ASHESI UNIVERSITY COLLEGE

A STUDY ON THE ROLE OF E-BANKING AND ITS RELATION TO CUSTOMER SATISFACTION IN THE BANKING INDUSTRY OF GHANA

By

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Declaration

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature:……………………………………………………………………

Candidate's Name:……………………………………………………

Date:…………………………..

I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by Ashesi University College.

Supervisor's Signature:……………………………………………………………………..

Supervisor's Name:…………………………………………………..

Date:…………………………………..

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God bless you all

ABSTRACT

This study aims at examining the role of e-banking and its relation to customer satisfaction in the banking industry in Ghana. The study addresses some issues that affect the role of e-banking and its link to customer satisfaction in Ghana's banking industry. Data were obtained from bank staffs and bank customers through a questionnaire using simple random sampling as well as an interview with bank staffs. All 60 questionnaires sent out were responded. Findings from the study indicate that e-banking has had a positive impact on the productivity and profitability of the banking industry amid expansion. Also, customers are to a large extent satisfied with services provided through electronic delivery channels by banks in Ghana. There was also evidence that customers' age group contributed to the propensity to use any of the electronic delivery channels used by banks. This study concludes by highlighting the need for banks to understand the customer needs, develop appropriate e-banking marketing strategies that maximize value for customers and satisfaction in the long run.

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CHAPTER ONE

1.0 Introduction and Background

A powerful force drives the world towards a converging commonality, and that force is technology (Levitt 1992). Technology has been one of the most important factors for the development of man. For the past two decades, technological changes have contributed to economic growth globally, leading to significant improvement in the quality of life in different parts of our world. It is said that technology has led to the globalisation (the process of interacting and integrating with people, companies and government of other countries) of this world. Countries that have adapted technology into their everyday activities have seen exceptional strides in their development. In developing countries like Ghana, the use of technology for everyday business and personal transactions has seen a major boost. The banking industry is an example of industries that have experienced a major uplift with the use of technological innovation.

Over the past years, the banking industry in Ghana has undergone tremendous changes. The industry consisted of a number of relatively small banks that operated in a few geographically distinct markets. Products and services were primarily taking deposits, facilitating withdrawals, and granting loans. Services and products were delivered through the branch with emphasis on face to face contact with customers. Customers were less sophisticated and trusted their bankers to act in their best interest. However, twenty years down the line, there has been advancement in information and communication technology (ICT) and the banking industry has made good use of this revolution. Banks now render services and sell their products by using multiple distribution channels including online banking.

With information and communication technology (ICT) being the fastest growing industry in Ghana, many banks have taken the opportunity to upgrade their services and products. Banks now have the urge to make banking easier for its customers thus always looking for new ways to serve their customers better. Electronic delivery channels such as ATMs, telephone banking and online banking are options that have been made available by banks to serve their customers better. Customers do not have to transact business with their banks only through face to face contact. Information technology has brought about changes that have transformed the structure of the banking industry. With the transformation, customers have become more sophisticated, and new products have been made available. This has also resulted in changes in cost structure and an improvement in competition among banks.

1.1 Objectives:

In Ghana, the banking sector is one of the service industries that are significantly contributing to the growth of the economy. It plays a vital role in capital mobilization and also grants financial facilities to businesses that seek to grow and develop. In order to serve these businesses in terms of delivery with the best products and services, banks are now making huge investments in ICT that would ultimately change the competitive landscape of the banking industry in Ghana. This research will:

- Explore the importance of electronic delivery channels to the profitability of the banking industry.
- Identify what constitutes electronic banking and whether customers are receiving the satisfaction needed with the use of electronic delivery channels.
- Describe challenges encountered with electronic delivery channels.

1.2 Research Questions:

- How is the use of electronic delivery channels affecting the growth of the banking industry?
- How are banks able to satisfy their customers with the services provided through the electronic delivery channels?
- With the emergence of more banks and keen competition in the industry, what changes have been made in customer service?
- How has the use of ICT resulted in better customer services?

1.3 Methodology:

Data for the research paper are obtained through the use of questionnaires and personal interviews with bank officials and customers of the bank who use any of the electronic delivery channels. Separate questionnaires are formulated for bank officials and customers. Questionnaires for customers are designed to ascertain the level of satisfaction that is derived from services provided through the use of any of the electronic delivery channels as compared to conventional banking. Also, questionnaires for bank officials will also be designed to determine how electronic delivery channels have influenced their profitability and made their work easier. Again, it will explore challenges faced by banks with the use of electronic delivery channels.

1.4 Outline of Dissertation

This section describes the content of chapters and sections. Chapter one consists of the introduction and background of the study, objectives, research questions and a brief summary of the methodology of the study. Chapter two reviews development processes that have taken place with the inception of information technology and communication (ICT) in business activities. The chapter also elaborates on how countries have achieved growth with ICT and others have not. It further discusses how customer satisfaction has been affected with the use of electronic banking in serving customers. Chapter three looks at the methodological framework of the study. The chapter discusses the types and sources of data, sampling techniques, size and procedures for collection and analysis of data. Chapter four is the analysis of data and generated results from the analysis. Chapter five represents the main findings of the research study and draws conclusion. It answers specific objectives of the research and makes recommendations based on the findings and analysis of data. It will include the scope and limitations of the study.

CHAPTER TWO

2.0 Literature Review:

Extensive research has been conducted on the impact of information and communication technology (ICT) on the development of industries and countries at large (Pilat et al 2002). It is believed that the use of ICT tends to improve efficiency and a major enabler for the integration of multinational corporations in the world today. The effective use of ICT is critical to achieving competitive advantage as well as economies of scale in today's worldwide market. It also increases the market share of productive firms which eventually might leads to growth.

Interestingly, not every country with developmental capabilities has experienced the same growth with ICT. Even though most developed countries have high levels of ICT investments and adoption, faster growth and productivity is not guaranteed. According to an article by McCauley (2004), European countries seem to have been out paced by the United States in its use of ICT to enhance the growth and productivity of its economy. The rewards of ICT are dependent on complex interaction between technology and a range of factors such as ICT related management skills, effective research and development, and a spur of innovation. It further mentions that the US and Nordics of Europe (Denmark, Finland, Iceland, Sweden and Norway) have been successful in creating an environment that permits innovation to thrive and for the benefits of ICT to be fully realised. Europe for instance has been successful in developing the Global System for Mobile Communication (GSM) which has enabled the region to be highly competitive in mobile services and equipment industry. From this, Europe has no shortage of technology but lags behind the US. This is because it lacks the entrepreneurial spirit that makes US companies more likely to take risk, innovate and undertake new ventures. Due to the risk-averse nature of most European countries, new ventures have grown slowly and this has been a major impediment to the growth of the European economy.

Despite specific limitations such as low level of internet penetration and poor quality of internet connection in Africa, investment in ICT is rapidly gaining ground in many businesses. The integration of technological innovation into everyday business activities has influenced the course of competition especially in the banking industry as well as playing a significant role in economic growth. In terms of economic growth, the ICT has become a key source of employment which has reduced the high rates of unemployment that persist in most African countries. In a press release by the World Bank in Accra on March 8, 2007, it was stated that ICT has been a key source of employment as it provides direct employment to about 2,500 in Ghana. Again, the adoption of ICT has created a new platform for doing business. Currently, most businesses use the internet to access information as well as market their products or services. Thus investment in ICT has facilitated the expansion of market beyond borders in order to reap the benefits of economies of scale. In addition, cost of service has been lowered by facilitating easy access to products and services. This has been possible through the implementation of specific regulatory frameworks and policy that help promote economic and political governance.

With the upsurge of technological innovation among businesses in the last two decades, the area of financial intermediation and the financial market amid other sectors have experienced rapid development. New products and services such as e-brokering, e-banking, e-exchange and e-finance have been introduced. These products have improved efficiency and profitability in the financial market. ICT has therefore become an imperative factor in determining the future development of banks and other businesses. The banking industry for instance has experienced a modification of the concept of retail banking with face to face interaction giving way to products and services delivered through electronic distribution channels (electronic banking). This has been facilitated by the increasing penetration of personal computers, a wide diffusion of mobile phone and a relative easy access to the internet.

E-banking is the newest form of delivery channel for delivery banking services and products. To some extent, the meaning of e-banking varies among researchers. However, one common denominator which runs through the meaning is the provision of services and products through a medium such as computer, television or mobile phone. Daniel (1999) explains e-banking as the provision of banking services to customers through internet technology. However, a more comprehensive definition to e-banking is given by Singh and Malhotra (2004) as the deployment of banking services and products over electronic and communication network directly to customers. Products and services are delivered through electronic and communication networks such as ATMs, the Internet, mobile devices and telephones. The increasing penetration of personal computers, relatively easier access to the internet and a wider diffusion of mobile phones has drawn the attention of most banks to e-banking (Boateng and Molla, 2006). Stamoulis et al. 2002, on the other hand consider e-banking as a financial innovation that has been enabled by the creative use of emerging ICT and other business forces. The financial innovation incorporates ICT, customer, marketing, finance and strategy.

