

**Investigating customer attitude towards Automated Teller Machine; (a case study at
GCB Bank Limited)**

KNUST

BY:

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Master of Business Administration (Strategic Management and Consulting)

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DECLARATION

I hereby declare that this submission is my own work towards the Masters in Business Administration, and to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the university, except where due acknowledgment has been made in the text.

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ABSTRACT

ATMs serve the primary purpose of allowing people to withdraw money from their bank accounts from virtually anywhere in the world. The machines work by reading the magnetic strip of an ATM or debit card. This study seeks to examine customers' attitude towards ATM services at Ghana Commercial Bank (GCB) Limited. The study was quantitative in nature and adopted descriptive and explanatory research approach. The population for the study consisted of all customers of GCB in Ashanti region of Ghana. Using convenience sampling technique, 30 customers each were selected from the five branches used for the purpose of this study (Bekwai, Bantama, KNUST, Suame and Adum). Structured questionnaires were used to collect primary data and analysis was done using frequencies, percentages, mean, standard deviation, one sample t-test, and binary logistic regression. The study revealed that four demographic variables of customers significantly affected the use of ATMs at GCB. These were gender, education, occupation, and level of income. The type of account operated (be it savings or current), did not significantly influence the usage of ATM services. The study indicated that, the majority of the customers had GCB's ATM card. And they mostly used either once or twice a month. The customers of GCB were satisfied with the existing ATM locations, speed of response, convenience of service, 24/7 service accessibility, the process of money withdrawn under ATM scheme, and the easy of login. The major challenges faced by customers when using GCB's ATM were, unreliable network system, machine out of order, valid limit on amount of cash withdrawn, wrong debits, reduction in balance without cash payment, card gets blocked or locked up, and machine out of cash. The study found out that males were more likely to use ATM services more than females. The researcher recommends that, for banks to fully realize the potential benefits of customers using its ATM facilities, it must have special promotional packages to attract females unto the ATM service.

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DEDICATION

To God Almighty and my family.

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CHAPTER ONE

GENERAL INTRODUCTION

1.0 INTRODUCTION

This chapter introduces the entire study. Items to be looked at includes the background of the study, problem statement of the research, objectives of the research, research questions, scope of research, justification of the research, overview of methodology and the structure of the study.

1.1 BACKGROUND OF THE STUDY

Banking is an information intensive activity that relies much on information and communication Technology (ICT). Banking needs information technology to acquire process and deliver relevant information to clients. This has led to the adoption of e-banking by various banks throughout the world. A first cash dispensing device was used in Tokyo in 1966. Although little is known of this first device, it seems to have been activated with a credit card rather than accessing current account balances. This technology had no immediate consequence in the international market. In Sub-Saharan Africa, developments in Information and Communication Technology (I.C.T) are radically changing the way business is done. Electronic commerce is now thought to hold the promise of a new commercial revolution by offering an inexpensive and direct way to exchange information and to sell or buy products and services. This revolution in the market place has set in motion a revolution in the banking sector for the provision of a payment system that is compatible with the demands of the electronic marketplace (Handler et al., 2001).

The financial system is based on a number of commercial and non-banking institutions. In 1998, the Central Bank embarked on a Financial Sector Structure Adjustment Programme (FSSAP) to

improve the performance on the financial sector through electronic banking. The programme has largely contributed to the revival of the financial sector by enhancing the soundness of the banks and restructuring the financially distress banks through diffusion of new capital and management of expertise. E-banking has facilitated banking transactions for customers and bankers alike. Whereas it is faster, easily accessible, more convenient and readily available for customers, it is cost saving to bankers. Owing to this, e-banking has been gaining popularity as a potential medium for electronic commerce (Crede, 1995).

Literature has it that, banks all over the world are re-orienting their banking strategies as e-banking enables them scale borders, change strategic behaviour and bring about new possibilities. Many scholars argued that e-banking enables customers compare the services of the various banks by many scholars. The GCB Bank Limited, as part of its strategic management policies has introduced and incorporated e-banking facilities to make the organization provide optimum services to its clients. With e-banking (internet banking), users with personal computer and browser can get connected to the bank's website and perform any of the virtual banking functions the GCB Bank Limited has displayed all the services permitted on the internet on the menu.

An automated teller machine (ATM) is a cash dispensing machine where people can have access to their account with a card. ATMs serve the primary purpose of allowing people to withdraw money from their bank accounts from virtually anywhere in the world. The machines work by reading the magnetic strip of an ATM or debit card. The customer inserts or swipes the card at the machine, which gathers information; including the account number, bank routing number and expiration date from the strip. The customer verifies his or her identity by punching in a personal identification number (PIN) and makes the desired transaction from their account. For example, if the customer wishes to withdraw GHS100 they would enter that amount into the ATM, which will

dispense the money along with a receipt. Because ATMs are available all over the world, they give people access to their money from anywhere (Robat, 1968).

This is especially important for travellers who used to either carry large sums of cash or face the hassles of finding places to cash checks. ATMs eliminate the safety risk of carrying large amounts of money and also have the convenience of not needing to find a place to cash a check. ATMs also have a benefit of being able to withdraw money when the bank is closed either at night or during weekends or holidays (Brown et al., 1999).

The two types of ATMs are on-premise and off-premise. On-premise ATMs are located at banks and are an extension of the branch's operations. Off-premise ATMs are the ATMs located at restaurants, university campuses such as the Kwame Nkrumah University of Science and Technology, gas stations and hotels. These ATMs are often linked to the interbank network but have limited options available and are usually restricted to only withdrawing money and checking balances (Brown et al., 1999).

GCB Bank Limited's focus for year 2011 appears positive as the world economy recovers from crisis to growth and the domestic economy has achieved a relative stability due the prudent fiscal and monetary policies embarked upon by the government. Management has reviewed the existing human resources, recruited highly skilled and competent individuals to man certain key departments to ensure that the necessary human resources are available for the necessary implementation of the change agenda of the bank. The bank has continued to extend their branch expansion programme to areas where their services will be available to existing and new clients.

1.2 STATEMENT OF THE PROBLEM

Automation of banking service delivery is becoming a critical factor in the process of trying to attain cost effectiveness which can be used as a strategic competitive weapon in the financial market. Many financial institutions such as GCB Bank Limited have clearly embarked on the development of technology-driven strategies which they hope will be translated in terms of customer preference and consequently, higher return and market penetration. Adoption of ATM by the various banks was to ease the pressure on the human tellers especially during peak periods in the banking hall. The provision of 24 hour banking service to customers accessing their deposits coupled with convenience banking has been the strategic targeting of the banks, yet the patronage of this service seems not to be encouraging. In spite of the purchase of this expensive machine, most banking halls are choking with human traffic making the limited number of staff stress out. This phenomenon has led to poor quality delivery of service, hence the need for this write – up.

1.3 RESEARCH OBJECTIVES

The main objective of the study is to investigate customer attitude towards ATMs. The specific objectives are as follows;

- i. To assess the impact of demographic factors on the use of ATMs of GCB.
- ii. To identify the level of usage of GCB's ATMs.
- iii. To examine the challenges customers of GCB face with respect to the use of ATMs.
- iv. To assess the level of satisfaction of customers with GCB's ATMs.

1.4 RESEARCH QUESTIONS

- i. How does demographic factors influence the use of ATMs of GCB?
- ii. What is the level of usage of GCB's ATMs?
- iii. What are the challenges customers of GCB face with respect to the use of ATMs? iv.

How satisfied are the customers of GCB's with regards to their ATMs?

1.5 SIGNIFICANCE OF THE STUDY

The significance of the computerization of the banking industry has not yet been well recognized in Ghana as it is in developed countries. In USA for example the success recorded by most banks has been attributed to effective use of computerized banking system. This study will analyse the extent to which GCB Bank Limited is practicing this technology and finally, the work would serve as a base for further research and discussion into computerized banking system. The study hopes to find out whether the use of computerization and ATM by banks affect customer choice of bank and satisfaction of bank service delivery. The study is also for practical and managerial perspective. It will be important for customers as they will be able to evaluate the benefits of technology in service delivery. It will also contribute to a body of knowledge to aid and guide researchers in the adoption of appropriate theoretical framework in the conduction of research in marketing. It will also throw light on and put forward the argument for methodological pluralism in marketing research.

1.6 SCOPE OF THE STUDY

The study will be limited to selected customers of GCB Bank Limited in Ashanti area branches namely Bekwai, Bantama, KNUST, Suame and Adum. The reason being that, there is enough information on customers using ATM and the five branches serve as a representative of what is done in all the other branches of GCB Bank Limited nationwide and other commercial banks. The population from which samples would be drawn for this study will consist of individuals who are customers of GCB Bank Limited.

1.7 OVERVIEW OF RESEARCH METHODS

The research designs adopted for this study were explanatory and descriptive. The major source of data collection was primary. Primary data was obtained from field survey using structured questionnaires as the research instruments.

The population of any research is made up of the individual units or an aggregate, that is the unit or the individuals that form the population whereas a sample is a section of the population selected randomly or otherwise to represent the population (Monnette et al., 2002). The population of the study comprised the customers of GCB in Ashanti region.

Binary logistic regression, one sample t-test, mean, standard deviation, frequencies and percentages were used to generate meaningful information from the data. This analysis was done with the aid of SPSS (v.17).

1.8 LIMITATIONS OF THE STUDY

The study being undertaken is embodied with some limitations. In the first place, GCB Bank Limited has not yet upgraded data on the various categories of account holders over the years

including holders of ATM accounts and numerical changes on the banks customers' population. This would thus, prevent us from using adequate statistical and quantitative data to support the study. As an alternative, however, the researcher hopes to rely on GCB Bank Limited customers to collect this information through questionnaire. Secondly the time limit for the presentation of the research is too short. Finally, the selection of GCB Bank Limited, Ashanti Area does not fully represent the entire view of bank's customers in the country. This is also attributed to cost and time constraints.

