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E-commerce in the Banking Industry of Ghana: An Innovative Approach to Maximize Banking Profit and Market Share

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Abstract:

This paper seeks to ascertain how e-commerce affect the profit and market shares of banking industry of Ghana, precisely Fidelity Bank. The motivation of this study include issues of the Ghanaian banking industry acceptance to the innovations of performing electronic banking services. Although the use of e-commerce among the banking industry of Ghana still remain an innovation which has not been fully adopted among all banks in Ghana. The methodology adopted for this paper is the mixed method technique, precisely both qualitative and quantitative methods. Semi-structured interviews as well as survey questionnaires were administered to the respondents who are mainly staff of Fidelity Bank in the Head Office and across the fifty branches of the bank. A total sample size of 250 respondents consisting of some of the employees of the 50 branches of Fidelity Bank in Ghana were used. The study identified a positive significance between e-commerce and all the effects on profit and market share. The null hypotheses were thus rejected by the results. The results of the study generally indicated that, the e-commerce acceptance has contributed positively by enhancing cost effective operations in the bank, reduced operational cost and increased profit margin.

1. Introduction

Information and Communication Technology (ICT) and for that matter e-commerce has seen massive advancement in recent times which in effects has impacted greatly on commercial banking industry of Ghana. Ecommerce has facilitated the ideologies, the organizational strategies, business structures, accurate record keeping, ability to produce timely information in its operations, reduced and possibly eliminated manual operations and other benefits to the financial sector. The importance of ecommerce even on various economies of the world cannot be over emphasized and more especially on the financial sector of the economy.

The use of ecommerce in the financial services industry has become the order of the day for the past few decades and would continue into the next decades as banks continue to realize they would be able to cut down cost and remain more efficient with the help of ecommerce. They have come to the realization that in processing of information, technology such as computers can be utilized to reduce the labor-intensive nature of processing information in the financial sector. With the introduction of ecommerce in the industry, banks are able to produce required banking information timely, reduced paper work, facilitated convenient business hours, enhanced prompt and fair attention to customers, and enhances faster services delivery. Customer relationship management has improved tremendously in the financial sector with the help of ecommerce (Garber, 1997). All hitherto manual and laborious procedures and processes in the financial industry have all been replaced with automated and online procedures. Lots of credible studies have shown that information Technology has had profound positive effects on the performance of the commercial banks (Sullivan, 1997).

All the activities of the various departments in the bank, especially the front office such as teller point and personal financial consultant units have been made easier and efficient with the help of the introduction of the approved and appropriate ecommerce in the banking operations of the commercial banks. This has helped increase bank patronage and has also helped save client's time. People no longer go to the bank to spend the whole day there. This in the long run has helped the bank to experience growth (Bartholomew, 1996). Lots of people as well as business have invested heavily in technology to ensure they reap the full benefits which include growth and profitability (Bartholomew, 1996). Lots of advances in technology have been seen in recent times and it is changing the way firms and for that matter financial service industry executes their operations which are geared toward sustained profits and profitability. Eservice in the recent times has become very important factor as far as electronic commerce is concerned especially in the bank's attempt to increase their share of the financial market (Ziegler, 1996).

The global financial system has experience lots of turbulence and has since then to ensure the system does not collapse totally, have put in place lots of reforms. Lots of market forces have and still influencing provision of financial services. The global banking industry has experienced lots of mergers and acquisitions. In addition, rapid changes in information technology coupled with increased market competition and the need for honest and well-qualified human capital have all formed part of the forces that have impacted business of banking greatly especially in the global level (Guglielmo, 1996).

2. Problem Statement

The problem emanating from the need for this study is the issue of the spring up of e-commerce activities among the banking industry in Ghana. The appropriate and continuous use of e-commerce has helped shape the future of the banking industry in developed countries. Many changes have taken place in the financial services industry in the developed countries. These changes find their bases to be the introduction of e-commerce into the industry. Any bank that is serious and wants to become a leader in the banking industry of the developing countries cannot afford to ignore the adoption of the appropriate use of e-commerce in its operations. A research by Quah et al., (1996) concluded that e-commerce has impacted the business of banking in a very positive way as lots of labor intensive works are automated which has brought increase in productivity, however, the specific benefits besides the ones mentioned above with respect to adoption of e-commerce with regards to the banking industry of Ghana still needs to be researched on, hence this study. Technology has changed the face of business over the years. It has changed the way businesses are structured as well as the way businesses are executed. It is acknowledged that there is an increasing concern about the level of competencies various professionals in the financial industry possess in the use of information technologies, and whether they are prepared to meet the challenges of contemporary business world (Bahador, Haider, & Saman, 2012).

