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WHY THE QUEUING IN THE BANKING ENVIRONMENT IN THE ERA OF ELECTRONIC BANKING

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Abstract: Managing queuing within the banking business in Nigeria has constituted major challenges whose effects have not been thoroughly examined. This study sets to investigate the continuous queuing in the Nigerian banking environment despite e-banking adoption in Nigeria. The research adopted a survey design where primary data were obtained using a structured questionnaire. Fifty (50) respondents were purposively chosen. A purposive sampling technique was used which considered banks having branches within Ladoke Akintola University of Technology and Ogbomoso town. OLS regression was used to determine the influence of electronic banking on customers queuing the factors for queuing in the banking environment amid e-banking adoption at 0.05 level of significance. Findings revealed that queue in the study area was most of the time very high in the morning, high in the afternoon and evening while at night, most time witnessed no queue. Electronic banking had a significant influence on customers' queuing in the study area. Further, Tendency to Hold Cash by banks customers (THC), Poor Internet Infrastructure (PII), Cybercrime (CC) were the major factors causing bank customer queue in the banking environment in Nigeria, followed by Inadequate of Banking Technology Management (IBTM) and E-Banking Transaction Cost (EBTC). Therefore, banks service providers should increase efforts on cashless e-banking services and ensure reliable internet service at all times. Bank customers should be made to appreciate other e-banking services than ATM and allay fear on tendency to hold cash.

1 Introduction

The competition in the Nigerian banking sector is said to be getting more intense, partly due to regulatory imperatives of universal banking and also due to customers' awareness of their rights. According to Olaniyi, (2011) bank customers have become increasingly demanding, as they require high quality, low priced, and immediate service delivery. They want additional improvement of value from their chosen banks. Service delivery in banks is personal, customers are either served immediately or join a queue if the system is busy. Banks' service delivery system is sometimes interrupted by the rowdiness of its customers and randomness of their arrival and service time. Population explosion is one of the single largest challenges faced by Nigerian deposit money banks. According to Haoa, and Yifei, (2011) the problem of bank queuing has existed for long time wherever our country or other countries whose population density is high but that the problem could not be solved completely in short time. They argued that though custom of paying needs time to be changed completely even with return on investment of ATM relatively low there is a need to focus on improving the queuing system of bank. This scenario in banks makes its customers filled up in a queue system for an orderly service performance. This situation calls for attention of

professionals and practitioners in banking sectors on how to manage the explosive population of customers to the benefit of banking system.

Queuing has always been a pervasive concern among bank customers in Nigeria but the continuous advancement in the use of the internet technology is expected to have brought a huge impact this phenomenon. The long queue is observed as results of some characteristics in queuing systems including arrival problems of customers, behavioural problems, statistical problems and operational problems. Thus, Nigerian banks invest greatly in technology in order to be able to meet up with the global banking development by improving the quality-of-service delivery among their customers and also to reduce the transactional cost of their services. The Central Bank of Nigeria (CBN Report 2019) on e-banking system in Nigeria reveals that e-payment machinery, especially the card technology is presently enjoying the highest popularity in Nigeria banking market. According to Interswitch statistic, Nigeria has 30million ATM card holders who conduct over 100 million transactions on the machines every month. Nigeria's 21 banks operate over 9,000 ATM machines across the country's 36 states and Federal Capita Territory (wwww.interswtch.com; retrieved 20 October 2019). Further Abifarin (2017) observed that while Nigerian banking halls are often filled with customers happily using their phones to text, chat, browse and shop online, most have never considered using that same device to avoid the banking hall altogether. With recent media attention on cyber security risks such as cloning and identity theft on the rise, many Nigerian customers are also deeply concerned about the security of their transactions. The reasons for the persistent queue in the bank environments both on the counter and banking environment despite deployment of ATM dispensed machines, EFPOS, mobile and web banking, were yet to be investigated which calls for the current empirical study.

In the Nigerian Deposit Money Banks, queuing remains one of the most common reasons for customer disgust. Despite technological advances such as online and mobile banking, customers still complain about their bank. Queue management systems are specially designed for banks allowing them to reduce queue lengths and increase staff productivity and operational efficiency. In recent years, the banking industry has transformed and banks are now competing for a higher share of customers' wallet through the introduction of electronic banking. This can only be achieved if banks provide exceptional service with a delightful customer experience since no customer like to wait deposit money banks must be able to provide adequate and efficient electronic banking tools to cater for customers' need. Therefore, extent to which the use of these identified e-banking tools has influenced customers' queuing pattern in Nigerian deposit money banks shall be the thrust of the current study.

