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Assessment of digital commercial banking in Nkoranman rural bank, Sunyani municipality

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Abstract
The aim of this study was to examine the effectiveness and efficiency of the introduction of Digital Commercial Banking in Ghana In this study data collection was done through structured questionnaires and interview. These questionnaires were designed by taking into accounts the objectives and the hypothesis of the study. As a result, a sample size of 20 respondents was chosen for the collection of data. These respondents comprises of bank officials in which 75% were retained.
In this study, data collections were analyzed through the use of tables and graphs to present frequency and interpretation thereof From the findings, the e-banking system has bridged the gap between management and employees in such a way that consultations on decisions and services from management to employees and customers are done through the use of computers and modems respectively. Hence, it has rapidly reduced the work load and series of mistakes of the staff. Negatively, it has led to the termination of employees due to the illiteracy of the system.
Apparently, the long queues of customers during working hours has reduced, hence it has ceased unnecessary complains.

Keywords: Sunyani, municipality, assessment, digital, commercial, banking, rural, bank

1. Introduction
Chapter one
Banking is nearly as old as civilization. The word “Bank' is derived from the Italian word "Banco" which means bench. The early bankers, the Jews in Lombardy translated their business at benches in the market places. One of the earliest Italian banks, the Bank of Venic, was originated for the management of a public loan or monte, as it was called.
Longman's Dictionary of Contemporary English defines a bank as “a business organization that performs services connected with money especially keeping money for customers and paying it out on demand."
The Advanced Learner's Dictionary of Current English defines bank as “an establishment for keeping money and valuables safely, the money being paid out on the customer’s order
(By means of cheque).
Banks are institutions whose debts usually refers to us "bank deposit" bank deposits are commonly accepted in final settlements of other people's debts. From (modern Banking by R.S. Sayers 7h edition 1967 Oxford University Press).

Types of banking institutions in Ghana
There are four (4) types of banking services in Ghana. These are as follows:

1. Commercial Banks
- Examples
- Standard Chartered Banks of Ghana.
- Barclays Bank of Ghana

2. Trust Bank
- Examples:
- National Investment Bank
- Agricultural Development Banks
- Development Banks

3. Security Discount Houses

- Examples:
- Home Finance Company Ltd.
- Fidelity Discount House
- Consolidated Discount House

4. Merchant Banks

- Examples:
- Ecobank Ghana Ltd.
- Cal Merchant Bank

Banks have conflicting ideas, objectives including profits, safety and liquidity. Networked correspondent banking began in the US somewhere in the mid Twentieth Century where they practice unit banking, localized but one bank connected to the other by corresponding links from one state to other (Modern Banking by R.S. Sayers 7h Edition 1967- Oxford University Press P 23) Digital methods of banking began when large amalgamation of movements that gathered speed in the early years of the 20h Century in England and Wales, because of the volume of work involved in the growing number of large business.

1.1.1 Background of study

Modern Banking began to develop between the 1200's and 1600's in Italy. Macieud, in his Element of Banking says, "at that period the Germans were masters of a great part of Italy, and the word came to be used as its Italian equivalent mouth, and was Italianised into "banco" and the loans were called indifferently *Monti or benchi". Commercial banking can be defined as a financial institution established primarily to hold deposits from public and make loans and investments with the aim of making profits for its shareholders. Bank of British West Africa now Standard Chartered Bank, was the first commercial bank established in Ghana in 1897. This bank undertook commercial banking activities, which involved the issue of secondary securities in the form of demand and time deposits and purchases of primary securities, which was also in the form of short - term loans to individuals, businesses and government.

The bank enjoyed a virtual monopoly in the field of commercial banking business in Ghana until 1917, when another expatriate bank Barclays Bank also set up an office in Accra. The only similar institution which was in existence before these two banks, was a government established Saving Collecting outfit set up in 1888, which became known as Ghana Sending Bank in 1957, when Ghana had independence. The bank passed through a lot of names and other control powers. This was commonly referred to as Post Office Savings Bank (Journal of Ghana Institution of Bankers, Volume 1 July 1986).

Commercial banks in Ghana have established branches in all the regions with their head offices in Accra. Ghana Commercial Bank Limited alone has 136 branches all over the nation.

