

# The Influence Of E-Banking On Service Delivery In A Covid-19 Era: The Case Of Fidelity Bank Ghana Limited

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## Abstract

*The study was an explanatory study aimed at understanding the influence of e-banking on service delivery in a covid-19 era: the case of fidelity bank Ghana limited. Purposive sampling strategy was adopted to select 200 customers and staff of Fidelity bank Ghana. Questionnaire was used as the principal tool for the data collection. With the aid of the SPSS and SMART PLS windows software the data was analysed using structural equation modelling. The study among other things brought to the fore that customers prefer to transact business in the halls in spite of the long queues largely because of the difficulty associated with accessing e-banking products although they had no choice of using it during covid-19 era The data analysis also showed that customers of the selected banks were highly aware of the various e-banking platforms available at their respective bank branch. The study revealed that in spite of the difficulties associated with the use of e-banking products, majority of the respondents highly patronize these services during covid-19 era. This was particularly the case with the use of ATM machines as respondents alluded. However, ignorance on the part of the customers regarding the use of e-banking services was a huge challenge. The study, based on the findings recommended among other things that masse public (customer) education regarding the usage/ advantages of e-banking products and services should be embarked by the banks. Also, the researcher suggested that there should be a widespread citing of ATM machines around vantage point.*

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Date of Submission: 27-01-2025

Date of Acceptance: 07-02-2025

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## I. Introduction

### Background of the study

The impact of the novel Coronavirus on the various facet of our lives cannot be underestimated. Covid-19, since its emergence has affected healthcare, education, commerce, hospitality, banking, government services, and financial services amongst others (Chetty *et al.*, 2020; Neill & Hemmington, 2021). Various nations in their quest to return life to normalcy and recover have reduced physical contact among humans and resorted to a virtual world. In the world's history now, there is almost no process or service that can be completely executed without leveraging a digital platform (Alber & Dabour, 2020), and banking is no different. In Ghana, the Bank of Ghana issued its instructions to banks to take steps to reduce the risk that they pose as vectors for the spread of Covid-19 (PwC, 2020). The regulator asked banks to ensure that bank-owned and bank-operated interfaces that customers interact with physically are sanitized frequently. In response to the regulator's directives, banks operating in Ghana sought to continue to provide services to their customers while keeping their staff safe. Among others, banks opening hours were varied and customer traffic in banking halls were controlled (PwC, 2020). But, invariably and to varying degrees, banks migrated aspects of service delivery to online or digital platforms. Some banks in Ghana provided the majority of their services through electronic banking channels thereby reducing the number of customers that may want to come to the banking hall and the number of staff required to meet the demands of customers in the banking hall (Business & Financial Times, 2020). According to Yap *et al.* (2010), e-banking, electronic banking, internet banking, and online banking refers to the same term and are often used interchangeably in the literature. Jayawardhena (2004) explained e-banking as the process through which a customer digitally interacts with a bank via computers or other electronic devices without the need for human

contact. E-banking is a user-friendly online platform that allows customers to access and transact on their accounts, 24 hours a day, 7 days a week via fast, secured, and easy to use mediums (Stanbic Bank Ghana, 2021). E-banking has transformed traditional practices in banking and has attracted attention in the academic literature in many countries (Akhlaq & Ahmed, 2013). E-banking allows customers to access banking services from their comfort zones. Through the use of a personal computer or a mobile phone with an internet connection, customers can withdraw cash, pay utility bills, and undertake transfers, request for cheques and account statements amongst others. It is significant to stress that prior to the Covid-19 era, a good number of banks operating in Ghana had robust digital channels that enabled their customers to undertake banking transactions. That notwithstanding, the emergence of Covid-19 pushed banks in the financial industry to integrate e-banking activities into their core systems and business models. The quest to meet the banking needs of customers and the surge in information technology has further propelled some banks in Ghana to adopt e-banking. Despite the adaptation, the issue of service delivery and customer satisfaction associated with e - banking service has not received much attention in the literature (Calisir & Gumussoy, 2008; Cai & Jun, 2003; Ariff *et al.*, 2013), particularly during a pandemic era. Most of the studies conducted on service delivery and customer satisfaction have looked at traditional services even when banking services were concerned. There is therefore the need to assess the impact of e-banking on service delivery during a pandemic era in a developing country context.

