

## **The Impact of Electronic Banking on the Profitability of Banks: A Case Study of Banks in Ghana**

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### **Abstract**

*Electronic banking basically refers to performing banking functions or transactions using a smart technologically inclined device or the internet.*

*Information Technology has recently influenced banking operations, transactions and service delivery. It has provided a channel through which banking is done in convenience, thereby, reducing customer queues in banking halls, administrative expenses and the complexities associated with traditional banking.*

*However, the disadvantages of electronic banking are quite significant. They include unauthorized data access, data loss and fraudulent activities.*

*Using the internet, banks display all relevant information regarding their products on their website which is easily accessible to customers. Through modern technology, branches are networked using terrestrial or satellite links such that customers can visit any branch of their bank to transact business and transfer funds both locally and internationally.*

*This paper discusses e-banking, various definitions, examples, advantages and limitations, electronic banking in Ghana and its impact on the profitability of banks in the Ghanaian banking industry.*

*From the study, e-banking adoption was a business strategy the bank used in response to customer needs and the changing marketing trends in the banking industry.*

*Obviously, tremendous benefits such as revenue generation, improved productivity, efficient service delivery and cost savings accrue from e-banking. The lack of a solid technology infrastructure was identified as a major challenge of e-banking adoption in the country.*

**Keywords:** *Electronic Banking, Efficient Service Delivery, Modern Banking, Convenient Banking, Customer Satisfaction, Banking Services.*

### **Introduction**

Bank transactions, payment for goods and service and general cash exchanges through business transactions form an integral part of the world's economic activities.

In recent years, competition in the Ghanaian banking industry has been on the rise. Since the 1980s, the banking sector in Ghana has seen significant reforms in an effort to improve upon the industry's operations for economic growth and development and to serve customers better (Brownbridge and Gockel, 1996).

Ahiabor (2013) showed that, in the West African Sub-Region, the Ghanaian banking industry is the most vibrant and has attracted quite a number of foreign banks resulting in increased capitalization and an improvement in profitability.

However, the county's banking sector has in recent years also been faced with challenges such as consistent increase in interest rates, high inflation and an alarming increasing ratio of non-performing loans (Bawumia, Belnye and Ofori, 2005).

Ahiabor (2013) explained that stakeholders have expressed concern and have advocated for ways of solving the afore-mentioned challenges. Hence, it has become necessary to determine the aspects of banking which drive profitability in the Ghanaian industry so that stakeholders can pay more attention to these areas.

Electronic Banking forms part of the many aspects of banking which contribute to the profitability of banks.

Electronic banking, is a term which refers to the automated delivery of traditional and modern banking products through electronic channels based on information and communication technology. It offers customers the opportunity to access to their accounts, execute transactions, and obtain information on financial products and services through a public or private network such as the internet (Drigă & Isac, 2014).

In this paper, the researcher seeks to determine the impact of electronic banking on the profitability of banking using the Ghanaian Banking Industry as a Case Study.

### **Problem statement**

Currently, there is much competition and modern day customers are more sophisticated and have high expectation regarding banking services.

Hence a number of banks in Ghana offer electronic banking services to enable them gain competitive advantage in the banking industry.

This study will reveal how electronic banking contributes to increasing the profitability of banks in Ghana.

### **Literature review**

With the development of information and communication technology in the 21st century, clients many options of communication and business transaction channels have evolved around the world.

The banking industry has had its fair share of the revolution of information technology as new services such as internet banking, telephone or mobile banking among others have originated (Chovanová, 2006).

Drigă and Isac (2014) showed that banks operate in a keenly competitive industry which requires that each bank brand ought to stand out so that customers can differentiate a particular bank from among the lot.

Also, Chovanová (2006) showed that customers have become more sophisticated and technologically inclined. Hence, it is necessary for banks to review and upgrade their means of product delivery to meet the changing customers' needs and the evolution of technology in this age.

### **Definition of electronic banking**

Quite a number of researchers and authors have defined e-banking services as a modernized way of providing traditional banking products and services through the use of information and communication technology.

There are various precise terms used interchangeably to refer to one form of electronic banking service or the other: Online banking, Home banking, Computer (PC) banking, Internet banking, Web banking, Phone banking, Remote electronic banking, Virtual banking, Mobile banking etc., are often used fundamentally when referring to electronic banking.

Electronic banking has been defined in many ways by researchers mainly because it does not refer to one but a series of channels through which customers can make inquiries and execute transactions such as telephones, digital television, computer or mobile phone.

