“Banking resilience and government response during the COVID-19 pandemic: Evidence from Nigeria”

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BANKING RESILIENCE AND GOVERNMENT RESPONSE DURING THE COVID-19 PANDEMIC: EVIDENCE FROM NIGERIA

Abstract

In a global pandemic, there is a need for banks to improve service delivery through financial technologies. Since the fight against COVID-19 is the community responsibility, the role of banks in channeling cash to all stakeholders is essential for the contemporary human race. This study investigated the impact of the government response to COVID-19 on the resilience of banks. A multivariate Structural Equation Model (SEM) was used to specify the links between the exogenous factors (government's social and financial responses) and the endogenous variables (resilience of bank customers, employees and investors). A research survey approach was used where 543 respondents were sampled. A self-constructed online questionnaire was used to harvest responses from customers, employees and investors of the selected banks. The result of the analysis showed a significant relationship between government's social response and the resilience of bank customers. However, such a relationship does not hold between government's social responses and other resilience indicators (employees and investors). Furthermore, the result revealed that government's financial responses do not affect the resilience of banks. The study concluded that the government's social response during the COVID-19 pandemic influenced bank customers' resilience in Nigeria. It was recommended that banks, as part of the policy, develop tools to complement government actions during the pandemic, thereby ameliorating its impact on their customers.

Keywords pandemic, resilience, customers, government, employees, investors

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INTRODUCTION

History has noted that the pandemic has had a negative impact on the human race and economic activities. However, medical researchers all over the world have not been able to pinpoint the time and season in which pandemics would occur. There is no mathematical model to predict the next pandemic and its origin; hence some researchers have proven that the mother of all pandemics occurs every 100 years and causes massive mortality (Morens & Taubenberger, 2018). Throughout history, pandemic outbreaks have wrecked mankind and sometimes changed the course of economic and financial transactions while signaling the end of the entire business operations system worldwide. Thus, making the impact of the pandemic a system theory approach.

From time immemorial, Africans have been seen as a continent in which preparedness is low in combating any outbreak of pandemic, economic and financial crisis in which Nigeria has been noted as a key player. A country's resilience strategy becomes a key determinant factor in response to such a crisis. Pandemics affect the health and

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well-being of the human race and their financial activities (Ayodele et al., 2021). More often than none, world attention is given to the medical side, while little or no attention is paid to the economic and financial sides, as health is noted to be wealth in general human assumptions. A little comparison between the medical and financial roles in a time of a pandemic shows that both are not mutually exclusive as one seems not to be superior to the other, since the need for health and finance is significant to make life a concern. Therefore, the effective response rate by medical personnel to the pandemic must be the same response rate by monetary authorities to bank stakeholders as one aids the other in a health crisis.

The COVID-19 pandemic has affected all financial and economic activities worldwide (World Bank, 2020). Many are affected medically by COVID-19, while some are affected financially. The banking sector is seen from broad and diverse perspectives in the empirical literature as a financial system that provides financial resources to firms and individuals whose impact is essential in the ecosystem. Combating the impact of COVID-19 cannot be done in isolation of the banking system, since it is an important sector of any country.

In the first quarter of 2020, the Federal Government of Nigeria declared a total lockdown of her economy because the World Health Organization (WHO) characterized COVID-19 as a pandemic and a public health crisis. Essentially, customers, employees and other stakeholders were already engaged in one form of financial activity. However, the impact of COVID-19 made a clarion call for Nigerian banking to live up to expectations. The call for banks to intensify service delivery through financial technologies became necessary at a time of global uncertainty. The issue of combating COVID-19 isa collective responsibility; the role of banks is necessary for channeling funds to all stakeholders and, as such, is essential for the survival of the modern human race.

The Nigerian banking system has always made its roles relevant to financial and economic activities and supported all forms of economic growth policy. Bedford (2020) debated how an efficient banking resilience approach could help banks. This debate has given insights into the action and inaction of the Nigerian government's response to its citizens in a time of economic instability. Despite the importance of the banking sector in any economy, empirical relationships between banking resilience and the government response during the COVID-19 lockdown and the ease of lockdown in Nigeria's economic and financial activities are yet to be established. Based on this, this study seeks to investigate the impact of government responses to COVID-19 pandemic on the resilience of bank stakeholders.

