Electronic Banking and the Challenges of the Ghanaian Business Environment

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Abstract

Electronic banking has blurred the boundaries between different financial institutions, enabled new financial products and services, and made existing financial services available in different packages. The aim of the paper was to determine the adoption, challenges and some critical successes of electronic banking in the Ghana. A sample of 10 members of staff was purposively selected from the population and a cross section of 50 customers of ECOBANK was randomly selected. The primary source of data was obtained from interviews and questionnaires which were administered to ten (10) officials of ECOBANK and fifty (50) clients who are using one or more e-banking service of the bank. Secondary data was also collected from research reports, ECOBANK Ghana and other published materials. The findings showed some of the advantages of e-banking were easy access to money and account information 24-hours and time saving for customers to carry out other duties, eradication of long queues as associated with the traditional mode of banking. It is recommended education on marketing of e-banking products should be encouraged in the bank to attract more customers; also more ATM facilities should be placed at vantage locations within the city to reduce distance and time in accessing the facility. Further it is recommended that banks should reduce the charges E-banking attracts to lure more customers to patronize the products.

Keywords: E-banking, ATM, Networking, Debit card, Credit card

Introduction

Although a lot of research works has been done on the prospects and challenges of Information Technology in the banking industry, research works are broad based and only few are actually carried on Electronic Banking (E-banking). Modern banks now realize that only those that overhaul their payment service delivery and operations are likely to survive and prosper in the 21st century (Opara, Olotu &Maclayton, 2010. Page 291-300). This is due to pressure of globalization, consolidation, privatization, deregulation and rapidly changing technology (Connel&Saleh 2004. Vol.19). In order to properly place themselves in favorable positions for competitions and be one of those corporations to be reckoned with in the new century, banks are making use of Internet to execute mobile banking, this developed from bringing personal computers together to form local and Wide Area Networks through client/server technology.

Many banks have installed modern computer inter-connectivity backbone that would enable them achieve communications of data and multimedia over Internets, Intranets and Extranets. They also realize that they have to achieve not only management/staff wide computer literacy but what could be called information literacy i.e. knowing how to locate, analyze, store and use information. All staff and managers in a modern bank need to be able to search and gather data from several source, analyze them, select relevant ones and organize them in such a manner to allow them make decisions based on the organized data.

Banks of the future have realized that the banking of tomorrow requires more of electronic manipulations and shuffling of bits-based money and other banking transactions, instead of paper. In other words, paper based transactions are now being replaced by electronic-based transactions e.g. the Internet. Whether a bank would be successful or not depend on the extent to which it is investing in IT and using it in an innovative manner. This area has been tippedto be a major competitive ground for banks that are operating in the post-consolidation era.

What are the major issues needed to be mastered by Ghanaian banks in order to compete with the rest of the world? What are the major developments and challenges in the Ghanaian operating environment that are affecting the growth of electronic banking in the industry?

Methods

The population for this study was a cross-section of customers and selected staff of ECOBANK, Ghana. A sample of 10 members of staff was purposively selected from the population and a cross section of 50 customers of ECOBANK was randomly selected. In this research study, semi structured interviews and questionnaires were the main instruments used for the data collection. The main reason for using these instruments was to collect enough firsthand information from respondents. Drawing an understanding from Corbetta (2003) it is argued that with a semi-structured interview, the interviewer has more freedom to pursue his idea and can improvise the questions. Best and Khan (1995), Schalock, (1985) confirmed the use of the interview by stating that it is a face to face questioning of respondents to obtain information. The study was based on primary and secondary sources of data. The primary source of data was obtained from interviews and questionnaires which were administered to ten (10) officials of ECOBANK and fifty (50) clients who are using one or more e-banking service of the bank. Secondary data was also collected from research reports, ECOBANK Ghana and other published materials. Purposive sampling method which allows the researcher to select particular participants needed for specific information was adopted for selection of the bank officials who have direct relation with electronic banking services of ECOBANK. Ten (10) officials of the bank which included the Group Head of the Electronic Banking, the Head of the Card Centre, the IT Manager, E-Business Manager and 6 staff from the Electronic Banking and IT departments as main respondents. Random sampling was adopted for the selection of 50 customers of ECOBANK.