1.9 STRUCTURE OF THE RESEARCH

The research is organized into five chapters. Chapter One is the introduction which provides a background to the study, statement of the problem, research questions, objectives of the study, scope and organization of the study. Chapter Two reviews the relevant literature in the field of automated services. Chapter Three describes the methodology used for the study. This takes a look at population, sample and sampling technique, method of data collection, research design, and method of data analysis. Chapter Four presents the data analysis and discussion of results. Chapter five considers summary, conclusion and recommendations made to contribute to a body of knowledge to aid and guide researchers and other financial performance indicators adopted by this research.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

Rapid technological advances have introduced significant changes in the global economic and business environment. Ghana is no exception to the trend. In this regard all industries in Ghana are in one way or the other being affected by the advancement of technological innovation. GCB Bank Limited is constantly responding to changes in customer preferences and needs, increasing competition, information technology advances, channel strategies and government deregulation of the financial sector (Byers & lederer, 2001; Giannakoudi, 1999). In the banking industry, bank branches alone are no longer sufficient to provide banking services to cater the needs of today's sophisticated and demanding customers in the search for sustainable competitive advantages in the competitive and technological financial service industry. Organizations are aware that service quality provides strategic competitiveness in dynamic business environment.

2.1 ATM IN BANKING

Technology in banking (as measured by ATM) led to reduced operating costs, coupled with increased output (number of transactions) that resulted in greater efficiency. They concluded that the introduction of ATM was profitable for banks as well as customers. Their study indicated that banks' adoption of ATM was overall beneficial for banks. A survey conducted by Intermerc Consulting Limited revealed that ATM services provided by banks and non-financial institutions stood as the most popular e-business platform in Nigeria. The report showed that awareness for various banking services rendered by Nigerian banks was mostly limited to the traditional banking

services (Intermarc Consulting Limited, 2007). Findings equally showed that 99 per cent (99%) of the respondents were aware of savings accounts, 92 per cent (92%) were aware of current accounts while 72 per cent were aware of local money transfer services. However, among the more modern banking services such as electronic banking, Internet banking, money transfer, and among others, ATM emerged as the most popular with 96 per cent (96%) level of awareness. Awareness level of ATM also ranked higher than that of current accounts and slightly below savings account. Card holders were also aware that they could use devices deployed by other banks as well as other channels. Hone et al. (1998) found that in spite of the success and widespread use of ATMs, a significant proportion of bank customers could not or would not use them, or experience difficulties in their interactions. They suggested that speech technology should be used as a means by which non-users might be encouraged to use ATMs, while at the same time, improving usability for all. The advantages of this include hands-free and eyes-free use for physically and visually impaired users and improved ease and speed of use through increased naturalness of the interaction.

Marketing activities strive to produce customer satisfaction with the "four P's", product, promotion, price, and place (Kotler, 1997). Many companies perform the "place" function of physical distribution separately from marketing. However, it is likely that physical distribution through the provision of customer service contributes to the success of a company and can enhance customer satisfaction.

Industry has generally failed to recognise the importance of customer service to customer satisfaction (Innis & La Londe 1994). Hartley (1989) proposes that, in addition to the "four P's", one should consider a fifth 'P', public image. Public image is a composite of how an organisation is viewed by its various stakeholders. According to Innis and La Londe (1994), customer service

can influence demand in the market. It has been suggested that customer service is one of the most important considerations when a supplier is evaluated (Sheth, 1973, Perreault, & Russ, 1976, Jackson et al., 1985). A supplier's reputation for good service attracts potential customers and keeps existing customers loyal. Good service additionally provides protection from price competition (Hartley, 1989).

Quality service starts with customer service. Customer service is viewed as a process that takes place between a buyer, a seller, and third party (Innis & La Londe, 1994). The customer drives the service process and defines the quality (Friday & Cotts, 1995). Previous studies have shown that customer service is an integral and necessary part of the marketing mix, and it offers a significant opportunity for companies to gain advantage in the market place (Sterling & Lambert, 1987, Lambert & Harrington, 1989). Higher levels of customer service can create customer loyalty and improve long-term sales and profitability of a supplier. Companies that think about improving customer service should engage in it only if they can expect adequate returns for their attempts (Bowersox & Closs, 1996). Eckert and Goldsby (1997) propose that the constructs of involvement and visioning could be used as predictors of a company's propensity to consider service improvements. High involvement and high visioning customers can be identified as a potential group that would be more likely to respond to improved customer service with increased customer loyalty. If a supplier opts to improve customer service, it should be based on difficult-to-imitate competencies in order to avoid negation of the competitive advantage.

The operative quality of a service organisation is measured by its ability to handle service situations. To support customer service, the organisation should have maximal freedom to make decisions and utilise resources. By decentralising decision making, an organisation can make decisions faster and more effectively, at least in theory. Successful service organisations have in

common that, they are built of independent profit centres and they know the importance of customer trust and quality of services for the company's success (Näsi et al., 1996). Customers that purchase services with high transaction values, high requirements for accuracy and high-perceived financial, legal, or personal risk prefer to deal with the same person. However, these dedicated servers are almost always a costly solution for the service provider. This is because this server does not have knowledge of all the areas and the person is not available all the time. Some organisations have therefore chosen to form teams of service providers (Heskett et al., 1997).

2.2 ATM TECHNOLOGY EVOLUTION

Most inventions have happened due to sheer necessity and ATM is one of them. The history of ATM is full of interesting facts of which some are known and others unknown. According to the website www.engineersgarage.com/invention-stories/atm-history, it is believed that the history of ATM started when an Armenian named Luther George Simjian was forced to move to USA in the year 1920, under the account of Armenian Genocide. He owed to his credit the invention of a portrait camera and then he later rolled out the formulated idea of ATM. Confident of his invention, he persuaded Citibank to run his product on a six month trial basis. Soon enough, he was disappointed with the performance and the lack of users and concluded that ATM was a wasteful addition to personal banking. The lack of demand for the ATM finally forced him to take a back seat. During this period it was very clear that the time was not right for this concept to have been accepted generously (Omari, 2012). Simjian clearly lost out on the success and fame and the same was passed on to two other gentlemen, John Shepherd-Barron and Don Wetzel. John Shepherd-Barron was a Scottish national born in India. Later he relocated to Britain and pursued his education from the University of Edinburgh, and at Trinity College, Cambridge. After returning empty handed from a bank, Shepherd-Barron was disappointed to have had no option than to wait

till the bank opened the next working day. And thus in a similar fashion like Archimedes, Shepherd-Barron claims to have hit his interesting moment while taking a bath. A self-sufficient cash dispensing machine was what he was thinking about. And soon the ATM was invented in the early 1960s. The invention of a self-sufficient cash dispensing machine was his second and successful attempt at inventions. Prior to this invention he had invented an instrument to scare away seals (fish eating mammals) at his Scottish Salmon farms. Unfortunately, this device instead of deterring the seals attracted them, and was thus a failure. The same website also shows that the ATM machine gained Shepherd-Barron an ever-lasting recognition in the banking world and paved the way for hi-tech banking techniques, online bank accounts, Personal Identification Number (PIN) and chip security technology (Omari, 2012). The four-digit internationally accepted standard PIN was also invented by him. Earlier, he had a six-digit Army serial number in his mind but later his wife suggested for a shorter PIN as it would be easy to remember.

Finally in 1967, the first ATM that dispensed paper currency round the clock (24 hour basis) was unveiled. The ATM was installed outside a Barclay's bank in North London. The ATM machine accepted and generated money through cheques impregnated with certain chemicals. A mild radioactive substance, Carbon 14 was used for detection by the machine. Once the PIN was given, the machine gave out the cash. This radioactive substance had no ill effects on the health of users and Shepherd-Barron claimed that a user would have to eat about 136,000 cheques to suffer any kind of ill-effects. Reg Varney, a famous TV sitcom popular became the first person to use the ATM in the year 1967 and withdrew about 10 dollars. The amount seems too less for us, but this money was enough for a complete night out spent on the tiles in London, inclusive of dinner, drinks, a show and a taxi-ride back to home. While this prototype device originated by ShepherdBarron had started functioning, various parallel developments were happening in

different parts of the world. The same website further shows that an American engineer Donald Wetzel of Docutel engineered the Docuteller ATM which was declared as the first modern magnetic stripe machine. It recognized magnetically encoded plastic (credit cards) and not the usual paper cheques.

The development of ATM has gone through many stages, it started from its baby stage in the late 1930s and then geared up for longer runs in the 1960s, and finally a matured and stable stage that we see today. Undoubtedly, most of the ideas and patents contributed for makeover of the ATM from time to time form the backbone of what was initiated as “holes in the wall” (Omari, 2012).

Today, ATMs hold a strong foothold in the world, offering everyone a better access to their money, be it in any corner of the world. There are about 1.8 million ATMs in use around the world with ATMs on cruise and navy ships, airports, newsagents and petrol stations. ATMs too have been categorized as on and off premise ATMs. On Premise ATMs are capable to connect the users to the bank with multi-function capabilities. Off premise, ATM machines on the other hand are the "white label ATMs" and are limited to cash dispense.

The developments have not stopped; the contactless technology is on its rise. The same website concludes that Shepherd-Barron continued to take inimitable and lively interest in technology well even in his old age and had foreseen a future where plastic cards too would be numbered. For his excellent and unforgettable contributions to financial technologies, Shepherd-Barron was offered the OBE award in the year 2005. In the year 2010, he took his last breath and left behind his legacy of technological advancements.

2.3 ATM AWARENESS AND USAGE

In any service industry, it is important to investigate customers' awareness and usage in investigating customer behaviour. The assessment of customers' awareness and usage of products/service has become more important as banks must not rely solely on indigenous banking styles as a strategy to secure customers' allegiances but they should also emphasize providing quality and efficient product and services (Dusuki & Abdullah, 2007).

In a service business like banking, perception of quality emerges from both awareness and usage of the products/service. The reason is that unlike the quality of tangible products, quality of banking products/services depends on customers' experience with products/service. Banking products/services are experienced while they are produced (Metawa & Almosawi, 1998). In turn, service quality is highly related to (even though not equivalent to) customer satisfaction. Given the importance of awareness and usage in shaping customer behaviour, Metawa and Almosawi (1998) measured customer awareness and usage of various Islamic bank products/services in context of Bahrain.