Investigating the impacts of e-commerce in the banking industry, will help provide clear understanding of those benefits with particular reference to West Africa commercial banks and for that matter Ghana commercial banks. The study focused on Fidelity Bank Ghana because, the bank initially did not have e-commerce adopted in its operations but later embraced it which went a long way to help the bank. In conclusion, the research seeks to ascertain benefits of e-commerce adoption in the among the banking industry that can aid in increasing profit share and market shares

3. Objectives

The main objectives of this study include;

1. To assess how e-commerce has helped reduced operational cost in Fidelity bank Ghana Ltd
2. To ascertain whether the adoption of e-commerce has improved the profit of the bank.
3. To ascertain how the implementation of e-commerce helped improved the competitive strength of Fidelity bank Ghana.

3.1. Research Questions

The research questions that guided this study were:

1. Has the implementation of e-commerce helped reduced operational cost in Fidelity bank Ghana Ltd?
2. Has the adoption of e-commerce helped improve profit of the bank?
3. Has the adoption of e-commerce helped improve the growth and competitive strength of Fidelity bank Ghana?

4. Review of Related Literature

Researchers have identified the following internal benefits relating to e-commerce adoption in the commercial banking industry (and specifically the adoption of e-commerce in the operations of the commercial banks): accurate record keeping, reduce paper work, easy communication, reduce operational cost (Nash & Wallace, 1995).

External benefits include increase profit, increase competitive strength and growth of the bank (Garber, Cook & Cohen, 1997).

The external benefits, even though, have its roots from the internal benefits but they are easily seen by the outsiders which becomes the image of the organization which comes from the implementation of e-commerce in business. In the adoption of e-commerce in the operations of business such as the commercial banks, management would have to expect to have some major benefits which will help the firm to grow internally and externally (Sullivan, 1997). Some researchers have integrated these internal and external benefits into one model (Seilheimer, 1987; Nash & Wallace, 1995) which has given room for putting all these benefits and their relations under one framework.

4.1. Technological Innovations of Ghanaian Banks

The importance of the use of information, Communication and Technology (ICT) in the commercial banking industry of Ghana cannot be overemphasized. Commercial banks over the years in Ghana have been serving their customers with minimal use of e-commerce, thereby creating rooms for lots of human errors and delays. Banks officials have always tried to serve customers manually to meet their expectations. Even in the early stages of commercial banking in Ghana where e-commerce was not widely used, still banks had the interest of the customers at heart and have been working hard to make profit and increase productivity. Over the years many commercial banks in Ghana have made the efforts to emulate their counterparts in the developed countries in the usage of e-commerce to advance their course (Bosch, 1996)

The use of Information, Communication and Technology (ICT) in the commercial banks in Ghana was initially not so much in use. The usage of e-commerce in commercial banks in Ghana some few years ago was very much limited. Customers did not have access to the internet, telephones and mobile banking only the bank managers and in some limited cases the secretaries had access to computers, telephone and mobile phones. Lots of transactions were being carried out manually. Human errors and delays in their banking operations were the order of the day (Dvorak, 1996).

International banks such as Barclays Bank and Standard Chartered Bank helped change the laborious banking environment of Ghana. These banks having international experience under their sleeves knew the importance of employing e-commerce in the commercial banking operations. They introduced them into their operations in Ghana and thereafter, the local banks also decided to invest in e-commerce to help them meet the demands of the competition that the international banks introduced into the industry (Dvorak, 1996).

With the introduction of e-commerce into the banking industry, the nature of the banking operations changed in Ghana has changed drastically. Adoption of e-commerce facilitated accurate record keeping reduced paper work in the banks in Ghana. Adoption of e-commerce again, made communication easier in the banks. Customers are now able to access the services of the commercial banks without necessarily visiting their domiciled branches. This is made possible with the help of e-commerce which has helped the banks to engage in efficient operations. Before the introduction of e-commerce in the banking industry of Ghana in the early 1980s, customers did not have the luxury of doing business with different branches of same bank, let alone wanting to sit at home and access service of the bank from the internet (Blum, 1996).

In the modern global financial environment, most of the traditional banks have resorted to the use of various forms of information Communication Technology (ICT) to able to grow their business and increase their market share. This has helped them to lead the competition. By the use of e-commerce, operational efficiency has been improved and cost associated with operations in the organization has also been reduced significantly (O'Brien, 1991).