The commercial banking system was therefore set up to fulfill strategic needs of providing commercial banking services to the emerging nation for socio-economic development of the country. It is rightly, so, that finance is a lubricant of the process of economic development and that the banking system is the client dispenser of finance. This statement clearly expresses the importance of the Banks and banking in the economic development of the country, and heavily underscores the need for a close co-operation between the banks and the business community (individuals, companies and government) if growth and development are to take place. The primary role of commercial banks is financial inter- mediation. The bank mobilizes funds and channels them for investment in productive areas.

It plays an indispensable role in the development of a nation by supporting the productive activities of the business community. Today, the whole banking system is on the brink of a major revaluation in its day-to-day operations. The way things have always been done depositing money, writing cheque, protecting against bad cheque and so on is expensive.

Imagine the cost to the bank of approving a cheque, processing it through the banking system and making it back to you. Bankers have long looked for ways to make the system more efficient.

In recognition of this development in the business environment and faced with limited period by individuals and organizations, the bank recognizes the need for smooth, effective and efficient day-to-day running of business. It is in this view, that most commercial banks in Ghana have developed and introduced into Ghanaian market a worldwide digital delivery channel such as internet banking, telephone banking and cards, etc.

1.2 Definition of terms

Digital: Out of the word electron; which means an extremely small piece of matter with a negative electrical charge; and digital is defined by the Cambridge International Dictionary of English as "Using bared on or used in a system of operation which involves the control of digital current by various devices".

Commercial: A record, film, book etc might be described as commercial if it has been produced with the aim of making money, and earning a reasonable return on it.

Banking: Is defined by the Cambridge International Dictionary of English as the business of operating a bank and a bank as already defined as a business organization which performs services connected with money especially keeping money for customers and paying it out on demand".

Digital banking or e-banking

Digital banking is defined as providing banking products and services through digital delivery channels. (Banking in Africa; International magazine. Vol.8)- No.6)

Hence, Digital Commercial Baking may be defined as the process of providing banking services through digital delivery channels with the aim of first improving efficiency and effectiveness in services and second, to make money.

1.3 Research questions

Digital banking has been around for some time in the form of banking hall tellers, automatic teller machines and telephone transactions, not to mention but few. However:

1. Most customers of the banks do not have much knowledge about digital banking.
2. How effective and efficient this method of banking may be.
3. What are the legal rights of their customers, and the banks operating this system?
4. How has it improved the relationship among

management, employees and customers?
5. How are the banks measuring their profit against the cost invested in these systems? and
6. What is/are the reason(s) behind the introduction of digital banking in most banks in the Sunyani Municipality?

These and many other problems, developments and situations have necessitated this research to be undertaken to find answers to them and to make recommendations to the selected banks, the public and customers in the Sunyani Municipality.

1.4 Hypothesis of the study
It is believed that e-banking will someday replace the traditional “brick and mortar" banking halls. It is therefore the hypothesis to be tested in this research that "E-banking has come to replace the traditional "brick and mortar" banking halls.

1.5 Significance of the study
This study is aimed at finding out the effects of the introduction of E-banking into the banking industry.
It will help state authorities in regulating and supervising the financial system and in designing and implementing macroeconomic policies.
Finally, this study will form the basis for further research into the importance of e-banking for an economy.

1.6 Objectives of the study
The main objective of this study is to find out whether there has been any significant change(s) and improvements in banking services in the following areas: profit levels, output levels, and management, marketing research, research and development because of introducing e-banking.

Other objectives include
- To ascertain the role e-banking is playing in the business environment.
- To determine whether e-banking has met customers' satisfaction.
- To determine whether e-banking has reduced the manual workloads of employees.
- To find out whether the introduction of e-banking has improved management – customer relationship.
- To ascertain the impact of e-banking on business organizations.

1.7 Limitations of the study
- The limitations of the study include:
- Time constraint
- Financial constraint
- Difficulty to come by data from some banks
- Literature on e-banking is difficult to come by
- Due to these constraints, the study is limited to some selected banks in Sunyani. They are
- Barclays Bank of Ghana, Ghana Commercial Bank, Standard Chartered Bank and
- Agricultural Bank.