Existing studies (of Agboola 2006; Ngango, Mbabazize, and Shukla, 2015; Oladejo 2016; Ayinla, 2018) have only appraised the influence of e-banking on the profitability and other performance, whereas, how these e-banking addresses the long queue in the banking sector were yet to be well explored. This created issue as to whether or not e-banking services have any effect on customers' queuing pattern in Nigerian banking system. There has continued to be long queue in the banking environments, a situation that cast aspersion on the efficiency of e-banking products. This suggests that certain forces have militated against full benefit ascribed to e-banking and needs to be empirically explored. The current study is expected to evaluate the factors that have been responsible for long and unending queue in the banking sector despite the prevailing use of e-banking services. The following specific objectives are expected to be achieved in the course of the study:

i. Examine the influence of electronic banking on customer's queuing pattern in deposit money banks of Nigeria.

ii. Evaluate the causes of queuing in the banking environment amid e-banking adoption Nigerian Deposit Money Banks.

2 Research Hypotheses

The hypotheses to be tested in the course of this study are stated in null form:

Ho_1. Electronic banking does not have significant effect on customer queuing pattern in Deposit money banks in Nigeria.

Ho_2. There is no significant difference in the effect of factors causing queue in deposit money banks.

3 Literature Review

3.1 Queuing

The term Queuing pattern is used to define a specialized mathematical theory of queues or waiting lines. Queue becomes the general phenomenon in our day to day life. When customers who demand service have to wait because of the lower number of servers available, then queues are formed. Another reason for the formation of the queue is when the facility, takes more than the prescribed time for serving the customers or unable to work efficiently. But no one like to wait for a long time to attain the services (Ndukwe, Omale, and Opanuga 2011). Queue system help service providers to reduce the traffic in the queue. Any queuing system is governed by some specific characteristics such as the type of queues, arrival pattern of customer, service process, queue discipline and decision to wait in the queue (Amritpal and Williamjeet 2017; Haoa, and Yifei, (2011).

3.2 Customers' service delivery in Banks

This is the effective delivery of available service to meet customer's demand. All techniques and method by which service could reach customers at any point and in

manner required are expected to improve service delivery. Service quality is widely recognized as being a critical determinant for the success of an organization in today's competitive environment. The dynamic nature of the financial system is creating the need to focus more on the customer rather the product in order to be competitive. The sector as observed by Auka, Bosire, and Matern, (2013), has been characterized by the emergence of new forms of banking channels such as Internet banking, Automated Teller Machines (ATM), phone banking, maturing financial market and global competition that are forcing bankers to explore the importance of customer loyalty and maintaining lasting relationships with customers. Banks management needs to develop strategies that will differentiate them from their competitors.Electronic Banking System is seen to be an innovative service delivery mode that offers diversified financial services like cash withdrawal, funds transfer, cash deposits, payment of utility and credit card bills, cheque book requests, and other financial enquiries, (Onyedimekwu & Oruan, 2013). These services can either be provided by the banks having physical offices or by creating a website and providing services through that or services can be provisioned through a virtual bank as well (Parasuraman, .Zeithlaml, & berry, 2002)

3.3 Challenges of Electronic Banking Adoption in Nigeria Deposit Money Banks

Various barriers to effective implementation of e-banking initiatives have been identified in the literature. Some of these problems are infrastructural deficiency such as erratic power supply and communication link especially in developing countries (Lamikanra, 2012; Ayodele, 2015). Others are Inadequate skilled managers and requisite tools on end users and client systems, large accumulation of cash in the economy, high charge or cost for the e-payment terminals (ATMs) (Littler, 2006), Non-provision of adequate security for fraud prevention, Lack of government support for the improvement of e-banking. Findings from the study of Josiah, (2015) revealed that gender, tribe, age, education level, area of residence, internet literacy and e-banking awareness had significant effects in influencing user adoption of e-banking while income level sector of employment and method of payment had no significant effect on customer adoption of e-banking in Nigeria. Other challenges according to Woherem (2000), Ovia (2005), Oladejo. (2016) and Ololade, and Ogbeide, (2017) include:

i. Tendency to hold cash and fear of technology.
ii. Power Failure and Communication Link.
iii. Lack of Computer Bank Up.
iv. Lack of Adequate Investment Capital.
v. Reduces Employment in the Country.
vi. High Charges on Machines.
vii. Loss of Confidence by the people.
viii. Cybercrimes.