The international banks that are operating in Ghana such as Barclays Bank and Standard Chartered Bank started the introduction of e-commerce in their operations which saw them leading the competition almost all the time. This dominance of the international commercial banks started in the early 1980s but the local banks such as Ghana Commercial Bank, The Trust Bank, Agricultural Development Bank and others only started investing heavily in e-commerce in their operations in early 1990s. Currently, almost all the banks in Ghana have e-commerce put in place in their operations to secure themselves in the competition. With e-commerce implemented, almost all the banks in Ghana have experienced some form of improvements in their operations (Hally, 1996).

Some banks have introduced e-statement in their statement delivery to their customers, which has helped them (the banks) to reduce cost of printing paper statements for their customers. The e-commerce introduced into the commercial banking industry of Ghana has been of a success and currently most banks like Ecobank and Standard Chartered banks have started introducing e-statement to serve their cherished customers but was done mainly as a cost reduction effort and that has also gone a long way of not just reducing operational cost but increase the bottom line as well. Currently, one can hardly see any serious commercial bank in Ghana that is not giving out e-statement to their cherished customers. E-statement is now very common in the banking industry of Ghana (Hally, 1996). Quah et al. (1996) e-commerce application in commercial banks in Ghana has changed the way banks deliver their services to their cherished customers. It is argued that the commercial banking industry has experienced drastic changes of the years due to introduction of e-commerce into the industry and others also think the use of e-commerce has helped and will continue to help them because it has come to stay.

The commercial banks in Ghana especially the local ones have also learnt from their foreign counterparts as far as the use of e-commerce is concerned. The international banks implemented e-commerce in their operations in Ghana which made them very attractive and enticed lots of customers of the local banks to them. This is so because the e-commerce eliminated lots of delays and overcrowding in the banking halls. This brought about increased competition and therefore the local banks had no option than to invest in e-commerce to stay in business. Currently all the local banks have also introduced one kind of e-commerce or the other (Wilde, 1996). As a matter of fact, banks have recognized the huge opportunity that e-Commerce has for them. With e-commerce they are able to improve on their processes and procedures, and are also able to improve on their communication and reduce cost of operations (Anthes, 1996).

Commercial banks have made efforts to ensure that all their operations are automated and smooth without frustrations. In the year 1999, the SSB bank which was an international bank and The Trust Bank which was a local bank, introduced their first ever fully automated operations into the banking industry of Ghana (Wilde, 1996).

4.2. Retail Banking

Banking has been an old profession which has affected many lives in an economy. Many have benefited from the activities of banks. Ghana for instance has many international banks than even local banks. Both the local and the foreign banks have contributed their quota towards the development of the economy. Banks have a duty to perform financial intermediation. They ensure that funds are collected from the surplus spending units and given to the deficit spending units (Phillips, 1996).

Banks mainly have a role to mobilize deposits and give out loans to people who need them. The importance of strong financial system cannot be overemphasized. Commercial banks and others help to ease the burden of producers as well as customers. This happens where customers who patronize either products or services are enabled by the financial system to either make direct payments or transfer funds through the financial system to pay for the services enjoyed earlier. Banks help increase the efficiency at which the economy is operating. People are able to pay for goods and services without having to meet the seller face to face (Brauchli, 1995). Retail banking can best be described as the financial system provided for the benefits of the masses. Retail banking transactions are carried out in the interest of the mass market rather than corporations. Banks usually provide services such as balance enquiry services on a mobile phone, money market products such as Treasury bills, current and reserve accounts (O'Brien, 1991).

The retail banking is usually offered directly to the people in the target mass market. Lots of services are offered for customers, which include the provision of Automated Teller Machines (ATM) for transactional purposes, current and reserve accounts and lending of funds to the deficit spending units of the economy. Retail banks also mobilize funds from the surplus spending units of the economy (Hally, 1996). Retail banks usually carry out lots of functions in their attempt to meet the various needs of the mass market of the economy. The service functions they play include accepting deposit from customers, payment of cash to customers and connecting the surplus and the deficit spending units. Customers who need loans are attended to and in the long run poverty alleviation efforts of government is supported in the economy (Resnick, 1996). Considering the various roles that retail banks play in the industry as well as the general economy, there is the need for proper regulations to be put in place to achieve its set objectives (Anthes, 1996).

4.3. E-commerce Challenges

Some research works have come up with some issues associated with the use of e-commerce in the banking industry inclusive of opinions and perceptions as well as many factors (Feed, 1997). Perception has to do with one's expectation of information available and its interpretation with respect to an environment. The knowledge one has and the information available about an outcome is so paramount in deciding on the banker's perception of the role e-commerce can play and has been able to play in their business over a period (Feed, 1997). E-commerce has contributed so much as far as the business of banking is concerned. What bankers think of the role e-commerce has played in the discharge of their duties to their customers go a long to influence their attitude towards the way they perceive e-commerce (Machlis, 1997).