The limitations may bring about unwarranted filtering of data, but it is expected that these constraints will not mar the effectiveness and usefulness of this research work.

1.8 Organization of the work
This work has been divided into four chapters. The first chapter focuses on the background of the study, statement of problem, rational of the study, objectives, significance and limitations of the work. Chapter 2 deals with the review of various literature relating to the study and focuses on banking operations and Chapter three based on research methodology the fourth chapter outlines answers to research questions, summary, suggested recommendations and conclusions drawn.

Chapter Two
Literature Review
2.1 Introduction
Using digital delivery channels for banking services and products have become increasing popular in recent years. Digital banking makes it possible to offer baking services around the world twenty-four (24) hours a day. The dependence on technology for providing the services with the necessary security, and the cross-border nature of transactions, involves additional risks for banks and new challenges for banking regulators and supervisors. This chapter provides an overview of some of the issues resulting from the development of digital banking how regulatory and supervisory authorities are currently addressing them.
While digital banking in the form of Automated Teller Machines and Telephone Banking has been around for a number of years, the popularity of accessing banking services through the internet and mobile phone is rising. Increasingly, not only basic services are offered- such as balance inquiry, funds transfer and bill payment - but also loans and credit card applications, foreign exchange transactions, new accounts as well as brokerage, fiduciary, and insurance services. It is understood that e-banking provides vast opportunities for banks and their customers. Access to services and products is fast and available around the clock independent of the location of the customer. The digital delivery channels increase transparency and can lead to higher competition among banks. It is the most significant point - through lower costs is estimated indicate that a typical customer transaction costing about one US Dollar $1 (¢10,000) in a branch or through a phone call would cost just about two cents online (Claessens, Glaessner and Klingebiel, 2000) [4], penetrating new markets and expanding the geographical reach (International Monetary Fund, 2001) [2]. The digitization of transactions can help reduce costs for banks and increase efficiency. While it can be expected that bank products become more standardized, there are also incentives to introduce new bank products.
Along with new business opportunities and benefits for customers from digital banking, though, some various risks that must be addressed by bank management and the regulatory and supervisory authorities. The Bank for International settlements through its Based Committee for Banking Supervision (BCBS) has formed an “Digital Banking Group" that aims at facilitating analysis and dialogue among supervisors to develop a prudential supervisory framework for e-banking activities, and has recently issued two volumes on these matters. Due to drastically lower transaction cost and ease of activities, cross-border transactions should be increased beyond the existing phone banking activities and face-to-face operations with non-residents. The key issue for banking

supervisors is how to ensure effective supervising of operations both in their own market (as host supervisors) when services are provided from abroad, and in foreign markets when the bank is licensed in the home jurisdiction
Both issues are not new, given the continuously risking importance of cross-border transactions, but can take on even more significance in the case of e-banking. A new, or reliance on technology for the delivery channel of providing e-banking services and products. This chapter provides an overview of the challenges faced by regulators and supervisors from e-banking and how they are currently being addressed by discussing the following issues:

- Authorization
- Cross-border Supervising Issues
- Risk Management
- Money Laundering and
- Consumer Protection and Education