1. LITERATURE REVIEW

"Coronaviruses" belong to the Corona viridae family in the Nidovirales order. Corona represents crown-like spikes on the outer surface of the virus; thus, it was named a coronavirus" (Zhong et al., 2003; Wang et al., 2013). In 2019, China witnessed an outbreak of a novel coronavirus in Wuhan, which is one of its main cities and business centers. According to reports, the outbreak killed more than 1,800 people in the city and another 70,000 were infected, all within the first 50days of the pandemic (Madabhavi et al., 2020).

Government Response to COVID-19 has different diversions. From the initial case of the announcement of COVID-19, the Federal Government of Nigeria was swift in responding to the impact of this pandemic. A Presidential Task Force (PTF) headed by the Secretary to the Federation was able to put facilities in line with the protocol of the World Health Organization (WHO) and UNESCO by ensuring that the disease does not spread to the venerable group in the society. Measures included setting up isolation centers all over the nation, sensitization and awareness of the public on the danger of contracting the disease, and avoiding infection. The provision of palliatives to the most vulnerable public sector was occasioned by the effect of the lockdown permeating this pandemic.

Economically and financially, the government intervened by adjusting monetary and fiscal policies to provide relief to the economy in terms of inter-

fering with interest rates and providing funds for small businesses to survive. Banks were encouraged to lend at low interest and to ensure these funds were made available without stress. In various pronouncements from the government and ministries of finance, agriculture, labor and productivity, as well as works and housing, the government had assisted in the country's economic resilience.

Resilience is the capacity to adapt or rebound from misfortune, disaster or transition. Resilience also refers to the capability to handle and recover from deliberate attacks, fatalities, or risks or occurrences that occur naturally. The banks' support towards economic recovery affected the banking resilience of stakeholders. However, a successful bank-supported economic recovery would affect the stability and health of banks. The basis for sustained economic growth is a resilient and stable banking sector. Banks are at the center of the credit intermediation process between savers and investors (Bank of International Settlements, 2009). Organizational resilience is defined by the Bank of International Settlements Committee as a bank's capacity to deliver daily functions through interference. This ability allows a bank to identify threats and protect itself from them.

The systems theory defines a system as an organized set of parts, within an organ which are interconnected and interdependent, such that a unified whole is being produced. The researchers have viewed the COVID-19 pandemic as following a system theory and a stochastic pattern in which the present state determines the future of the human race. The systems theory was first propounded by Bertalanffy in 1937 as a lecture note and was published in 1946 as an article; and was later developed as a book titled General System Theory in 1968. Bertalanffy (1950) stated that 'changing one part of a system may affect other parts or the whole system'. Therefore, changing the pattern of living through social distancing, face masks, and stay-at-home and work-from-home policies affects the world and the Nigerian banking sector. As banking activities and human interactions were perceived to be normal before the suffix of the pandemic, the COVID-19 period and the total lockdown of the economy made customers, employees, and other stakeholders change their ways of life. In the view of the researchers, the implication of this theory to the study is that banking services are an open system that co-exists with other activities for economic stability.

The outbreak of COVID-19 as a public health emergency across the globe made countries to develop and apply measures to mitigate its effect. In response to the pandemic, WHO issued several Non-Pharmaceutical Interventions (NPIs) implemented by monitoring and documenting government strategies during the COVID-19 crisis, which are crucial to understanding the epidemic's progression. Informal workers largely dominate the Nigerian economy; the preventive measures (lockdown, movement restriction, social distancing and interstate travel ban) occasioned by the COVID-19 pandemic affected socio-economic livelihood in Nigeria (World Health Organization, 2020; Cheng et al., 2020; Courtemanche et al., 2020).

D'Orazio and Dirks (2021) examined if variations in banking market systems between nations affect local stock market resilience to the COVID-19 pandemic. The findings show that nations with more integrated banking systems, a greater number of foreign banks, and a larger percentage of Islamic banks are more resilient to the epidemic, based on a sample of 66 countries covering the period between January 2020 and July 2020. Considering the disparities in banking regulations among nations, it was found that equity markets in countries with stronger capital and liquidity regulations are more resilient to COVID-19. Finally, the study revealed that 'while stock market movements in countries with more stable banking systems are more resilient to the pandemic, countries with higher credit-to-deposit ratios, overhead costs, high provisions, and nonperforming loans are more vulnerable'. Policymakers, regulatory agencies, and investors should take note of the findings.