Results

Gender Profile of Respondents

Table1: Gender Profile of Respondents

Gender	Number of Respondents	Percentage (%)
Male	6	60
Female	4	40
Totals	10	100

(Source: Field Data, 2014)

Table 1 above shows the number of males and females officials who were given questionnaires. Out of ten questionnaires retrieved, six (6) respondents representing sixty percent (60%) were males and four respondents representing forty percent (40%) were females. This indicated that males were in the majority of the population studied and females were in the minority

2 Age Profile of Respondents

Table 2: Age Profile of Respondents

Age (In Years) Number	of Respondents	Percentage (%)
20 - 30	3	30
31 - 40	6	60
41 - 45	1	10
46 Years and Above	0	0
Totals	10	100

(Source: Field Data, 2014)

The frequency distribution of the age profile of respondents is given in Table 2.

The table shows that 3 of the respondents, representing 30% are between the ages of 20 - 30 years, 6 of the respondents, representing 60% are between the ages of 31 - 40 years, 1 of the respondents, representing 10% is between the ages of 41 - 45 years and no employee was 46 years and above. This is an indication that the employees of ECOBANK are young and youthful.

3 Educational Background of Respondents

Table 3: Educational Background of Respondents

Educational Background	Number of Respondents	Percentage (%)
Post Graduate Degree	4	40
Graduate Degree	6	60
Higher National Diploma	0	0
Other Levels of Education	0	0
Senior High School	0	0
Totals	10	100
(Source: Field Data, 2014)		

This section gave the educational attainments of the respondents within the studied population. From Table 4.2.3, out of the 10 respondents, 4 of the respondents, representing 40% have Post Graduate Degrees (Master's Degree); 6 of the respondents, representing 60% have Graduate Degree and no employee was employed with Higher National Diploma (HND) or Senior High School Certificate. The table shows that all the respondents have at least a Graduate Degree.

.4 Years of Service with ECOBANK

Table 4: Respondents Years of Service with ECOBANK

Years of Service	Number of Respondents	Percentage (%)
1 – 3	3	30
4 - 6	7	70
Totals	10	100

(Source: Field Data, 2014)

As shown in Table 4, 7 of the respondents, representing 70% have worked at ECOBANK between 4 - 6 years and 3 of the respondents, representing 30% have worked at ECOBANK between 1 - 3 years. It is obvious from the table that most of the respondents (70%) have worked with the Bank for quite a long time (4 - 6 years), enough to be conversant with the bank's electronic banking adoption and how it works and its various challenges. This also implies that their responses were based on experiences with e-banking services rather than theory.

5 ECOBANK's E-banking Adoption

The respondents gave several reasons which they perceived to have influenced the bank's decision to adopt ebanking strategies in their banking business. According to the respondents, ECOBANK adopted e-banking over the past six years as a business strategy in response to customer needs and the changing marketing trends in the banking industry. Also, the respondents indicated that the bank adopted e-banking due to the tremendous benefits e-banking provides which is detailed under section 7.

5 Benefits of E-Banking Adoption

The respondents were questioned on the benefits ECOBANK has derived from its adoption of e-banking. The responses have been tabulated below.

Table 5: Benefits of E-Banking Adoption

Responses	Respondents	Percentage (%)
Improvement in Productivity	10	100
Improvement in Speed and Efficiency in	10	100
Service delivery		
Improvement in Customer Services	10	100
Cost Saving	8	80
Revenue Generation	8	80
Increased in Market share	8	80
Increased in Market access	8	80
Public Image Enhancement	6	60

(Source: Field Data, 2014)

From Table 5, all respondents representing 100% of the sample population indicated that ECOBANK has benefited from its e-banking adoption in terms of improvement in productivity, speed and efficiency in service delivery and improvement in customer service. Eight (8) of the respondents representing 80% of the sample population also stated increase in market share, increase in market access, cost saving and revenue generation as some benefits derived from e-banking. Six (6) of respondents representing 60% stated that the Bank's public image is enhanced through its adoption of E-banking.

6. Critical Success Factors

Result from Table 4.2.6 below shows that 100% of the respondents believe that 24/7 Availability of services, Information Security and Efficient and Effective Customers Support is critical success factors for electronic banking adoption. Eight (8) respondents representing 80% also listed Internal and External Customer Education has a critical success factor.

