research, we have not come across landmark theories on electronic retail payment. Therefore, we started this study by exploring the topic in general, and considering issues that seems important to the study and subsequently identifying some relevant frameworks as the study progresses. The other reason is that since there have been constant innovation in electronic payment mechanisms available today, with its multiplicity in different countries, little regarding a standardized electronic payment mechanism is known, which rules out a deductive approach which is based on testing an acceptable theory in a new situation.

First, we began this study by conducting research in electronic retail payment on the Internet in general as well as those pertaining in Kumasi using written sources and telephone interviews as our information sources. We used the data gathered to develop theories based on the analysis of the data.

3.3 RESEARCH STRATEGY

The choice of a research strategy depends on a number of factors. Yin (1994) identifies five main research strategies within the social sciences – experiments, surveys, archival analysis, histories and case studies. The most appropriate strategy for a given situation depends on such factors as the type of research question, the control an investigator has over actual behavioral events, the focus on contemporary as opposed to historical phenomena. (Yin, 1994).

In our context, the research strategy factor that would be most appropriate depending on the case study is the survey.

3.4 THE RESEARCH PROCESS

In this study we first consider the theoretical framework as far as electronic retail payment is concerned. There is therefore the need to make a preliminary survey about the subject with respect to the Case Study. The case study was conveniently chosen due the fact that the resources that would enable us to carry out this research would be located in the Kumasi Metropolis particularly in the Central Business District.

In order to appreciate the Research Process of this study, we gathered empirical information from the Banks especially from managers and officials and few offices that manage the electronic retail payment systems.

Questionnaires were sent to our target groups (banks, customers and offices/shops with electronic retail systems) in the central business district. This was to help us assess and ascertain the impact of user acceptance and problems in the electronic retail payment.

Interviews were also conducted with users of ATM's, e-zwich cards and debit/credit cards and this was to find out problems they normally face in their usage. Sometimes we had to make telephone calls to certain people who may be of assistance to us. As part of data and information collection, we made use of the CSUC library, KNUST library, K'Poly library, journals and the internet.

We used both the qualitative and the quantitative approaches (in chapter four) to analyze the study that was conducted. This enabled us to deliver the research findings, the recommendations and its conclusion for the subsequent chapters.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 FINDINGS

- It was realized that cash and cheque had an overwhelming usage as the medium of transactions in payment of bills, settlement of goods and services and payment of debt.
- It was found out that the electronic retail payment systems in the Metropolis were under utilized by customers.
- Many people in the Metropolis had never operated an ATM or had used an electronic card before, according to our interviews.
- It was also revealing that the e-zwich or smart card was gaining some appreciable popularity by the populace.
- Most of the Banks in the Metropolis do not have common integrative on-line payment devices whereby customers can access at all times.
- The utility service providers in the Metropolis do not have these electronic retail payment devices in locations where customers can make payments, except with some selected banks (few accredited banks) where customers have to go other than the biller's location.
- The survey also revealed that respondents with higher educational background preferred the establishment of the electronic payment systems to the cash and cheque payment methods.

- It was found out that the banking halls were most of the times filled with customers; long queues and time wasting, due to the overdependence on the cash and cheque systems.
- It was also revealing that a large number of banks in the Metropolis could be located in the Central Business District, but only some few banks were located in the other suburbs. This in turn, put much pressure on those banks in the Business District.
- It was evident that enough public education on the use of electronic payment system had not been fully done in the Metropolis.

4.2 ANALYSIS OF DATA

To analyze the survey data obtained from the survey questionnaire, we employed descriptive statistics to ascertain the level of customer's reaction to e-payment products. We analyzed the results of the survey questionnaire administered.

4.3 SURVEY PARTICIPANTS

Data were gathered from the questionnaire sent to customers and bank corporate bodies.

A total of 275 questionnaires were sent to bank employees, customers and corporate bodies. 5 questionnaires were sent to each of the 15 banks studied, while 200 questionnaires were also given to customers and corporate bodies to solicit for their views. Of the 75 questionnaires sent to the banks, 45 responded representing approximately 60% response rate.

