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*IDRC GRANT / SUBVENTION DU CRDI : -*

# **IDRC-COVID-19 Response for Equity Initiative Project**

**Intersectional inequalities during Covid-19 in Nigeria;**

**Working Research Paper – draft key findings**

**November 2022**

## Executive Summary

This report analyses the extent to which people in Nigeria were able to digitally substitute to mitigate the risk arising from the COVID-19 pandemic and the associated lockdowns. The report provides evidence of the degree to which people were able to take their work, schooling, and economic activity (such as e-commerce) online) in Nigeria during the lockdowns and strict social distancing measures. Undertaking a demand-side analysis data collected through an extensive phone survey, the report also investigates the degree to which digital access to government systems enabled access to social grants and COVID-19 relief. From this it suggests how public policies could be optimised for post-pandemic recovery and future policies.

Specifically, this paper reports on the results of a phone survey conducted among 3024 respondents in Nigeria. The results obtained from the quantitative exercise were complemented by qualitative research which included six focus groups of men and women from urban and rural areas in Nigeria. The survey and focus group discussions sought to understand the degree to which people living in Nigeria were able to use digital substitution for their work, schooling, banking, applying and receiving social relief to mitigate the negative effects of the pandemic and associated lockdowns.

The study finds that Internet access and use increased dramatically in the second year of COVID-19 in Nigeria. Compared to only 39% in the 2018 After Access survey, Internet use in Nigeria accelerated to 54%. The jump in Internet use is complemented by a surge in smartphone ownership from 46% in 2017 to 51% in 2021. The results confirm the importance of mobile devices and more specifically smartphones in driving Internet access in Africa, where the majority cannot afford fixed broadband services.

The results also indicate that smartphones were the most used devices for accessing online content, online school and work in Nigeria. Of the children who attended their classes online, 68% used smartphones to get access to remote learning while 78% of workers who worked virtually used smartphones. The majority of Nigerians who used the Internet accessed information from the Government and shopped online using their mobile devices.

While there was a lack of parity among men and women, there were also significant differences between women living in urban and rural areas and between the poor and the rich. The gap further explains the disparities in Internet use and the digital divide across the stated groups.

The survey further shows that despite the large improvement in Internet use, especially among women, there is still a significant gap between men and women. The survey shows that men were more likely to transit into the digital economy than women during the COVID-19. Compared to men, half of the women population in Nigeria did not have access to the Internet during the COVID-19 lockdowns while only 43% of men did not have access. This finding shows that with this kind of digital polarisation, the majority of the Nigerian population were left behind and further exacerbating the inequalities between the rich and the poor and the marginalised and un-marginalised societies.

The findings also indicate that those who worked in low-paying jobs were more likely to lose their jobs than those working as regular workers. On the other hand, those who worked in the informal sector were worst hit as they could not move their activities online.

The findings indicate the lockdown conditions have compounded existing inequality. Those at the bottom of the pyramid and at the intersection of multiple inequalities - the poor, those working in low-paying jobs, those in the informal sector, children living in women-headed households and those living in rural areas - were less likely to be able to digitally substitute their daily activities. \

Other significant findings include that 43% of urban dwellers were able to access and follow COVID-19 news and updates, while only 17% in rural areas were able to do so. On the other hand, the majority of low income earners were unable to digitally substitute their work as compared to those in high paying jobs. While there seems to be parity in the take up of online education between males and females, the results indicate that once men and women have access inequality in frequency of use becomes significant - men being the more frequent users.

The study also showed that smartphones were the most common platform for online schooling, professional development and remote work during the COVID-19 lockdown. Although the assumptions of online schooling and pre-pandemic practice was that students (and indeed most online workers) required computers, or at least tablets, to participate in online schooling (or work), the study found a high prevalence of smartphone use for these activities.

The findings also highlight that despite supply-side driven policy interventions in broadband infrastructure, significant demand-side challenges remain.- The cost of devices, digital skills and awareness of the Internet all still represent major barriers. There is evidence that the majority of those who do not have access to the Internet cannot afford devices or once they do gain access, the data services. For the majority of low-income households with access this resulted in intermittent connectivity.

With Nigeria's late introduction of non-bank led mobile money in 2021, it is perhaps unsurprising that the use of online payments, more specifically mobile money, was very low in Nigeria during the lockdown periods. Only 26% of the population used mobile money services, with men more likely to use mobile money services than females. The pandemic also prompted youth and artists to use digital platforms to generate income. Men are more likely to monetise digital platforms to complement their finances than their female counterparts. Among those who worked online 53% were men and 47% were female.