Table .6: Critical Success Factors

Responses	Respondents	Percentage (%)
24/7 Availability of e-banking services	10	100
Information Security	10	100
Efficient and Effective Customer Support	10	100
Internal and External Customer Education	8	80
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(Source: Field Data, 2014)

.7 Challenges of E-banking Adoption

Despite the benefits of e-banking, the respondents agreed that there were challenges as ECOBANK adopted ebanking. These challenges have been discussed in two folds; challenges the bank face in its e-banking adoption and challenges customers who patronize the services faced. The challenges ECOBANK faced in its implementation are tabulated below in Table 4.2.7.

Table 7: Challenges of E-Banking Adoption

Responses	Respondents	Percentage (%)
High Cost of Implementation	10	100
Lack of solid Technology infrastructure in		
the country	10	100
Security Issues	5	50
Increased pace in Technology advancement	3	30

(Source: Field data, 2014)

As shown in Table above, all the respondents representing 100% listed high cost of implementation, lack of solid technological infrastructure in the country and security issues as challenges ECOBANK faced in its e-banking adoption. The lack of solid technological infrastructure in the country has made ECOBANK outsource some of its banking processes to external service providers. 50% of the respondents indicated increased pace in Technology advancement as a challenge. Only 3 respondents representing 30% listed security issues as a challenge. This low percentage is an indication that ECOBANK in its e-banking implementation incorporated security features in its e-banking infrastructures hence the bank is considered as one of the top IT security conscious banks. For example all smart cards issued by the bank are Chip and PIN protected. Again ECOBANK has provided Secure Token devices for its customers who patronize its internet banking services and all ECOBANK ATMs have encrypted PIN pads.

8 Findings from Customers of Ecobank

8 Gender Profile of Respondents

Table 8: Gender Profile of Respondents

	Frequency	Percentage (%)
Males	33	66
Females	17	34
Total	50	100
(Source: Field Data, 2014)	1	

Table 8 above shows the number of males and females who were given questionnaires. Out of fifty questionnaires retrieved, thirty three (33) respondents representing sixty six percent (66%) were males and seventeen (17) respondents representing thirty four (34%) were females. This indicated that males were in the majority of the population studied and females were in the minority.

9 Age Profile of Respondents Table

9: Age Profile of Respondents

Age (In Years)	Number of Respondents	Percentage (%)
20 - 30	25	50
31 - 40	16	32
41 – 45	4	8
46 Years and Above	5	10
Totals	50	100

(Source: Field Data, 2014)

Age distribution, in years was considered as an important demographic indicator. The frequency distribution of this given in Table.9 and Figure .9 show that, 25 of the respondents, representing 50% are between the ages of 20 – 30 years, 16 of the respondents, representing 32% are between the ages of 31 - 40 years, 4 of the respondents, representing 8% are between the ages of 41 - 45 years and 5 of the respondents, representing 10% are between the ages of 46 years and above. This is an indication that majority of the customers of ECOBANK are young and as such more in tune with technological advancements.

10 Doing Business with the Bank

The researcher wanted to know how long each respondent had been doing business with the bank, as this could have a relationship with how conversant they are with the Bank in general and its electronic products on offer. Below were the responses:

Table 10: Doing Business with the Bank

Responses	Respondents	Percentage (%)
Less than 1 year	9	18
1 to 2 years	18	36
3 years and above	23	46
Total	50	100

(Source: Field Data, 2014)

From the above table, 46% of respondents have had account with the bank for more than three (3) years, whilst 36% percent of respondents have been doing business with the bank between one (1) and two (2) years. Only 18% of respondents are fairly new to the bank. It is obvious from the table that most of the respondents (82%) have operated accounts with the bank for quite a long time enough to be conversant with the bank's electronic banking products. This also implies that their responses were based on experiences with e-banking services rather than theory.

11 Subscription to E-banking products

The researcher wanted to know whether the respondents subscribe to any of the electronic banking products available, in order to be assured of responses from practical experiences of respondents. The responses are shown below:

Table 11: Subscription to E-Banking Products

Responses	Respondents	Percentage (%)
Yes	50	100
No	0	0
Total	50	100
(Source: Field Data, 2012)		

It is obvious from the table above that all the respondents subscribe to one form of e-banking product or the other. This is so because ECOBANK offers some of these products at no cost to customers, these include Internet Banking and SMS banking Statement by E-mail. Subscription to some of these products (e.g. Statement by e-mail), are automatic as one opens an account with the bank. This explains the 100% enrollment recorded from the survey.