The financial system's resilience, particularly banks, was evaluated during the Global Financial Crisis and COVID-19 (Giese & Haldane, 2020). Findings show that banks are now part of the solution rather than the issue because of regulatory and institutional improvements over the last decade. Paying attention to the lessons learned from the Global Financial Crisis has paid off, and some of the early lessons learned from the COVID-19 problem for the financial system will assist in the

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future. COVID-19 has resulted in a global decline in economic activities, thereby resulting in job losses at an unprecedented rate. Both customers and employees of business organizations have thus been affected and made to adjust to this new normal.

Recently, AlZgoola et al. (2020) examined the relationship between leaders' emotional intelligence and work engagement, using the mediation of self-efficacy and resilience. The study used Structural Equation Modeling (SEM) for data collected from employees of five major banks in Bahrain. The findings demonstrated the importance of emotional intelligence among leaders in raising employee work engagement. The connection between leaders' emotional intelligence and work engagement was also significantly mediated by self-efficacy and resilience, supporting the mediation hypothesis. According to the research presented here, leaders' emotional intelligence may effectively manage challenging situations like the COVID-19 pandemic and increase employee engagement, enthusiasm, and vigor at work. According to the study, leaders' emotional intelligence also plays a key role in increasing their team members' psychological resourcefulness, which increases their efficacy and resilience and leads to higher engagement levels.

Korzeb and Niedziółka (2020) study allows us to examine the impact of the loan portfolio's industry structure on commercial banks' resistance to the COVID-19 pandemic-related crisis. It employs two approaches to assess the impact of the pandemic on industry risk and a system that allows industries to be prioritized in terms of the crisis's possible negative consequences. The ability of commercial banks functioning in the Polish financial sector to withstand the possible consequences of the COVID-19 outbreak was one of the diagnostic criteria used to choose 13 commercial banks for implementation. The TOPSIS strategy and the Hellwig method were used as linear ordering methods. The parameters for the parametric assessment of financial institution resilience were capital adequacy, liquidity level, the profitability of economic activity, the share of portfolio levels of exposure with recognized impairment, and resilience of the bank's credit portfolio to risk resulting from exposure in economic sectors. The analysis found that the biggest banks operating in Poland were the least vulnerable to the pandemic's effects.

2. AIMS AND HYPOTHESES

The study aims to investigate the impact of government responses during the COVID-19 pandemic on bank resilience. To achieve this, the following hypotheses are formulated:

H01: Government social response to the COVID-19 pandemic has no significant impact on bank resilience.

H01a: Government social response to the COVID-19 pandemic has no significant impact on customer resilience.

H01b: Government social response to the COVID-19 pandemic has no significant impact on employee resilience.

H01c: Government social response the COVID-19 pandemic has no significant impact on investor resilience.

H02: Government financial response to the COVID-19 pandemic has no significant impact on bank resilience.

H02a: Government financial response to the COVID-19 pandemic has no significant impact on customer resilience.