3.4 Empirical Review

Literatures have produced mixed results on e-banking impact. For example, Oladejo, (2016) investigated the influence of E-payments adoption on Customers' service delivery in Nigerian Deposits Money Banks using Panel logistic Regression and concluded that when bank adopt e-payment systems, their performance level measured by customer deposits changes. Also, Ololade, and Ogbeide, (2017) conducted a research into the Issues and Challenges in E- Banking in Nigeria using survey and descriptive research designs. The study findings indicate that employees' job security has a positive relationship with E-banking and significantly influence E-banking in Nigeria. Further, Adewoye, (2013), studied the impact of Mobile Banking on Service Delivery in the Nigerian Commercial Banks. The results of the findings shows that Mobile banking improves banks service delivery and recuperate customer's relationship and satisfaction.

Wallace, Asare-Darko, and Odilon (2011) studied the modeling and analysis of queuing system in banks by using Multiple Channel, Single line queuing model. The results of the analysis of queuing systems revealed that increasing number of teller points will reduce waiting line by customers. Further, Odewole (2016) applied poisson distribution, exponential service time distribution and first come first serve (FIFO) to evaluate the effectiveness of technology at reducing queuing in Nigerian banks. The results revealed that technology influenced effective delivery system and reduces waiting line of customers in Nigerian Banks. The main conclusions of the World Cash Report 2018 are that Cash remains the most widely used payment instrument in the world and on all continents and Africa appears most reliant on cash. Available diary surveys (from 24 countries) show that in 18 countries (75%) cash represents more than 50% of all payment transactions. Further as observed by Abifarin (2017) Nigeria is estimated to have more than 148 million mobile telephone subscribers and at least 92 million of them access internet data services on their devices and that 77 percent of Nigeria's banking customers now use social media for personal purposes. He argued that Nigeria's banks have largely failed to translate this passion for the internet and social media into increased adoption of internet and mobile banking solutions. In his submissions, only 42 percent of Nigerian banking customers said they use online banking platforms for one or more banking activities, 40 percent said they have interacted with their bank using social media in the past (KPMG Reports 2015; 2018).

Haoa, and Yifei, (2011) focused on improving the queuing system of bank based on BPR. Firstly, the bottleneck problems of bank queuing are analysed as well as the concept, classification and methodologies of BPR (Business Process Reengineering). Secondly, the bank businesses are investigated and analysed. Thirdly, the queuing system of certain bank is optimized based on BPR by enterprise dynamic simulation. The problem of queuing which is related to many aspects like the customer

satisfaction is one of the most serious problems needing improved. This study uses simulation to determine the appropriate number of servers in certain period and improves the key point of the queuing system. Finally, this study proposes reasonable method of optimize the bank queuing system by using BPR. In another dimension, the CBN Reports (2019) put ATM as the most used e-payment system in Nigeria with volume of transactions at 875,519,307 as showed by the Industry e-payment figures released for half-year 2019 in Table 1 below. It had been on the increase from 375,513,154 in 2012. The implication is that of all other sources of e-payments Nigerians have favoured the use of ATM most thus buttressing the observed tendency to hold cash and fear of technology as submitted by Ovia (2005, Ayo et al 2007).

The construct of this study is embedded on Socio-Technical Systems Theory of Information and Technology Acceptance. This is based on the fact that socio-technical systems perspective has become influential in the analysis of the organizational impact of information technology. The theory views any organization as an open system of interdependent sub-units transforming inputs to desired outputs. The gainful employment of any technology hinges on the ability and willingness of users to employ it for worthwhile tasks (i.e., those deemed central to the organization's goals). Socio-technical systems theory has given birth to a framework for technology design that emphasizes holistic job satisfaction (rather than just task performance) and user participation throughout the development process. Thus, socio-technical theorists recommend the analysis of all stakeholders, not just the direct users of a technology, the formation of planning groups to oversee the design, the performance of prototyping exercises, and the analysis of likely impact the technology will have on the organization. In studying technology acceptance, socio-technical theorists conceptualize acceptance in terms of two competing forces to include control and enhancement.