E-banking is the product of different generations of electronic transactions. Since the 1990s, the scope of e-banking has widened. Previously, it was virtually insignificant but now it is well-known to millions of users worldwide. Automated Teller Machines (ATMs) were perhaps the earliest examples of e-banking that provided customers with electronic access to banking. Later, phone banking was introduced which allowed users to call their banks on ordinary phones to perform banking transactions. Nonetheless, phone banking was superseded by Personal Computer (PC) banking where customers have proprietary software installed on their personal computers by their banks to enable them bank from their homes. With this medium, users are able to interact with their banks through a computer connected with dial up modem to a phone network. Currently, internet banking is the most recent of the several generations of systems. This mode of electronic delivery is widespread in Austria, Singapore, Spain and Switzerland, Korea, and the Scandinavian countries. In these areas, about 75 percent of all banks offer internet banking services (Nitsure 2003).

According to Stamoulis et al. 2002, the profitability of delivery channels by banks is calculated not only on the basis of revenue generated by charging customers but also exploring other avenues for reducing operating cost. The adoption of e-banking ensures operational efficiency as it is evident that expenses on labour, premises, back-office paper work and facilities are minimised. Also, banks deal directly with customers through electronic delivery channels as compared to the traditional brick and mortar model where customers transacted business over the counter.

In recent times, the profitability of banks is also determined by different e-banking capabilities possessed by banks and can be seen in two dimensions (Boateng and Molla, 2006). First, the use electronic delivery channels in serving customers. In developed countries, many banks began with the use of ATMs and have evolved to personal computer banking. Nonetheless, this evolution is not visible in recently established banks in developing countries. In Africa, this evolution is visible in South Africa's banking industry (Boateng and Molla, 2006). What appears to be the most commonly used electronic delivery channel in Africa is the use of ATMs and most recently the emergence of mobile banking in Ghana. The slow evolution of e-banking in developing African countries has been the inability to rapidly adopt global technology to local requirements. Most developing countries lack adequate infrastructure, working capital and human capacity before the adoption of global technology, and thus difficult to achieve the benefits that come with e-banking initiatives.

The second is the sophistication of banking services delivered over electronic channels. Sophisticated e-banking services range from one way *information-push services* where customers obtain information about the banks' products and services to *information download.* With *information downloads services*, customers are able to download account information and forms and also perform *full transaction* such as making transfers between accounts, bill payment and cards and loan applications electronically (Boateng, R. & Molla, A. 2006). With these determinants, banks need to decide on *what* e-banking services to provide, to *which* customers and *when* and *how* to provide customers with their services.

In addition, Jayawardhena and Foley (2000) believe e-banking provides solutions to the inherent problems of traditional banking such as it being time consuming. As a result, it is eventually becoming a norm for banking institutions to encourage their clients to use electronic means of banking. Customers' acceptance of electronic banking saves banks considerably on operating and marketing cost, thus providing banks with economies of scale (Levinsohn, 1998). The use of electronic delivery channels in service provision also eases enquiries, saves time and improves service quality. Due to these benefits, Hutchinson and Warren (2003) report that electronic banking presently accounts for over 50 percent of all banking transactions. Hutchinson and Warren (2003) also identified four drivers of electronic banking:

- Increasing demand of customers.
- Increasing competition between banks and new bank entrants.

- Banks' relentless desire to exploit new ways to reduce operational cost and achieve efficiency.
- Global deregulation of financial markets.

As banks adopt electronic delivery of products and services, the problem of reducing operational cost at the expense of maintaining and developing customer relationships would be experienced. As consumer preferences differ among customers, service provision must be structured in ways that satisfy all categories of customers. Therefore, banks that seek to gain competitive advantage in today's dynamic environment must ensure that good relationships are built with customers. This is because financial institutions that attempt to build good relationships with clients rather than seek to make profit from any individual product or transaction, have maximised their profitability (Moriarty *et al*., 1983).

Again, banks that successfully integrate new technology in their business activities need to understand the impact of technology based transaction systems on customer perceptions and behaviour (Moutinho and Smith, 2000). The implication is that banks need to know what satisfies and keep customers and as well develop innovative ways of providing satisfactory services to customers. Customer satisfaction is created as a result of high degrees of convenience and user-friendliness of electronic banking facilities. Currently, evidence appears to suggest that customer growth is dependent on electronic banking (Katz and Aspen, 1997;

Tilden, 1996). Thus banks should be cautious of the impact of e-banking on current and future relationships as it largely reduces, and in some cases eliminates personal contact points within an organization. It has therefore become necessary for banks to acknowledge that their growth to a large extent is dependent on their relationship with their customers, and to continue to strengthen that relationship.

In addition, the elimination of personal contact within the banking industry by financial institutions cannot create a one-size-fits-all approach (Asher, 1999). Even though the use of electronic banking facilitates and reinforces the relational elements of cooperation, commitment, trust, reliability and flexibility, some customers are cautious in its use (Rexha et al 2003). Such customers feel vulnerable when their finances are exposed through this medium, and consequently are still inclined to the use of face-to-face contact for the provision of service. The traditional "brick and mortar model" is perceived to provide more reliable and trustworthy services. This implies that banks need to be critical in evaluating the preferences of their customers. Nonetheless, to ensure maximum benefit with the adoption of electronic delivery channels and additionally satisfy consumer preference, most banks as of today have combined electronic delivery of services and products with traditional brick and mortar branches.

The issue of trust is a variable that has attracted key interest in research study. Trust according to Moorman et al (1992) is the willingness to rely on an ex-change partner in whom one has confidence. Gaining the trust of customers is a vital catalyst in transactional relationships and also a determinant to the nature of many businesses. In the financial industry today, new challenges are faced with the use of new technologies which tend to jeopardise the issue of trust. An array of studies has made it reasonable that customer trust and image can significantly affect an individual's behaviour towards a product or service (eg. Rexha et al. 2003, Ratnasingham, 1998). Given the risk level in the financial industry, earning the trust of customers is vital to the increase in profitability and also due to the fact that the use of e-banking physically separates the bank and customers from each other. Also trust for services delivered electronically has the propensity to result in customer satisfaction.

Security is a major barrier that significantly influences the adoption of e-banking. Security tends to threaten the operations of e-banking as many customers become reluctant to switch to services delivered electronically. According to Hutchinson (2000), due to the high dependency on computers in workplaces, the banking and finance industry for instance tend to report the highest incidence of misuse of customer information. A case in point of breach of security was that of Citibank in 1994 which is still recalled in the banking and security circles (Abend, Peretti et al, 2008). The incident depicts hackers who penetrated into the bank's system and wired money to other banks around the world. With the occurrence of such incidence, customer confidence and trust is dependent on how banks put in place systems and institutional mechanisms to deal with erroneous transactions and security concerning e-banking.

For years, customer satisfaction has been perceived as key in determining why customers leave or stay in an organization since customer satisfaction differs from client to client. Customer satisfaction is dependent on how customers perceive products and services to meet expectations. Hence a customer is considered satisfied if products or services meet his or her expectation. If not the customer is considered not satisfied. In the banking industry, behaviours of professionals (such as formal greetings), efficiency of equipment and infrastructure are some determinants of quality service that eventually result in customer satisfaction. In a study by Leeds (1998), about 40% of customers switch banks as a result poor service quality. As banks advance to electronic delivery channels, security, maintenance and replacement of worn out equipment and infrastructure ought to be done on regular basis to improve efficiency. This will not only save operational cost but also provide customers with the satisfaction much desired. Customer satisfaction is achieved by ensuring a zero defect in the provision of services.

Since most banks' products are easily duplicated with identical services, banks can distinguish themselves on the basis of price and the quality of services provided to customers. This can be achieved through a differentiation strategy. But Ioanna (2000) proposes that differentiation is impossible in the competitive environment of the banking industry since banks' products and services are the same everywhere. For instance interest rates are the same in almost all banks with minimal variations. Quality service tends to be an essential factor that impacts on customer satisfaction level in the banking industry. Thus management of banks have the tendency to differentiate their companies from competitors through service quality. Ensuring quality service in the banking industry is dependent on variables such as convenience, reliability, service portfolio and most critically the staffs delivering the service since most banks has combined the brick and mortar model with electronic banking. With quality service, customer retention becomes an effective tool for banks to gain strategic advantage in today’s competitive environment. A large retention of customer satisfaction tends to increase profitability as the financial implication of attracting new customers according to Rust and Zahorik (1993) may be five times as costly as keeping these customers.