The knowledge managers, supervisors, directors, decision makers and officers have about the use of e-commerce go a long way to affect the outcome of the performance of e-commerce in the banks. It should be noted that e-commerce is not an end in itself but the means to an end. Before a commercial bank would decide to either acquire e-commerce or even undertake an upgrade of e-commerce systems, there is the need for top management's support before such a decision can be undertaken. If the directors (top management) see and perceive the e-commerce to be a system that has both short and long term benefits for their business, then obviously they would give their approval and support for it (Lowenstein, 1996).

In an environment where top management of commercial banks do not think that e-commerce can help them to succeed, based on the information available to them, then again, they will not give their approvals and supports. The investment in e-commerce has lots of financial and other implications and therefore top management approval and support is highly recommended in order to create value for the shareholders (Petzinger, 1996). If top management decides to vote against investment in e-commerce, based on their expectation and the information available to them, then obviously, e-commerce implementation in that sense might not see the light of the day. Getting the top management full support and approval in some cases, is a challenge. This sometimes does happen when the top management is not technologically savvy and has little knowledge as far as e-commerce is concerned (Anthes, 1997).

Apart from the clear direction from management, they also need to put in place the right policies and procedures to help in the management of cost of operations and cut them (costs) totally where necessary (Gerald, 1997). Some school of thought have suggested that e-commerce has come a long way to reducing cost of doing business everywhere, while another thinks that e-commerce has not done much as far as reducing of cost of doing business is concerned. But the point is e-commerce alone cannot be the panacea for the success of all business in the world. E-commerce at any point in time must be supported with strong management decisions, policies, and procedures so as to help achieve the expected targets for the organization. E-commerce has helped tremendously in businesses where they are implemented and utilized in a manner that strong management support does exist.

4.4. Research Model

Drawing from technological innovation literature, an integrated model of ecommerce adoption in Ghanaian banking industry was developed. The seven variables in the model are discussed below.

4.4.1. Accurate Record Keeping

According to Hammer and Champy (1993) innovation of ecommerce would be more likely if the organization is more convinced that, its introduction would help to improve on the record keeping of the organization. Thus, banks invest in technology in order to ensure greater efficiency in their operations. Companies have come to the realization that it is not just enough to serve customers but more importantly, there is the need for them to use their operations to ensure that their customers remain loyal to them. When customers are satisfied, through improved and efficient operations, the growth of the organization is assured. In today's global business environment there is the need for all and sundry, especially the business community to engage in activities that will promote, efficient operations and customer loyalties to ensure the business gets perpetual existence (Bartholomew, 1996).

4.4.2. Reduce Paperwork

According to Ziegler (1996) e-commerce refers to the use of different kinds of processes and procedures that go a long way to automate hitherto manual processes with the help of relevant applications and software as well as relevant equipment's and tools. The e-commerce is implemented to ensure that hitherto laborious procedures and processes are automated to improve on the overall performance of the organization. With Information Communication and Technology (ICT) business are able to collect the relevant data from their target market, analyzed and utilized for the benefit of the business. All kinds of business information are handled by electronic means. In the information, Communication and Technology (ICT) age, the customer who stands at the end of the process is very much considered in the minds of the decision makers since they play huge role helping the bank to achieve profit and profitability (Cook & Cohen, 1997).

4.4.3. Easy Communication

E-commerce have produced lots of benefits for both service and manufacturing organizations in a way that internal communications are improved and business to business communications are also enhanced in a way that productive and profitability are assured (Gerald, 1997). According to Gross, Hester, and Javalgi, (1995), e-commerce has become part and parcel of our everyday work. All managers and decision makers use e-commerce in one way or the other even in the homes. For instance, the use of mobile phones, Ipad and personal computers in the homes and work place. In the work place, collection of data and its processing is carried with help of either a computer or software. Customer's information is managed and utilized with the help of e-commerce. Bankers use e-commerce to gather data from customers and analyzed and utilized in their operations.

E-commerce has helped improve interactions and relationship that exist among human and businesses.

4.4.4. Competitive Strength

Again, according to Brauchli et al. (1995), e-commerce helps to enhance the competitive strength of banks or institutions that adopt and effectively utilize the e-commerce in a way that the operational expectations are met. In the financial services environments, customers of the various commercial banks always demand service that meet and exceed their expectations. More often than not researchers into this subject matter, always conclude that service quality is very important and that the long term survival and the success of every serious organization are dependent on the quality of service they offer to their customers as well as improved and efficient policies and procedures they put in place check the internal communications

Due to the increase in competition in different industries around the globe, lots of organizations including commercial banks in the world have invested heavily in e-commerce in order to be able to lead their competition in their industries. In this light any service organization that does not resort to the use of e-commerce would soon be out of the competition (Frank, 1994)

The use of information communication and technology has stood the test of time and has become the order of the day.