The rest of the 200 questionnaires were answered by bank customers and corporate bodies representing a 100% administration of these questionnaires, and this was due

to the presence of those who administered the questionnaires at the various banks' premises – making sure that customers have actually responded. All those who agreed to respond to the questionnaires were made to provide instant answers, and those questions that they found it difficult to understand were explained to them.

4.3.1 Customers' Educational Level

Educational Level	Below Middle/JHS	Middle or JHS	O/A Level SHS	Under-Graduate	Post-Graduate	Total
No. of Respondent	7	32	132	23	6	200
Percentage	**3.5**	**16.0**	**66.0**	**11.5**	**3.0**	**100**

Source: Research questionnaire

Most of the respondents were not willing to reveal their educational background, but after a thoughtful explanation to them about the importance of this to the survey, all of them agreed to provide this information. However, only a handful of respondents attempted to reveal their income levels and as a matter of fact we could not include their income levels to the analysis. The analysis of educational level of those who responded to the questionnaire revealed the following trend: majority of those who answered the questionnaire falls within the O/L or A/L or SHS. Those with this level of education are 132 representing 66% of the respondents. Those with postgraduate degrees constitute the least customers that answered the questionnaire (i.e., 3.0%). A significant percentage of the respondents in the Metropolis have a low level of education (i.e., SHS and below), but constitute a greater proportion of those that

patronize banking services (85.5%). Most of these are school dropouts and are engaged in trading activities and business activities.

4.3.2 Employment Levels of Customers

Table 2: Respondents Employed

Educational Level	Below JHS	JHS	O/A Level or SHS	Under-Graduate	Post-Graduate	Total	Percentage
Employed	5	19	62	43	5	134	67
Unemployed	4	12	41	9	0	66	33
Total	**9**	**31**	**103**	**52**	**5**	**200**	**100**

Source: Research questionnaire

Note: Employed, include part-time and self-employed

For the respondent to the survey, 67% (200) of the customers are employed, meaning that a high proportion of bank customers are employed as compared to those unemployed. Out of this figure, 62 fall within the SSS level. Customers with postgraduate certificates/degrees that answered the questionnaire were all employed. The study shows that most of bank customers have SSS certificates and form the largest bank customers in the Metropolis. Those employed as shown on the table include self-employed and those engaged in part-time employment and private employment.

The education levels appear to correlate with employment as shown above. Those with a higher education are more likely to be employed and as such patronize electronic payment mechanisms. Junior High School (JHS), Senior High School (SHS), Ordinary Level (O/L), Advanced Level (A/L)

4.3.3 Personal Preferences

Table 3: Customers Personal Preference for E-Payment

Reasons	**No. of Customers**	**Percentage**
Control and customer service	55	27.5
Budgeting and record-keeping	40	20.0
Incentives and low cost	52	26.0
Convenience	32	16.0
Privacy and security	21	10.5
Total	**200**	**100**

Source: Research questionnaire

Another factor influencing payment instrument choice pertains to customers' personal preferences. Based on the survey questionnaires, five general consumer preferences were identified:

1. control and customer service;
2. budgeting and record keeping;
3. incentives and low cost;
4. convenience; and
5. Privacy and security.

Most of the respondents to the questionnaire who have initiated payment using electronic means valued more than one preference, but it appeared that most were primarily driven by just one or two preferences across different payments they were making. For instance, 27.5% confirmed that their desire for e-payment includes the ability to review, initiate, stop, and record payments as well as customer service if

problems arise. 20% indicated their preference for e-payments would be budgeting and record-keeping. 26.0% indicated that using e-payment will minimize cost, while 16.0% felt that error resolution are convenient and are tailored to meet their needs.

For privacy/security, 10.5% indicated that for e-payments' ability to withhold information that may be detrimental if disclosed, they prefer making payments by electronic means.