2.1 The Banking Industry of Ghana

Ghana’s banking industry has over the years witnessed significant amount of transformation with the emergence of technological innovative products and services. Banks have employed these innovative products and services in their operations so as to provide customers with easy accessibility. The industry has not been adversely affected by the current economic crunch. The industry has been built on strong regulatory and supervising framework. In 2008, as part of the Central Bank’s obligation to improve the banking industry, a technologically friendly product was launched. This product was the Ezwich, a common electronic platform that integrates and links all payment systems of bank and non bank financial institutions with a biometric smart card.

Ghana’s banking industry began to experience its technological revolution in the 1990s where most banks adopted electronic and communication technologies such as telephones, personal computers and facsimile. The main purpose was to speed up and make service delivery to customers more efficient. The advancement in computer technology created an opportunity for banks to network their branches. The pioneers to this significant electronic novelty were Barclays Bank and Standard Chartered Bank. The lead by these banks resulted in an absolute transformation of Ghana’s banking landscape. Most banks followed suit in networking their branches. Customers generally benefited from this transformation. Customers were able to transact business not necessarily with their branch but with other branches of the same bank. In 1995, the first Automated Teller Machine (ATM) was installed by The Trust Bank Limited. In order to gain a competitive position in the industry, most major banks also began installing their ATMs network which resulted in a fierce competition. Currently, all banks operate ATMs which makes it the most successful electronic delivery medium for customers. ATMs have become a factor for customers’ choice of a bank.

Another technological innovation is the development of various electronic cards by banks over the years. The first cash card was ‘Sika Card’, a product by the then Social Security Bank now SG-SSB Bank, introduced in 1997.This product was a value card onto which a cash amount is loaded electronically. Later, other banks also introduced their electronic cards. In the early part of 2001, Standard Chartered Bank launched its first debit card. Recently its function has been integrated with

ATM cards which have resulted in an increase in its availability to the public. Again, Ecobank, Cal Bank and The Trust Bank in a collaborative effort introduced an electronic card named ‘E-Card’. Thereafter, PC banking, Internet banking and mobile banking have been introduced. Barclays Bank Ghana for instance on August 28, 2002 launched its mobile banking service, which has been successful due to its convenience and time saving.

With technological evolution, banking in Ghana is in its growth phase and continue to attract lot of international attention as can be seen with the influx of international banks into the country. Nigerian owned banks seem to be on the increase Ghana’s banking industry. Over the past six years banks that have entered the country include Zenith Bank (originally from Nigeria), Standard bank (the most capitalized bank in Africa; originally from South Africa), United Bank of Africa (originally from Nigeria), UT Bank and Fidelity Bank (formally Fidelity Discount House). All these banks aim at increasing their market share by defining and redefining service delivery position so as to remain in the competitive environment of the banking terrain. This is because delivering quality service and product have become an integral part of banks’ growth and their survival in today’s competitive banking industry.

On 26 June, 2006, former governor of bank of Ghana, Dr. Paul Acquah delivered a speech at the official opening of GT bank. In the speech he indicated that the effect of healthy competition among banks has resulted in the continuous growth of assets, liabilities, and incomes in the banking sector. Again, he made mention that income ratios and profitability ratios of banks in Ghana have risen in comparison with sub-Saharan averages. Herewith, banks have the opportunity to make good returns for their shareholders and also reduce bank charges and interest rates given the prevailing increase.

Even though the sector has experienced significant transformation in the past decades, there are challenges that confront the sector. One such challenge is how to increase access to small and micro enterprises. Dr Acquah, former governor of Bank of Ghana believes that the culture of Ghanaian banks needs to change by shifting from profit-seeking from a few selected customers and to move to innovation, cost effective competitive pricing of risks and increase lending to the private sector.

Currently, there are about 26 banks operating in Ghana. The operations of these banks however aim at exploring the large segment of the unbanked in the country and to provide accessible product and services to customers. In Ghana, about three million people hold accounts with banks and about eight million people still keep their monies outside the banking system. This is evidence of the fact that banks have not been able to reach a large proportion of population. On October 13, 2009, it was reported in the *Graphic Business newspaper* that Fidelity Bank has positioned itself in a strategic position to be the leader in reaching out to the large population of the unbanked in the country. In partnership with Ghana Post, 75 outlets have been rolled out in post office premises under a novel concept of what is to be known as Post Bank.

2.2 Forms of electronic banking

Types of service	**Description**
Mobile/telephone banking	Allows customers to perform balance check, account transaction, payment etc.
Internet banking	Customers are able to access their accounts through the internet.
Automated Teller Machines	Dispenses money and used check balances
Electronic Funds Transfer at Point of Sale (EFTPoS)	Allows customers to transfer funds their bank account to merchant accounts when making purchases.
PC Banking	Proprietary software is distributed by banks which are installed on the PC of their customers.

CHAPTER THREE

Research Methodology

3.0 Overview

The purpose of this research is to determine the impact of electronic banking on the growth of banks in Ghana and how customer satisfaction has been affected with the use of electronic delivery channels. The research explored challenges faced by banks with the use of electronic delivery channels. In order to answer these objectives, two sets of questionnaires were distributed to banks and customers. A total of 50 respondents were randomly selected. Selected participants answered the questionnaire structured in a Likert format.

3.1 Research Design

Descriptive and exploratory research methods are used in this study to identify the role of electronic banking on the growth of banks and its relation to customer satisfaction. Descriptive research method is an approach to research to systematically investigate people, group or pattern of behaviours. The main purpose of using descriptive research method is to obtain first hand data from respondents. Also, due to the flexibility of this method it can use either qualitative or quantitative data or both, hence it was considered for this study. Exploratory research on the other hand is an approach designed to investigate an area of study with little information. This technique gives a valuable insight into the question under study

In this study, a combination of the qualitative and quantitative approach is used. This is to ensure that the advantages of both qualitative and quantitative approaches are obtained which in turn will overcome limitations of one research approach. The use of quantitative approach prevented elements of bias in the gathering and presentation of data. It also ensured objectivity, and reliability of the research undertaken. The qualitative research approach on the other hand provides more in-depth and comprehensive information as data is gathered through open ended questions.

In gathering information, two types of data gathering could be used. These include primary data and secondary data. Primary data is derived from responses of participants in the research whereas secondary data is obtained from published documents and literatures relevant to question under study. In this study, there is heavy reliance on the use of primary data as data was collected through the use of questionnaires and interviews.

3.2 Participants

In order to determine the impact of electronic banking on the growth of banks as well as how customer satisfaction is being met with the use of electronic delivery channels, a total of 60 participants were selected using simple random sampling. The 60 participants were selected out of the total population of banking customers. With this sampling method, each member of the population has an equal opportunity of being part of the sample thus making this method an efficient sampling method. Out of the 60 participants, 30 of them are bank customers who should have transacted business with any of the electronic delivery channels offered by their banks. The purpose of this is to ensure that participants have a clear understanding of the nature of the questionnaire. Also, bank officials were administered a separate questionnaire with the intention of finding out how e-banking has impacted the growth of banks in terms of profitability and service quality. Due to the large number of banks operating in the banking industry, five banks were selected from the pool of banks using simple random sampling. Six questionnaires were administered in each of the banks selected. The banks were chosen based on services and products they deliver through electronic channels. Due to the tight working nature of the banking industry, most respondents requested the questionnaires were left with them and picked up following day. In order to get their perspectives about the research study, it was agreed that those who could not fill on that same day would have theirs collected the following day.

3.3 Instruments for data collection

The data for this study was generated through the use of survey questionnaires and interviews conducted in some selected banks in the Accra metropolitan area. The first batch of questions for the survey explored the importance of electronic delivery channels to the growth of the banking sector. The second, measured customers' satisfaction as banks transforms to the use of electronic delivery channels. The questionnaires were structured in close-ended type and responses to the questions were measured on a five Likert rating scale where: Strongly Agree (SA) = 4; Agree (A) = 3; Strongly Disagree (SD) = 2; Disagree (D) = 1; and Neutral (N) = 0. The use of Likert scale is to make it easier for respondents to answer question with ease. In addition, this research instrument will permit an efficient use of statistics for the interpretation of data. Questions for the interview took the open-ended format so as to capture relevant information as possible.

3.4 Data analysis

Following the gathering of completed questionnaires, total responses for each question are tabulated using mean, standard deviation, pie charts, and bar charts. The charts are used to analyse demographic data, impact of e-banking on growth of banks and degree of customer satisfaction. The tools employed were also used to determine the correlation between the use of e-banking, age group and gender. Again an analysis of whether the use of electronic delivery channels has any association with the degree of customer satisfaction.