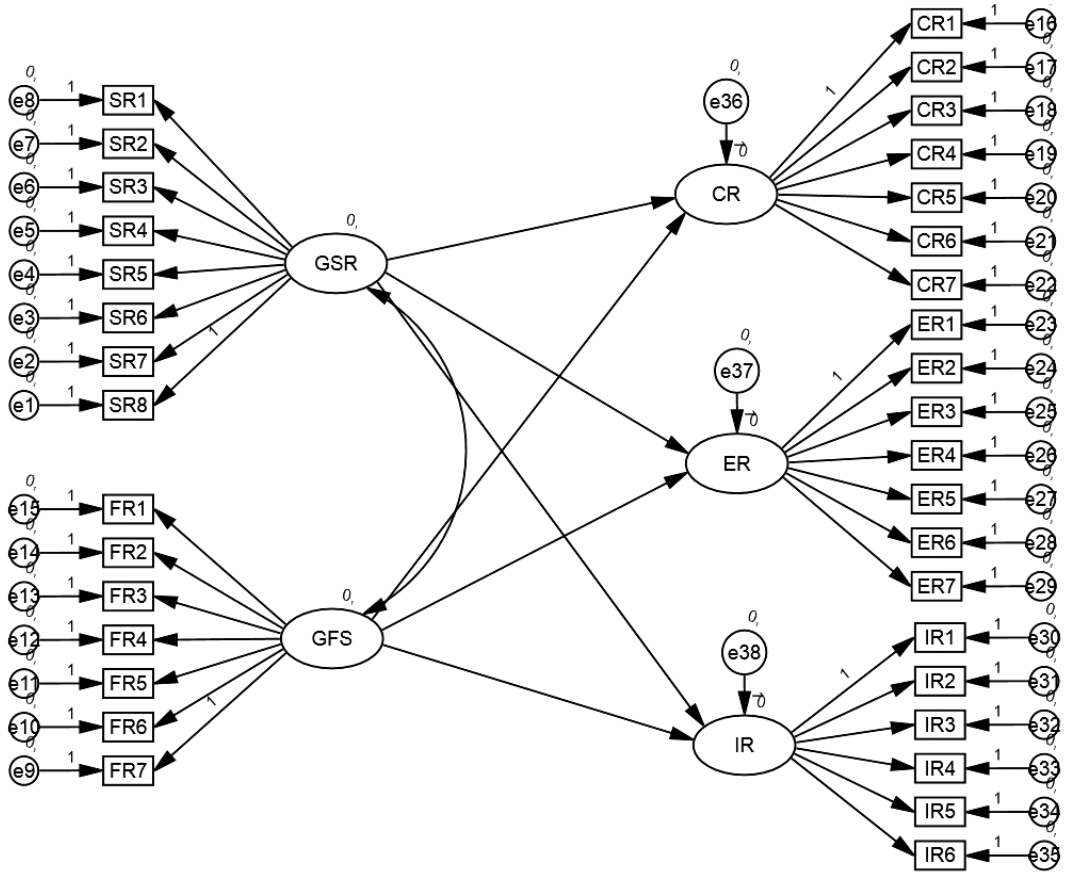
H02b: Government financial response to the COVID-19 pandemic has no significant impact on employee resilience.

H02c: Government financial response to the COVID-19 pandemic has no significant impact on investor resilience.

3. METHODS

The research survey method was adopted for this study, where 543 respondents were sampled through a self-constructed questionnaire. These responses were harvested using an online form of the questionnaire.

Source: Amos 26 (2022).



Note: CR = Customer's Resilience; ER = Employee's Resilience; IR = Investor's Resilience; GSR = Government Social Response to Covid-19 Pandemic; GFR = Government Financial Response to Covid-19 Pandemic; CR1, CR2, … CR7 = Measurement items for Customer's Resilience; ER1, ER2, …ER7 = Measurement items for Employee's Resilience; IR1, IR2, … IR6 = Measurement items for Investor's Resilience; SR1, SR2, … SR8 = Measurement items for Government Social Response; FR1, FR2, … FR7 = Measurement items for Government Financial Response; e1, e2, e3, e4, …, e35 = error terms of the measurement variables; e36, e37, e38 = residual terms of the regression estimates.

Figure 1. Path diagram showing the relationship between government responses and banking resilience

The validity of the measuring instrument was carried out through factor analysis. The factor loadings for the measuring items were computed using the Amos 26 software, and these were used to establish the composite reliability for the construct variables. The Average Variance Extracted (AVE) was computed for each construct to ascertain the convergent and discriminant validities. Chin (1998) recommends a minimum acceptable AVE value of 0.5 for convergent validity. The Fornell-Larcker criterion (Fornell & Larcker, 1981) requires that the inter-construct correlations must be less than the square roots of the AVEs. Garson (2016) also suggests composite reliability greater than 0.7.

The relationships between the exogenous variables (Government responses – social & financial) and the endogenous variables (Banking resilience – customers, employees & investors) are specified through a multivariate Structural Equation Model (SEM) in Figure 1. Path analysis was conducted on the SEM using the Amos 26 software. The test of model fit was specified through the Comparative Fit Index (CFI) and the Root Mean Square Error Approximation (RMSEA).

4. RESULTS

Table 1 shows that a total number of 543 respondents completed the research questionnaire, of which 295 (54.3%) were female and 248 (45.7%) were male. Further results show that most respondents fall within the age brackets of 19-29 years (31.5%) and

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30-39 years (30.9%). These age groups belong to the working class groups of those who are either bank customers or their employees. Lastly, the distribution of the respondents' level of education reveals that a large percentage has an HND/BSc degree (41.1%). This is followed by those with postgraduate degrees (27.8%). These results agree with the distribution of the age bracket.

Table 1. Demographic characteristics of respondents

Source: IBM SPSS Amos 26 (2022).