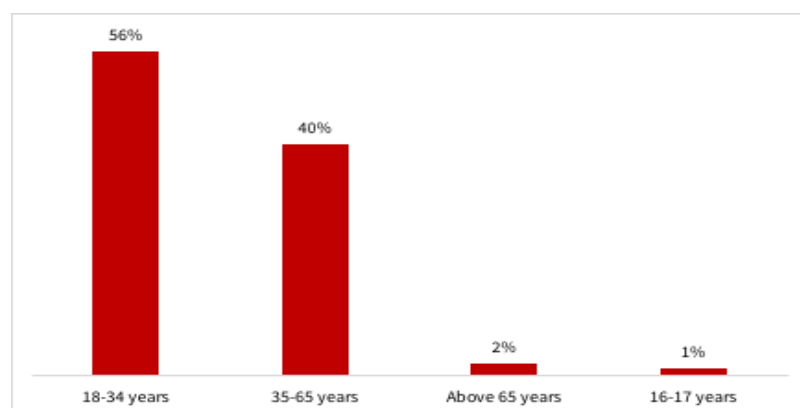
# 1. Findings and Discussion

## 4.1. Demographics

### 4.1.1. Age distribution

The Nigerian population is young, with about 70 % of the population below the age of 30<sup>1</sup> and predominantly male (51%). The 2020 RIA mobile phone survey reflects similar characteristics as the population statistics with about 56% of respondents falling in the age bracket 18-34 (see Fig 1 below). Further disaggregation by age group reveals that those between the ages of 35 and 65 made up 40% of the sample. Those above the age of 65 constituted two % of respondents while those between 16 and 17 were only one %.

**Figure 1: Respondents by age group**



Source: RIA Phone Survey data, 2021

To complement the quantitative data, 72 people participated in the group discussions. Each group consisted of 12 participants with attempts made to distribute participants across different socio-economic backgrounds. Individuals who participated in the focus group discussions were aged between 18 – 65 years. The majority of the focus group discussants (60%) were in the age bracket between 18 and 35 while the remainder were between 35 and 65 years old (See Table 2).

**Table 2: Age distribution for Focus Groups**

N=72	Male	Female	Rural	Urban
<b>Age (years)</b>				
18-35	22	21	17	26
36-65	14	15	19	10

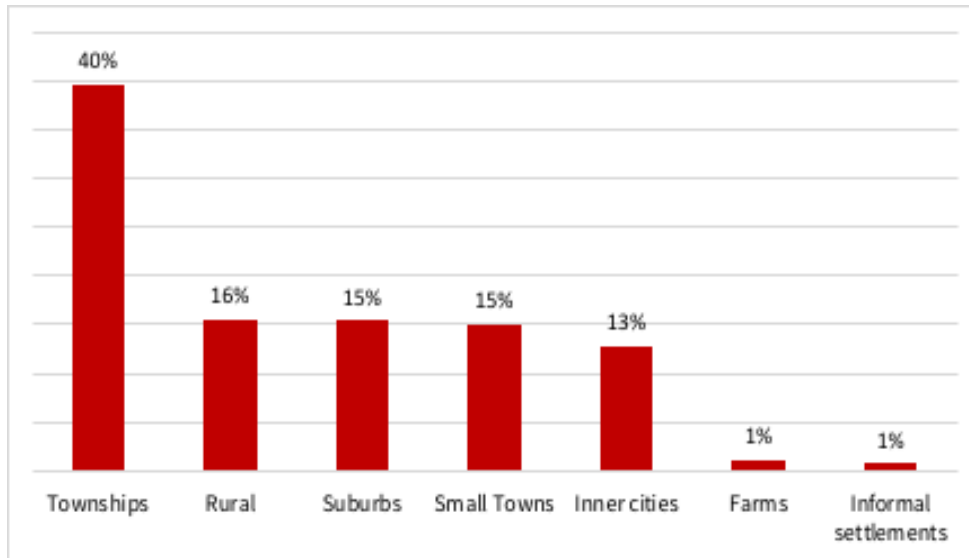
<sup>1</sup> <https://theconversation.com/nigerias-large-youthful-population-could-be-an-asset-or-a-burden-186574>

Source: RIA Phone Survey data, 2021

#### 4.1.2. Geographic Distribution

Figure 2 below shows the distribution of respondents by their geographical area of residence during the time of the survey. The geographical location variable has been further categorised into urban areas where suburbs, small towns, inner cities and informal settlements have been classified as urban while rural and farms are classified as rural. This is the variable that is used for further analysis in the report. In terms of geographical distribution, the mobile phone survey data also show that Nigeria is urbanised with the majority of respondents (40%) living in townships, followed by 16% who lived in rural areas. Residents of the suburbs and small towns made up 15% of the participants each. The survey participants from Nigeria's inner cities made up 13% of the total number of participants. Farm inhabitants and people living in informal settlements were the categories with the lowest participation rates at one % each.