CHAPTER FOUR

4.1 Analysis of Research Data and Results

This section analyses on data collected from two samples. Data from one of the samples are interviews and questionnaires from bank staff. The interview was conducted among five bank staffs each from a simple randomly selected bank that is SG-SSB, CAL Bank, HFC Bank, GT Bank and Fidelity Bank. Data from the other sample is a collective response to the questionnaires by customers. Each set of data will be analysed with respect to the specific question it seeks to answer and its relationship with other questions.

During the interview, bank staffs were asked how e-banking has improved the productivity of banks. Responses from respondents indicated that productivity has increased not just for the banks but for customers as well. For customers, they do not have to wait for hours in long queues to transact business. Also, it saves them the hassle of being in traffic to get to their banks to transact business. With e-banking, they are able to transact business anywhere. For staff, there is an improvement in working environment as handling bulky ledgers are now avoided. Also, time for attending to customers has reduced as e-banking speeds up the processes of the bank's accounts department. To confirm the strength of the responses given, respondents to the questionnaire were also asked if e-banking has improved the productivity of the bank. Figure 4.1 shows that 77% of respondents *agree,* 10% are *indifferent* and 13.4% *disagreed* with the view that e-banking has improved the productivity of banks.

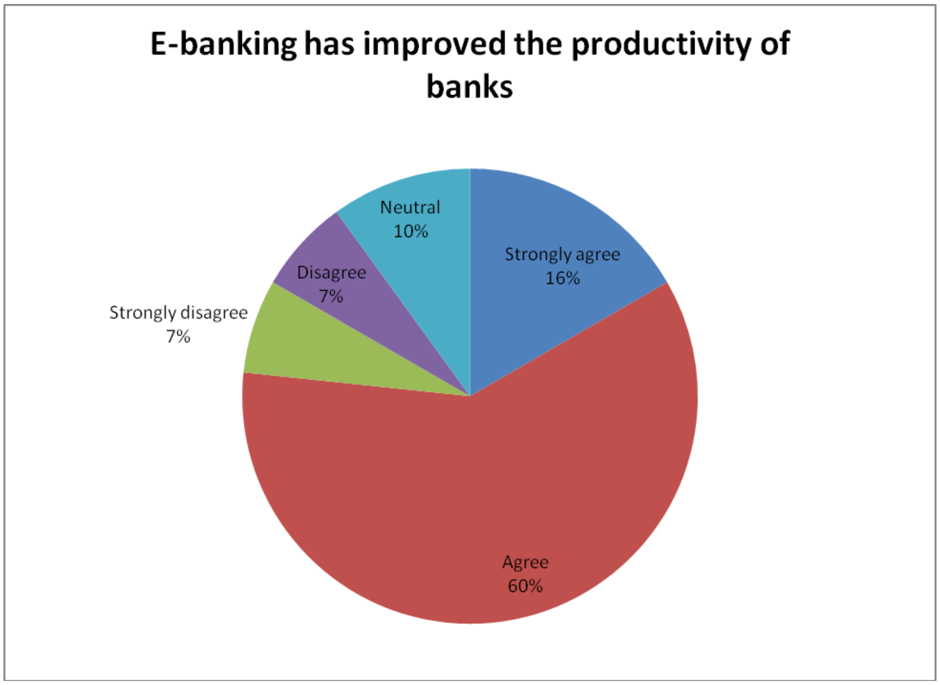

Figure 4.1: Improvement in banks' productivity with the use of e-banking.

E-banking seems to have been widely integrated into the banking industry. All 30 customer respondents surveyed have their banks providing services and products through electronic delivery channels. The majority of these respondents fall within the age group 18 to 35 and appears to be the target of many banks since people within this group are technologically inclined. Thus coupled with the benefits of e-banking, competition has intensified among banks as can be inferred from figure 1 (in Appendix B).All 30 bank staff who answered the question 'competition among banks has intensified with more banks adopting the use of electronic delivery channels' either strongly agree or agree. This implies that to achieve a competitive position in the banking industry to go along with globalization and the digital age, e-banking is the best option for banks. In other words competition is a contributory factor to the adoption of electronic delivery channel in the banking industry.

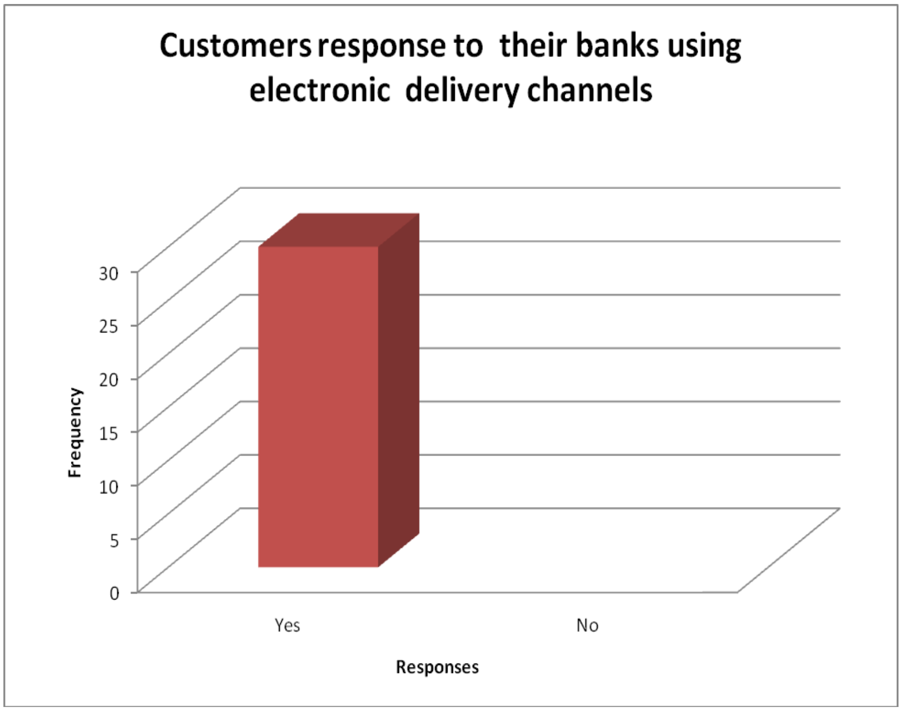

Figure 4.2: Customers whose banks use electronic delivery channels

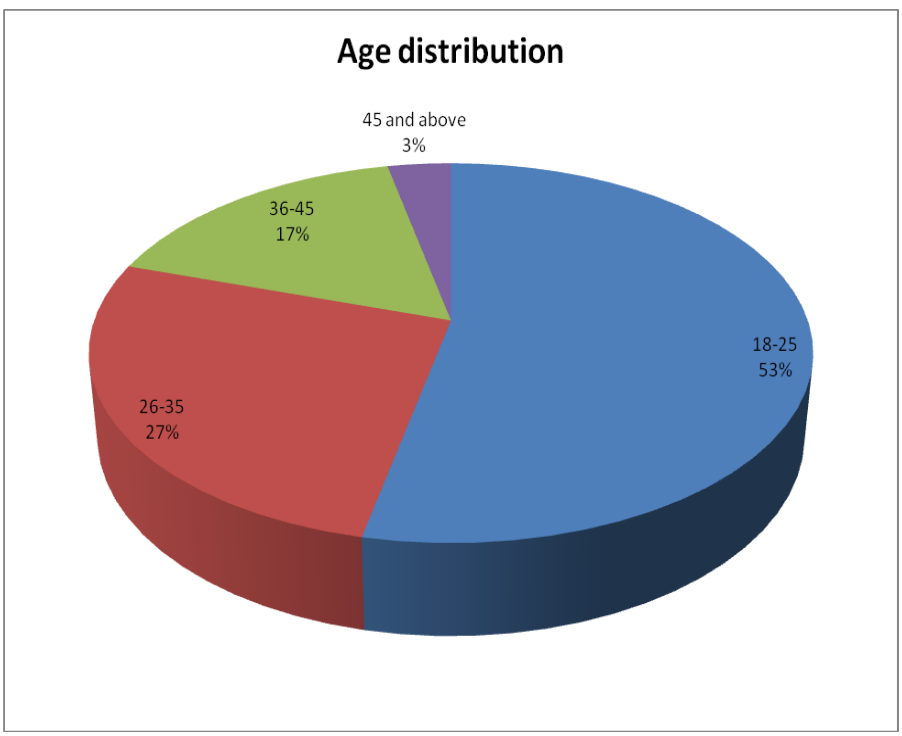

Figure 4.3: Age distribution of customer respondents.