12 E-Banking Services Subscribed

The respondents were asked to indicate the electronic banking services they subscribe to in order to determine the popularity and patronage of products available. Table 12 below depicts the responses obtained.

Table 12: Banking Services Subscribed

Responses	Respondents	Percentage (%)
ATM / Card Services	47	94
Statement by e-mail	40	80
Internet Banking	38	76
SMS Banking	19	38
ECOBANK Mobile Money	30	60

(Source: Field Data, 2014)

From the above Table 12 it is clear that ATM and Card usage ranks top of the electronic products patronized by the respondents, recording 94% of the responses. This is followed by statement by E-mail, 80%. Internet Banking, SMS banking and ECOBANK Mobile Money recording 76%, 38% and 60% in that order.

13. Benefits of E-Banking Adoption to Customers

The respondents were questioned on the benefits ECOBANK has derived from its adoption e-banking. The responses have been tabulated below.

 Table 13: Benefits of E-Banking Adoption to Customers

Responses	Respondents	Percentage (%)
Convenience	46	92
Time saving	46	92
Gives greater control over finances	32	64
Cost effective way of Conducting Banking Transactions	31	62

(Source: Field Data, 2014)

From Table above, forty six (46) respondents representing 92% of the sample population stated convenience and time saving as benefits they derive from using ECOBANK's e-banking services. Thirty two (32) of the respondents representing 64% of the sample population also stated e-banking services gives them greater control over their finances and thirty one (31) of respondents representing 62% stated cost effectiveness as another benefit derived from e-banking.

13 Challenges of E-banking

Notwithstanding the significant benefits of E-banking products, it carries risks and challenges which were recognized and need to be managed by the banking institution in a prudent manner. In this study, most respondents (52%) mentioned that the main challenge facing E-banking system in ECOBANK is unreliable network system (Table.13). This is true because internet connection which linked the systems together could easily fail resulting in collapse of the E-banking network system. However, the internet service is not provided by ECOBANK. The bank relies on its service provider so any hitch in their system has effect on the network of the bank. Furthermore, charges attracted for using E-banking products were very high according to some respondents. Although the study was not able to ascertain how much is being charge for the E-banking products.

The limit of money that could be withdrawn was also seen as a challenge by some respondents. However, this is done in Banks in other countries too. For instance a study in Singapore shows that 72% of respondents considered transactions limits to be important. This may be due to the fact that Singaporean consumers routinely deal in small amounts (Sohail&Shanmugham, 2003).

Valid Limit on amount of cash withdrawn612Unreliable network system2652Wrong debits48Unreliable source of power48Bank charges for ATM services1020Total50100	Challenges	Frequency	Percentage (%)
Wrong debits48Unreliable source of power48Bank charges for ATM services1020	Valid Limit on amount of cash withdrawn	6	12
Unreliable source of power48Bank charges for ATM services1020	Unreliable network system	26	52
Bank charges for ATM services1020	Wrong debits	4	8
0	Unreliable source of power	4	8
Total 50 100	Bank charges for ATM services	10	20
	Total	50	100

Table 13. Challenges Facing E-Banking Products

(Source: Field Survey, 2014)

14 Effectiveness of e-Banking Services

The researcher enquired about the effectiveness of the services subscribed by respondents, in a bid to know if respondents actually experience the services or do not make use of them. The following responses were obtained.

Table 14. Effectiveness of E-Banking Service

Responses	Respondents	Percentage (%)
Yes	42	84
No	8	16
Total	50	100

(Source: Field Data, 2014)

Forty two (42) of the respondents representing 84% of the sample population claimed the e-banking services they subscribe to are effective whilst eight (8) respondents representing 16 % responded in the negative. This later group cited reasons like system failures and unresolved issues as reasons for their choice of services as not being effective.

15 Dealing with System Challenges

The researcher enquired about action usually taken by respondents' when they encounter challenges or system failures. This was to test respondents' need for the e-products and how much these have become integrated as part of their daily business dealings. Table below shows the responses obtained.