Table 1 Volume of e-payment channels from 2012 to 2018

ANALYSIS OF VOLUME OF E-PAYMENT CHANNELS FROM 2012 TO 2018							
	2018	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**
Cheques	9,019,278	10,808,983	11,719,847	13,466,461	15,283,933	14,211,078	12,161,694
NEFT	26,760,852	31,034,624	29,754,182	28,935,605	29,690,765	29,834,317	28,941,559
ATM	875,519,307	800,549,099	590,238,934	433,695,748	400,269,140	295,416,724	375,513,154
POS	295,890,167	146,267,156	63,715,203	33,720,933	20,817,423	9,418,427	2,587,595
WEB	50,815,901	28,991,097	14,088,247	7,981,361	5,567,436	2,900,473	2,276,464
MMO	87,086,260	47,804,561	47,053,252	43,933,362	27,744,797	15,930,181	2,297,688
NIP	663,124,139	370,870,672	153,616,450	71,223,545	40,829,854	17,112,158	4,449,654
EBILLSPAY	1,053,342	905,941	1,026,886	1,208,556	593,579	557	-
REMITA	44,461,846	39,706,264	38,249,886	19,417,371	15,029,627		-
NAPS	27,384,756	11,900,008	3,965,212	936,667	-	-	-
M-CASH	229,328	77,832	-	-	-	-	-
CENTRALPAY	1,260,380	375,356	70,239	66,031	-	-	-

Source: CBN Report on E-Payment Statistics, 2019

4 Methodology

According to Central Bank of Nigeria (2018), there were twelve (12) deposit money banks in Ogbomoso Nigeria for this research study, Purposive sampling technique was adopted. Banks that have branches in Ladoke Akintola University of Technology, Ogbomoso and also in Ogbomoso town were sampled purposively. Also bank staffs that have what it takes to monitor the queue at the ATM spot were purposively chosen. The banks that were selected for this study includes United Bank for Africa Plc, Guaranty Trust Bank Plc, First Bank of Nigeria Plc, Polaris Bank Limited, Zenith bank, all in Ogbomoso, Oyo state, Nigeria. The questionnaire designed contains both open and closed questions. In an attempt to validate how reliable, the instrument of data collection, Cronbach's Alpha test was employed. The assumption in Cronbach's Alpha reliability test is that if the Cronbach's Alpha value is equal to or more than 0.7, then there is internal consistency in the instrument. Since the Cronbach's Alpha value was 0.852, as tested then the instrument of data collection was reliable. OLS regression was used to determine the influence of electronic banking on customers' queuing pattern and the factors for queuing in the banking environment amid e-banking adoption through Statistical Package for Social Sciences (SPSS Version 20.0) program.

In formulating the model for this study (1)-(7); the model used in the work is to be modified for this work. The models shall take a general form of a multiple regression model expressed as follows:

$$Y = \alpha_o + \alpha_1 X_1 + \alpha_2 X_2 + \ldots \alpha_n X_n + \mu_t \qquad (1)$$

where: Y is Queuing pattern = dependent variables, X_1-X_n are independent variables α_o is constant and α_1-α_n represents coefficient of independent variables.

Model 1:

$$Y = f(ATM,POS,MB,IB) \qquad (2)$$

Explicitly, the model is specified as:

$$QP_t = \alpha o + \alpha_1 ATM_t + \alpha_2 POS + \alpha_3 MB_t + \alpha_4 IB_t + \mu_t \qquad (3)$$

By Log linearizing, the model becomes:

$$LOGQP_t = \alpha o + \alpha_1 LOGATM_t + \alpha_2 LOGPOS_t + \alpha_3 LOGMB_t + \alpha_4 LOGIB_t + \mu_t \qquad (4)$$

Specifying the Error Correction Model (ECM) from equation (3), the model becomes:

$$\Delta LOGQP = \alpha o + \alpha_1 \sum LOGATM_t + \alpha_2 \sum LOGPOS + \alpha_3 \sum LOGMB + \alpha_4 \sum LOGIB + \mu_t \qquad (5)$$

ECM(-1) - Lagged error correction term,
ATM - Automated Teller Machine,
POS - Point of Sales,
MB - Mobile Banking,
IB - Internet Banking,
t - time subscript.