In addition, there is variation to the analysis that the availability of e-banking has reduced the number of people who come to the banking hall. In figure 4.4, 80% of staffs who answered the questionnaire *strongly agree and agree* that the number of customers who come to the banking hall has reduced with the implementation of electronic delivery channels. Conversely, 16.7% of staffs *disagree* whereas 3.3% are *indifferent* to the question.

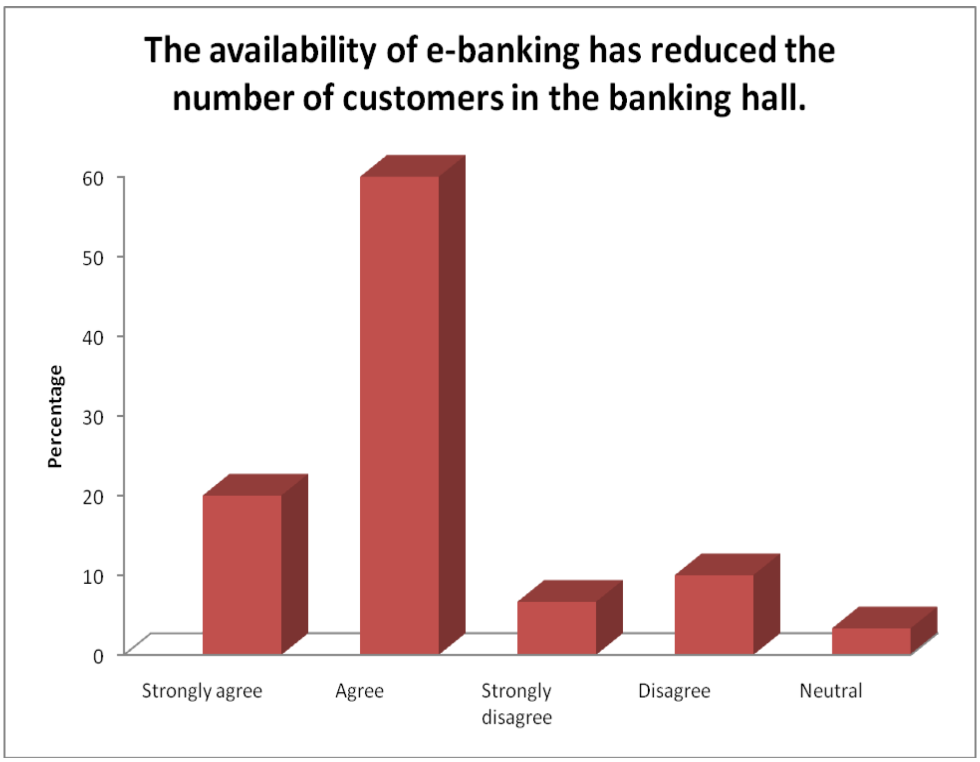

Figure 4.4: Staffs' perception of e-banking to the number of customers who come to the banking hall.

Furthermore, customers have different opinion with regards to time spent in the banking hall as banks employ electronic delivery of services. From table 4.1, it can be deduced that 80% of bank customers *strongly agree* and *agree* to the question that e-banking has reduced the time involved in bank transaction, 13.3% *strongly* *disagree* and *disagree* while 6.7% of customers have a *neutral* opinion to the question. Out of the 30 customers who answered the questionnaire, 73.3% spend less than an hour in the banking hall while 26.7% of respondents spend between one to two hours in the banking hall. None of the respondents spend more than three hours in the banking hall. Thus most customers tend to spend less than an hour in the banking hall which is an indication of an improvement of service compared to a decade ago.

Table 4.1: E-banking and a reduction time in bank transactions

Question	**SA**	**A**	**SD**	**D**	**N**
Electronic banking has reduced time involved in bank transaction	9	15	1	3	2
Percentage	30	50	3.3	10	6.7

Furthermore, as banks incorporate e-banking with the traditional brick and mortar model of banking, they are faced with challenges that are liable to affect the profitability and expansion of banks. During interviews conducted, all five bank staff interviewees cited system disruptions of e-facilities and limited access to internet connection as challenges to delivering services and products electronically. With respect to limited internet access, this has been a major set back to the growth of e-banking especially internet banking in the country. According to an interviewee, many customers have shown interest in accessing online services but the slow connectivity of the internet has been a constraint. Also, security is a major obstruction that banks have to deal with as they take on to the electronic delivery of services and products. Moreover, reluctance to change on the part of customers has also been a challenge for banks as they adopt electronic delivery of services and products. In the course of the interview it was revealed some customers had rejected when offered to have services and products delivered to them electronically. This group of customers were mostly older people who prefer the traditional brick and mortar model of banking due to lack of trust for this model and reluctant to change.

In addition, it was disclosed by bank staff that feedback normally received from customers has to do with their enthusiasm about the novelty in the banking industry. However, some feedback received relates to slow internet connectivity, improper functioning of certain e-facilities such as ATMs. As mentioned in the literature review, a determinant of customer satisfaction has to do with efficiency of equipment and infrastructure. With such complaints, customer satisfaction is negatively affected and becomes the basis for customers in forming a decision to leave or stay with the bank.

Furthermore, customers believe that delivery of services and products through electronic channels can be improved if e-facilities are better managed and maintained to prevent the recurring and periodic breakdown of most ATMs. Again, relating to internet banking, customers believe that a more user-friendly internet banking software can improve the delivery of services and products delivered electronically. Additionally, banks can improve e-banking by making it possible for customers to be able to transfer money from an account to another account in another bank via internet banking.

With all these suggestions, 70% of customer respondents *agree* they are satisfied with services and products delivered electronically, 10% *disagree* while 20% have indifferent opinion to the question (see figure 3 in Appendix B). On the other hand, 56.7% of the 30 bank staffs who responded to the questionnaire answered *yes* to 'if they think customers are satisfied with services delivered electronically'. The reason given for the choice of response is that it saves time that would have otherwise been spent in the banking hall. Another reason given relates to the fact that the number of customers applying for ATM cards keeps increasing. Nonetheless, 43.3% responded *no* because customers have so many complaints some of which take too long a time to resolve or never resolved. Another reason given relates to commission charged for having services and products delivered electronically. Most customers have refused to sign up to have services and products delivered to them electronically due to the commission charged on e-banking products such as ATMs.

Again, a large percentage of respondents hold the view that e-banking has positively impacted the growth of banks as indicated in figure 4.5. This implies there has been an increase in profitability, operating capacity, size, diversification and a reduction in cost of operations. 30% of respondents *strongly agree* that e-banking has positively impacted the growth of banks while 50% of respondents *agreed*. On the other hand, 20% of respondents have a *neutral* opinion to the question. But none of the respondents disagreed to the question. Also with reference to data obtained from Ghana Banking Survey 2009, market share of banks has increased with the adoption of e-banking as it has enabled majority to have access to bank. Barclays Bank, Ghana Commercial Bank, Ecobank and Standard Chartered for instance continue to hold a large part of the industry's total deposit. Their total deposit constitutes about 50% of the industry's total deposit (see figure 5, Appendix B). The lead by these banks in the industry is attributable to technological innovation adopted by these banks to make banking easier for their customers. Also, the increase in total deposits indicates a rise in the number of customers.

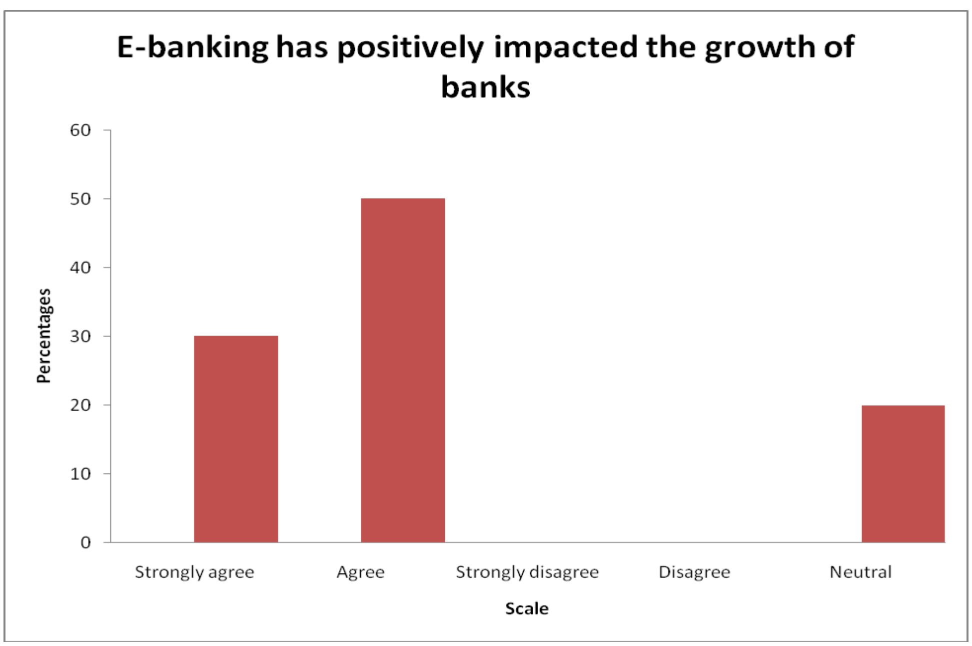

Figure4.5: From staff point of view, impact of e-banking on the growth of banks.