4.3.4 Transaction-Specific Factors

Table 4: Amounts Transferred

Amounts GH₵	10- 50	51- 100	101- 200	201- 400
No. of Response	68	43	25	8

Source: Research questionnaire

Transaction-specific is other factor that influences consumer decision-making. This relates to the specific nature of the payment being made, where it is being made, and how the how the consumer views their relationship with the merchant. Many customers indicated that since they can sit in the comfort of their homes to effect payment, they prefer e-payment to the traditional payment methods. Since most of the amounts indicated to have been transferred by the respondents are of smaller values, there is the likelihood that they will use electronic means.

4.3.5 Ranking of Payment Methods by Customers

Table 5: Ranking of Payment Methods

Customers Responses	Cash	Cheque	Credit Card	Debit Card	Elect Card	EFT/ POS	Tele. Banking	PC Banking	E. Banking
No. of Customers	82	7	17	35	12	28	4	5	10
Percentage	41	3.5	8.5	17.5	6.0	14.0	2.0	2.5	5.0

Source: Research questionnaire

A series of questions were designed to examine the perception of bank customers about the different payment services. Customers were asked to rank the various means of payment available to them, and as expected, cash was overwhelming favourite. Maybe this was due to maturity of cash usage and the fact that other payment products are not well-developed in the Metropolis.

The reasons given were that it is easy, carries no interest and payment are resolve immediately.

Over 41% of the respondents ranked cash as their most preferred method of payment. Debit card was the next preferred method of payment (17.5%), followed by EFTPOS (14%) and credit cards (8.5%).

Most respondents were of the view that they are not used to the electronic payment methods, but majority indicated that they would like to shift into e-payment if the banks will introduce more of them with enough education. 17.5% indicated they prefer to use debit cards since it can be used to make purchases, at the same time to

pay bills. 17 respondents indicated that they prefer credit cards, because that would allow them to make purchases even if they are not present at the point of sale.

4.3.6 Customers in Favour of Electronic Payment Products

Table 6: Customers in Favour of Electronic Payment Products

Customer Type	SSS Education & Above	Below SSS Education
No. of Customers	98	11
Percentage	61.3	45.8

Source: Research questionnaire

Customers were asked to indicate whether they are in favour of a nation-wide establishment of e-payment products in the country. In all, 109 respondents answered in the affirmative, with the rest indicating that they are not in favour of its establishment. Specifically, 98 out of 161 (representing 61.3%) with senior High school certificates and above were more in favour of e-payment instruments while those with education below SHS were less in favour of e-payments (i.e., 11 out of 39 representing 28.2%)

4.3.7 Actual Usage of Electronic Payment Methods by Customers

Table 7: Use of Electronic Payments by Customers

Customers Response	Once	Twice	Many Times	Total
No. of Customers	**14**	**29**	**36**	**79**
Percentage	**7.0**	**14.5**	**17.9**	**39.4**

Source: Research questionnaire

It was surprising to find out that over 60.5% responded indicated that they have not used any of the electronic payment mechanisms to make payment. Only 39.5% confirmed that they have actually used one or more of the electronic channels for payment. This shows that the number of customers who have embraced the use of electronic payment is low in the Metropolis.

4.4.1 PROBLEMS ENCOUNTERED IN MAKING PAYMENT

Table 8: Payment and Settlement Problems

TYPE OF PROBLEM	NO. OF RESPONDENTS	PERCENTAGE (%)
Long Queues	33	16.5
Bad Attitude of Tellers	17	8.5
Time Wasting	28	14.0
Long Distance	26	13.0
Few Bank Branches	16	8.0
Armed Robbery Attacks	12	6.0
Use of counterfeit Notes	8	4.0
Bulky Bank Notes	17	8.5
Dishonoured Cheques	10	5.0
Short Banking Hours	15	7.5
Few Payment Methods	18	9.0
Total	**200**	**100**

Source: Research questionnaire

Customers were asked to enumerate some of the problems confronting them in bills payment, payment for goods and services, and settlement of debt. Customers' response to this part of the survey was very revealing. Problems range from bad nature of bank notes to long queues at bank and utility payment premises.