Model 2:

$$Y = f(IGS,PII, CC, IBTM, THC,EBTC) \qquad (6)$$

Explicitly, the model is specified as:

$$CQS_t = \alpha o + \alpha_1 IGS_t + \alpha_2 PII + \alpha_3 CC_t + \alpha_4 IBTM_t + \alpha_5 THC_t + \alpha_6 EBTC_t + \mu_t \qquad (7)$$

CQS - Customer Queue System,
IGS - Inadequate government Support Toward E-banking Dev (IGS),
PII - Poor Internet Infrastructure (PII),
CC - Cybercrime (CC),
IBTM - Inadequate of Banking Technology Management (IBTM),
THC - Tendency to Hold Cash by Banks Customers (THC),
EBTC - E-Banking Transaction Cost (EBTC),
μ_t - White noise residual /Error term in time *t*,
α_o and α - represent regression constant and regression coefficient of the variables.

5 Results and Discussion

5.1 Comparative analysis of Inter-Bank Daily Queue Pattern

The daily queue pattern for each bank sampled was presented independently for GTB, first bank, Skye bank, UBA and zenith bank respectively. It was observed that the queue pattern on Monday morning in each bank was very high, afternoon and evening were high while night usually witnessed no-queue. Tuesday queue pattern for morning afternoon evening and night follow similar pattern. Furthermore, similar queue pattern was observed for Wednesday, Thursday and Friday. Saturday and Sunday had slightly different queue pattern for all the sampled banks. Furthermore, the Comparative analysis of inter-bank queue pattern understudied affirmed the fact that the queue pattern for all the sampled banks followed similarly queue pattern (Figure 1). Thus, it was deduced that customers Queue pattern in the study area was most of the time very high in the morning, high in the afternoon and evening while at night, most time witnessed no queue.

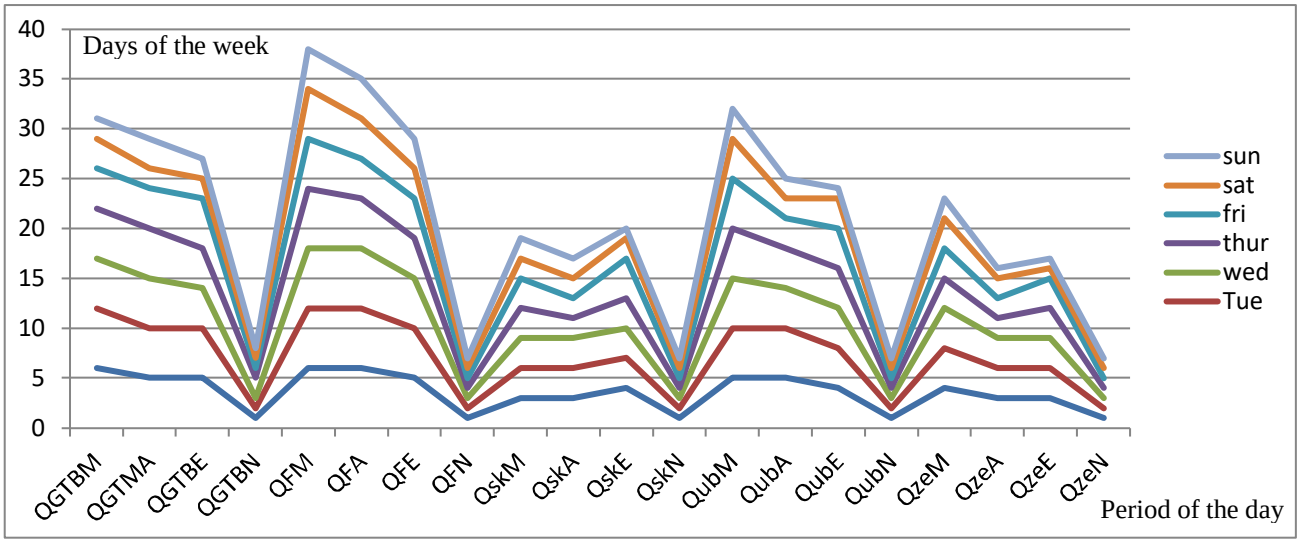

Figure 1 Comparative analysis of inter-bank queue pattern
Source: Field survey 2020

5.2 Descriptive Analysis of Electronic banking services of selected sampled deposit money banks

In an attempt to examine electronic banking services available in the sampled deposit money banks, percentage frequency was employed and presented in Table 2. The variables operationalized were E-banking service covers cash deposits service, E-banking service covers cash withdrawal service, E-banking service covers money transfer service and E-banking service covers third party transaction via ATM. It was observed all sampled respondents consented positively to E-banking service covers cash withdrawal service via ATM, E-banking service covers money transfer service via ATM and E-banking service covers third party transaction via ATM while only first bank had cash deposit service via ATM. It was deduced that all the sampled banks had cash withdrawal service, covers money transfer service and third-party transaction via ATM. While only first bank had cash deposits service via ATM.