Organizations are aware that service quality provides strategic competitiveness in dynamic business environment. Literature provides significant relationship between service quality and Banks' performance based on improved productivity, increased market share, enhanced customers' attraction and loyalty, improved staff morale, and sustained profitability (Jabnoun & Al-Tamimi, 2002). Research has found that service quality in banks is critical for satisfaction and retention of customers (Jabnoun & Al-Tamimi, 2002). Keeping in view the significance of service quality as a means of competitive advantage and organizational sustainability, the banks are

pursuing multidimensional approaches to improvement in service quality to attract and retain customers.

According to Castleberry and Resurrecion (1989), the physical location of banks' delivery channels influence perception of customers about quality. Consistent delivery of services, physical dimensions and staff interaction with customers, trustworthy processes and procedures positively affect delivery of services quality (Sureshchandar et al., 2002). Pleasant customer interaction with staff significantly affects customers' perception of quality (Yavas et al., 1997). In response to this requirement, banks have initiated flawless delivery processes to reduce delivery timings to improve service quality.

2.4 ATM AND THE GENERATION

A number of researchers have investigated the demographic characteristics of ATM adopters. Ahmed et al., (2006) studied a population, Cronin & Taylor (1992) studied a Canadian population, and Cohen et al., (2006) studied a Southeast Asian population and all got consistent results of adopter characteristics of ATM, in which ATM users tend to be young and have above average incomes and at least some high school education. Milligan (2007) and Schreiber (1994) in their studies also obtained similar results. Lewis & Bingham, (1991) specifically found that household heads under the age of 35 were considerably more likely to use computerized banking, ATMs, and debit cards than older consumers, while consumers' use of direct deposit increased with age.

Rugimbana & Iversen's (1994) study profiled users and non-users of ATMs in terms of demographic and perceptual variables. The main aim of the study was to discriminate users from non-users, using the demographic variables of respondents and their perceptions of ATM attributes in order to assess the relative importance of these predictor variables. It was found that perceptual

variables were far more successful as predictors of ATM service usage than respondent demographic variables. Darch and Caltabiano (2004) explored the relationship between demographic, user-situational, attitudinal variables and ATM use in an Australian sample of older adults. These adults were Volunteers aged 60 years and above, who conducted their own banking transactions. Technology, perceived control and perceived user comfort were found to have an independent significant effect on ATM usage. Age, education, attitudes and user-situational variables were found to be related to ATM use, only technology experience, perceived user comfort and control were found to be determinants of ATM use.

Studying technology adoption in different cultural contexts, analyzing the relationship between Hofstede's cultural value dimensions and ATM's adoption in urban India, Horvath (2007) proposed that, the underlying inhibitors to ATM adoption in India were not intrinsically different from those determined earlier in Europe and North and South America. These inhibitors could be traced back to a few main factors, such as feelings of inadequacy, preference for human contact, lack of need and safety concerns. They believed that those who used ATM did so because they had a need for it, perceived it was easy to use, felt safe using it, and had positive attitude towards technology in general. These reasons appeared to be caused by different factors in different contexts due to different cultural values. For India, Schreiber, (1994) stated that the feeling of inadequacy was the result of a strong value dimension expecting different access to resources as a function of people's social status. The long-term orientation of Indians explained why they did not mind queuing to access basic financial services. Yi (1990) investigated the diffusion of various electronic banking technologies, such as ATMs, debit cards, smart cards, direct deposit, and direct payment, along with the characteristics of adopters and non-adopters based on the DOI theory.

They used the 1995 Survey of Consumer Finances and discovered that more educated, affluent and younger consumers who were likely to communicate with professional information providers tended to adopt electronic banking technologies more readily than their counterparts. Despite this, the specific factors that described adopters and non-adopters varied across different types of banking technologies.

According to Mobarek (2007), the most technologically savvy bank customers sometimes had trouble comprehending the maze of options available. A lot of people keep trying until they find solutions, but the elderly usually have problems using ATMs. Banks may be losing the elderly as ATM customers. Education and machine redesign could be the best hope for elderly customers. Most systems designers and bank officers assumed that ATM was easy to use and required no training. Evidence however showed that users of all ages had problems using ATMs initially when no training is provided, and that older adults have problems even after training. They indicated that banks could find better ways of teaching people how to use ATMs. Out of the 13 banks they randomly questioned, only two provided brochures that showed the user how to operate the ATM, and these brochures were perfunctory at best. In their study, non-users of ATMs did not use the machines as they did not see a need for the service, probably explained by their lack of knowledge about how the system worked and their discomfort in having to learn it while others waited. Many respondents were not aware of the different options offered on ATM and were more predisposed to use it if they were provided training. Non-users and users stressed concerns about safety in using ATMs.

As stated by Wolfiribargar & Gilly (2003), in spite of the success and widespread use of ATMs, a significant proportion of bank customers could not or would not use them, or experience difficulties in their interactions. They suggested that speech technology should be used as a means

by which non- users might be encouraged to use ATMs, while at the same time, improving usability for all. The advantages of this include hands-free and eyes-free use for physically- and visually impaired users, and improved ease and speed of use through increased naturalness of the interaction. Schlichter (2007) investigated user attitudes to the concepts of a speech-based ATM, via large-scale survey and a series of focus groups. They detected that the idea of using speech for ATM transactions led to concerns such as that of privacy and security. Visually impaired users were more likely to want speech technology which meant that enhancements to ATM did not necessarily suit all types of users.

Through archival research, Stafford (1994) investigated the impact of the introduction of Automated Teller Machines (ATM) in British retail banking. ATMs were originally a British innovation but U.S. (e.g., IBM and NCR) and German manufacturers (e.g., Siemens) took the lead as ATMs became a global technology. The evolution of ATM showed how banks adopted on-line, real-time computing for the entire branch network and highlights the role of network externalities in financial markets. From a business history perspective, ATM characterized a shift in bank strategy, namely how applications of computer technology moved from being potential sources of competitive advantage to being a minimum requirement for effective competition in retail finance. Stafford's study argued that during the 1990s, Information Technology in banking (as measured by ATM) led to reduced operating costs, coupled with increased output (number of transactions) that resulted in greater efficiency. They concluded that the introduction of ATM was profitable for banks as well as customers. Their study indicated that banks' adoption of ATM was overall beneficial for banks.

A survey conducted by Intermerc Consulting Limited revealed that ATM services provided by banks and non-financial institutions stood as the most popular e-business platform in Nigeria. The

report showed that awareness for various banking services rendered by Nigerian banks was mostly limited to the traditional banking services (Intermarc Consulting Limited, 2007). Findings equally showed that 99 percent of the respondents were aware of savings accounts, 92 percent were aware of current accounts while 72 percent were aware of local money transfer services.

However, among the more modern banking services such as electronic banking, Internet banking, PoS transactions, money transfer, etc. ATM emerged as the most popular with 96 percent level of awareness. Awareness level of ATM also ranked higher than that of current accounts and slightly below savings account. In addition, the report indicated that Inter-bank transactions dropped by 30.2 percent in October 2006 to 29.8 percent in October 2007, implying strong adoption of ATM. Cardholders were also aware that they could use devices deployed by other banks as well as other channels.

2.5 BENEFITS OF TECHNOLOGY-BASED BANKING SERVICES (TBBS) – ATMS

Bank leaders have three main incentives to invest in TBBS. First, bank leaders can gain an economy of scale by increasing fixed cost in the technology infrastructure to minimize variable cost per transaction (Ajah, 2008). Second, banking customers differentiate between banks based on the banks' technological capabilities (Sureshchandar et al., 2002).

The third incentive for using TBBS is an enhanced competitive position. The effective use of technology creates barriers to entry, enhances productivity and efficiency, and increases customers' switching cost (Ajah, 2008; Sureshchardar et al., 2002). By using TBBS, bank leaders might collect customer information for effective use by management (Anderson & Sallivan (1993). Banks can then gain market share and knowledge ahead of the competition.

Customers might benefit from TBBS because of control, speed, convenience, ease of use, and enjoyment (Dabholkar, 1996). Technology-based banking services provide customers with more control over banking needs in terms of when, where, and how to produce the service. Customers might be attracted to services that save them time, money, or effort. Customers might save bank trips and waiting time in teller queues. Some customers expect better service quality when using TBS (Dabholkar, 1996).

Technology-based services are easy to use, have convenient operating hours, and have reachable locations (Ajah, 2008). The convenience component includes accessibility to the service such as availability of Internet service for website access, mobile handsets for mobile banking services, and nearby service locations for ATM services. Convenient services can be perceived as low CTC.

2.6 CUSTOMER SATISFACTION

Customer satisfaction is measured at the individual level, but it is almost always reported at an aggregate level. It can be, and often is, measured along various dimensions. Customer satisfaction is an ambiguous and abstract concept and the actual manifestation of the state of satisfaction will vary from person to person and product / service to product/service. The state of satisfaction depends on a number of both psychological and physical variables which correlate with satisfaction behaviours such as return and recommend rate. The level of satisfaction can also vary depending on other options the customer may have and other products against which the customer can compare the organization's products (Parasuraman, 2000).

Work done by Parasuraman et al. between 1985 and 1988 provides the basis for the measurement of customer satisfaction with a service by using the gap between the customer's expectation of performance and their perceived experience of performance. This provides the measurer with a

satisfaction "gap" which is objective and quantitative in nature. Work done by Cronin and Taylor propose the "confirmation/disconfirmation" theory of combining the "gap" described by Parasuraman et al. as two different measures (perception and expectation of performance) into a single measurement of performance according to expectation.

Satisfaction is a person's feelings of pleasure or disappointment resulting from comparing a product's perceived performance (or outcome) in relation to his or her expectations said by Kotler (1997). Brown (1992) defines customer satisfaction as: The state in which customer needs, wants and expectations throughout the product or service's life are met or exceeded resulting in repeat purchase, loyalty and favourable worth-of mouth.

According to Jones and Sasser (1995), four basic elements affect customer satisfaction. They are: the basic elements of the product or service, basic support services, a recovery process for counteracting bad experiences, and extraordinary service. There are many definitions of the key elements of the services, but this one is considered appropriate in the context of care or after sales services provider and is viewed as a function of all previous transaction-specific satisfactions (Teas, 1991).