## **II. Research Methodology**

**Research approach:** This study employs the mixed-method research approach due to the nature of the variables under study and the objectives of the research

### **Descriptive research design**

The purpose of the descriptive research design is to describe specific characteristics of existing e-banking features and service quality scales. Furthermore, cross-sectional methods was applied in collecting data for the quantitative aspect.

### **Study population**

The study populations are employees and customers of Fidelity Bank Ghana Limited based in Accra. The bank has embraced e-banking as part of its core banking offerings. The bank has about 44 branches in Accra (Fidelity Bank Ghana, 2021). Additionally, the researcher took into consideration the proximity factor in selecting the study population.

### **Sample size**

The sample size for the study is 200. The assertion stated by the aforementioned scholarly researchers informs the sample size for this investigation.

### **Data collection method and instruments**

The instrument and primary sources of data used in this study included; questionnaires, personal interviews, and secondary data obtained from book reviews, published articles, electronic journals, databases and bank websites.

### **Questionnaire distribution and administration**

In this study, a survey was used as the method of primary data collection. In administering the questionnaires, the researcher adopted the self-administered approach to questionnaire distribution. Due to time and resource constraints, 210 questionnaires were distributed. Before developing the questionnaire, the researcher conducted semi-structured interviews with 5 Fidelity bank managers, 3 experts in marketing and information technology, through face-to-face meetings in order to acquire the needed information about the available e-banking services. The questions of the interview focused on the forms of e-banking services available that may impact customer satisfaction. The information obtained aided in the structuring of the questionnaires.

### **Data analysis**

The data was gathered and processed using SmartPLS version 3.2.3 and IBM Statistical Package for Social Sciences (SPSS) 21.

### **Descriptive statistics**

The IBM SPSS was used for descriptive statistics. This comprised of frequency tables and measures of central tendency. In this study, descriptive methods were used to organize, describe, and summarize data to gain general views about the different characteristics of the sample structure and distribution.

**Structural Equation Modeling**

Smart PLS 3 was used for partial least squares (PLS) structural equation modeling (SEM) to examine the structural component of the measurement and the structural model (Hair *et al.*, 2014). That notwithstanding, PLS could be considered as a family of regression-type data analysis methods.

**Ethical consideration**

The researcher made sure that respondents supplied their informed consent before conducting the questionnaire since fundamental ideals of ethical practice need the assent of respondents. This meant that the participants pledged to respect one another's independence and to keep their personal information private and secret. In addition, at the start of the questionnaire, an information prologue was supplied with information about the researcher, the research subject, and the study's aim. To avoid responders answering the questions quickly, the researcher only targeted people who had plenty of time to complete the questionnaire. This gave responders the chance to properly study the questionnaire before filling it out. The demographic questions were designed in such a manner that the respondent's identity remained hidden. The respondents were also informed that the study was conducted only for academic objectives and thus, their comments remained confidential.

**III. Results**

**Demographic Profile of Respondents**

The demographic profile of respondents necessary for the study is presented in Table 1 below. The Respondents were characterised by their age, gender, educational level, type of bank account, and type of customer. The results show that most of the respondents are male with 63% and the remaining 37% are females. The study sample was youthful as about 48% of the respondents were 30 years or below and 21% were also 40 years or below. Concerning the type of account, more of the respondents are savings account holders with 49% and 27.5% of the respondents being individual customers of the bank. 48% of the respondents have completed SSCE/WASSCE and 30.5% have no formal education, which means that the majority of the respondents have basic education.

**Table 1: Respondents' characteristics**

Characteristics	Frequency (200)	%
<b>Gender</b>		
Male	126	63.0
Female	74	37
<b>Age (in years)</b>		
Up to 20	8	4.0
21 – 30	96	48.0
31 – 40	42	21.0
41 – 50	30	15.0
50 and above	24	12.0
<b>Type of Bank Account</b>		
savings	98	49.0
Current	47	23.5
Salary account	55	27.5
<b>Education</b>		
SSCE/ WASSCE	93	46.5
HND/Diploma	38	19.0
First Degree	7	3.5
Postgraduate	1	0.5
No formal education	61	30.5
<b>Type of customer</b>		
Individual	123	61.5
Business	59	29.5
Associations	18	9.0