Interestingly as can be inferred from table 4.2, out of 30 bank staffs who responded to the questionnaire, 46.7% of respondents *agree* to the perception that the use of electronic delivery channels has resulted in fewer customer complaints while 50% of respondents disagree to the question. However, 3.3% of respondents have a neutral view to the question. The implication to this analysis is that e-banking has not completely addressed customers' complaints.

Table 4.2: E-banking and customer complaints

Question	**SA**	**A**	**SD**	**D**	**N**
Customers have fewer complaints with the use of electronic delivery channels (E-banking).	2	12	1	14	1
Percentage	6.7	40	3.3	46.7	3.3

With respect to the use of technological innovation in the banking industry, ATMs appear to be the most widely accepted and highly used electronic delivery channel used by banks and customers as depicted in figure 4.6. This is followed by internet banking, mobile banking and telephone banking. Electronic funds transfer, an earlier form of technological innovation seems to be the least used electronic delivery channel by customers. From customer perspective, ATMs again appeared to be the highly used followed by internet banking as seen in table 4 (see appendix B).

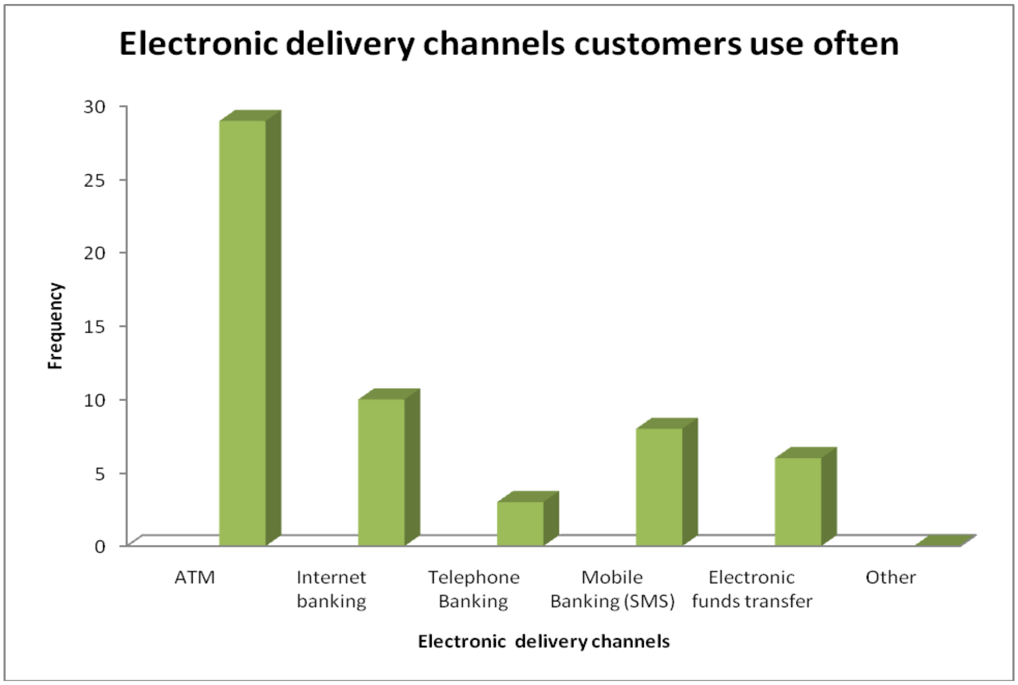

Figure 4.6: Frequently used electronic delivery channels from staffs' perspective

The ability to satisfy customers has been a major concern for banks that aim at gaining a competitive edge over their competitors. As a result banks have been seen making huge investment in ICT that will ultimately provide customers with the needed services and products. From the study (see figure 3, appendix B), it was exposed that 70% of customer respondents are satisfied with services and products delivered electronically. 10% of the respondents are not satisfied whereas 20% are neutral to the view that they are satisfied with services and product delivered electronically. With this result, it can be concluded that to a large extent e-banking has provided customers with the satisfaction much desired.

Again, with the adoption of e-banking, banks aim to reduce their operating cost and make more revenue that will have a positive impact on the bank's profitability. A critical look at the profitability ratio of the industry indicates that between 2007 and

2008, the profit before tax ratio took a dive. However, some banks were able to stand head and shoulder above their peers. As seen from figure 4 (in appendix B), Ecobank Ghana Limited took the lead with a profit before tax margin of 41.9%. It was followed be Zenith Bank Ghana Limited with 40.1%. Zenith Bank had previously in 2007 obtained a profit margin of 3.6% which was far below the industry average of 30.4%. The low profit margin attained by the bank in 2007 is attributed to high impairment charges, administrative cost, and staff cost. Other banks such as Intercontinental Bank, Guaranteed Trust Bank and Fidelity have followed the trend of Zenith Bank. On the other hand, other bans have not been able to take advantage of e-banking. Such banks continue to operate at a high cost even with the availability of technological innovations which makes it possible for operations to be done at a less cost. Barclays Bank for instance had a profit margin of 36.8% in 2007 which was above the industry average of 30.4. But in 2008, its profit margin fell to -6.8% as against the industry average of26.3% which indicates the bank has not effectively used e-banking to reduce it operating expenses.

4.2 Summary Analysis and Discussion of Results

From the overall analysis of data collected for the study, it can be surmised that the future holds a great deal of prospect for e-banking as globalization takes place. Even though banks in Ghana have demonstrated an enthusiasm for e-banking, the trend is plagued with problems; understandably considered teething problems. Banks that take up the challenge to solve these problems have attracted more customers and have been successful amid problems such as internet connectivity and system disruptions.

Furthermore, e-banking has resulted in the growth and expansion of banks. The adoption of electronic delivery channels has been the consequence of keen competition among banks as they contend to have the greatest market share. Thus, the keen competition in the industry has unwrapped different strategies in gaining competitive advantage. Strategies used by banks to serve more customers include branch banking, digital technology, door-to-door marketing and promotions among others. As competition increases, banks take on the habit of having their customers spend less time in the banking hall thus an increase in productivity and profitability.

Also, the analysis indicates a positive relationship between e-banking services and products and customer satisfaction. It was observed that elements of e-banking such as ATMs and internet banking are well patronised and suggests the predisposition for bank customers to embrace e-banking as it is more accessible and adoptable. From the responses of customers, it suggests that customers to a large extent are satisfied with services delivered through electronic channels even though staffs of banks have mixed feelings of customer satisfaction. Also, from the interview with bank staffs, the older generations tend to find e-banking unattractive as they are used to the traditional way of banking. However, the younger generation finds e-banking to be the most useful way of banking.

CHAPTER FIVE

Conclusion, Limitations and Recommendation

In this chapter, we draw conclusions from the study and make recommendations for future research and ways to improve e-banking and customer satisfaction. Limitations to this study will be looked as well.

5.1 Conclusion

The study traces the developments of ICT to e-banking, its trends, implications, challenges and prospects as well as theories and concepts from various researchers. The study explored e-banking as the determinant of bank profitability, benefits of its adoption, challenges to the implementation of e-banking and its evolution strategies to meet customer satisfaction. The study has shown that e-banking with its benefits provides solutions to the inherent problems of traditional banking. Also, it is obvious from the study that the benefits of adopting e-banking are well-know to many banks in Ghana. Cost reduction, speed and accuracy of services, increase in market share, improved productivity and expansion of geographical location are some of the benefits banks reap with the adoption of e-banking. Reaping these benefits serves as a step up in customer commitment and trust. The issue of trust influences customers' decision to use e-banking. Thus banks need to nurture a close and long term relationship with their customers which would enhance trust and result in the adoption of e-banking.

5.2 Limitations

- Banks were reluctant for questionnaires to be distributed to customers in the banking hall. The reason given was that customers are in a hurry and will not have the time to fill out the questionnaire. Therefore questionnaires for customers were filled by customers of the various banks in Ghana.

- Due to the tight working schedule of bank staff, questionnaires had to be left with them to be collected days later. Also, for the same reason, some interviews were conducted during non-working hours and finding a convenient time to hold the meeting was difficult.

- Some online literatures were difficult to access as most of them required a fee to be paid.