Characteristics	Frequency	Percent	Cumulative percent
Sex			
Female	295	54.3	54.3
Male	248	45.7	100
Age group			
less than 18yrs	23	4.2	4.2
19-29yrs	171	31.5	35.7
30-39yrs	168	30.9	66.7
40-49yrs	124	22.8	89.5
50-59yrs	950	9.2	98.7
60yrs and above	7	1.4	100
Education			
O-levels	49	9	9
OND/A-levels	62	11.4	20.4
HND/BSc	223	41.1	61.5
Professional Certificate	58	10.7	72.2
Postgraduate Degrees	151	27.8	100

Table 2 presents the t-statistics of the skewness and kurtosis of the construct variables. The skewness and kurtosis values help assess the variables' normality of the measurement items. A value which falls within the range of ± 2.58 is considered normal.

Table 2. Descriptive statistics

Source: IBM SPSS Amos 26 (2022).

Variables	Skewness		Kurtosis	
	Statistic	Std. error	Statistic	Std. error
Government Social Response	–0.046	0.319	–0.127	0.628
Government Financial Response	0.341	0.319	–1.123	0.628
Customer's Resilience	0.356	0.319	0.142	0.628
Employee's Resilience	–0.285	0.319	–0.589	0.628
Investor's Resilience	0.297	0.319	–1.984	0.628

Results from Table 2 show that all the variables have skewness and kurtosis values within the acceptable normal range of ± 2.58. This confirms the normality of the data for the variables.

The measurement items for the construct variables must satisfy the factor loading requirement before being used as indicators of their respective constructs. The minimum acceptable threshold for standardized factor loading is 0.5. Factor loadings were computed for all the items in the questionnaire, and those with loadings less than0.5 were removed from the model. Table 3 gives a summary of the retained items for each construct and their respective loadings.

Table 3. Standardized factor loadings

Source: Output from IBM SPSS Amos 26 (2022).

Items	Estimates
SR7 ← GSR	0.501
SR4 ← GSR	0.770
SR3 ← GSR	0.843
SR2 ← GSR	0.728
FR1 ← GFS	0.558
FR7 ← GFS	0.937
CR7 ← CR	0.612
CR5 ← CR	0.682
CR6 ← CR	0.824
ER5 ← ER	0.937
ER6 ← ER	0.655
ER7 ← ER	0.533
IR1 ← IR	0.808
IR2 ← IR	0.720
IR3 ← IR	0.972
IR6 ← IR	0.904

The result from Table 3 indicates that all the retained items have factor loadings greater than the acceptable minimum threshold of 0.5, suggesting that they share significant variance with their construct variables.

Table 4 reveals the result of the Composite Reliability (CR) and the Average Variance Extracted (AVE). The rule of thumb requires that all the constructs must have a CR value greater than 0.7 and an AVE value of at least 0.5. The results show that all the construct variables satisfy both the composite reliability and the convergent validity requirements.

The inter-construct correlation between the exogenous variables is 0.004. To satisfy the condition for discriminant validity, the square roots of the AVEs of these variables must be greater than their inter-construct correlation. A comparison of the results reveals that the square roots of the AVEs (0.721

Table 4. Composite reliability and average variance extracted

Source: Authors' computation using outputs from Amos 26 (2022).

Constructs	CR	AVE	The square root of AVE	Inter construct correlation
Government Social Response	0.81	0.520	0.721	0.004
Government Financial Response	0.74	0.599	0.774	
Customer's Resilience	0.75	0.502	0.709	–
Employee's Resilience	0.76	0.530	0.728	–
Investor's Resilience	0.92	0.732	0.856	–

& 0.774) are greater than the inter-construct correlation (0.004). This implies that the exogenous variables satisfy the discriminant validity test.

The Comparative Fit Index (CFI) and the Root Mean Square Error Approximation (RMSEA) indices were computed in order to test the model fit of the SEM. The threshold for a good model fit requires a CFI between 0.9 and 1.0and an RMSEA value less than 0.08. Table 6 gives a summary of the model fit result model.

Table 5. Model fit indices

Source: Outputs from Amos 26 (2022).

Index	Values
CFI	0.901
RMSEA	0.036

Both the CFI value of 0.901 falls within the acceptable range while the RMSEA value is less than 0.08. These imply a good model fit for the path analysis.