Table 2 Electronic banking services

s/n	Variables	SD(%)	D(%)	I(%)	A(%)	SA(%)
	GTB					
1	E-banking service covers cash deposits service via ATM	6 (60.0)	4 (40.0)			
2	E-banking service covers cash withdrawal service via ATM				6 (60.0)	4 (40.0)
3	E-banking service covers money transfer service via ATM				4 (40.0)	6 (60.0)
4	E-banking service covers third party transaction via ATM				5 (50.0)	5 (50.0)
	First bank					
1	E-banking service covers cash deposits service via ATM				3 (30.0)	7 (70.0)
2	E-banking service covers cash withdrawal service via ATM				1 (10.0)	9 (90.0)
3	E-banking service covers money transfer service via ATM				3 (30.0)	7 (70.0)
4	E-banking service covers third party transaction via ATM				8 (80.0)	2 (20.0)
	Skye bank					
1	E-banking service covers cash deposits service via ATM	3 (30.0)	6 (60.0)	1 (10.0)		
2	E-banking service covers cash withdrawal service via ATM				8 (80.0)	2 (20.0)
3	E-banking service covers money transfer service via ATM				3 (30.0)	7 (70.0)
4	E-banking service covers third party transaction via ATM				4 (40.0)	6 (60.0)
	UBA					
1	E-banking service covers cash deposits service via ATM	7 (70.0)	3 (30.0)			
2	E-banking service covers cash withdrawal service via ATM				2 (80.0)	2 (20.0)
3	E-banking service covers money transfer service via ATM				3 (30.0)	7 (70.0)
4	E-banking service covers third party transaction via ATM				6 (60.0)	4 (40.0)
	Zenith bank					
1	E-banking service covers cash deposits service via ATM	4 (40.0)	6 (60.0)			
2	E-banking service covers cash withdrawal service via ATM				3 (30.0)	7 (70.0)
3	E-banking service covers money transfer service via ATM				2 (20.0)	8 (80.0)
4	E-banking service covers third party transaction via ATM				5 (50.0)	5 (50.0)
	All banks					
1	E-banking service covers cash deposits service via ATM	20 (40.0)	19 (38.0)	1 (2.0)	3 (6.0)	7 (14.0)
2	E-banking service covers cash withdrawal service via ATM				20 (40.0)	30 (60.0)
3	E-banking service covers money transfer service via ATM				15 (30.0)	35 (70.0)
4	E-banking service covers third party transaction via ATM				28 (56.0)	22 (44.0)

Source: Field survey 2020

5.3 The influence of electronic banking services on customer's queuing in banks

The influence of e-banking services on customer queuing is displayed in Table 3 and Table 4. Electronic banking services were proxy by E-banking service covers cash deposits service, E-banking service covers cash withdrawal service, E-banking service covers money transfer service and E-banking service covers third party transaction via ATM while customers' queuing pattern was proxy by Rate of queuing. It was observed in Table 4 that the coefficient of determinant R^2 was 0.382 and the multiple correlation coefficients R^2 was 0.618 implying that the extent to which predicting variables which were E-banking service covers cash deposits service, E-banking service covers cash withdrawal service, E-banking service covers money transfer service and E-banking service covers third party transaction via ATM explained the variation in the dependent variable which was Rate of queuing was 0.382.

Also, it was observed in Table 4 that E-banking service covers money transfer service had the highest effects with a beta value of 0.337, followed by E-banking service covers third party transaction via ATM with a beta value of 0.273, followed by E-banking service covers cash withdrawal service with a beta value of 0.155 and E-banking service covers cash deposits service with a beta value of -0.406. It was inferred that electronic banking had

significant influence on customers' queuing pattern in the study area. The outcome of this current study is in concomitant with the studies of Amritpal and Williamjeet (2017), Wallace, Christian &Frank (2011) that found impact of ICT and E-banking on customers satisfactions and queuing in banking environments.