In an ideal situation, both the transaction-specific satisfaction and overall satisfaction should be assessed. Transaction-specific satisfaction directly influences a customer's repurchase intentions, but only when overall satisfaction is low. In such a case, consumers allow their evaluation of the last service encounter to influence repurchase decisions. When a customer has had a bad experience, the service manager may wish to remind the customer of his/her previous overall satisfaction. Particularly at the early stages of the customer relationship, high levels of transactionspecific satisfaction are particularly important (Jones & Suh, 2000).

A consumption-system that consists of a bundle of goods and services that are consumed over time in multiple consumption episodes conceptually has three constitutive elements: attribute-level evaluations, satisfaction, and behavioural intentions. Transaction-specific and cumulative satisfactions are distinguished, as consumption occurs as a series of encounters between consumption system and the consumer. In the case of automotive consumption, product and services are the key subsystems of the consumption-system (Mittal et al., 1999).

The relationship between attribute-level evaluations and overall satisfaction is dynamic and shifts over time. High levels of customer satisfaction resulted from the delivery of satisfiers. To delight a customer, a company's performance in hygiene factors must be adequate and combined with high performance in satisfiers (Naumann & Giel, 1995; Peck et al., 1997).

According to Finkelstein and Golan (1990), companies need to develop a detailed understanding of customers' expectations in each stage of their ownership experience, develop supporting procedures and establish evaluation and incentive systems in order to satisfy customers. Wellington (1995), divides customer satisfaction elements into product, sales, after-sales, location, time, and culture. The satisfaction elements of after-sales include maintained interest and complaint handling. Complaint handling should be responsive and keep the customer advised through the process; a customer should feel appreciated. A customer's reordering should be made easy and it should build on existing information about the customer.

The importance of delight has additionally been recognised in the area of quality by Deming (1986), who encourages companies to do more than merely satisfy customers. Delighting the customer can be a profitable business practice. The meaning of product and service features to consumers is divided into product attributes, satisfiers, and delights. Product attributes are central

to the basic function of the product and they only dissatisfy as the consumer expects their presence. Satisfiers are satisfying in the sense that high levels of such attributes have the potential for further satisfaction beyond that provided by the basic function of the product. Delights are unexpected and enjoyable. There are two types of delights: those that raise consumer expectations and those that are appreciated on a onetime basis and may be sought again. In cases of assimilated delight, it is likely to raise consumers' expectations. In this case if the loyalty effect or a consumer attraction can be improved, the delighting feature could be considered. In the case of transitory delight, the firm benefits only minimal as the delight is soon forgotten. Expectations are likely to be raised after delight, and delighting the customer will be more difficult in the future (Farson, 1997, Rust & Oliver, 2000).

A customer is delighted (Friday & Cotts, 1995) once the service that is delivered exceeds the customer's expectations. Even if a customer's demands or expectations are unrealistic or inappropriate, the customer makes the buying decisions. Customer expectations can be exceeded in two ways: in the first, the consumer says that the product was better than expected, but not surprisingly, and in the second, the level of performance is surprisingly positive (Rust & Oliver, 2000).

Although expectations become higher, the supplier may benefit from the delight, because if the competitor is unable to copy the delight programme, it will be affected more severely than the focal supplier will. If the competitor can easily copy the delight programme, there is no advantage to be gained, as the situation resembles a "Prisoner's Dilemma Game". In such a scenario, profits decrease and all suffer.

Therefore, it is essential for businesses to effectively manage customer satisfaction. To be able to do this, firms need reliable and representative measures of satisfaction. In researching satisfaction, firms generally ask customers whether their product or service has met or exceeded expectations. Thus, expectations are a key factor behind satisfaction. When customers have high expectations and the reality falls short, they will be disappointed and will likely rate their experience as less than satisfying. For this reason, a luxury resort, for example, might receive a lower satisfaction rating than a budget motel even though its facilities and service would be deemed superior in 'absolute' terms.

2.7 ATM AND CUSTOMER SATISFACTION

Recent advances in technology have created a surge in —technology-based self-service (Dabholkar et al., 2003). Oliver (1980) defines customer satisfaction, as —Satisfaction is the customer's fulfilled response. It is a judgment that a product or service feature, or the product or service itself, provides a pleasurable level of consumption-related fulfillment.

In his study titled 'A Critical Review of Consumer Satisfaction' conducted by Yi (1990), customer satisfaction is a collective outcome of perception, evaluation and psychological reactions to the consumption experience with a product and also states that many studies found that customer satisfaction influences purchase intentions as well as post-purchase attitude. Johnson, (1993) says in his book that, a satisfied customer will recommend excellent products and services to their friends and help the enterprise to increase its market share and profitability'. Johnson also examined the factors that influence customers' satisfaction on ATM services includes costs involved, and the efficient functioning of ATM.

Anderson, Fornell and Lehmann, (1994), the researchers of customer satisfaction said that the bank's ability to deliver the factors like convenience and accessibility will probably impact on customer satisfaction. Moutinho (1992) argued that ATM facility resulted in speed of transactions and saved time for customers. Lovelock (2000) identified that secured and convenient location, adequate number of ATMs, user-friendly system, and functionality of ATM are the important factors for the customer satisfaction. Based on the prior studies, Al-Hawari and Ward (2006) compiled a list of five major items about ATM service quality that include convenient and secured locations, functions of ATM, adequate number of machines and user-friendliness of the systems and procedures. Most early studies found location convenience influences most on bank selection (Kaynak & Kucukemiroglu, 1992).

According to Leeds (1992), the key dimensions of automated banking service quality include reliability, ease of use, privacy, convenience and responsiveness. Wolfenbarger & Gilly, (2003) argue that reliability is the strongest predictor of customer satisfaction. Much of the researches say that there is an association between customers' usage pattern and the demographic profiles. Ajay (2008) in his study on —Technology led customer service has found that the customers would expect security of money, growth, safety and respectful listening from their banks. ATMs are used no longer for dispensing money only but also offer more information and services. In customer relationship management in banking sector, Sarangapani and Mamatha (2008) found that the introduction of ATMs, Internet banking and Credit cards help the customers to carry out their transaction in an easy way. ATM helps the customers to transact within a short time. Milligan (2007) mentioned that age is the main factor that determines ATM services in Coimbatore City.

Many studies had investigated the effects of demographic profile such as age, educational qualification, sex of the customers and the attitude towards the acceptance of new technologies (Al

Somali et al., 2008). The research on the relationship among young people and financial institution established that these people have their accounts in more than one bank, because of need for convenience, requirement of more services offered, and 24- hours' availability of ATM and location. Initially they were required to focus more on perception of a customer, whether he is willing to adopt the technology or not (Dabholkar, 1994). It has been established through research that customer's response to a specific technology depends upon the service quality that is provided (Parasuraman et al., 1994).

2.8 CONCLUSION

This review has attempted to examine the literature in marketing with specific reference to banking, customer adoption and usage of ATM. In terms of theoretical framework and methods, a number of gaps have been reviewed. This research therefore does not depart from this theoretical framework and methodological stand but continue to employ methods to address the research problems and questions observed in chapter one. The review also found that, there is a very little study in the phenomenon of ATM adoption and usage in particularly developing countries in Africa. Hence an overarching aim of this study is to plug this gap with the conduction of this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 INTRODUCTION

This chapter presents the scientific and analytical framework for the study. This involves the research paradigm, purpose of the study, population, sample and sampling procedure, data collection methods, data analysis, quality of research and research ethics.

3.1 RESEARCH PARADIGM

A paradigm is a way of examining social phenomena from which particular understandings of these phenomena can be gained and explanations attempted (Saunders et al., 2009). Cooper and Schindler (2003) described business research as a systematic inquiry that provides information to solve managerial problems. Cooper and Schindler (2001, 2003) argued that this type of scientific research must have certain characteristics such as direct observation of a particular phenomenon; the variables, methods and procedures must be defined clearly, the hypotheses must be tested empirically; there has to be an ability to rule out opposite hypotheses; the conclusion must be justified statically; and the needs to be an ability to self-correct.

In contrast, the naturalistic approach is opposite to the scientific approach. It denies the form of standardised theoretical structure because its aims for new theory not to verify the current theory. The naturalistic approach is in line with the grounded theory that postulates that the best way to explain a theory is to find the theory from the data. This kind of approach assumes that grounded theory lies within the data, while the scientific approach claims that facts do not speak for themselves (Blalock, 1969).

In addition, according to Cohen & Manion, (1980), quantitative research is defined as social research that employs empirical methods and empirical statements. He states that an empirical statement is defined as a descriptive statement about what “is” the case in the “real world” rather than what “ought” to be the case. Moreover, Creswell (1994) has given a very concise definition of quantitative research as a type of research that is `explaining phenomena by collecting numerical data that are analyzed using mathematically based methods (in particular statistics).

This research aims to reveal customers’ attitude towards ATM in depth and therefore, the naturalistic approach seems to be more suitable. In addition, the existing data tend to be quantitative in nature; therefore the approach is also termed quantitative as they are derived from administering of questionnaires. However, whenever possible the qualitative approach will be combined with a quantitative one in order to give added value and synergy, since each approach essentially has its own advantages and disadvantages (Perry et al., 1999).

3.2 PURPOSE OF THE STUDY

The purpose of a study has three common methods, the exploratory, descriptive and the explanatory. An exploratory study is a valuable means of finding out ‘what is happening; to seek new insights; to ask questions and to assess phenomena in a new light’ (Robson, 2002, p59). It is particularly useful if you wish to clarify your understanding of a problem, such as if you are unsure of the precise nature of the problem (Saunders et al., 2009). It is developed based on grounded theory which was intended as a flexible approach to formulate theory based upon generic principles of theoretical saturation, constant comparison method of analysis and theoretical saturation (Glaser & Straus, 1967).

However, this study was explanatory in nature because it established causal relationships between variables (Sanders et al., 2009). The emphasis here is on studying a situation or a problem in order to explain the relationships between variables (demographic factors that impact on the use of ATMs). The study was also descriptive in nature because it sought to portray an accurate profile of respondents (Robson, 2002). Descriptive design may be an extension of, or a forerunner to, a piece of exploratory research or a piece of explanatory research. It is necessary to have a clear picture of the phenomena on which you wish to collect data.

3.3 POPULATION AND SAMPLING PROCEDURE

This section considers the population of the study as well as the sampling procedure used in the study.