Table 6. R-Squared estimates of the model

Source: Outputs from Amos 26 (2022).

Endogenous variables	R-squared estimates
IR	0.019
ER	0.093
CR	0.664

The R-squared values in Table 6 reveal the total variations in the endogenous variables explained by the exogenous variables. The results show that the government responses indicators explain 66.4% of the total variations in the Customer's Resilience variable (CR). Further results reveal that only 2% and 9% of the variations in Investor's Resilience (IR) and Employee's Resilience (ER) are respectively explained by government response.

Results of the regression estimates of the multivariate SEM are presented in Table 7. All the estimates are positive, indicating a direct relationship between the government response to the COVID-19 pandemic and the resilience of customers, employees and investors. Further details reveal a significant relationship between government social response and customer resilience at the 5% level ($\beta = 0.819$, $p = 0.016$). This implies that a unit change-in the government's social response will result in an 81.9percent change in the resilience of bank customers, while other variables remain constant. However, such a significant relationship does not hold between government social responses and other resilience indicators, as revealed by their p-values greater than the 5% level. Similarly, the government's financial response has no significant influence on all the resilience indicators.

5. DISCUSSION

The results from the data analysis have established a significant relationship between government actions during the COVID-19 pandemic and banks'

Table 7. Estimates of the regression coefficients

Source: Outputs from Amos 26 (2022).

Hypothesized path	Estimate	S.E.	C.R.	P	Decision
CR ← GSR	0.819	0.341	2.402	0.016	Accepted
ER ← GSR	0.040	0.220	0.181	0.856	Rejected
IR ← GSR	0.101	0.163	0.617	0.537	Rejected
CR ← GFS	0.402	0.216	1.861	0.063	Rejected
ER ← GFS	0.134	0.095	1.409	0.159	Rejected
IR ← GFS	0.033	0.047	0.698	0.485	Rejected

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resilience. Specifically, government's social response has a significant impact on bank customers in Nigeria. This result agrees with the work of Siahaan (2020) and Awofeso and Irabor (2020). According to the survey "Indonesian Consumer Response to COVID-19" by Siahaan (2020), up to 50% of Indonesians have reduced their activities outside the home, and 30% have stated that they want to shop more regularly online. According to Awofeso and Irabor (2020), informal workers largely dominate the Nigerian economy; Government preventive measures (lockdown, movement restriction, social distancing and interstate travel ban) occasioned by the COVID-19 pandemic affected socio-economic livelihood in Nigeria.

According to Al-Nawayseh (2020), perceived benefits and social norms have a substantial impact on the intention to use FinTech applications, which has a good effect on consumer adoption. According to Ikeda et al. (2021), with the dramatic drop in economic activity at the start of the epidemic, banks avoided deleveraging in this crisis, and lending grew.

CONCLUSION

This study investigated the impact of government responses during COVID-19 on the resilience of banks in Nigeria. A survey research method was used to elicit data from customers, employees and investors in the selected banks. The result of the data analysis has shown that government's social response during the COVID-19 pandemic significantly influenced bank customers' resilience. However, such significant influence was not seen on bank employees' and investors' resilience during the same period. Furthermore, the results show that government financial responses do not influence the resilience of banks. Based on these findings, the study concludes that the government's social intervention during the COVID-19 pandemic in Nigeria affected bank customers as stakeholders in the banking sub-sector.

For this reason, the study recommends that banks improve their e-banking platforms so that customers can access banking channels while away from the banking hall. It is also recommended that banks, as part of the policy, devise means of complementing government actions during the pandemic, thereby ameliorating its impact on their customers and the nation as a whole.

IMPLICATION OF FINDINGS

The study found that the government's actions during the COVID-19 pandemic had more of an impact on customers than any other Nigerian bank stakeholders (employees and investors). This implies that bank customers felt the hard effect of the lockdown and social distancing enforced by the government in relation to banking activities in the country during the pandemic. The finding therefore suggests that the actions of the government in any nation, during pandemic, are felt most by its citizens. This calls for a more careful and pragmatic approach to policy-implementation by the government, especially in a period of health pandemic.

AUTHORS CONTRIBUTIONS

Conceptualization: Taofeek Afolabi, Oyinlola Akinyede, Thomas Ayodele, Harley Tega Williams, Olanrewaju Adeyanju.
Data curation: Harley Tega Williams.
Formal analysis: Taofeek Afolabi
Funding acquisition: Taofeek Afolabi, Oyinlola Akinyede, Thomas Ayodele, Harley Tega Williams, Olanrewaju Adeyanju.
Investigation: Oyinlola Akinyede.
Methodology: Taofeek Afolabi.