5.3 Recommendations

In order for e-banking to positively impact the banking industry of Ghana and create customer satisfaction, it is recommended that the following should be done:

- Routine maintenance and replacement of e-facilities and other related equipment to prevent system disruptions

- Banks must work their way through to earn the trust of their customers as customers' decision to adopt e-banking is based on trust.

- Staffs should be given regular training on how to provide customers with quality service.

- For banks to increase productivity, customer satisfaction and financial performance, employee satisfaction is critical. When employees are happy and satisfied with the conditions of work, customers are treated well which leads to customer retention.

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APPENDIX A

Ashesi University

Research Questionnaire

The purpose of this questionnaire is to determine whether customer satisfaction is being met with the use of electronic delivery channels (e-banking) employed by banks.

1. Sex: Male ☐ Female ☐
2. Age:

   18-25 ☐ 26-35 ☐

   36-45 ☐ 46-above ☐

3. On average, how many hours do you spend in the bank when transacting business through the traditional method?

   Less than an hour ☐ 1-2 hours ☐

   3-4 hours ☐ 5 & above ☐

4. Does your bank use electronic delivery channels in providing services to its customers?

   Yes ☐ No ☐

5. Quality of services and products have improved with the use of electronic delivery channels

   Strongly Agree (SA) ☐ Disagree (D) ☐

   Agree (A) ☐ Neutral (N) ☐

   Strongly Disagree (SD) ☐

6. With the use of electronic delivery channels I am satisfied with services provided by my bank.

Strongly Agree (SA)	☐	Disagree (D)	☐
Agree (A)	☐	Neutral (N)	☐
Strongly Disagree (SD)	☐		

7. Electronic banking has reduced time involved in bank transaction

Strongly Agree (SA)	☐	Disagree (D)	☐
Agree (A)	☐	Neutral (N)	☐
Strongly Disagree (SD)	☐		

8. Which electronic delivery channels do you use often?

ATMs	☐	Mobile banking (SMS)	☐
Internet banking	☐	Electronic Funds Transfer	☐
Telephone Banking	☐	Other	☐

9. What is your general impression about e-banking?
....
....
....

10. What can banks do to improve the delivery of services and products through electronic channels?
....
....

Ashesi University

Research Questionnaire

The purpose of this questionnaire is to find out about the impact of e-banking on the growth of banks in Ghana.

1. The availability of electronic delivery channels (ATM, Mobile banking etc) has reduced the number of customers that come to the banking hall.

Strongly Agree (SA) ☐ Disagree (D) ☐

Agree (A) ☐ Neutral (N) ☐

Strongly Disagree (SD) ☐

2. Customers have fewer complaints with the use of electronic delivery channels (E-banking).

Strongly Agree (SA) ☐ Disagree (D) ☐

Agree (A) ☐ Neutral (N) ☐

Strongly Disagree (SD) ☐

3. E-banking has increased the productivity of our bank.

Strongly Agree (SA) ☐ Disagree (D) ☐

Agree (A) ☐ Neutral (N) ☐

Strongly Disagree (SD) ☐

4. E-banking has positively impacted on the growth of our bank.

Strongly Agree (SA) ☐ Disagree (D) ☐

Agree (A) ☐ Neutral (N) ☐

Strongly Disagree (SD) ☐

5. Which electronic delivery channels do customers often use? Tick more than one.

ATMs	☐	Mobile banking (SMS)	☐
Internet banking	☐	Electronic Funds Transfer	☐
Telephone Banking	☐	Others	☐

6. Do you think customers are satisfied with services provided through the use of electronic delivery?

Yes ☐ No ☐

Why...
....
....
....

7. Competition among banks has intensified with more banks adopting the use of electronic delivery channels

Strongly Agree (SA)	☐	Disagree (D)	☐
Agree (A)	☐	Neutral (N)	☐
Strongly Disagree (SD)	☐		

Interview Guide

1. How has e-banking improved your productivity as a bank?
2. Challenges faced with the use of e-banking?
3. What feedback do you receive from customers that use any of the electronic delivery channels?
4. What are your general impressions of e-banking

APPENDIX B

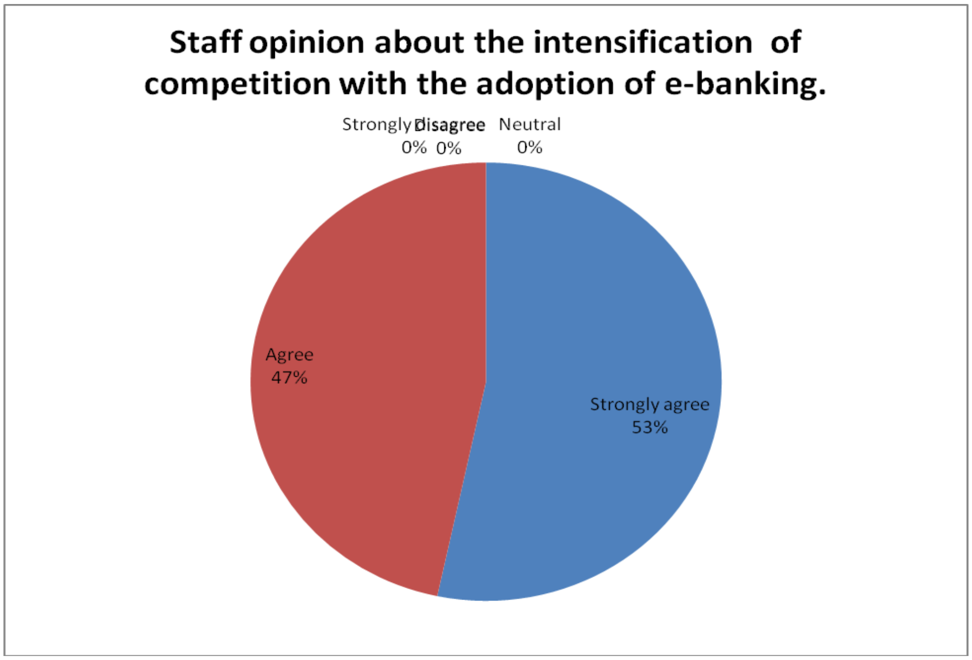

Figure1. Intensification of competition with the use of e-banking

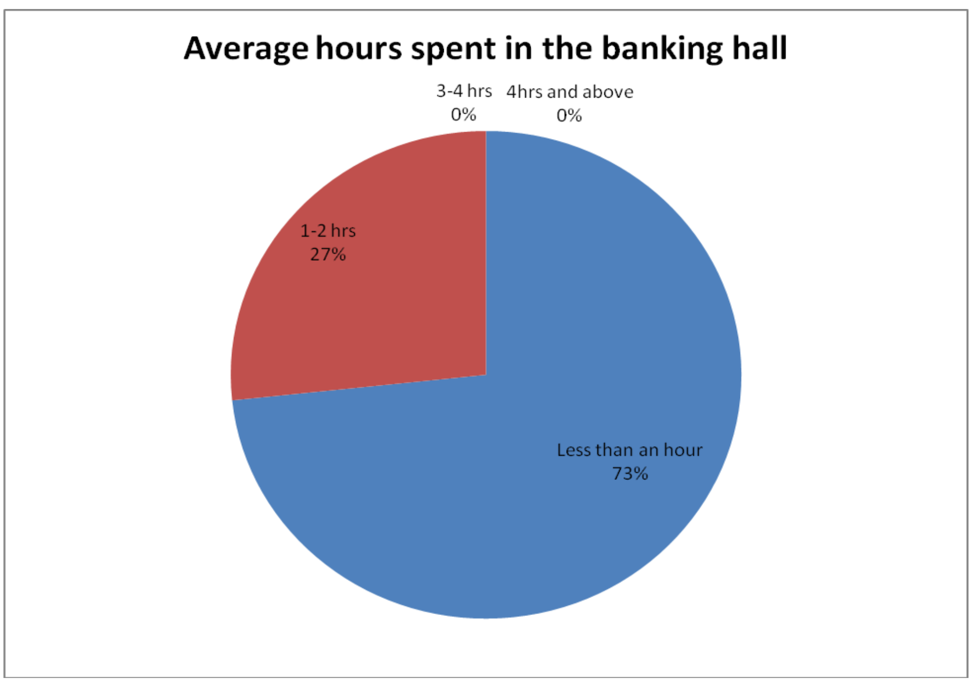

Figure 2: Average hours spent in the banking hall.