It is entirely automated facility based on IT delivery mechanism to conventional banking users' products and services. It provides online medium of conducting and providing various banking services, such as, online accessibility of bank account, online fund transfer facility, online bills paying facility etc. The benefits provided by e-banking medium have resulted into swift growth of banking sector worldwide.

According to Keivani et al. (2012) electronic banking is "an umbrella term for the process by which a customer may perform banking transactions electronically without visiting a brick-and-mortar institution".

According to Jehangir, et al. (2016) "Electronic banking is an automated delivery of new and traditional banking products and services, using electronic channels, like computers and telecommunication technologies. The e-banking customers, either individual or business wise, could access their accounts; make enquiries; initiate and perform transactions via electronic channels".

Furst, Nolle & Lang, (2009) defined electronic banking as the use of the Internet as a channel of delivering banking services. These services include traditional ones, such as opening a deposit account and

transferring funds from one bank account to the other different accounts as well as modern banking services electronic payment of utility bills and electronic loan applications.

Daniel (1999) defined electronic banking as the delivery of services and information on bank transactions to customers as well as the distribution of information and services by banks to customers using intelligent devices such as computers.

The Basel Committee on Banking Supervision is the source of one of the most common definitions of electronic banking as follows: “e-banking includes the provision of retail and small value banking products and services through electronic channels as well as large value electronic payments and other wholesale banking services delivered electronically” (BCBS, 1998).

Nigudge and Pathan (2014) explained that electronic -banking involves applies information technology through a Computer-Controlled System. This system is an interface where customers van have direct access to having their banking needs met in the comfort of their location without visiting the bank’s premises.

### **Types of electronic banking products and services**

(Chovanová, 2006) showed that the types of electronic banking include but are not limited to Telephone banking, automated telephone system and SMS banking. Smart Cards such as credit and debit cards, mobile banking, Electronic Funds Transfer (EFT) system, electronic clearing services and internet banking all from part of electronic banking products and services (Nigudge and Pathan2014).

Agrawal (2016) showed that common electronic banking services include transactional activities such as loan applications, funds transfer and utility bill payments as well as non-transactional activities like cheque book requisitions, stop payments, issuing online bank statements and updating customers’ personal information.

### **Advantages of e-banking**

When compared with traditional banking, electronic-banking has several advantages.

Customers have access to instantaneous service provision and lower transaction and account maintenance costs without having to physically visit a bank (Gilani, 2010). Nigudge & Pathan, (2014) showed that electronic banking is convenient in the sense that customers can obtain funds at any time from Automated Teller Machines when in urgent need of money. With smart cards such as credit and debit cards, customers are able to make payments and obtain discounts from retail outlets. Also, customers can easily transfer the funds electronically from one branch of a bank to another branch or from one bank to an entirely different bank. In addition, customers have the opportunity to modify the password information of their credit cards. They are also able their own limits or right for the use smart cards.

Most banking stakeholders agree that e-banking ensures accessibility through a type of advanced information system 24 hours in a day and seven day in a week (Mobarek, 2007).

Electronic baking is safe as it ensures the installation of safe and high-end firewall and data encryption software which protect the integrity of customer data. Regarding safety, customers are assigned individual PINs (personal identification numbers) which enable them to access their online accounts. Also, as a safety strategy, more often than not, customers are logged off their accounts automatically after a few minutes of inactivity (Agrawal, 2016).

Electronic banking transactions involve low charges, less paper work and less human errors. Hence customers feel confident and are encouraged to use it (Kiang et al., 2000; Howcroft et al., 2002). Electronic banking is mostly cost efficient as service. For example, Automated Telephone Banking comes at no cost at all. Internet banking also require very little data at an almost insignificant cost (Chovanová, 2006).

Electronic banking serves as medium of advertisement for banks to introduce their products and services to customers and prospective customers Agrawal (2016).

### **Activity review**

Business owners, accounting staff and other approved employees can access routine banking activity such as deposits, cleared checks and wired funds quickly through an online banking interface. This ease of

review helps ensure the smooth processing of all banking transactions on a daily basis, rather than waiting for monthly statements. Errors or delays can be noted and resolved quicker, potentially before any business impact is felt (Vyas, 2018).

### **Limitations of e-banking**

Despite its remarkable advantages, internet banking also has the following disadvantages:

To conduct a successful electronic banking transaction, like paying bills online, customers require basic computer skills and the ability to browse the internet. However, not every customer is computer literate and this is a major disadvantage to electronic banking (Johnson, 2018).