Project administration: Oyinlola Akinyede, Thomas Ayodele.
Software: Taofeek Afolabi.
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Writing – reviewing & editing: Taofeek Afolabi, Oyinlola Akinyede, Thomas Ayodele, Olanrewaju Adeyanju.

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APPENDIX A. Supplementary materials

Source: Outputs from Amos 26.

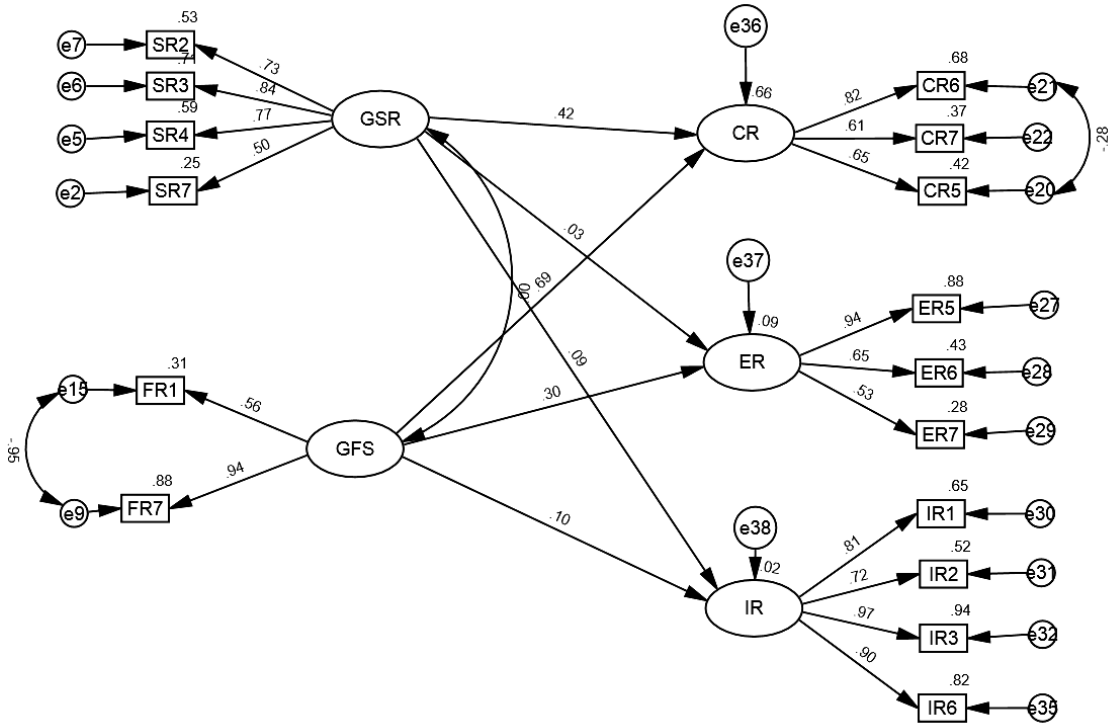

Figure A1. Path Diagram

Table A1. Regression weights: (Group number 1 – Default model)

Items	Estimate	S.E.	C.R.	P
CR ← GSR	0.819	0.341	2.402	0.016
ER ← GSR	0.040	0.220	0.181	0.856
IR ← GSR	0.101	0.163	0.617	0.537
CR ← GFS	0.402	0.216	1.861	0.063
ER ← GFS	0.134	0.095	1.409	0.159
IR ← GFS	0.033	0.047	0.698	0.485
SR7 ← GSR	1.000	–	–	–
SR4 ← GSR	2.846	0.809	3.517	***
SR3 ← GSR	3.211	0.889	3.610	***
SR2 ← GSR	2.914	0.848	3.437	***
FR1 ← GFS	.491	.175	2.802	.005
CR6 ← CR	1.394	.342	4.075	***
CR7 ← CR	1.000	–	–	–
ER5 ← ER	1.637	.506	3.236	.001
ER6 ← ER	1.238	.346	3.573	***
ER7 ← ER	1.000	–	–	–
IR1 ← IR	1.000	–	–	–
IR2 ← IR	.814	.135	6.048	***
IR3 ← IR	1.700	.187	9.075	***
IR6 ← IR	1.118	.134	8.364	***
FR7 ← GFS	1.000	–	–	–
CR5 ← CR	1.066	.307	3.473	***

Note: *** – 0.000.