3.3.1 Population of the Study

The population of any research is made up of the individual units or an aggregate, that is the unit or the individuals that form the population whereas a sample is a section of the population selected randomly or otherwise to represent the population (Punch, 2006). The population of this study includes the customers of GCB nationwide.

3.3.2 Sample size and Sampling technique

The full set of cases from which my sample is taken is GCB Bank Limited branches in Ashanti. The branches include Bekwai, Bantama, KNUST, Suame and Adum. Since GCB Bank Limited is a big organisation with large customer base, it would be impractical for the researchers to survey the entire population. Sampling will enable the researcher consider only data from a subgroup

rather than all possible cases. Using convenience sampling, thirty (30) customers were also selected from each bank. This made a total of 150 customers.

3.4 DATA COLLECTION METHOD

Data is information in raw or unorganized form (such as alphabets, numbers, or symbols) that refer to, or represent, conditions, ideas, or objects (www.businessdictionary.com). Data can be categorized as primary or secondary. Primary data is defined as consisting of materials that you have gathered yourself through systematic observation, information from archives, the results of questionnaires and interviews and case study which you have compiled (Jankuwics, 2002). The study made use of primary data because it has not been published yet and is more reliable, authentic and objective. Primary data has not been changed or altered by human beings and therefore its validity is greater than secondary data. Secondary data on the other hand, represents a primary data that was collected by someone else or for a purpose other than the current one (www.businessdictionary.com).

The study made use of primary data gathered with questionnaire as the research instrument. Primary data are information collected by a researcher specifically for a research assignment. Questionnaire was appropriate for the study because Saunders et al. (2009) indicated that both experiment and case study research strategies can make use of this research instrument. It was also used because data collected using questions can be stable, constant and has uniform measure without variation. It also reduces bias caused by the researcher's presentation of issues.

3.5 DATA ANALYSIS

Data and information gathered were manipulated before being analysed using the Statistical Package for Social Sciences (SPSS): data categorization to highlight characteristics and comparisons, and data contextualization to reveal unforeseen contextual relationships between particular events and circumstances. A preliminary analysis was then performed to consider each case separately and to systematically fold the variables. Finally a cross-case analysis was performed to compare in order to obtain a general explanation of the observed phenomenon. This set of strategies will help in ensuring the reliability of the research (Yin, 2003). This research results will be presented in the form of logical argument, which can be used by the research for explaining, interpreting, defending, challenging and finding further meanings. This dissertation is more likely to incorporate an inductive approach and let the data speak for themselves. This study will adopt a multi-method approach because this method not only helps in developing a more holistic view, but also facilitates explanation and prediction (Perry et al., 1999). Binary logistic regression, one sample t-test, mean, standard deviation, frequencies and percentages were used to generate meaningful information from the data. This analysis was done with the aid of SPSS (v.17).

3.6 QUALITY OF THE RESEARCH

In order to reduce the possibility of getting the answers wrong, attention need to be paid two particular on research design: reliability and validity (Saunders et al., 2009).

3.6.1 Reliability

According to Polit & Hungler (1999) reliability is the level at which research instrument is consistent in measuring a particular attribute. Also if an independent research administers the same

instrument and it produces the comparable results, then it is said to be reliable. (De Vos, 1998). Therefore the lower the dissimilarity of results that is produced by an instrument under repeated administering for an attribute the better the degree of its reliability. The following questions help to measure reliability according to Easterby-Smith et al. (2002: p.53). “Will the measure yield the same results on other occasions?; Will similar observation be reached by other observers? and is there transparency in how sense was made from the raw data?”

3.6.2 Validity

Validity refers to how true or false is the data generated by use of a research. Validity of a research instrument can be categorized as being internal or external (Burns & Grove, 2001). Content validity is measures the degree to which the content of the instrument seems to expansively examine the scope it is supposed to measure (Bowling, 1997). This was ensured by a thorough review of literature, the basis of which the research instrument (questionnaire) was developed. Other steps were taken to ensure the validity of the study. Firstly, the questionnaire was pilot tested, which enabled the researcher to make the necessary adjustments for the final questions. The improved questionnaire was used to gather data from a reliable source; staff from the selected rural banks. And finally, data was collected within 3 weeks, and within this short period of time, no major event has been changed with related topic.

3.7 RESEARCH ETHICS

This study made used of the principles of study stipulated by Polit and Hungler (1999), which are the principles of beneficence, of respect for human dignity and of justice.

3.7.1 The Principle of Beneficence

Under this principle there is concern for freedom from harm, freedom from exploitation and the risk benefit ratio of the participants. Accordingly, there have been no physical injury to respondents in this research project though the nature of the questions posed may generate some discomfort in their psychology. All respondents had the chance to ask questions and freely express how they feel (Polit & Hungler, 1999).

Also, the researcher did not pry on any vulnerable position of the respondents in order to observe freedom from exploitation. Participants were not coerced but reasoned explanations were given to them and they also reserved the right of participation in the research.

The risk of this study relates to the psychological discomfort that were foreseen would result from the questions that were posed. On the other hand, the benefit gained in this study can be measured in terms of the knowledge that underlined conflicts in organization and how it affects the performance of employees (Op.cit, 1999).

3.7.2 The Principle of Respect for Human Dignity

This principle includes the right to self-determination and the right to full disclosure. Respondents were given the opportunity to decide their willful participation in this research project, they also reserved the right to desist from the study any time they felt

The right to self-determination was followed by providing the participants with the right to refuse to participate in the study, the right to discontinue the study if they wanted to, the right not to respond to any particular questions that will disclose any information they did not want to, and the right to request for any clarification of uncertainty with regards to any part of the research in

general. The nature of the research was revealed to the respondents in accordance with their right to full disclosure.

3.7.3 The Principle of Justice

The principle of justice covers the right to privacy and the right to be treated fairly. The study respected their right to privacy as the researcher gave all respondents their privacy as questionnaires were distributed to each participant while the data that was generated was also treated with confidence. Anonymity was adhered to by ensuring that no completed questionnaire could be linked to any specific participant. The study also observed to treat every respondent fairly. Because the participants were thoughtfully respected in their beliefs, habits, culture and lifestyle.

3.8 ORGANISATIONAL PROFILE

Founded in 1953, GCB was started with the specific aim to serve and support Ghanaian workers, traders, farmers, and business people, to empower them to achieve success with locally sourced funding. Since then, GCB has gone on to become Ghana's biggest independent bank, with the financial strength and capability to support those who contribute to the growth of the country. We are proud to be a Ghanaian bank and remain focused and committed to the success and prosperity of the people and businesses in the country (www.gcbbank.com.gh).

Having celebrated our 60th anniversary in 2013 and having launched a new image for our Bank in 2014 to help drive us forward for the next 60 years, we can say with total conviction and confidence that we are excited about our future. We have consistently grown and demonstrated our commitment to Ghana over the last six decades and we will continue to do so in the achievements we make and in the positive difference we bring to people's lives (www.gcbbank.com.gh).

In a world where nothing stands still, GCB now occupies an environment with more intense competition and higher consumer expectation than ever before. Internet and mobile connectivity have increased beyond measure bringing new knowledge and higher expectation of service. This has significantly changed the way banking business is done and how it is perceived by the public.

In order to maintain our position as the leading bank in Ghana and to continue to grow, it is now more important than ever to refocus and re-arm our position in the marketplace through a new, evolved brand, better communication and a tireless commitment to serve our customers better. As part of the change, we have adopted an internal change programme that has been -firmly embedded in our business plans, our staff training, our branches and our services. This programme overhauled the Bank' score values and brand, resulting in a new evolved logo and a stronger on-the-street presence (www.gcbbank.com.gh).

Our dedication to higher standards will witness the introduction of new banking products and services. We are refurbishing our branch network to international standards, updating our systems and technology and focusing on increased customer satisfaction right across our business channels. This is a long-term programme, but you will see progress over the coming months.

Our goal as a Bank has always been to be the leading -financial services provider in Ghana through a commitment to superior service and best practice. Our commitment to our country and its heritage, values and future are demonstrated every day through the actions that we take as an organization. This has not, and will not, change. We are delighted to share with you our underlying business principles, fundamental values and brand systems. Through these assets, and with the commitment and support of our shareholders and partners, we are confident we will enjoy growth and prosperity for all our stakeholders and, of course our customers (www.gcbbank.com.gh).

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 INTRODUCTION

The study sought to examine customer attitude towards the use of ATMs. The researcher administered questionnaires to 30 customers each from five selected GBC branches in Ashanti region (Bekwai, Bantama, KNUST, Suame and Adum). A total of 150 respondents were therefore used in the analysis. Binary logistic regression, one sample t-test, mean, standard deviation, frequencies and percentages were used to generate meaningful information from the data. This analysis was done with the aid of SPSS (v.17).

4.1 DEMOGRAPHICS OF THE RESPONDENTS

The demographics used in this study were, gender, level of education, position and the number of years served in their respective institutions. Demographic variables are independent variables by definition because they cannot be manipulated. Demographic information provides data regarding research participants and is necessary for the determination of whether the individuals in a particular study are a representative sample of the target population for generalization purposes. Demographic information describes the study sample, and demographic variables also can be explored for their moderating effect on dependent variables.

Table 4.1 Demographics

Demographics	Options	Frequencies (N)	Percentages (%)
Gender	Male	83	55.3
	Female	67	44.7
	<i>Total</i>	<i>150</i>	<i>100</i>
Educational	No formal education	14	9.15
	Basic	26	17.63
	SHS	35	23.05
	Tertiary	75	50.17
	<i>Total</i>	<i>150</i>	<i>100</i>
Age	Below 20yrs	5	3.33
	20-30yrs	13	8.67
	31-40yrs	72	48.0
	41-50yrs	51	34.0
	51-60yrs	9	6.0
	<i>Total</i>	<i>150</i>	<i>100</i>
Occupation	Unemployed	19	12.55
	Student/ Apprentice	28	18.64
	Government service	45	30.17
	Private service	32	21.36
	Self-employed	26	17.29
	<i>Total</i>	<i>150</i>	<i>100</i>
Income per month	Less than GHC500	5	3.39
	GHC500-1000	49	32.54
	GHC1001-1500	45	30.17
	GHC1501-2000	15	23.73
	Above GHC2000	36	10.17
	<i>Total</i>	<i>150</i>	<i>100</i>
Type of account	Savings	59	39.33
	Current	91	60.67
	<i>Total</i>	<i>150</i>	<i>100</i>

Source: Field work, 2015

The gender distribution as presented in table 4.1 indicates that, male slightly dominated the female respondents. The male respondents comprised 55.3%, while the female also comprised 44.7%.