Table 15: Dealing with system challenges

Responses	Respondents	Percentage (%)
Report to Bank	40	80
Access Service Later	5	10
Use other alternative	5	10

(Source: Field Data, 2014)

The Table15 above shows that 80% of respondents report their challenges in accessing e-banking services to the bank, whilst 10% of respondents wait for the bank to restore services before transacting. In effect a total of about 90% of the respondents wait on the bank to restore services for them to use rather than resorting to alternative means (which may include transacting with cash). This portrays a developing phenomenon whereby people seem to be getting used to e- banking and would rather have that than the traditional way of banking. Only 10% of the respondents indicated they result to traditional means of banking when they experience system failure.

16 Banks Response to System Challenges and Failures

The researcher wanted to know how responsive the bank is to challenges and system failures reported by customers as this could have effect on the patronage of the e-banking products. Table 16 below show the responses obtained.

Table 16: Banks Response to System Challenges and Failures

Responses	Respondents	Percentage (%)
Quickly	42	84
Slowly	6	12
Indifferent	2	4
Total	50	100

(Source: Field Data, 2014)

42 of the respondents indicated that the bank responds quickly with solutions to their challenges while 12 % of the respondents claimed the bank is slow in addressing issues. Interviewing staff, it turned out that the bank has dedicated hotlines and e-mail address for customer complaints which helped in achieving this rate of responsiveness as customers are informed about the hotline numbers and e- mail address.

17 Level of Satisfaction

The respondents were asked to indicate whether they are satisfied with solutions provided in meeting their challenges. The outcome has been discussed below.

Table 17: Level of Satisfaction

Responses	Respondents	Percentage (%)
Yes	43	86
No	7	14
Total	50	100

(Source: Field Date, 2014)

From the table above 86% of respondents were satisfied with how their concerns were addressed by the bank, whilst 14% were not. These respondents (14%) claimed they expect the bank to be more proactive in addressing their challenges, without having to call or send mails on issues before they were addressed. They also believed some of the challenges were avoidable and the bank can take proactive steps to avoid them.

18 Ways to Enhance E-Banking in ECOBANK

With regards to ways of improving upon E-banking usage, the table below indicates that majority of the respondents (24%) pointed out that education and marketing of E- banking products to customers would increase patronage and usage of the products. Education of the public concerning the benefits of various E-banking products would attract more customers to bank with ECOBANK. Furthermore, more ATM outlets should be introduced at vantage locations within the city. This would also reduce the distance customers would use to access the facility and entice more customers to bank with ECOBANK.

Table 18: Ways to enhance E-Banking in ECOBANK

Frequency Percentage (%)		
Valid Increase security on use of E-banking products	12	24
Have more ATM outlet	8	16
Customer education and marketing E-banking products	9	18
Regular maintenance of ATM	8	16
Introduce prompt transaction data on to phones	5	10
Improve on network connections	3	6
Reduce E-banking charges	5	10
Total	50	100
$(\mathbf{S}_{a}, \mathbf{s}_{a}, \mathbf{E}_{a}) \neq \mathbf{S}_{a}$		

(Source: Field Survey, 2014)

19 Recommending to Friends

The researcher wanted to know if respondents will recommend the services to their friend. The responses were as follows:

Table 19: Recommending to Friends

Responses	Respondents	Percentage (%)
Very likely	38	76
Likely	8	16
Not sure	2	4
Unlikely	1	2
Very unlikely	1	2
Total	50	100

(Source: Field Data, 2014)

The responses given showed a total of thirty eight (38) respondents representing 76% of the sample population indicating their willingness to recommend the services to friends, meaning they were happy with the e-banking services provided by the bank. The remaining twenty four (12) respondents representing 24% were obviously not happy with the e-banking services provided and will not recommend the Bank services to friends. Some of the reasons given by this group include unresolved challenges encountered such as refunds expected from unsuccessful card transactions, while others do not really appreciate or make much use of the available services offered by the bank.

Discussion

The study carried out show some main finding regarding usage and challenges of E- banking products from ECOBANK. It includes understanding of E-banking by customers. Respondents explained E- banking as the use of internet and electronic media to bank. Respondents were patrons of E-banking products from ECOBANK although some customers were also operating accounts in other banks.