Source: Field Data, Jul 2022

**Descriptive Statistics on Construct**

Constructs under study (Customer orientation, inter-functional orientation, competitor orientation new product development, and firm performance) are all represented with their means and standard deviation in Table 2. Customer satisfaction has a mean of 3.54 (SD=0.737) in the table, suggesting that respondents have a positive understanding of the statements. This suggests that the respondents have a fair knowledge of customer satisfaction. The results further show that the respondents have positive perceptions of the items measuring E-

banking, and service delivery. These are evident by the total mean for E-banking which is 3.485 (SD=0.765), and service delivery which is 3.83 (SD=0.759).

**TABLE 2 Construct Descriptive Statistics**

	Mean	Median	Min	Standard Deviation
CUS1	3.015	3.000	2.000	0.843
CUS2	2.989	3.000	1.000	0.796
CUS3	3.007	3.000	1.000	0.839
CUS4	3.165	3.000	2.000	0.745
EBAN1	3.542	4.000	2.000	0.798
EBAN2	3.051	3.000	1.000	0.833
EBAN3	3.484	4.000	1.000	0.930
EBAN4	3.839	4.000	2.000	0.916
SERV1	3.579	4.000	1.000	1.080
SERV2	2.901	3.000	1.000	0.954
SERV3	3.315	4.000	1.000	0.832
SERV4	3.245	3.000	1.000	0.813

**Measurement of Internal Consistency Reliability**

The internal consistency reliability of the measurement model is the most significant benchmark to evaluate the model. To assess the internal consistency of this study, the researcher employed both the Cronbachs alpha and composite reliability. According to Hair *et al.* (2017), internal consistency is achieved when the Cronbachs alpha and composite reliability are both above 0.70. For this study, all the constructs achieved internal consistence as evident in Table 5.3. The breakdown for the individual constructs is as follows; Customer satisfaction had a CA=0.949, and CR =0.964; E-Banking had a CA=0.915, CR-0.941; and service delivery had a CA = 0.944 and CR =0.959. This indicates that all the constructs met the criteria for internal consistency

**Indicator Reliability:** This determines how important each indicator is in determining the hypothesis's reliability. In contrast, the implication of the indicator loadings and their statistical significance are employed to determine it. To calculate indicator loadings, the standard PLS algorithm is employed. As a result, item loadings were utilized to evaluate indicator reliability. Loadings larger than 0.70 may be retained, whereas loadings less than 0.70 are dropped, especially for reflexive contracts. Bootstrapping is used to assess the statistical significance of the loadings. Table 3 shows that all the loadings are between 0.720 and 0.990, which is substantial and over the threshold. As a result, it can be concluded that all the models' indicators have attained an appreciable level of indicator dependability.

**Convergent validity**

Hair *et al.* (2017) opined that a latent variable should be able to explain 50% of the variations of the indicator. Also, the concept's variance and its indicator are more than the measurement error variance, and as a result, an indicator's outer loading must be greater than 0.708, because 0.708 squared equals 0.50 for a concept and its indicator. Remove outside loadings of an indicator that are less than 0.70 on or after the scale and are not part of the indicator's internal load (Hair *et al.*, 2017). It's worth noting that, according to the rule of thumb, all the constructions reached an appropriate level of AVE. From table 5.3, "Customer satisfaction" had an AVE=**0.869**, "E-Banking" had an AVE=**0.799**, and "Service Delivery with AVE=**0.855**. This implies the construct AVE is above the threshold of 0.500.

**Table 3: Construct Reliability And Validity**

	Cronbach's Alpha	rho A	Composite Reliability	(AVE)
CUSTOMER SATISFACTION	0.949	0.954	0.964	0.869
E-BANKING	0.915	0.918	0.941	0.799
SERVICE DELIVERY	0.944	0.944	0.959	0.855

Source: field data June, 2022

**Discriminant Validity**

A concept's discriminant validity is the degree to which it differs from other constructs based on experiential criteria (Hair *et al.*, 2017). A concept's discriminant validity is established when it is determined that it is unique and that seizures are not captured by the model's other constructs. Researchers have discovered that cross-loadings are frequently employed to examine the discriminant validity of indicators, as opposed to other types of loadings. Other approaches to determining discriminant validity, on the other hand, are readily available. The Fornell-Larcker and the HTMT are the tests for ensuring discriminant validity among constructs.