For the educational background of respondents, 9.15% had no formal education, 17.63 had basic education, 23.05% had SHS educations, and 50.17% had tertiary education (diploma, HND, first

degree, masters, PhD, and professional papers). It was observed that, the educated dominated the main stream banks, unlike the savings and loans.

From the table, the customers below 20 years were 3.33%, those aged 20-30 years were 8.67%, those aged 31-40 years were 48%, those aged 41-50 years were 34%, and those aged 50-60 years were 6%. The age group of 30-50 therefore dominated the study.

Among the respondents sampled for the study, 12.55% were unemployed, 18.64% were student or apprentice, 30.17% were government workers (security services, teachers, nurses, local assembly, etc.), 21.36% were private service personnel, and 17.29% were self-employed (entrepreneurs).

Respondents were asked to indicate their monthly income range. From the table 4.1 above, 3.39% had a monthly pay of less than GHC500, 32.54% had a monthly salary of between GHC500-1000, 30.17% had a monthly salary of between GHC1001-1500, 23.73% had a monthly salary of between GHC1501-2000, and 10.17% had more than GHC2000 per month. The majority of the respondents therefore earned from GHC500 to GHC2000.

The respondents with current account dominated the study. The current account holders were 60.67% while the savings account holders comprised 39.33%.

4.2 THE IMPACT OF DEMOGRAPHIC FACTORS ON THE USE OF ATMS OF GCB

The crucial limitation of linear regression (being run in Ordinary Least Square-OLS) is that it cannot deal with dependent variables that are dichotomous and categorical. A range of regression techniques have been developed for analysing data with categorical dependent variables, including logistic regression and discriminant analysis. However, Logistical regression was used in this analysis because there are only two categories of the dependent variable (Yes or No).

The researcher used demography of the customers (Gender, Education, Occupation, Type of account, Level of income) as the independent variables and the use of ATM card as the dependent variable. The responses were coded as follows; Use of ATM services; 1-If Yes, 0-otherwise.

Gender; 1-if male, 0-otherwise.

Education; 1-if Tertiary, 0-otherwise.

Occupation; 1-if government service, 0-otherwise.

Type of account; 1-if saving account, 0-otherwise.

Level of income; 1-if >GHC2000, 0-otherwise.

Table 4.2 Impact of customer demographic on ATM usage

<i>Dependent Variable: Use of ATM services</i>					
Independent Variables	B	Wald	df	Sig.	Exp(B)
<i>Constant</i>	-4.330	10.082	1	.004	.012
Gender	1.940	12.180	1	.002	6.961
Education	1.340	4.564	1	.008	3.819
Occupation	2.371	15.698	1	.011	7.081
Type of Account	0.410	0.348	1	.210	1.507
Income	1.624	6.125	1	.010	5.072

Cox & Snell R²: .394

Nagelkerke R²: .496 *Source:*

Field work, 2015

Note:

B - These are the values for the logistic regression equation for predicting the dependent variable from the independent variable (the slope values). They are in log-odds units.

Wald and Sig. - This is the Wald chi-square test that tests the null hypothesis that the constant equals 0. This hypothesis is rejected when the p-value (listed in the column called "Sig.") is smaller than the critical p-value of .05.

Exp(B) - These are the odds ratios for the predictors. They are the exponentiation of the coefficients.

Most statistical packages provide further statistics that may be used to measure the usefulness of the model and that are similar to the coefficient of determination (R^2) in linear regression. The Cox & Snell and the Nagelkerke R^2 are two such statistics. There is a major problem with Cox and Snell's Pseudo R^2 , however, which is that, its maximum can be (and usually is) less than 1.0, making it difficult to interpret. The Nagelkerke R^2 is an adjusted version of the Cox & Snell R^2 and covers the full range from 0 to 1, and therefore it is often preferred. The R^2 statistics do not measure the goodness of fit of the model (the percentage of variance in the dependent variable explained by the independent variables) but indicate how useful the explanatory variables are in predicting the response variable and can be referred to as measures of effect size. The value of 0.496 indicates that the model is useful in predicting the use of ATM services.

Because the coefficients (B) in Logistics regression output are in log-odds units, the researcher only used them to determine the direction (+, -), but did not assign meaning as coefficient would be explained in OLS regression. The effects was explained instead using the odds ratios, that is the Exp(B). From the table 4.2, Gender, Education, Occupation, Type of account and Income level had a positive relation the use of ATM services. This means being a Male positively influences the use of ATM card. Having a tertiary education positively influences the use of ATM. People who are illiterate usually find it difficult to operate the ATM because it requires reading out instructions; this is in line with the study carried out by Khan when he stated in his findings that technical

complexities and lack of knowledge are the major disadvantages of the ATM usage (Khan, 2010). Being a Government worker positively influences the use of ATM services, owning a savings account positively influences the use of ATM cards, and earning more than GHC2000 a month determines the use of ATM card. The constant had a negative relationship with ATM services, meaning that, without those demographic variables, customers would prefer not to use an ATM card. These results are similar to the findings of Mohammed (2012), who also identified gender, education and level of income, to have a significant impact on the use of ATMs.

The Wald test works by testing the null hypothesis that a set of parameters is equal to some value. In the model being tested here, the null hypothesis is that the five coefficients (independent variables) of interest are simultaneously equal to zero. If the test fails to reject the null hypothesis, this suggests that removing the variables from the model will not substantially harm the fit of that model. From the regression output presented, four independent variables (Gender, Education, Occupation, and Income level) were statistically significant in predicting the use of ATM services, while 'Type of account' was statistically insignificant at 0.05. Removing the type of account from the model wouldn't significantly affect the prediction of the model. The binary logistics regression equation when computed would be; $\text{logit}(\text{Usage of ATM}) = -4.330 + 1.940(\text{Gender}) + 1.340(\text{Education}) + 2.371(\text{Occupation}) + 1.624(\text{Income level})$.

The Exp(B) of gender was 6.961. Meaning that, being a male increases the odds of using ATM service by 6.961 times, and the vice versa. Having a tertiary education (diploma, HND, first degree, masters, PhD, professional certificates, etc.) increases the odds of using ATMs by 3.819 times.

Being a government worker increases the odds of using ATM services by 7.081 times. Finally, customers earning more than GHC200.00 increases the odds of using ATM service by 5.072. As indicated already, the type or account customers operated, wasn't statistically significant at determine the usage of ATM services.

The graphical presentation of the demographic factors that affect customers' use of ATM is presented below as figure 4.1.

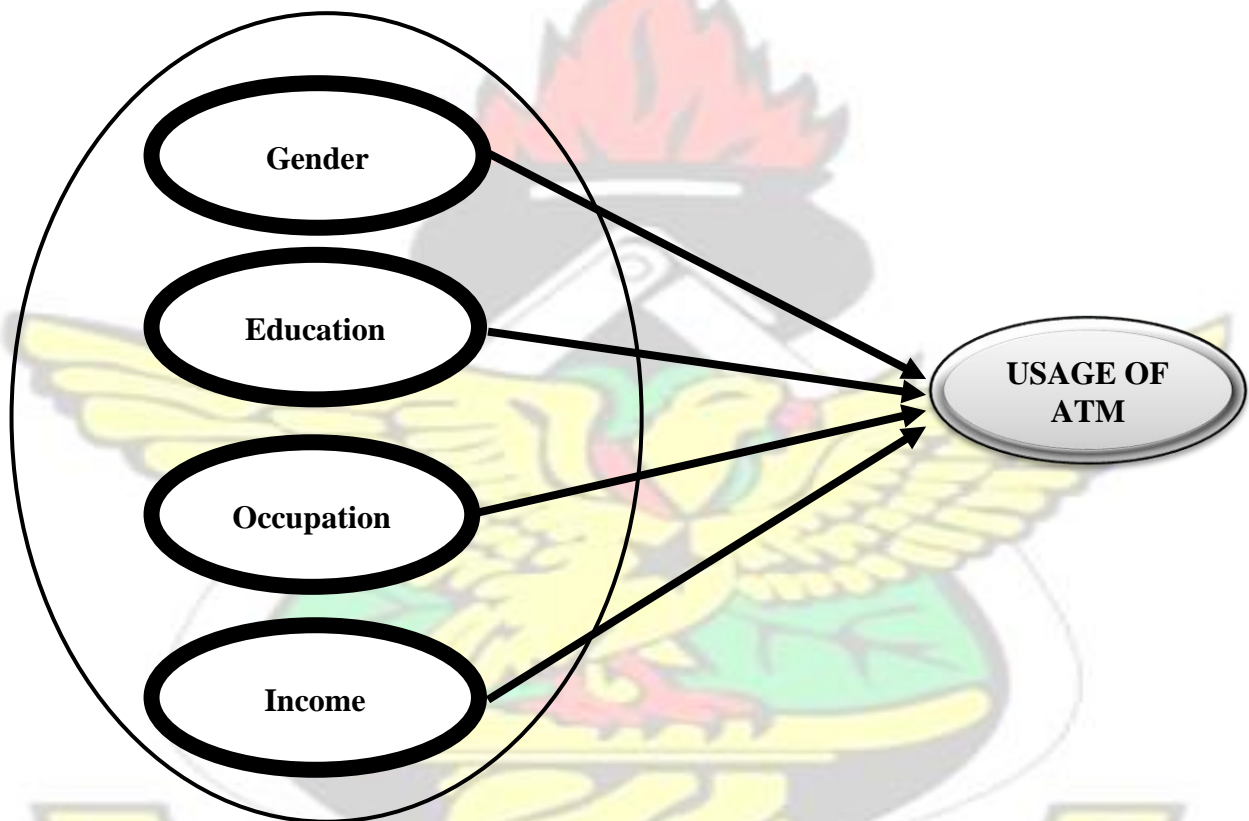


Figure 4.1 Graphical presentation of the demographic factors that affect customers' use of ATM

Source: Field work, 2015

4.3 LEVEL OF USAGE OF GCB'S ATMS

The second specific objective of this study was to determine the level of usage of GCB's ATM services in the region.