Digital banking can be defined as the use of digital delivery channels for banking products and services, and is a subset of digital finance - e-banking includes the provision of retail and small value banking products and services through digital banking channels as well as large value digital payment and other wholesale banking services delivered digitalally. The most important digital delivery channels are the internet, wireless communication networks, automatic teller machines (ATMS), and telephone banking, internet banking is a subset of e-banking that is primarily carried out by means of the internet. The term transactional is also used to distinguish the use of banking services from the mere provision of information. That is, sometimes internet banking is defined as a subset of PC banking, which also include online banking. In contrast to internet banking, online banking refers to bank transactions, while closed networks (Deutche Bunderbank, 2002).
Digital banking services are offered in two main ways: either traditional brick and mortar banks combine traditional and digital delivery channels (brick and click bank or banks offer their products and services only - or predominantly through digital distribution channels without having a branch network (other than a physical presence as an administrative head office or non-branch facilities such as kiosks or ATMS. These banks are 12 called Virtual Banks", "Branchless", or internet-only banks. Withdrawal and deposits of funds may be made through ATMS or other remote delivery channels owned by these virtual banks, or other institutions. Setting up licensed virtual banks can, in principle, be done in three ways. First, they can be established as a new independent virtual bank obtaining a license from the banking regulator. Second, existing banks can create virtual banks as separately capitalized banks within a bank holding company structure. And third, a conventional bank can be recast into a virtual bank under its existing charter. An alternative approach is establishing a virtual bank through the creation of trade name virtual banks.
These are established as independently operating divisions of existing banks without a separated chapter. Closely related to e-banking activities are products of digital money. Definitions of e- money used by official bodies vary, mainly due to continuous innovations. The BIS (1998) defined e-money as “stored value or prepaid payment mechanism for executing payments via point of sale terminals, direct transfer between two devices, or over open computer networks such as the internet" (BIS, 1998). In the 1998 report of the European Central Bank and digital money, it is defined as an digital store of money value on a technical device that may be widely used for making payment to undertakings other than the user without necessarily involving bank accounts in the transaction, but acting as a prepaid bearer instrument. E-money therefore differs from e-banking, since balances are not kept in financial accounts with financial institutions (Barthlomew, Mason, and Shull 1997). Issues for banking supervisors result from the different aspects on how banks can be involved in e- money activities. Banks can, for example, be the issuer or distributor of e-money.

Chapter Three
Methods of data collection
3.1 Introduction
This chapter deals with the very essential aspect of the research problem. It is made up of sub-topics such as sources of data collection, target population, sanple size and procedures, instrument for data collection, how data will be analyze and problems encountered with data collection.

3.2 sources of data collection
The research study was conducted using both primary data and secondary data. Primary data refers to those data collected directly from the fields for the purpose of the study. The data were collected in their raw or original forms respondents.
Secondary data on the other hand, refers to data which has been used before for some other purpose or work and are available and useful for this study. This information were obtained through the review of literature including relevant text books, journals, newsletter, and internet. The secondary data was used to complement the information obtained from primary sources, and are objective and economical.

3.3 Target population
The target population for the study constituted the whole staff of Nkoranman Rural Bank Limited. A population of 40 staffs has been chosen as a target for the study.

3.4 Sample and sampling techniques
To obtain the exact information for the research work, random sampling technique was used in selecting the population. To ensure that the views technique accurately responds to both the management and the employees, stratified sampling was used. The population was divided into management and employees in the organization.

3.5 Determination of the sample size
The sample size of the study is twenty-five (25). This represents 62.5% of the target population of forty (40). The rationale for choosing the sample size out of the target population is that, some members of staff were not available to provide information and considering the time factor, this sample size will be conducted. The sample size was chosen purposely for convenience, and it is believed would give the needed information to represent the entire population.

3.6 Instruments for data collection
The main instruments used to collect data were the structured questionnaire. The questionnaire was designed by taking into account the objectives and hypothesis of the

study in chapter one.
The questionnaire was, thus, designed with intention to be understood easily by the respondents in order for them to offer relevant information solicited.
The justification for the use of the questionnaire was that it will be completed at the respondent's own convenience; it reduces respondent's bias, since the same questionnaires were answered by the respondents and variation of questions were eliminated. The questionnaire also solves the problem of non-contact and offers the respondents greater assurance of anonymity and privacy.

3.7 sampling procedures used for data collection
The result of the research would have been more accurate and precise if information on the entire (Nkoranman Rural Bank Ltd) in Ghana were collected. However, for the sake of feasibility, the Digital Commercial Banking has been sampled for the study using purposive sampling method. Again purposive sampling method was applied in picking the respondents. Though this method has subjective tendencies, it was used because the researchers believed that it is the only method that could be used in this situation where only specific persons can provide the particular information needed for the study. For the purpose of efficient and effective research study, the sampling technique used was non-probability sampling techniques. This method was used in sampling respondents from the Digital Commercial Banking. This method was chosen because in our opinion it is most suitable technique for this particular research. The technique was heavily relied on in choosing respondents.