Another major finding is the awareness of the different E-banking products offered by ECOBANK to customers namely ATM, e-Statements, e-Alerts, SMS Banking etc. However, most customers prefer ATM usage only, whiles significant proportion of respondents uses combination of these products. For instance, a customer would use SMS Banking to require instant account details whiles having an ATM card for withdrawing of money. The result further shows that most customers have been using these E-banking products within the last 6 years.

Among the E-banking products offered by ECOBANK, customers prefer ATM service relative to others. On a scale ranking of 5, customers ranked ATM with an average score of 3.8 being the preferred E-products, followed by e-Statements (3.4), e-Alerts, (3.2), SMS Banking, (2.5). The preference for ATM was due to the fact that ATM is 24-hour teller electronic terminals which give consumers the opportunity to bank at almost any time especially withdrawing of money. The other products often provide accounts information and details. The main reason for ATM preference is because of its efficiency and user friendly ability.

Customers mentioned several advantages for using E-banking products. The most dominant reasons were easy access to money and account information 24-hours and time saving for customers to carry out other duties. Others included no more long queues as associated with the traditional mode of banking; transactions are very fast and convenient.

There are some factors influencing adoptions of E-banking products. Customer satisfaction was identified as the main factor. Customer satisfaction is a key to growth of the industry. Another major factor is competition from other banks. Increasing competition among banks to increase or retain their customer base is driving the banks to continue to adopt E-banking technologies. Competitive forces will progressively continue to be an important driver. As banks continue to adopt evolving and emerging technologies, they will seek to differentiate their products in order to retain their identity and remain competitive. Other factors identified are technological advancement and decongestion of the banking hall.

Another finding was the effectiveness of E-banking. They mentioned that they were highly satisfied with services offered by E-banking products of the bank. E-banking products were very comfortable in usage, saves a lot of time and convenient. They have enough security features which prevent easy theft.

Notwithstanding the benefits associated with E-banking, it has some challenges. The paramount among them is the network failure. In course of a transaction, the network could easily break down resulting in incomplete transaction. Others mentioned by respondents included limit on amount of cash withdrawn, wrong debits being made and increase in bank charges for the use of the E-banking products.

Customers proposed ways to address some of these challenges. Notable among them was customer education and marketing of E-banking products. They were of the view that if proper and enough education were done concerning E-banking products in ECOBANK, it would attract a lot of customers. Other measures were, ECOBANK should have more ATM outlets, regular maintenance of ATM facilities, improve on network connections, reduce E-banking charges, increase security features on E-banking products and introduce prompt transaction data onto phones.

Conclusion and Recommendations

This study showed that customers of ECOBANK patronize E-banking products such as ATM, e-Statements, SMS banking, e-Alerts etc. They derive certain benefits from the use of these products predominantly time saving, easy access to cash and convenient in the use of the products. However, customers prefer ATM among the E-banking products because of its effectiveness and user friendliness. The average operating time of E-banking products is less than 5 minutes. Furthermore, E-banking products have security features such as username and passwords which are used to protect the products from easy theft. Adoption of E-banking products has influencing factors. Predominant factors are customer satisfaction and competition from other banks. Increasing competition among banks to increase or retain their customer base is driving the banks to continue to adopt E-banking technologies. Despite the benefits of E-banking, it is associated with some challenges. The study shows that network failure from internet connection is the major challenge facing customers using E- banking products from ECOBANK. However, respondents believed that considerable education and marketing of E-banking products from the bank could attract more customers.

E-banking in ECOBANK offers opportunities to customers to derive certain benefits from its usage. There were certain limitations in this study. Within the limitation of the study, the following recommendations are made:

- 1. Education and marketing of E-banking products should be encouraged in the bank to attract more customers.
- 2. More ATM facilities should be placed at vantage locations within the city to reduce distance and time use in access the facility.
- 3. It is also recommended that they should reduce the charges E-banking attracts to lure more customers to patronize the products.
- 4. It is recommended that prompt transaction onto mobile phones should be introduced to also entice more customers as in other banks.
- 5. Regardless of the these challenges, from the study it is obvious that customers are ready to embrace ebanking, provided the benefits are well promoted to them and banks are able to resolve system failure issues promptly. It can therefore be concluded from this study that there is a promising future for e-banking in Ghana.

A further study with in-depth analysis on the critical success factors for the introduction of ebanking products in the Ghanaian banking industry is required.

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