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Table A2. Standardized regression weights: (Group number 1 – Default model)

Items	Estimate
CR ← GSR	.422
ER ← GSR	.027
IR ← GSR	.092
CR ← GFS	.695
ER ← GFS	.303
IR ← GFS	.101
SR7 ← GSR	.501
SR4 ← GSR	.770
SR3 ← GSR	.843
SR2 ← GSR	.728
FR1 ← GFS	.558
CR6 ← CR	.824
CR7 ← CR	.612
ER5 ← ER	.937
ER6 ← ER	.655
ER7 ← ER	.533
IR1 ← IR	.808
IR2 ← IR	.720
IR3 ← IR	.972
IR6 ← IR	.904
FR7 ← GFS	.937
CR5 ← CR	.682

Table A3. Covariances: (Group number 1 – Default model)

Items	Estimate	S.E.	C.R.	P
GFS ← GSR	.002	.065	.031	.976
e15 ← e9	–.386	.371	–1.040	.298
e21 ← e20	–.169	.154	–1.096	.273

Table A4. Correlations: (Group number 1 – Default model)

Hypothesized path	Estimate
GFS ← GSR20	.004
e15 ← e9	–.945
e21 ← e20	–.284

Table A5. Variances: (Group number 1 – Default model)

Variable	Estimate	S.E.	C.R.	P
GSR	.133	.072	1.850	.064
GFS	1.497	.788	1.901	.057
e36	.169	.143	1.176	.240
e37	.266	.138	1.926	.054
e38	.157	.043	3.617	***
e2	.398	.080	4.967	***
e5	.742	.195	3.799	***
e6	.557	.195	2.851	.004
e7	1.002	.241	4.160	***
e15	.798	.272	2.938	.003
e21	.459	.201	2.285	.022
e22	.838	.179	4.672	***
e27	.108	.180	.601	.548
e28	.597	.153	3.899	***

Table A5 (cont.). Variances: (Group number 1 – Default model)

Variable	Estimate	S.E.	C.R.	P
e29	.738	.156	4.733	***
e30	.085	.018	4.762	***
e31	.098	.020	5.012	***
e32	.028	.020	1.353	.176
e35	.045	.012	3.693	***
e9	.209	.720	.291	.771
e20	.771	.204	3.789	***

Note: *** – 0.000

Table A6. Squared Multiple Correlations: (Group number 1 – Default model)

Variable	Estimate
IR	.019
ER	.093
CR	.664
CR5	.425
FR7	.877
IR6	.816
IR3	.944
IR2	.519
IR1	.653
ER7	.284
ER6	.429
ER5	.879
CR7	.374
CR6	.680
FR1	.311
SR2	.530
SR3	.711
SR4	.592
SR7	.251

Table A7. CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	57	131.504	95	.008	1.384
Saturated model	152	.000	0		
Independence model	16	503.548	136	.000	3.703

Table A8. Baseline comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.739	.626	.911	.858	.901
Saturated model	1.000	–	1.000	–	1.000
Independence model	.000	.000	.000	.000	.000

Table A9. RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.036	.019	.050	.953
Independence model	.095	.086	.104	.000

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Table A10. Demographic Distribution

		Sex			
	Value	**Frequency**	**Percent**	**Valid percent**	**Cumulative percent**
Valid	Female	295	54.3	54.3	54.3
	Male	248	45.7	45.7	100.0
	Total	543	100.0	100.0	–
		Age group			
Valid	Less than 18	23	4.2	4.2	4.2
	19-29	171	31.5	31.5	35.7
	30-39	168	30.9	30.9	66.7
	40-49	124	22.8	22.8	89.5
	50-59	50	9.2	9.2	98.7
	60yrs and above	7	1.4	1.3	100.0
	Total	543	100.0	100.0	–
		Highest level of education			
Valid	O-levels	49	9.0	9.0	9.0
	OND/A-levels	62	11.4	11.4	20.4
	HND/BSc	223	41.1	41.1	61.5
	Professional Certificate	58	10.7	10.7	72.2
	Postgraduate Degrees	151	27.8	27.8	100.0
	Total	543	100.0	100.0	–