3.08 Limitations of the data collection and their solutions
There were inadequate funds and some of the respondents considered some information as confidential and were reluctant to release the information. Also there was an issue of time constraints because this research is to be conducted. The problem outlined above is likely to have an effect on the findings of the projects.
On the issue of financial constraint, the researchers had to depend on their meager loans. The problem of confidentiality was solved by assuring the respondents that, the research was for academic purpose, and that the information given would not be extended to any third party.

3.9 Data analysis
The analysis and conclusion will be carried based on the stated objectives of the study. All the relevant information and evidence were critically analyzed and corrected, reducing unwanted information and answers provided by respondents.

Chapter Four
Presentation and analysis of data
4.1 Introduction
This chapter deals with data presentation and analysis, as basis for gaining a deeper insight into the nature of the problem, to understand and draw conclusion on the outcome.

4.2 Analysis of background information of respondents
The raw data was collected from respondents through the questionnaires administered. In all, twenty (20) questionnaires were administered on selected members of management and employees of Nkoranman Rural Bank-Sunyani. Out of the twenty questionnaires sent out, fifteen was received representing seventy-five percent (75%) and five representing twenty-five percent (25%) were not received.

4.3 Sex

Table 1: Distribution of respondents by gender

Gender	Frequency	Percentage (%)
Male	10	67
Female	5	33
Total	15	100

Source: Field Survey 2022

Out of the 15 respondents, 10 representing 67% are females whilst 5 representing 33% are males as shown in the table above. From table 1 above it was established that, there were twenty members. There were ten males representing sixty-seven percent and five females representing thirty-three percent.

4.4 AGE

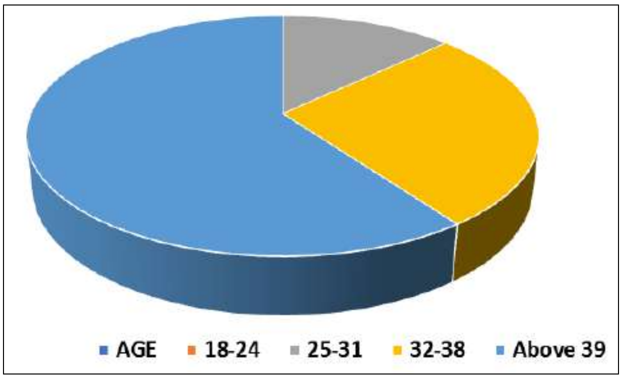

Fig l: Distribution of respondents by age

From the above distribution, the total number of respondents is fifteen. Out of these, two (2) respondents representing thirteen percent (13%) were within the age group of twenty five to thirty-one (25-31), Respondents within the age group of thirty-two to thirty-eight (32 38) were six (6) constituting twenty seven percent (27%).
Respondents within the age group of 39 and above were nine (9) constituting sixty percent (60%). Respondents within the age group of eighteen to twenty-four show no respond.

4.5 Marital status

Table 2: Distribution of respondents by marital status

Marital Status	Frequency	Percentages (%)
Single	5	33
Married	10	67
Total	15	100

Source: Field Survey 2022

From table 2, it can be deduced that thirty three percent (33%) representing five (5) respondents were single. Ten respondents constituting sixty-seven (67%) of the entire respondents were married.

4.6 educational level

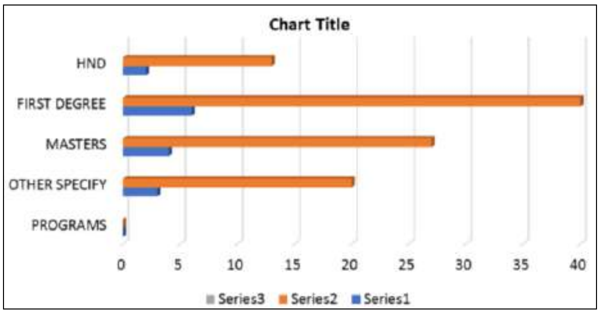

Fig 2: Distribution of respondents by educational level.

From the above figure, out of fifteen respondents, two (2) were HND holders representing thirteen percent (13%), six were First degree holders representing forty percent (40%), four were Masters holders representing twenty-seven percent (27%), and three (3) were other specify representing twenty percent (20%)

Chapter Five
Summary, Conclusion and Recommendation
5.1 Summary

Universal functions of commercial banks include accepting deposits making loans. In most cases, these deposits represent a significant part of the country's money supply. However, technological advances have led to changes in the delivery and form of payment services. Credit cards, comment, excel banking, telephone banking, Mendex and the use of ATMS frequently institute for checking. Point-of-sale facilitates are also operational although currently to a lesser extent.