**Fornell- Larcker**

This principle (Fornell-Larker) is the second technique in quantitative research for discriminant validity tests because it relates the square root of average variance extracted (AVE) with the correlation results of the latent variables, which is a measure of association between two variables (Hair *et al.*, 2017). Likewise, it is significant to note that the square root of each build's AVE should be greater than the greatest link that it has with any other construct. The Fornell-Larcker technique is based on the idea that the connected indicators of a construct share more variation than the indicators of any other construct.

**TABLE 4: Fornell-Larcker Criterion**

	CUSTOMER SATISFACTION	E-BANKING	SERVICE DELIVERY
CUSTOMER SATISFACTION	0.932		
E-BANKING	0.831	0.894	
SERVICE DELIVERY	0.790	0.854	0.925

Source: field data June, 2022

From table 4, it is evident that “customer satisfaction” had the highest AVE=0.932 as compared to “E-Banking” = 0.8.94, and “service Delivery” =0.925.

**Heterotrait-Monotrait Ratio (HTMT) Analysis**

Henseler *et al.* (2015) opined that if the route model contains constructs that are conceptually and extremely similar, a threshold value of 0.90 should be used. Accordingly, when the constructs in the path model are theoretically more divergent, a lower and more conservative threshold value of 0.85 is necessary. When the HTMT assessment is larger than 0.90, it indicates a lack of discriminant validity, and when the route model components are theoretically more divergent, a lower and more conservative threshold value of 0.85 is mandated to ensure discriminant validity is maintained.

The table shows that all of the structures have reached adequate HTMT levels.

**TABLE 5 Heterotrait-Monotrait Ratio (HTMT)**

	CUSTOMER SATISFACTION	E-BANKING	SERVICE DELIVERY
CUSTOMER SATISFACTION			
E-BANKING	0.890		
SERVICE DELIVERY	0.834	0.917	

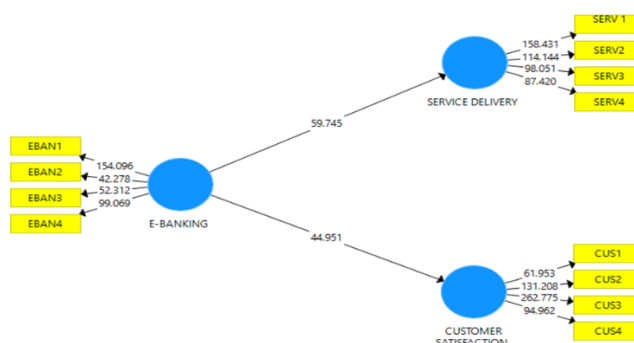
Source: field data June, 2022

**Assess of significant Path**

Researchers utilise p-values to assess significance levels, according to Hair *et al.* (2017). A p-value is a likelihood of obtaining the least extreme t-value, which is the only validly experimental conditional on maintaining the null hypothesis that is given the null hypothesis being maintained. The p-value, on the other hand, represents the likelihood of mistakenly rejecting an actual null hypothesis. According to the researchers, the p-value must be less than 0.05 to infer that the link under investigation is statistically significant at the 5 percent level.

**Figure 1: Direct relationship between the variables**

**Path Model**



Source: field data June, 2022

**Table 6: Path analysis**

Construct	HYPOTHESIS	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values	Decision
E-BANKING -> CUSTOMER SATISFACTION		0.832	0.018	44.951	0.000	SUPPORTED
E-BANKING -> SERVICE DELIVERY		0.854	0.014	59.745	0.000	SUPPORTED

Source: field data, June 2022

A path with a P-value of less than or equal to 0.05 is estimated to have established statistical significance, thereby establishing the related hypothesised link, as shown in Table 6. Taking into account the proposed relationship for the construct, that is, E-BANKING -> CUSTOMER SATISFACTION, and E-BANKING -> SERVICE DELIVERY, all the constructs are supported.