This has helped them to lead the competition. By using e-commerce, operational efficiency has been improved and the competitive strength of the firm is increased (O'Brien, 1991). Again, according to Sullivan (1997), e-commerce helps to enhance the competitive strength of banks or institutions that adopt and effectively utilize the e-commerce in a way that the operational expectations are met (Frank, 1994).

4.4.5. Cost Reduction

The recent advancement in technology has really changed the way business and for that matter, financial institution interact with the various stakeholders in their industry. Companies are now using technology that is advanced to execute their operations thereby reducing operational costs and experiencing increase in profit. With the acquisition and implementation of the right e-commerce, efficiency and productivity are assured (Anthes, 1997). More especially in the commercial banking industry, the use of e-commerce has become the order of the day and therefore commercial banks are allocating greater portions of their budget to investing in e-commerce. For any commercial bank to lead in the industry there is the need to take charge of the future by investing in technology to secure the future. The future of banks largely depends on effective and efficient use of e-commerce in their banking operations as lots of bank employees and customers are technologically savvy (Aley, 1995).

The adoption of e-commerce has helped the bank to reduce operational costs that are normally incurred before the use of e-commerce

4.4.6. Increase Profit

It is an established fact that for the profitability of a company to be assured, if the company is able to deliver sound and efficient operations and as well as eliminating delays in processes and procedures. Excellent business operations go a long way to create an excellent operational environment where employees know when to do what is expected of them. This leads to an increase in the organizations profit by way of eliminating costly errors and delays (Zahedis, 1995). Any commercial bank that is able to execute its operations effectively and efficiently will be able to lead the competition as far as profitability is concerned and become a company of choice with a good reputation. Banks have resorted to the use of e-commerce as way of improving their processes and procedures in the most effective and efficient manner. With e-commerce, commercial banks are able to eliminate manual processes (White, 1996).

4.4.7. Growth of Bank

Banks are under pressure to initiate operational policies and procedures that would help serve the interest of their stakeholders. As all the stakeholders expect their banks to gain more market share. Banks are under pressure to also ensure that the interests of their shareholders are safeguarded (Stuart, 1994). To meet these demands, banks must undertake cost benefit analysis so that they do not invest in transactions that would not earn anything for the bank. Banks need to put in place the right team to monitor operations and ensure there is value for money invested in the bank by its shareholders (Brien, 1991).

It is also the responsibility of the operations staff of the bank as well as management of the bank to evaluate the content of their operational policies and procedures so as to ensure they improve on their growth. They need to ensure their shareholders have value for their money. The use of e-commerce in the banking operations such as Telephone banking has become a new way of serving customers with the use of e-commerce which in the long run would result in strategic growth of the organization (Gerald, 1997).

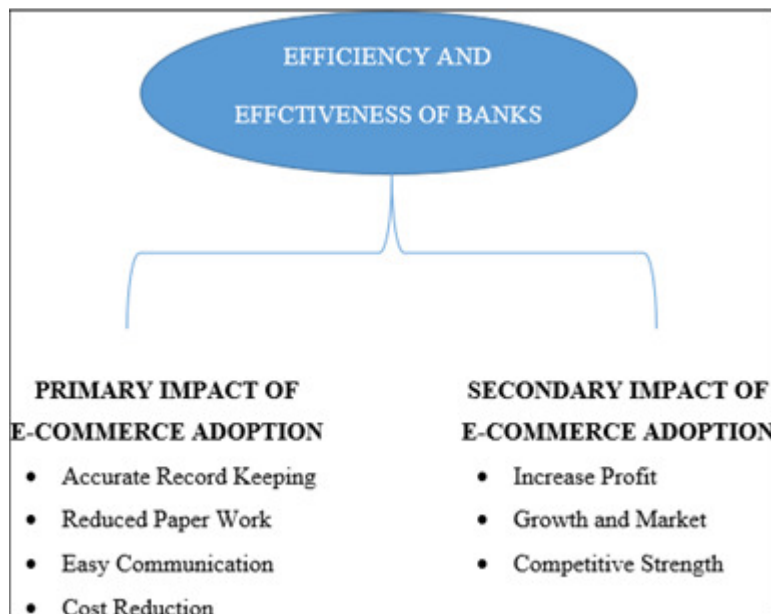


Figure 1: The research model. (Source, Author, 2016)

5. Methodology

The methodology adopted for this study was the mixed method. Hence both quantitative and qualitative method was applied to capture all relevant data that enhances e-commerce in the banking industry of Ghana. The study was also based on exploratory and confirmatory research and more especially on confirmatory since it aims at finding the impact of ecommerce on banking profit share and market share in the banking industry of Ghana. In this research, a sample size of 250 respondents consisting of some of the employees of the 46 branches of Fidelity Bank in Ghana were used. The study sought to review the use of e-commerce implementation in the commercial banking operations and its effects on profit and increase on market share of the bank. Also, the staffs of fidelity bank who are in the head office IT department as well as some of the branch staff, especially the branch managers were interviewed in this study. Various views and opinions were acquired from various branch managers and IT officers.