Of the 200 response received from bank customers, majority cited long queues and time wasting at bank premises and at utility collection point as a major problem that needs a critically look. The most common problems that the respondents cited are long queues and time wasting at bank premises and utility collection points. Out of the 200 customers surveyed, 33 (16.5%) and 28 (14.0%) cited long queues and time wasting at bank premises respectively as the major problems confronting them.

4.4.2 Long Queues and Time waiting

Even though the introduction of networked computers and ATMs has improved waiting time at the banks, many customers still complained about the long waiting time. 68 of the respondents indicated that they had to wait about 30 minutes to more than one hour to get served at the banks. Most of the respondents indicated that there were no proper queuing systems (those at GCB) at many of the banks. The majority of the respondents indicated that the absence of queuing system has at times led to confusion about the order of customers to serve. Some customers also bypass the queue and receive services from the tellers.

4.4.3 Bad Attitudes of Bank Tellers

Some of the respondents felt that the behaviors of some bank tellers leave much to be desired. Of the respondents representing 8.5% indicated that some of the bank tellers' behavior does not much with the overall goals of the banks, and that this needs to be

checked. They cited this as the main reason why they prefer other mode of payment such as e-payments to avoid encounters with bank tellers. Some of the reasons they gave are that some of the bank tellers are slow, unduly delay customers, always attend to other social or private matters, and sometimes allows other customers to bypass the queue to be served.

4.4.4 Few Bank Branches

Most of the respondent indicated that the bank branches available could be much located in the Business District and other quiet busy suburbs of Kumasi and this presents to the customers the phenomenon of few Bank branches. As such, it makes cash withdrawals cumbersome since customers have to travel long distance to the branch where they have their accounts. 16 (8.0%) of the respondents shared this sentiment and most of them agreed to the assertion that this situation sometimes discourage them from visiting the banks to withdraw money for onward payment for goods and services.

4.4.5 Armed Robbery Attacks

6.0% of the respondents cited armed robbery attacks as the main reason why they prefer e-payment to cash or cheque. Recent incidents of armed robbery attacks on customers who withdraw huge sums of money from the banks have heightened customers' fears about withdrawing large sums of money from the banks. It is uncommon in Kumasi to find a whole business organization withdrawing physical cash to pay workers wage manually. Some of them end up being attacked on their way from the banks resulting in huge losses to those organizations.

4.4.6 Use of Counterfeit Bank Notes

The use of banks notes for most business transactions has brought about the notorious activities of people who circulate counterfeit money. 4.0% of the respondents were of the view that, with a good business strategies, if more e-payment products are introduce into the payment system, it will help put a check to the activities of these people. In the Metropolis, counterfeit bank notes make up only a tiny percentage of the total number of genuine notes in circulation. Nevertheless, every effort should be made to combat counterfeiting to limit its impact on businesses in the Metropolis and its potential to diminish public confidence in the Ghanaian currency.

4.4.7 Bulky Nature of Bank Notes

The bulky nature of bank notes refers to the bulk physical cash that one has to carry to transact business in the Metropolis. Sometimes respondents revealed that when they carry bulk cash around town they feel insecure and frighten for the instance of theft and misplacement. 8.5% of the respondent indicated that due to the bulky nature of bank notes, they would prefer using a card or any other e-payment mode.

4.4.8 Cheques Dishonoured

Most respondent (5.0%) were of the view that they will not like to issue or accept cheques. This group indicated that the bank charges for cheques issued are prohibitive while they cited dishonoured or bounced cheques as the other reason why they prefer cash or e-payment. The increasing incidence of dishonoured cheques due to insufficient funds has resulted in many customers refusing them.

4.4.9 Banking Hours

In terms of banking hours, 10 (5.0%) indicated that they found the banking hours very inconvenient. Of those who expressed dissatisfaction with the banking hours, over 68% indicated their preferences for longer hours from 8:30 a.m. - 5:00 p.m.

4.4.10 Few Payment Methods

One other problem identify is the narrow scope of banking services provided. 18 of the respondent indicated that the major constraint in payment for goods and services, and the settlement of bills is the availability of just a few payment mechanisms. This group cited this reason as the major factor discouraging them from making payments.