Table 3 Model Summary of the influence of electronic banking on customer's queuing

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.618(a)	.382	.327	.90400

Predictors: (Constant), ESCTPTVA, ESCCWSVA, ESCCDSVA, ESCMTSVA
Source: Field survey 2020

Table 4 Coefficients of the influence of electronic banking on customer's queuing pattern

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	-4.970	1.749		-2.841	.007
	ESCCDSVA	-.322	.102	-.406	-3.155	.003
	ESCCWSVA	.346	.329	.155	1.053	.298
	ESCMTSVA	.802	.333	.337	2.411	.020
	ESCTPTVA	.600	.263	.273	2.282	.027

Dependent Variable: WITROQIYBPW
Source: Field survey 2020

5.4 Regression Analysis on Causes of Bank customer Queue in the Era of E-Banking

Analysis in Table 5 revealed that a unit increase in inadequate government Support Toward E-banking Dev (IGS) increases customer queuing in the electronic banking environment. The analyses indicate that inadequate government Support Toward E-banking Development is significantly related to Causes of Bank customer Queue in the Era of E-Banking at 0.065 percent but not statistically significant to the cause of bank customer queue. Also a unit increase in Poor Internet Infrastructure (PII) increases Bank customer Queue by 14.9 units, which shows a positive influence between Poor Internet Infrastructure and customer queuing in the electronic banking environment Further, a unit increase in Cybercrime (CC) increases Bank customer Queue by 14.3 units. A unit in Inadequate of Banking Technology Management (IBTM) increase bank customer queuing by 8.0. More so, a unit in Tendency to Hold Cash by Banks Customers (THC) increase bank customer queuing by 15. Additionally, a unit increase in E-Banking Transaction Cost (EBTC) increases Bank customer Queue by 6.3 units. All factors except inadequate government Support were statically significant to customer queuing in the Nigerian banking environment.

Following the result of the analysis (Table 5), the coefficients of variables such as (THC- 15.52021, @0.004; PII- 14.96550, @0.000; CC-14.35838, @0.000; IBTM-8.05232, @0.000; EBTC-6.061249,) @0.003) incorporated in the model were highly significant to cause of bank customer queue in the banking environment. The result also indicate that Tendency to Hold Cash by banks customers (THC), Poor Internet Infrastructure (PII), Cybercrime (CC) were the major factors causing bank customer queue in the banking environment in Nigeria, followed by other variable like, Inadequate of Banking Technology Management (IBTM) and E- Banking Transaction Cost (EBTC).

Table 5 Regression Causes of Queue in Banks in the Era of E-Banking

Variables	**Coefficient**	**Std.Err**	**T**	**P>{T}**
Inadequate government Support Toward E-banking Dev (IGS)	3.931264	2.073144	1.90	0.065
Poor Internet Infrastructure (PII)	14.96550	1.412209	10.60	0.000
Cybercrime (CC)	14.35838	2.099307	6.84	0.000
Inadequate of Banking Technology Management (IBTM)	8.05232	2.913253	2.79	0.000
Tendency to Hold Cash by Banks Customers (THC)	15.52021	1.003264	2.50	0.004
E-Banking Transaction Cost (EBTC)	6.061249	1.928902	3.14	0.003
Constant	-38.50592	5.577238	-6.90	0.000

Source: Data Analysis, 2020
*Dependent Variable: Queue system
*R2:0.9387
*Adjusted R2 = 0.9301

6 Conclusion

Based on the findings of this study, it was concluded that queue pattern in the study area was most of the time very high in the morning, high in the afternoon and evening while at night, most time witnessed no queue. Electronic banking had significant influence on customers' queuing pattern in the study area. Further, Tendency to Hold Cash by banks customers (THC), Poor Internet Infrastructure (PII), Cybercrime (CC) were the major factors causing bank customer queue in the banking environment in Nigeria, followed by other variable like, Inadequate of Banking Technology Management (IBTM) and E-Banking Transaction Cost (EBTC). Thus, the following recommendations were made:

- Banks service providers should increase efforts on cashless e-banking services and ensure reliable internet service at all times.
- Bank customers should be made to appreciate other e-banking services than ATM and allayed fear on tendency to hold cash that could have been lost to machines.

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