6. Findings and Results

The purpose of this research work was to ascertain the extent to which banking industries in Ghana, and specifically Fidelity Bank Ghana limited has applied e-commerce to enhance their profit margin and increase in their market share in its operations. In the international and local terms, the introduction of e-commerce into business and for that matter commercial banking industry has changed how banks undertake their banking operations which eventually results in increase in productivity and profitability (Quah et al., 1996). Although some companies in the world are yet to fully embrace the use of e-commerce including some rural banks in Ghana.

6.1. Analysis of E-commerce Effects on the Bank Increase in Profits

Code	B	SE B	β	p
K	0.361	0.205		
B2	0.391	0.074	0.811	0.0001*

Table 1: Regression Coefficients for Bank Increase in Profits

The model was supported by a significant correlation between the bank’s performance and increase in profits, $r(248) = 0.850, p = 0.0001$. Thus, we derived a significant model with 0.850 correlations between the predictor and increase in profits.

Increase profit emerged as one of the best secondary impacts of ecommerce since all businesses have the motive of achieving profit after they have put in place all the strategies

The results suggest that achieving profits sustainably in business has everything to do with effective and efficient implementation of ecommerce. This result also supports the assertion of Flynn (1994) that innovations that help organization to produce sustain profit will receive all the support it deserves since no business will set out to make loss. Those who acquire ecommerce have the notion that effectively applying ecommerce in business comes with a price and therefore it must also help to contribute to the bottom line (profit) of the business without it then the ecommerce would be seen to be a failure. Thus we conclude that ecommerce adoption positively impact profit in business.

6.2. Analysis of E-commerce Effects on the Decrease in Cost

Code	B	SE B	β	p
K	0.361	0.205		
C3	0.622	0.089	0.954	0.0001*

Table 2: Regression Coefficients for Bank Increase or Decrease in Cost

The model was supported by a significant correlation between the bank's performance and decrease in costs, $r(248) = 1.000$, $p = 0.0001$. Thus, we derived a significant model with 1.000 correlations between the predictor and decrease in costs.

Perceived compatibility of the organization with ecommerce was a discriminating factor between adopters and non-adopters of ecommerce in the Nigerian banking sector. This result is supported the findings of earlier research (Churbuck, 1995). Hally (1996) also reported a significant positive relationship between Cost reduction and adoption of innovation. Ecommerce represents a major change from previous ways of doing business. Thus a bank adopting ecommerce may have to reorganize and rethink how it conducts transactions with customers at a least cost. Evidence from this research suggests that banks whose existing infrastructure and organizational climate are compatible with ecommerce utilization are more likely to experience cost reduction in their operations. Thus we conclude that a high level of commitment to the use of ecommerce will positively impact on cost of operations.

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6.3. Analysis of E-commerce Effects on the Increase in Market Share

Code	B	SE B	β	p
K	0.361	0.205		
D4	0.251	0.085	0.736	0.0039*

Table 7: Regression Coefficients for Bank Increase on the Increase in Market Share

The model was supported by a significant correlation between the significant and increase in market share, $r(248) = 0.940$, $p = 0.0039$. Thus, we derived a significant model with 0.940 correlations between the predictor and increase in market share.

Growth and market share emerged as the second best secondary impact of ecommerce in adoption in commercial banks in Ghana. Thus the availability of strong commitment and support to the use of ecommerce and its monitoring to ensure it works according to plan will go a long way to ensure that the business becomes a giant in the industry, grow smoothly and gain more market share. Adequate understanding of the need for growth and increase in market share will call for proper execution of strategies in line with ecommerce implementation and utilization. Quah et al. (1996) found out that increase in market share and growth of business is a long term effect of properly implemented ecommerce adoption in business. Dvorak (1996) supports this finding, and stated that the level of management understanding of using ecommerce to achieve organizational growth and market share will influence their commitment and support level.

Results also from the t test indicated that all issues considered in this secondary impact of ecommerce point to a positive relationship with adoption and effective utilization of ecommerce in business. Thus, we conclude that a high level of commitment to ecommerce will positively impact growth and market share.