4.5 BANK EMPLOYEES AND OFFICIALS

The interviews with bank employees and officials revealed that majority of the banks faces problems ranging from technical to infrastructure. Some of the constraints are: limited technical expertise- IT, lack of capital, lack of cooperation by different banks, lack of uniform accounting systems in the banks examined (example reporting period) and communication problems with the headquarters in Accra due to telephone and internet irregularities.

Sometimes, some of the bank employees were of the view that electronic payment instruments when made available, promoted and accepted by consumers will go a long way if not to eliminate the payment problems, will reduce it to the minimum. Some cited the heavily use of electronic payment instruments in the Scandinavian countries and how this has helped to enhance efficient retail payment systems. Others also felt that the, for example, the use of EFTPOS (eg. E-zwich) terminals are suitable

for low value payments and will bring about efficiency in the numerous daily payments.

Almost all the respondents were reluctant to provide any information about the status of their wealth or income levels. We wanted to use this information to ascertain how wealth influence or affect payment choice of respondents. The number of responses for income is insignificant for our analysis, so we did not include this in the analysis but it is worth mentioning.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 SUMMARY AND CONCLUSION

This study has covered some issues associated with payment transactions, instruments, and systems prevailing in the Kumasi Metropolis. It contains a description and analysis of various electronic payment instruments from the viewpoint of end-users. Furthermore, it looked into the trend and the use of electronic payment in some selected countries. Finally, it included a description of innovations in electronic retail payments in Kumasi.

As elaborated earlier in this study, the retail payment systems in Kumasi during the recent years have undergone progressive technological developments, but have also remained highly paper-based and needs further room for upgrading. The outcome of the study shows that cash transactions continue to play a significant role in almost all major cities and in particular the Kumasi Metropolis. Even the developed countries are making every effort to ensure a cashless society and Kumasi, which is the second major economic city in Ghana, cannot wait to embrace this concept.

As consumers seek out new ways to do business, the market must provide innovative electronic payment solutions that can eliminate or reduce some of the problems they faced. Banks will have to determine what kind of electronic payments services best fit their customers' needs, and which could lead to smooth operating payment systems. There are also numerous problems in processing cash and cheques that electronic

payments can eliminate. Both cash and cheques are labor-intensive – must be physically transported and counted, and risk loss or theft throughout their processing.

We can conclude that consumers have a propensity to show rational payment preferences and behaviours based on the analysis of the consumers' survey. It was observed that consumers' behaviours are consistent with their preferences, which vary but may include convenience, incentives, control, privacy, security, and personal involvement. The study showed that, one of the significant impacts pertaining to payment instrument choice on consumer decision-making is consumers' financial positions and the nature of specific transactions.

We see improve adoption of electronic payment products. Its adoption is growing steadily over the recent years. We are convinced that many people are going to flock to electronic payments as it becomes easier to use. If electronic payments can carry the broader features similar to those of cheques and cash, and that could solve their problems, consumers will migrate towards electronic payments at an increasing rate.

The banks are doing well in promoting electronic payments products but a vast majority of people in Kumasi still pay their bills by paper cheques and cash. Therefore, there is the need to create more awareness to entice the unbanked people into the banking system. The result demonstrate low user acceptance of existing payment products – a pivotal factor in determining the success or failure of any payment system.

An area that is worth for further research is, giving the current low level of savings and account holders, how can the banks be motivated to introduce more electronic payment mechanisms as well as motivating the people to patronizing the products?

Another area that needs to be look into is how the new electronic payment system can reach the under-served populations, like low income or ethnic communities as many of them may not afford several thousand of money to buy computers to link the new systems?

5.2 RECOMMENDATION

The use of cash for frequent transactions apart from the problems enumerated in this study, it is risky, costly and inefficient for consumers. The need therefore to migrate from the use of paper to electronic payment instruments cannot be overemphasized.