Table 4.3 Level of ATM usage

Level of ATM usage	Options	Frequencies (N)	Percentages (%)
Do you have ATM card?	Yes	98	65.33
	No	52	34.67
	Total	150	100
How often do you use cards in a month?	Once a month	91	60.67
	Twice a month	34	22.66
	Thrice a month	13	8.67
	More than thrice a month	12	8
	Total	150	100
Purpose of using ATM	Cash Withdrawal	121	80.67
	Balance Enquiry	29	19.33
	Total	150	100

Source: Field work, 2015

The study showed that, 65.33% of the customers had ATM cards (VISA, Master, normal ATM cards). Those without ATM cards represented 34.67%. It could be realized that most of the respondents operated ATM services. This was contrary to the findings of Hone et al. (1998), who found that, in spite of the success and widespread use of ATMs, a significant proportion of bank customers could not or would not use them, or experience difficulties in their interactions.

They were asked to indicate the number of times they used cards in a month. The distributions indicated that, most of the customers used ATM services just once a month. 60.67 of the respondents used ATM services once a month, 22.66% used ATM services twice a month, 8.67% used ATM services thrice a month, and 8% used service more than thrice a month.

The purpose of using the ATM services were also ascertained. The analysis indicated that, the primary purpose of the ATM was for cash withdrawal. 80.67% of the customers mostly used ATM for cash withdrawal, and 19.33% used it for balance enquiry. ATMs have offering 24 hours banking services to bank customers' like cash withdrawal, funds transfer, balance inquiry, card to card transfer, bill payment, accept deposits etc. (Kumbhar, 2011).

4.4 LEVEL OF SATISFACTION OF CUSTOMERS WITH GCB'S ATMS

As part of the specific objectives, the researcher sought to determine the level of customer satisfaction with the use of ATM services of GCB. Customer satisfaction can be, and often is, measured along various dimensions (just as this study). Customer satisfaction is an ambiguous and abstract concept and the actual manifestation of the state of satisfaction will vary from person to person and product / service to product/service. The level of satisfaction can also vary depending on other options the customer may have and other products against which the customer can compare the organization's products (Parasuraman, 1986).

The analysis presented in table 4.4 and 4.5 were conducted using mean, standard deviation, and one sample t-test. The mean represents the average of the responses, and the standard deviation represents how dispersed the results are about the mean score. The one sample t-test was used to ascertain the relative significance of the observed variables measuring the latent variables. For a single sample test, the hypothesis was set as: $H_0: U < U_0$ and $H_a: U = \text{or} > U_0$. With H_0 representing the null hypothesis, H_a representing the alternative hypothesis and U_0 representing the test value (in this case 3.5). The mean ranking of each item was compiled to in order to articulate the decisions that the respondents expressed.

For table 4.4, the Likert scale was, 1=Very dissatisfied, 2=Dissatisfied, 3=Neutral, 4=Satisfied or 5=Very satisfied. Under this section, the higher ratings of 5 and 4 were chosen for the rating scale as strongly agree and agree respectively while the U_0 was set at 3.5, with 95% as the significance level in accordance with the antecedent.

Table 4.4 Level of satisfaction of customers with GCB's ATMs

Level of Satisfaction of Customers with GCB's ATMs	<i>Test Value = 3.5</i>			
	Mean	Std. Deviation	T	Sig. (2tailed)
Satisfied with the existing ATM location	4.3609	.68101	7.578	.000
Satisfied with speed of response	4.0833	.70961	5.695	.000
Satisfied with convenience of service	4.0417	.74258	5.054	.000
Satisfied with 24/7 access	4.0455	.98723	3.665	.001
Satisfied with the process of money withdrawn under ATM scheme	3.9583	1.0305	3.081	.003
Satisfied with the easy of login	3.7826	.98687	1.942	.048
Satisfied with safety-security-privacy	3.5652	.93457	.473	.638
Satisfied with the transaction fee charged by bank for using ATM card	3.27	1.198	-2.263	.025
Satisfied with amount limit during withdrawal	3.09	1.181	-4.044	.000
Satisfied with the delivering of the ATM card promptly	2.04	1.212	-4.439	.000

Source: Field work, 2015

From table 4.4, customers of GCB were satisfied with the existing ATM locations. The mean was 4.36, approximately 4 (satisfied). This was also statistically significant at 0.05 (p-value was .00). This results indicates that, currently, customers appreciated the vantage locations of the ATM booths of GCB. These booths are sometimes located at places where there is no physical banking hall (KNUST Royal Parade grounds). This is to increase the accessibility of the banks services; the place or distribution element of the 4Ps. Many companies perform the "place" function of

physical distribution separately from marketing. However, it is likely that physical distribution through the provision of customer service contributes to the success of a company and can enhance customer satisfaction (Kotler, 1997). Moutinho and Brownlie (1989) found that accessibility and location of ATMs significantly affect users' satisfaction.

The customers of GCB were satisfied with speed of response. It is relatively fast using the ATM to transact banking activity as compared to using the main banking. This also helps to increase the level of convenience enjoyed by the customers. E-banking can offer speedier, quicker and dependable services to the customers' for which they may be fairly satisfied than that of manual system of banking (Premalatha & Sundaram, 2012).

Just as other e-banking activities, ATMs also had the feature of 24/7 accessibility. Customers are therefore able to transact business even if the main banking halls are closed, and on weekends. This feature helped in increasing the level of customer satisfaction with ATM services. In a different study in Bangladesh, Shamsdouha et al., (2005) also found that 24 hours service, accuracy, and convenient locations were the main predictors of customer satisfaction.

The customers were satisfied with the process of money withdrawal under ATM scheme; and the ease of login. The p-values of these items were all statistically significant at 0.05, with a mean score of above 3.5 (the test value). In respect to ease of use, it has been defined as the degree to which an innovation can be understood and used in a simple and easy way (Davis, 1989; Zeithaml et al., 2002). According to Mcandrews (2003), for a person to use ATMs, they should be cheap, ease of use, secret and safety.

An examination of the United States customers' perception of ATM quality by Joseph and Stone (2003), found that user-friendly, convenient locations, secure positions, and the numbers of ATM

provided by the banks are essential dimensions of ATM service quality. In a case study of Botswana, Mobarek (2007) established speed of operation, and waiting time as the important predictors of ATM service quality.

Although respondents were satisfied with safety-security-privacy, this wasn't statistically significant at 0.05 (p-value was .638).

Customers were indifferent with the transaction fee charged by bank for using ATM card; and the amount limit during withdrawal. The mean score of these items were approximately 3(neutral).

The respondents however dissatisfied with the time it takes GCB to issue new cards, and replace missing cards.

4.5 CHALLENGES OF ATM USAGE BY CUSTOMERS

For table 4.5, the Likert scale was, 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree. Under this section, the higher ratings of 5 and 4 were chosen for the rating scale as strongly agree and agree respectively while the U_0 was set at 3.5, with 95% as the significance level in accordance with the antecedent.

Table 4.5 Challenges of ATM Usage by Customers

Challenges of ATM Usage by Customers	<i>Test Value = 3.5</i>			
	Mean	Std. Deviation	<i>T</i>	<i>Sig. (2tailed)</i>
Unreliable network system	4.3913	.93043	6.497	.000
Machine out of order	4.3333	.69446	8.314	.000
Valid limit on amount of cash withdrawn	4.2917	.74258	7.386	.000
Wrong debits	4.2609	.68101	7.578	.000
Reduction in balance without cash payment	4.1818	.65673	6.887	.000

Card gets blocked or locked up	4.1739	.76896	5.944	.000
Machine out of cash	4.1667	1.0382	4.449	.000
Bank charges for ATM services	3.0435	.86811	-4.246	.000
Waiting in line to use ATM machines	3.0417	.61742	-6.078	.000
Wrong amount of statement	2.9583	.79783	-3.980	.000
Old currency notes	2.7826	.84098	-2.279	.027
Unreliable source of power	1.96	1.113	-5.587	.000
Poor visibility of statement	1.81	1.204	-6.610	.000

Source: Field work, 2015

The study found some challenges associated with the use of GCB ATM service. Among the, the highest was the unstable network system. It was a common thing to get to an ATM booth and find that the machine was out of order. This perfectly confirms a study by Attah-Botchwey (2014), who also found unstable network system as the highest challenge to ATM usage. Howcroft (1991) noted that dissatisfaction among customers is associated with frequent interruptions and breakdown of ATMs.

Another challenge of using ATM was the cash limit one could withdraw. A customer could withdraw a maximum of GHC3000 a day (within 24 hours), and any amount beyond that must be at the banking hall. This was a challenge to customers, considering the fact that you could need more than GHC3000.00 at the time banking halls are closed.