Again, using correlation analysis, growth and market share relationship with ecommerce utilization would have to be ascertained. So for one to determine the strong relationship between ecommerce and the increased in market share and growth of Fidelity Bank Ghana.

6.4. Analysis of E-commerce Effects on the Bank's Strength

Code	B	SE B	B	p
K	0.361	0.205		
F6	0.956	0.098	0.875	0.0001*

Table 4: Regression Coefficients for Bank Increase on the Bank's Strength

The model was supported by a significant correlation between the bank's performance and improved competitive strength, $r(248) = 1.000$, $p = 0.0001$. Thus, we derived a significant model with 1.000 correlations between the predictor and improved competitive strength.

Competitive strength is one of the secondary impacts of ecommerce adoption in commercial banks in Ghana. Users of ecommerce believe they can only become competitively strong their industry only when they are able to effectively implement ecommerce in their

operations in such a way that the competition is not able to match up. Adopters believe that they would be able to gain more customers more than the competition if they are able to use ecommerce to automate their processes and serve the interest of their customers. Customers prefer to do business with commercial banks that are able to reduce their turnaround time in their banking hall when they call on them for a service. Customers also get stuck with a commercial bank that is able to grant their customers access to their account.

On further investigation we discovered that competitive strength is somewhat related to the level of implemented ecommerce and the general organizational strategy. For a business to achieve keen competitive strength, there is the need for them to improve on their infrastructure in the business and lay a solid foundation for the execution of ecommerce implementation strategy.

According to most of the respondents to the interview, commercial banks who are able to effectively implement ecommerce go a long way to strongly compete in the industry while those who do not pay attention to ecommerce implementation struggle to compete in their industry.

Due to vast presence of technology in the world, lots of customers are technologically savvy and would want to do business with banks that have implemented ecommerce in their operation for mutual benefits. The adopters of ecommerce seem to believe that ecommerce helps to improve competitive strength of business in a particular industry. By that cost of doing business is reduced to the minimum, process of operation improved and increase ability to compete. This supports Sullivan (1997) claim that relative banks that adopt ecommerce have relative advantage over others who do not pay attention to the use of ecommerce. Thus we conclude that high of commitment to the use of ecommerce will positively impact the competitive strength of a commercial bank.

All of the independent factors were considered simultaneously in the discriminant analysis regardless of the discriminating power. The discriminant function was significant at .0005 level. The canonical correlation value is 0.987 so that $0.987 \times 0.987 \times 100 = 97.42\%$ of the variance in the discriminant function scores can be explained by group difference. Thus, a linear combination of the seven independent variables explains 97 percent of the variance in the dependent factors. The lambda coefficient is defined as the proportion of the total variance in the discriminant scores not explained by the difference among the groups, here 2.7%. The rank of importance in descending order, given by the absolute value of loading was: accurate record keeping, reduce paper work, easy communication, cost reduction, increase profit, growth of bank and competitive strength.

Based on the predicted group membership, the classification matrix correctly classified all Primary benefits and secondary benefits. Thus the discriminant function was able to classify 100 percent (hit ratio) of the cases correctly assuming homogeneity of the covariance matrices. The hit ratio exceeds the proportional chance criterion of 71 percent demonstrating predictive accuracy of the discriminant function (Cook & Cohen, 1997).

7. Discussion and Conclusion

The impacts of e-commerce were measured with hypothesized that were related to increase in profit, growth in market shares and competitive strength. From the results analysis it was noted that almost all the employees of Fidelity Bank Ghana generally acknowledged that indeed the adoption of e-commerce has improved on their efficiency and the profit and the profitability of the bank. e-commerce was noted to have increased the market share of the bank, and increased in profit and profitability and this has made Fidelity Bank Ghana a force to reckon with in the commercial banking industry of Ghana.

Again, it was also realized from the study that e-commerce has helped to improve the revenue and profits of the bank, thus eighty percent of respondents shared this opinion and assertion which corroborates the findings in other research that, Information and Communication Technology impacts on how and when company management decides with implications on the bottom line.

Furthermore, it was realized from the study that e-commerce helps to enhance the competitive strength of banks or institutions that adopt and effectively utilize the e-commerce in a way that the customers' expectations are met. It was clear that, this is what Fidelity Bank Ghana has done in the period within which they have implemented the required and the relevant e-commerce in their operations which included offering of excellent customer service and eventually increasing their productivity and profitability in the commercial banking industry of Ghana.