- At the moment, most payment cards in the Metropolis utilize a magnetic stripe and need an on-line connection to the issuing bank for the approval of transactions. This means that if the bank is offline, the transaction will be denied. But in emerging markets such as Ghana, the majority of merchants are off-line, which makes magnetic stripe cards almost useless. Considering the limited level of technological infrastructure in the Kumasi Metropolis, chip cards are best for the customers in the Metropolis because it has been successful in environments where the communication infrastructure is limited. Chip-based payment products can bring payment to people who lack the infrastructure required for conventional magnetic stripe payments. Off-line technology is likely to succeed for some time in Kumasi, because it is cheaper in an environment where there is a limited form of telecommunications.
- Government needs to ensure that the cost of telecommunications, hardware and software are made cheap, which will involve examining existing taxes and import duties. New technology and changes in the banking laws can produce change.

Therefore, there is the need for the government to remove barriers to innovation, including regulatory barriers to pave way for rapid development of the electronic payment systems in the Metropolis.

- The emergence of electronic payment systems raises a whole range of both legal and regulatory issues that needs to be looked at. An effective national low value electronic payment system will certainly remove what is currently a major obstacle to the expansion of general business activities. The emergence of an electronic payment system which is easy to use, cheap to process, and boost trade, is likely to have a range of only partly anticipated side effects. For example, it could result in the creation one currency for the Economic community of West African States (ECOWAS) which other countries in the Sub-region are yearning for.
- There is the need for banks to educate consumers about all of their payment system options and the pro and cons of each. Consumers will need to be informed about the potential liability for the use of new types of electronic payment, so they can understand how it differs from cash.
- Although, the Kumasi Metropolis can learn valuable lessons from the experiences of other major cities elsewhere, the Metropolis must still develop its own payment system. Simply importing another developed major city elsewhere's electronic payment system without adjusting for the geography, infrastructure, banking and legal structures, business practices, culture, and needs could lead to a suboptimal system.
- As for further research, there is the need to explore the importance of mobile money transactions in the Metropolis.

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APPENDIX 1

Commercial Banks in the Metropolis

NAME OF BANK

Agricultural Development Bank

Amalgamated Bank Ltd

Barclays Bank of Ghana Ltd

Cal Bank Ltd

Ecobank Ghana Ltd

First Atlantic Merchant Bank Ltd

Ghana Commercial Bank

Merchant Bank Ltd

National Investment Bank Ltd

Prudential Bank Ltd

Society General SSB Bank Ltd

Stanbic Bank Ghana Ltd

Standard Chartered Bank Gh. Ltd

The Trust Bank Ltd

Unibank (Gh) Ltd

Others

APPENDIX 2

QUESTIONNAIRES

ON ELECTRONIC RETAIL PAYMENT SYSTEMS: USER ACCEPABILITY AND PAYMENT PROBLEMS IN KUMASI

Please tick the appropriate answer(s) in the brackets provided in the given options

SECTION A. PERSONAL IMFORMATION (USERS)

I. Background Information:

Gender: Male [ ]

Female [ ]

II. Level of Education

Below Middle/JHS [ ] Undergraduate [ ]

Middle/JHS [ ] Post Graduate [ ]

O/A Level/ SHS [ ] Others [ ]

III. Occupation

Government Employee [ ] Private Employee [ ]

Self Employed [ ] Student [ ]

SECTION B. INFORMATION ON ELECTRONIC RETAIL PAYMENT SYSTEM (CUSTOMERS)

1. Are you aware of electronic retail payment systems?

Fully Aware [ ] Aware [ ] Moderately Aware [ ] Not Aware [ ]

2. Do you use any electronic retail payment scheme?

Once [ ] Twice [ ] Many Times [ ] None [ ]

3. Which type of electronic retail payment scheme do you use?

Debit Card [ ] Credit Card [ ] E-zwich [ ] ATM [ ] Others, specify……

4. Apart from the ATM card, do you use any other electronic retail payment card?

Yes [ ] No [ ], if yes please specify…….