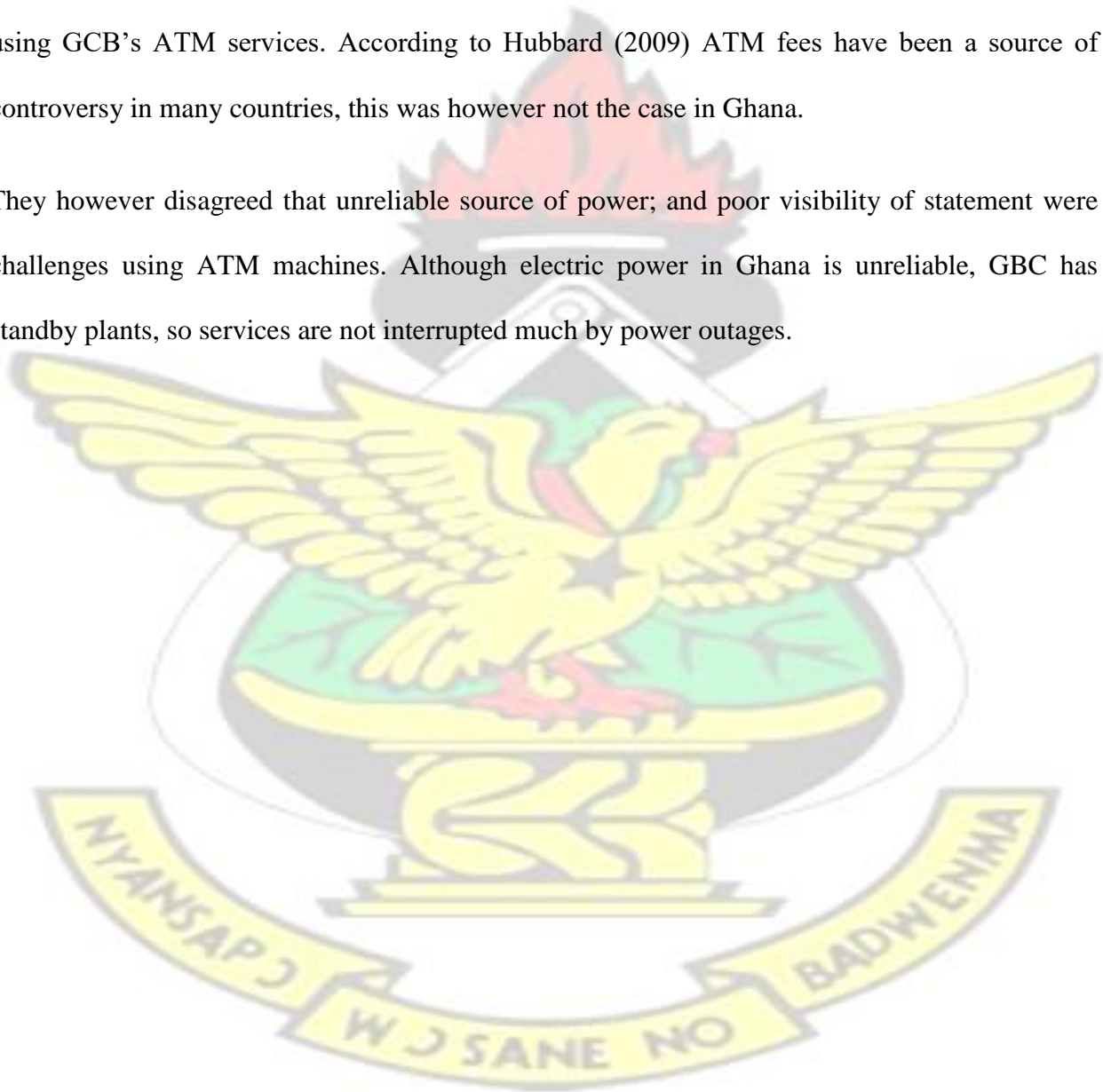
There are times customers are wrongfully debited. And at times also, there are reduction in balance without cash payment. It was common to complete a withdrawal transaction, with account debited but no physical cash out. That really frustrates customers.

There are times that customers' cards are also blocked. This may be due to customer not following right procedure or entered wrong password for a number of times. But at times too, system errors causes the card to get blocked or locked up.

Customers also agreed that machine out of cash was also a challenge. There are moments that the ATM are working but out of cash. The alternative left was to use the main banking hall, but what if they have closed?

Customers are indifferent that bank charges for ATM services; waiting in line to use ATM machines; wrong amount of statement; and that issuance of old currency notes were challenges of using GCB's ATM services. According to Hubbard (2009) ATM fees have been a source of controversy in many countries, this was however not the case in Ghana.

They however disagreed that unreliable source of power; and poor visibility of statement were challenges using ATM machines. Although electric power in Ghana is unreliable, GBC has standby plants, so services are not interrupted much by power outages.



CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 INTRODUCTION

This section summarizes the key findings as per the objectives, made conclusions, as well as some recommendations.

5.1 SUMMARY OF FINDINGS

The summary as per the objectives are as follows;

5.1.1 The Impact of Demographic Factors on the Use of ATMs of GCB

The nature of data necessitated the use of binary logistic regression for this section of the study. The researcher used demography of the customers (Gender, Education, Occupation, Type of account, Level of income) as the independent variables and the use of ATM card as the dependent variable.

After the analysis, it was realized that, four of the demographic variables significantly affected the use of ATMs at GCB. These were gender, education, occupation, and level of income. The type of account operated (be it savings or current), wasn't statistically significant at influencing the usage of ATM services. Occupation was found to be the highest deciding factor, followed by gender, income level and education.

5.1.2 Level of Usage of GCB'S ATMs

The study indicated that, the majority of the customers had GCB's ATM card. And they mostly used either once or twice a month. The main purpose of using the ATM was for cash withdrawal, although at seldom, customers use it for balance enquiry.

5.1.3 Level of Satisfaction of Customers with GCB'S ATMs

The customers of GCB were satisfied with the existing ATM locations, speed of response, convenience of service, 24/7 service accessibility, the process of money withdrawn under ATM scheme, and the easy of login. They were however dissatisfied with the time it takes the bank to provide the customers with new cards or replace missing cards.

5.1.4 Challenges of ATM Usage by Customers

The major challenges faced by customers when using GCB's ATM were, unreliable network system, machine out of order, valid limit on amount of cash withdrawn, wrong debits, reduction in balance without cash payment, card gets blocked or locked up, and machine out of cash.

They disagreed that unreliable source of electric power, and poor visibility of statement were challenge to using ATM.

5.2 CONCLUSIONS

The study sought to examine customers' attitude towards the use ATM services. A thorough review of literature was undertaken to have a better appreciation of the concept under study. After the study, it was concluded that, four demographic variables of customers significantly affected the use of ATMs at GCB. These were gender, education, occupation, and level of income. The type of

account operated (be it savings or current), wasn't statistically significant at influencing the usage of ATM services. Occupation was found to be the highest deciding factor, followed by gender, income level and education. The study indicated that, the majority of the customers had GCB's ATM card. And they mostly used either once or twice a month. The main purpose of using the ATM was for cash withdrawal, although at seldom, customers use it for balance enquiry. The customers of GCB were satisfied with the existing ATM locations, speed of response, convenience of service, 24/7 service accessibility, the process of money withdrawn under ATM scheme, and the easy of login. They were however dissatisfied with the time it takes the bank to provide the customers with new cards or replace missing cards. The major challenges faced by customers when using GCB's ATM were, unreliable network system, machine out of order, valid limit on amount of cash withdrawn, wrong debits, reduction in balance without cash payment, card gets blocked or locked up, and machine out of cash. They disagreed that unreliable source of electric power, and poor visibility of statement were challenge to using ATM.

5.3 RECOMMENDATIONS

After the study, the following recommendation were made;

The study found out that males were more likely to use ATM services more than females. This confirmed some past studies, and must therefore be addressed. The researcher recommends that, for banks to fully realize the potential benefits of customers using its ATM facilities, it must actively engage female clients. Special promotional packages could be introduced for ladies on ATM.

One of the setbacks using ATM was the delay in issuance of cards. The customers indicated that,

GCB doesn't provide cards promptly. Customers need to wait for weeks after requisition, to have their cards ready. It was therefore recommended that critical attention be paid to the duration it takes for customers to get their requested cards.

Because of the supposedly 24/7 accessibility of ATMs, customers make decision basing on that. They therefore get very disappointed when they get to the ATM booths, and they are out of use, or have a network problem. The problem gets compounded when it happens at the hours the main banking hall is closed. This affect service quality and customer satisfaction negatively, and must be a concern to the service providers.

It was realized that, very minute percentage of customers use ATM for balance enquiry. However, the pressure at the banking halls could drastically be reduced when customers are made aware of this aspect of ATM. Customers wouldn't have to wait in long queues just to check account balance or transfer funds directly from their accounts.

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APPENDIX

QUESTIONNAIRE

I am an MBA student of KNUST, conducting a study on “customer attitude towards ATMs”. This is fully for academic purpose, and respondents are assured of full confidentiality. I will be grateful if you could spare few minutes of your time in answering the following questions.

Section A: Demographic

1. Gender; Male ☐ Female ☐
2. Educational; No formal education ☐ Basic ☐ SHS ☐ Tertiary ☐
3. Age; Less than 20yrs ☐ 20-30yrs ☐ 31-40yrs ☐ 41-50yrs ☐ 50-60yrs ☐ above 60yrs ☐
4. Occupation; Student ☐ Government service ☐ Private service ☐ Self-employed ☐ Unemployed ☐
5. Income per Month; Less than GHC500 ☐ GHC500-1000 ☐ GHC1001-1500 ☐ GHC1501-2000 ☐ Above GHC2000 ☐
6. Type of account; Savings ☐ Current ☐
7. Do you have ATM card? Yes ☐ No ☐
8. How often do you use cards in a month? Once a month ☐ Twice a month ☐ Thrice a month ☐ More than thrice a month ☐
9. Purpose of using ATM; Cash Withdrawal ☐ Balance Enquiry ☐ Bill Payments ☐ Money Transfer ☐

Section B: Level of Satisfaction of Customers with GCB's ATMs

10. Kindly indicate the level of satisfaction with the following ATM services of GCB. Please tick (✓) either 1=Very dissatisfied, 2=Dissatisfied, 3=Neutral, 4=Satisfied or 5=Very satisfied.

Level of Satisfaction	1	2	3	4	5
Satisfied with 24/7 access					
Satisfied with the easy of login					
Satisfied with safety-security-privacy					
Satisfied with speed of response					
Satisfied with easy of navigation					
Satisfied with convenience of service					

Satisfied with amount limit during withdrawal					
Satisfied with the existing ATM location					
Satisfied with the process of money withdrawn under ATM scheme					
Satisfied with the transaction fee charged by bank for using ATM card					
Satisfied with the delivering of the ATM card promptly					
Satisfied with the delivering of the ATM card promptly					

Section C: Challenges of ATM Usage by Customers

11. Kindly indicate the extent to which you agree with the following statements as a challenge of using GCB's ATM services. Please tick (✓) either 1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree or 5=Strongly agree.

Challenges of ATM Usage	1	2	3	4	5
Waiting in line to use ATM machines					
Valid limit on amount of cash withdrawn					
Unreliable network system					
Wrong debits					
Unreliable source of power					
Bank charges for ATM services					
Card gets blocked or locked up					
Machine out of cash					
Machine out of order					
Wrong amount of statement					
Old currency notes					
Poor visibility of statement					
Reduction in balance without cash payment					

Thank You!