**IV. Discussion Of Results**

The recent growth in technology and innovation has fast-tracked the desire of customers of banks for exceptional services to meet the current trend of technological advancement. Today’s customer demands continuous innovation coupled with convenience (Augusto, 2002), hence, banks need to roll out new products and services using modern technologies. According to Gikandi and Bloor (2010), the introduction of information technology in banking has change the dynamics in the service offerings of banks. This gives the indication that e-banking is now a key element for improving efficiency and productivity in both private and government banks (Auta, 2010). In the year 2019, the emergence of Covid-19 and its related safety protocols hasten the development of more sophisticated e-banking technologies aimed at creating convenience for customers and enhancing service delivery. The study sought to achieve two objectives and this objective is discussed below in relation to the test hypotheses.

**The influence of e-banking on Fidelity Bank’s service delivery in a Covid-19 era**

The first objective sought to examine the relationship between the e-banking adoptions by fidelity bank during covid-19 era to aid in superior service delivery. The results also confirmed the study of Mahdi and Mehrdad (2010), they investigated the impact of e-banking in Iranian banks and identified that e-banking contributed positively to the satisfaction of bank customers. Furthermore, the result revealed that e-banking services that are provided by Iranian banks were drivers of customer satisfaction.

**Influence of Fidelity Bank’s e-banking on customer satisfaction in a Covid-19 era**

The second objectives of the study were to test the relationship between fidelity bank’s e-banking services on customer satisfaction in a covid-19 era and according to the path analysis results there is a positive relationship between the variables. The result is consistent with the studies of online banking that ensures consumer satisfaction by extending financial services to customers outside of the banking hall. Similarly, e-banking has helped banks grow their customer base by increasing consumer loyalty and satisfaction. Mahdi and Mehrdad (2010) investigated the impact of e-banking in Iranian banks and identified that e-banking contributed positively to the satisfaction of bank customers. Furthermore, the result revealed that e-banking services that are provided by Iranian banks were drivers of customer satisfaction.

**The Study's Summary**

The recent growth in technology and innovation has fast-tracked the desire of customers of banks for exceptional services to meet the current trend of technological advancement. Today’s customer demands continuous innovation coupled with convenience (Augusto, 2002); hence, banks need to roll out new products and services using modern technologies. According to Gikandi and Bloor (2010), the introduction of information technology in banking has change the dynamics in the service offerings of banks. This gives the indication that e-banking is now a key element for improving efficiency and productivity in both private and government banks (Auta, 2010). Literature suggests that e-banking will be the light of future banking due to the enormous benefits it provides to consumers in terms of convenience and cost of transactions (Nsouli & Schaechter, 2002). However, the emergence of the Covid-19 pandemic requires more investigations into the impact of e-banking on service delivery (Wu & Olson, 2020). The purpose of the study is to examine the impact of e-banking on Fidelity Bank Ghana’s service delivery to customers in Accra, in a Covid-19 era with two specific objectives as follows; examine the influence of e-banking on Fidelity Bank’s service delivery in a Covid-19 era and to determine the influence of Fidelity Bank’s e-banking services on customer satisfaction in a Covid-19 era. The study was a quantitative in nature and adopted cross-sectional survey method where structured questionnaires were used to gather data from respondents. The survey targeted 200 respondents and distributed questionnaires personally. The

study further analysed the data using SPSS and SMART PLS to conduct demographic and structural equation and the results was furthered discussed.

## V. Conclusion

E-banking can be described as the provision of banking services and or products to customers through electronic medium (Addai *et al.*, 2015). This definition extends to include bank's use of information and communication technology (ICT) to provide services and manage customer relationship more quickly and satisfactorily. Banking customers' desires and expectations with regard to service are expanding, as technology advances. These days, the customer wants to operate and do his or her banking transactions at any location without going to the bank, and or at any time without being limited to the bank's working hours. Likewise, customers want to do all their payments (purchasing, bills, and stocks) in a fast and cost-effective way. The study tested two hypothesis which is **H1**: E-banking has a positive influence on the service delivery of banks and **H2**: E-banking has a positive influence on the satisfaction of bank customers. According to the findings, there was a positive relationship between the tested hypotheses. This implies that, the e-banking service delivery during the covid -19 era has a positive impact on customer satisfaction.

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