Greater access to money and capital market by large corporate bank client has meant thinner margins in corporate lending activities. As a result, banks have turned increasingly to fee- generating services and to the middle segment of the corporate market. Cash management, data processing, commercial paper under writing, and provision of discount brokerage facilities are some of the services being emphasized.

Regulatory barriers to other services are being challenged. Section 20 subsidiaries have been authorized by the Federal reserves the permit bank affiliates to engage in securities transactions to a limited extent. State banking authorities allow state banks a much wider range of functions, including securities, insurance and real estate participation. Even so the United States has a more restrictive regulatory structure than other countries in the developed west.

Political and cultural differences can alter the nature of the domestic operating of the commercial banks; however, socialist economies have much more centralized regulated banking systems than those observed in the west. In the Muslim world, Islamic banks have emerged in an attempt to reconcile modern finance and fundamentalist principle.

While Japanese, German and British banks enjoy relative freedom with respect of geographic distribution within national borders, U.S banks continue to grapple with the issue of interstate and nationwide branching. Nevertheless, overtime, many U.S banking offices have spilled over stated lines so that their current structure resemble a nationwide branch network, even though it may not, technically, be so defined.

While e-banking can provide a number of benefits for customers and new business opportunities for banks it also posses new challenges for banks regulators and supervisor: The cross-border nature of activities calls for intensified cross-border co-operation between supervisors. Traditional banking risks are exacerbated in particularly operational, reputational and legal risk as a result of technology dependence and the global forum for activities.

Supervisors therefore need to ensure that risk management practice for e-banking become an integral part of bank's risk management policies. Amplified risks in banking also result from:

- The dependence on a relatively small of highly specialized providers of technology and
- The potential of contagion if customers lose confidence in these technologies and the security of e-banking operations.

E-banking also has the potential to create new op Dort unities for criminal activites facilitates others such as money laundering. In that context, strictly applying, policies Such as know-your -customers-policies' and vigilantly monitoring e-banking transactions become increasingly important. Moreover, customer education and security risks can play an important role for customer protection and at the same time limiting reputational risk.

In Ghana, there are no set out rules or laws in Ghana Bankers Act of 1989 concerning digital payment systems and internet banking.

5.2 Conclusion

While digital banking can provide a number of benefits for customers and new business opportunities for banks, it exacerbates traditional banking risks. Even though considerable work has been done in some countries in adopting banking and supervision regulations, continues vigilance and revision will be essential as the scope of e-banking increases. In particular, there is still a need to establish greater harmonization and coordination at the international level. Moreover the ease with which capital can potentially be moved between banks and across borders in an electric environment creates a greater sensitivity to economic policy management.

To understand the impact of e-banking on the conduct of economic policy, policy makers need a solid analytical foundation. Without one, the markets well provide the answer possibly at a high economic cost. Further research on policy-related issues in the period ahead is therefore critical.

5.3 Recommendations

Banks should intensify their educational program on their digital system of operation by listing other digital options they have in the bank statement of their customers. The cost involved in applying for and buying digital bank services should be affordable to all. Banks will need to supply products that provide a utility value to their customers.

Technological advances such as smart cards, cell phones and internet banking will provide conduit. Active involvement by government regulatory bodies, industry stakeholders training organization is needed to deal with the problems of e-banking.

Regional integration must be encouraged to enhance digital cross-border trade and financial transactions. Harmonized technological infrastructures are imperative for future development in regional digital payment and settle system to limit risk, banking organization may have to consider implementing an integrated enterprise-wide architecture technology in infrastructure that can facilitate interoperability ensure security, integrity and availability of data and support the management of relationships with their third party service providers.

Further, as technology is also dramatically changing, business models and operating processes, banks need to ensure that they have appropriate control procedures and audit processes. Customers interviewed recommended that banks should provide more teller machines at their banking houses to reduce queues at ATM centers. Money should alwavs be enough in their teller machines.

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