6. What major problems do you have with use of the traditional payment system (cash and notes)?

Bulkiness of notes [ ] Bad notes [ ]

Risk of theft or robbery attack [ ] Risk of counterfeit notes [ ]

5. What major problems do you have with the use of electronic retail payment schemes in Kumasi?

Availability of the electronic retail payment machines in vital areas [ ]

Security related problems; example password/pin, barcode, theft etc [ ]

Power failures from service providers' power supply [ ]

Delays in replacement of lost cards [ ]

Others, please specify…….

6. In case of lost of your electronic retail payment card, how long does it take for replacement?

Within a week [ ] Within a Month [ ] More than a Month [ ]

7. How long does it often take you to withdraw cash when you use the banking hall?

Within 15 minutes [ ] within 30 minutes [ ] within 45 minutes [ ] more than an hour [ ]

8. How long does it often take you to withdraw cash when you use an ATM?

Within a minute [ ] within 2 minutes [ ] within 5 minutes [ ] more than 5 minutes [ ]

9. How well are you acquainted with the electronic retail payment devices?

Advance User [ ] Normal user [ ] Average User [ ] Beginner [ ]

10. Would you prefer electronic retail payment system to be accepted nationwide?

Strongly Agree [ ] Agree [ ] Disagree [ ] Strongly Disagree [ ]

11. Indicate whether you have made any payments of a utility service at a bank before?

Yes [ ] No [ ]

12. Indicate which of the utility services you made a payment to at a bank?

Electricity services [ ] Water services [ ] Telephone services [ ]

13. What are some of the problems you encounter when making payments?

Please specify…….

……

14. Which of the following mediums would you prefer best for payment of bills, settlement of debt, and payment of goods and services?

Cash [ ] E-zwich card [ ]

Cheque [ ] Telebanking [ ]

Credit card [ ] PC banking [ ]

Debit card [ ] Internet banking [ ]

15. Do you know how to pay utility bills electronically?

Strongly Agree [ ] Agree [ ] Disagree [ ] Strongly Disagree [ ]

16. Which of the following will influence your most desire to use electronic retail payment systems?

Control and customer service [ ] Budgeting and record-keeping [ ]

Incentives and low cost [ ] Convenience [ ]

Privacy and security [ ]

others……..

APPENDIX 3

QUESTIONNAIRES

ON ELECTRONIC RETAIL PAYMENT SYSTEMS: USER ACCEPABILITY AND PAYMENT PROBLEMS IN KUMASI

SECTION A. BACKGROUND IMFORMATION OF BANK

1. Name of Bank……
2. Branch……
3. 3. Networked Bank [ ] Not networked Bank [ ]
4. Time of Banking…….
5. Please indicate if the bank operates the following e-products

   Debit Card [ ] Credit Card [ ] E-zwich [ ] ATM [ ]

   others, please specify……..

DEFINITION OF TERM

Electronic retail payment system refers to the convenient, safe, and secure methods for payment of bills and other transactions by electronic means such as card, telephone, the Internet, EFT, and etc. Electronic payment gives consumers an alternative to paying bills and debts by cash, cheque, money order, etc. Its main purpose is to reduce cash and cheque transactions.

SECTION B. INFORMATION ON ELECTRONIC RETAIL PAYMENT SYSTEM

1. The bank understands the very needs of customers in electronic repayment systems

   Strongly Agree [ ] Agree [ ] Disagree [ ] Strongly Disagree [ ]

2. Customers perception on electronic payment system is changing positively

   Strongly Agree [ ] Agree [ ] Disagree [ ] Strongly Disagree [ ]

3. The bank is expanding its operations in electronic payment schemes nationwide.

   Strongly Agree [ ] Agree [ ] Disagree [ ] Strongly Disagree [ ]

4. Please indicate which of the following problems the bank is usually confronted by customer with respect to bill payment, settlement of goods and services and payment of depths.

   Strongly Agree [ ] Agree [ ] Disagree [ ] Strongly Disagree [ ]

5. Please give us your comments on the future trend of customers' acceptability on electronic payment system.

   Strongly Agree [ ] Agree [ ] Disagree [ ] Strongly Disagree [ ]

Name of officer……..

Position …….

Thank you.