The customers' personal number e.g. account number and Personal Identification Number (PIN) as a numerical password are often used for passive operations. Here, however, the risk of misuse is relatively great because everyone who gets to know the personal number and password will be able to access the customer's bank account (Chovanová, 2006).

Some customers may still value chatting and interacting with bank tellers, managers and other bank clients. Electronic banking reduces human interaction as impersonal processes take over the banking process.

Most electronic banking services may not be useful or accessible without internet connection (Agrawal 2016).

Another issue is that sometimes it becomes difficult to note whether your transaction was successful or not. It may be due to the loss of net connectivity in between, or due to a slow connection, or the bank's server is down (Johnson, 2018).

### **Evolution of e-banking in Ghana**

For decades, the forms of technology used in corporate environments to make service delivery to customers more efficient and for bank transactions in Ghana were mainly automated office devices such as Photocopiers, Telephones and Fax machines. When the competition in the Ghanaian banking industry started getting keener in the 1980s, computers began evolving as banks used them for their back office operations and teller to carry out teller duties. As computer technology advanced, banks in the industry began networking their branches (Abor, 2014).

Bank of Ghana (2008) showed that the banking industry in Ghana has readily undergone growth due to a liberalization of the banking industry sector by the Bank of Ghana in their bid to ensure a positive economic environment. In recent years, the central bank has introduced the Ghana Interbank Payment and Settlement System which enables common electronic platforms to be used for payments across bank and non – bank financial institutions in Ghana.

The adoption of electronic banking in Ghana started with the introduction of the ATM. In 1995, The Trust Bank, Ghana which now a member of the Ecobank Group introduced the Automated Teller Machine (ATM). Not long after, competition set on as most major banks in the country also introduced ATM services to their customers (Enu and Gberbi, 2015).

Abor (2014) explained that customers of banks in Ghana consider the ATM as an important aspect of banking and its existence in the services rendered by a particular bank contributes to their choice of a bank. Hence, banks in the industry which delayed in introducing ATM services have suffered almost irreparably. Though ATMs have enjoyed great success because of the many benefits associated with using it, researchers have recognized that it is possible for banks to improve their competitive stance and profitability by providing their clients with more electronic products and services.

### **Impact of electronic banking on the profitability of banks in the Ghanaian banking industry**

In the Ghanaian banking industry, adopting electronic banking and investing in information and communication technology in the delivery of banking products and services is now essential in a bank's quest to achieve profitability.

SCN Education B.V. (2001), suggested that E-Banking generates revenue as there are few banks who provide services online on the internet, they are considered as leaders of technology implementation and have better brand image than other banks; costs are reduced on services provided online, such banks efficiently judge the needs of their customers because of regular feedbacks.

Electronic banking results in an increase in productivity as it minimizes the need to physically visit the bank and decrease the time involved in performing routine banking activities. Hence customers spend their time and energy on focusing on their various means of earning a livelihood rather than spending time in long queues in banking halls: they become more productive and earn more money which will eventually end up in the bank as part of cash deposits thus increasing the deposit mobilization values of the bank.

Vyas, S. (2018), argued that though what the future holds is bright regarding the adoption of electronic banking in Ghana, the phenomenon however involves quite a number of teething challenges. These challenges include internet connectivity, high cost of implementation, Security concerns for customers, perceived customer readiness and other problems they encounter.

Some of the banks in Ghana that have implemented internet banking have achieved success regardless of its challenges. These indicate that electronic banking increases profitability as these banks have demonstrated enough zeal for electronic banking despite the challenges and are bent on educating customers, igniting the interest of customers and enrolling.

## Conclusion and recommendations

The introduction of electronic banking has surely had a positive effect on the profitability of banks in Ghana. It has improved the quality of service offered by Ghanaian banks due to its remarkable efficiency.

Electronic banking reduces long queues, saves time and offers easy access to cash and convenience. It is generally much safer and secure compared with conventional ways of banking. It is borderless and permits banking anywhere and anytime.

Electronic banking has not only transformed banking relationships but profitability of the entire banking industry.

However, most Ghanaians are yet fully get conversant with the benefits of adopting electronic banking services. Hence, in this modern age of technology, there is still low patronage of electronic banking products and services as customers still prefer to go by conventional or traditional ways of banking.

Ghanaians do not seem to fully accept electronic banking as a safe banking channel.

Kwawu (2011) showed that Ghanaian customers still prefer to speak one on one with bank personnel and for "a feel of human touch" thus contributing to their inability to fully adopt and become conversant with electronic banking.

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