Table1: Customer satisfaction from staff perspective

Question	**Yes**	**No**
Do you think customers are satisfied with services provided through the use of electronic delivery?	**17**	**13**
Percentage	**56.7**	**43.3**

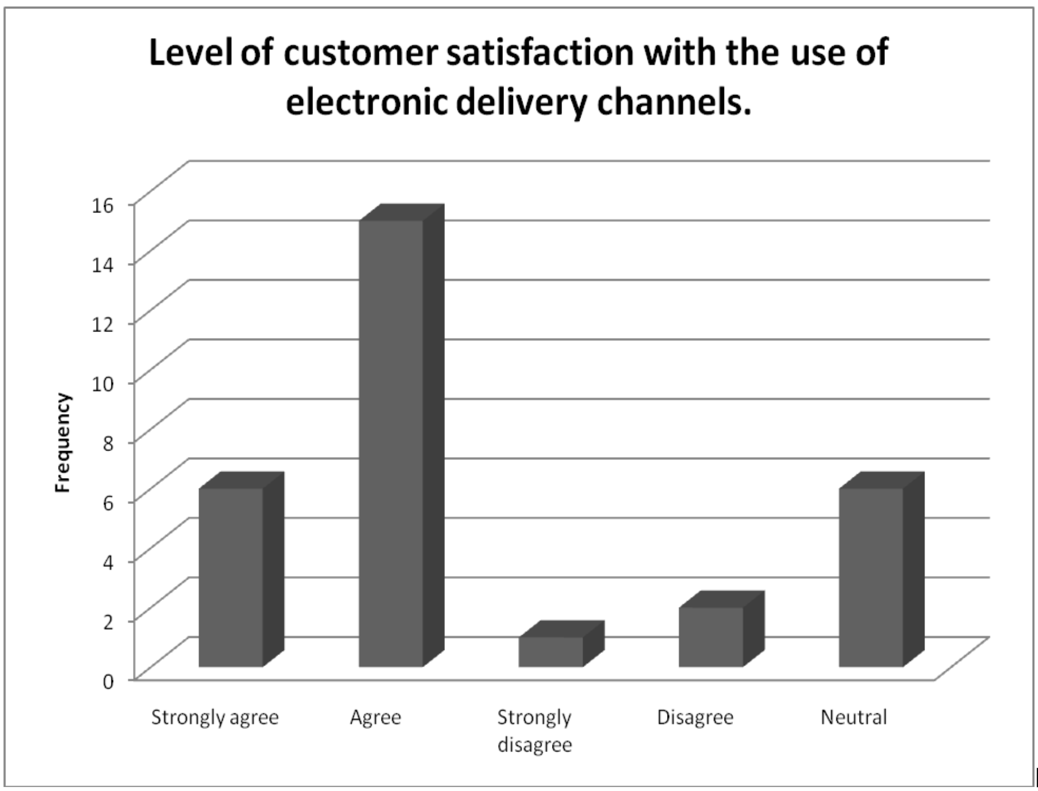

Figure 3: From customers' perspective, level of satisfaction with the use of e-banking.

Table 2: Frequently used electronic delivery channel. (Customer perspective)

Question: Which electronic delivery channel do you use often?	**Frequency**	**Percentage**
ATM	18	60
Internet Banking	6	20
Mobile Banking	3	10
Telephone Banking	2	6.7
Electronic Funds Transfer	1	3.3
Total	**30**	**100**

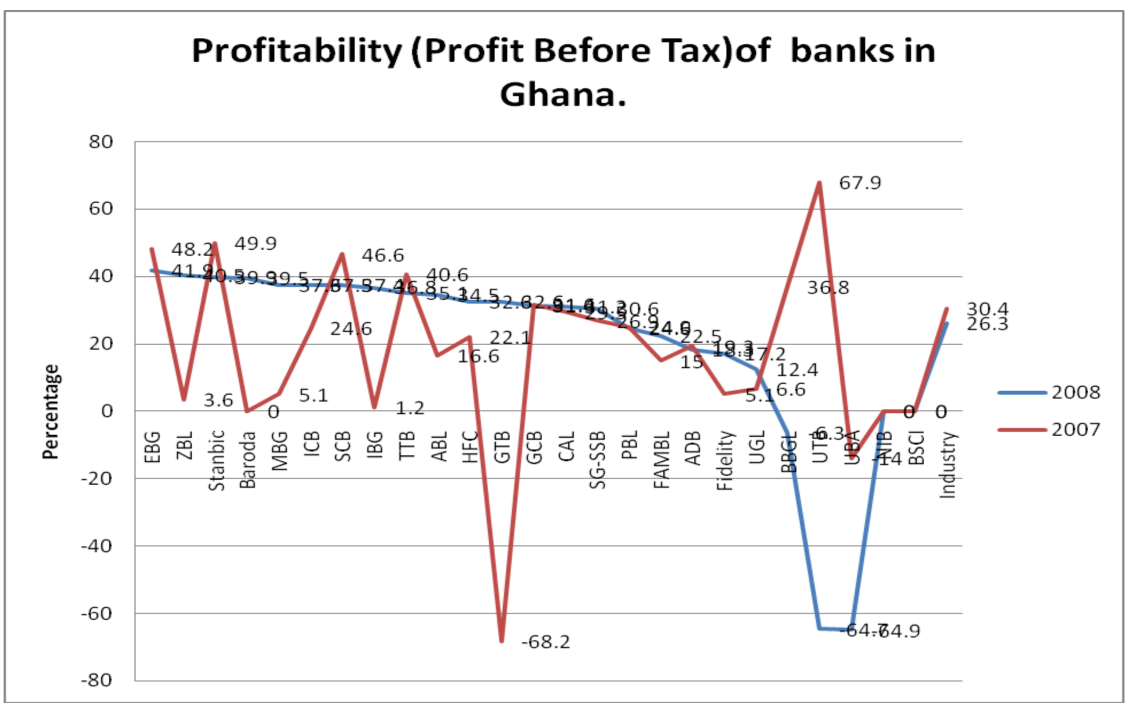

Figure 4: Profit before tax margin between 2007 and 2008.

Source: Ghana Banking Survey 2009

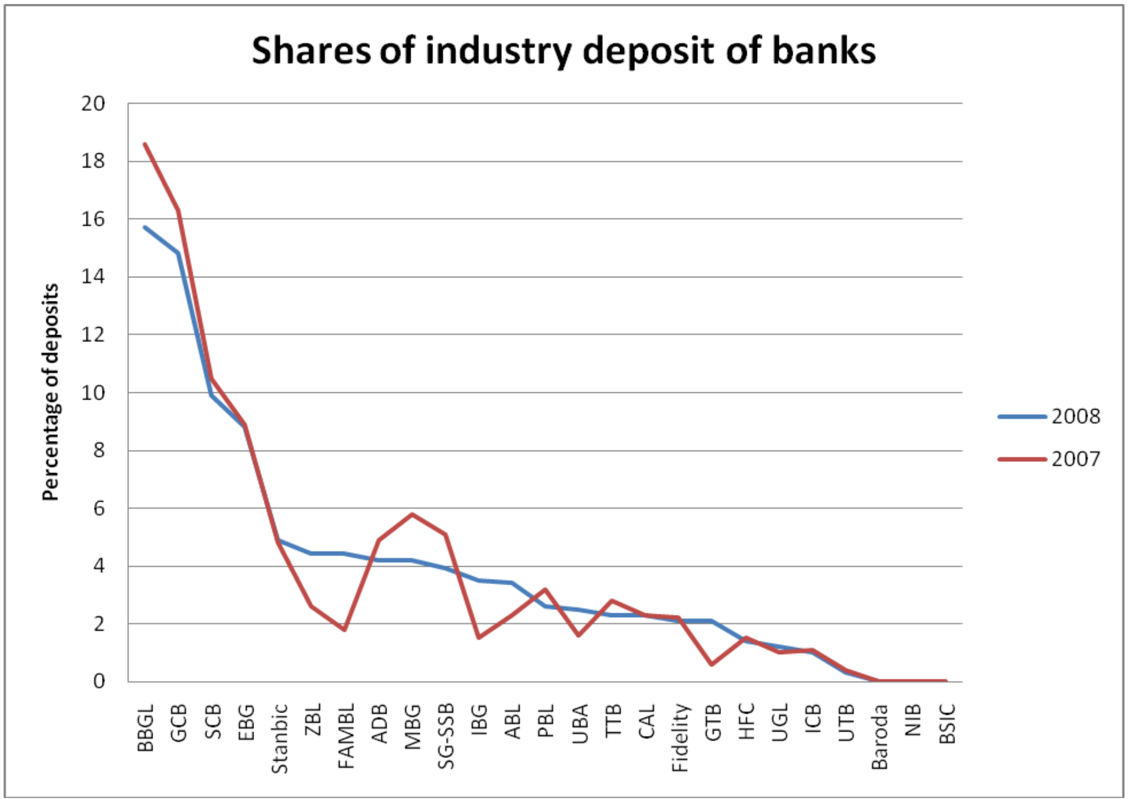

Figure 5: Sourced from the Ghana Banking Survey 2009.