As far as Fidelity Bank Ghana is concerned, it was clear during the study that even though they are relatively a young bank in the industry, however, they are one of the most technologically innovative banks with respect to the use of e-commerce in the banking operations for improving the overall performance of the bank. The Employees of Fidelity Bank Ghana generally acknowledged that indeed the adoption of e-commerce has improved on their efficiency and the profit and the profitability of the bank. The results of the study generally indicate that, the e-commerce contributed positively to the provision cost effective operations in the bank, increase in market share of the bank, improved communication within the bank, reduction in paper work in the bank and increase in profit and profitability and this has made Fidelity Bank Ghana a force to reckon with in the commercial banking industry of Ghana.

The study indicated that the adoption of e-commerce by Fidelity Bank Ghana has helped the bank to reduce operational costs that are normally incurred before the use of e-commerce. The study showed that 90% of respondents agreed that operational cost has reduced leading to more efficiency in the operations of Fidelity bank in the commercial banking industry of Ghana which goes a long way to confirm the leadership role of the bank in the industry.

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to offer excellent customer service and eventually increasing their productivity and profitability in the commercial banking industry of Ghana.

The selected bank surveyed had most of the Information Communication and Technology (ICT) products and services reviewed in the study. Even though Fidelity Bank Ghana Ltd, happens to be a relatively younger bank in the Commercial banking industry of Ghana, but had e-commerce introduced into its banking operations for the purpose of decreased cost of operations, increase in profit and profitability. Even though there are over 25 registered commercial banks in the banking industry of Ghana, but e-commerce has made some to clearly lead the banking competition in the industry and in this case it is clear that their customers get happier and delighted with their Bank when e-commerce is fully employed and utilized to serve them, which exactly the case with Fidelity Bank. With effective and efficient utilization e-commerce, Fidelity bank has now become a leading Commercial bank in Ghana with over 45 branches in Ghana and in Singapore, Asia and still counting.

8. Recommendations for Policy Formulation and Implementation

The data collected indicated that the correlation between growth and competitive strength and e-commerce are not strong. The Correlation Coefficients for growth of the bank and competitive strength were 0.142 and 0.255 respectively. This means that, the bank has grown from where it was and gain competitive strength in the industry but that achievement cannot be wholly attributed to e-commerce adoption in the bank. The growth might be as results of other things such as the employment of the right caliber of staff into the bank, repeated business brought on board by customers, the right implementation and monitoring team put in place by management.

In view of this situation, the researcher would want to recommend that management of the bank should give equal attention to all the department of the bank and ensure they are all well-resourced to complement the effort of the e-commerce implementation team. The human resource management department should ensure that qualified and experience staff are attracted into the bank so as to help deliver the expected outcome. Also right policies and procedures should be put in place to compliment the effort of the implemented e-commerce.

It became clear during the research that;sixty-seven percent of the population thinks that e-commerce leads to downsizing (retrenchment) of staff in the financial institution. Looking at the situation, where more than half of the respondents, have this notion, it becomes necessary for the management of the bank to educate all and sundry, especially the employees of the bank on the numerous benefits of e-commerce so they would not see e-commerce as a threat to their livelihood. The education would help them to offer the needed support to the implemented e-commerce in the bank. This notion when well managed through education would go a long way to help the bank to achieve its objectives.

Finally, the responses from the respondents of the study showed that the Threats of Cyber-Crime with e-commerce is a big concern to them. This situation does not give the users of the e-commerce full confidence of the potentials of e-commerce. It makes them feel insecure in the use of the e-commerce especially in the African environment where the population is not technologically savvy to begin with. Cyber-crime has been with the e-commerce industry for some time now, and therefore the implementation committee should be able to make it clear to the population on all the strategies such as creation of data recovery centre and IT back-ups that management has put in place to check cybercrime in the bank. This would help them to have confidence in the implemented e-Commerce.

9. Directions for Future Studies

This research has made it clear that, any commercial bank that takes the use of ecommerce serious in its banking operations will go a long way to derive lots of benefits. Even though ecommerce contributes greatly to improve performance of Banks in the banking industry yet still some banks, especially in Africa, still operate without e-commerce systems in place. Future research should investigate why some banks in Africa still operate without the use of e-commerce systems.

Again, this research work focused on the operations of only Fidelity Bank Ghana Ltd even though there are lots of Commercial banks in Ghana and therefore in future, this research work should be replicated in a lots more commercial banks so as to have a bigger picture of the issues raised in this study.

Also, this research work focused on the impacts of e-commerce on only Fidelity Bank Ghana Ltd even though there are lots of commercial banks in Ghana and therefore in future, this research work should be replicated in a lots more commercial banks and the outcome of the research should be compared among the banks to determine whether there is consistent improved performance as a results of the implemented e-commerce.

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