**Figure 2: Respondents by geographical distribution**



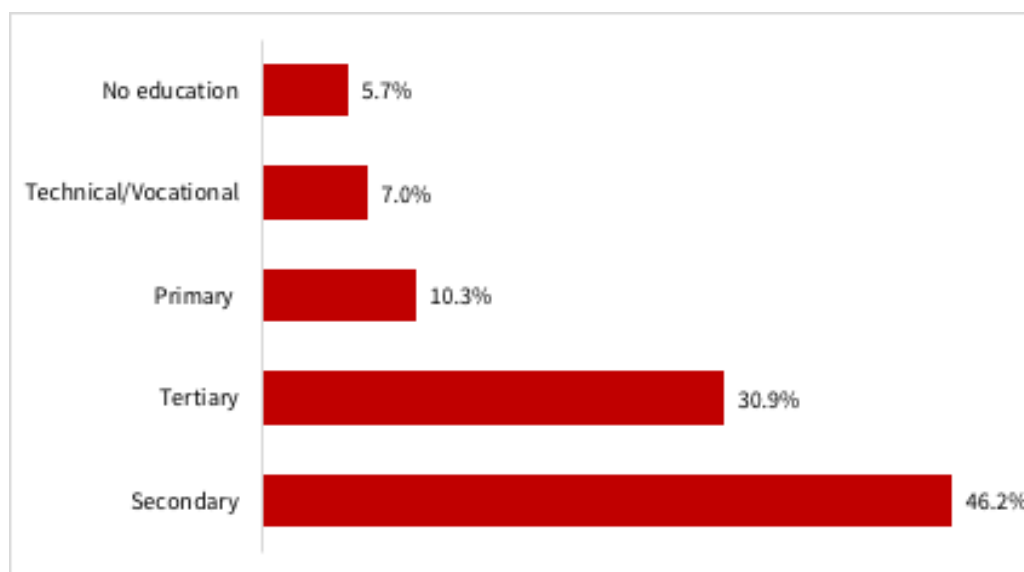
Source: RIA Phone Survey data, 2021

#### 4.1.3. Educational Distribution

A crucial foundation for determining the extent to which digital methods have been adopted and integrated into the digital world is provided by education, as assessed by the highest qualification achieved by a person's education. In light of the fact that technology has become a crucial tool in the delivery of education, there is a favourable association between education and access to digital services. Individuals with a high level of education or those who are pursuing a higher education are more likely to have access to technology as compared to those who are uneducated or have a low level of education. Those with tertiary education constituted 31% of the mobile phone survey participants. The majority of participants (46%) had finished secondary education, followed by those with tertiary education (see Fig 3 below). Participants with only primary education credentials, those

with a technical/vocational education, and those with no education each contributed 10%, 7%, and 6% respectively.

**Figure 3: Respondents by highest level of education completed**



Source: RIA Phone Survey data, 2021

**Table 3: Education level of Focus Groups**

N=72	Male	Female	Rural	Urban
<b>Highest Education</b>				
First degree & above	10	9	9	10
NCE & Diplomas	12	13	20	5
SSCE & below	14	14	7	21

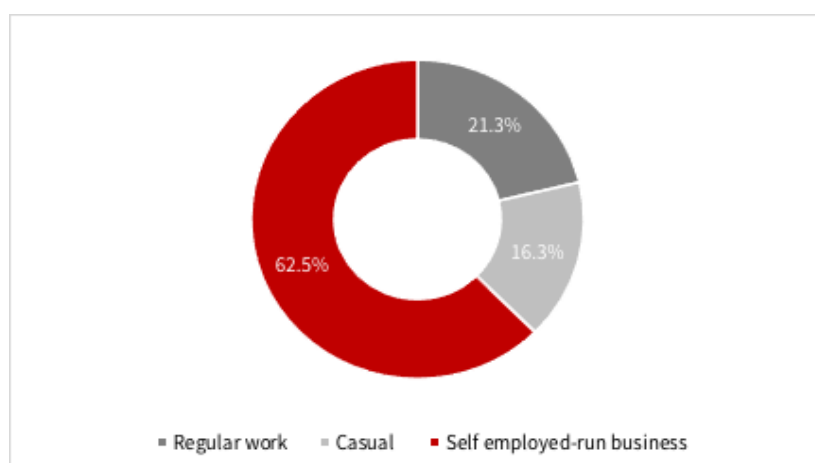
#### 4.1.4 Employment

The COVID-19 pandemic has triggered one of the worst job crises since the great depression. As activities transitioned online, the majority of the Nigerian population working in casual employment positions could not afford to or were unable to move their services online. The study shows that those who worked in formal jobs were less likely to lose their jobs as they were able to leap into the digital world while the majority of those in the informal sector had to close shops and lose their sources of income. However, even within the formal sector, the pandemic had differing effects with casual workers more likely to lose their jobs as compared to regular and self-employed workers. Indeed the pandemic has led to an increase in poverty rates and a widening gap between the rich and the poor.

To better understand differences in the experiences between participants who were formally employed and those in informal economic activities, participants were asked whether they are self-

employed, students and/or their professional backgrounds. The majority of respondents (58.5% of the respondents) were individuals who were self-employed or owned their businesses as mechanical engineers, photographers, drivers, or fashion designers. Regular employees accounted for 21.3 % of the total participants and worked in areas such as farming, sales, fuel services, nursing, and teaching, to name a few. Casual employees, 16.3 % of the total, include those engaged in activities such as tailoring, welding, barbering, and mechanics, among others. Figure 4 shows the distribution of respondents by the nature of their main type of work. Table 4 summarises the respondents employment information from the focus group discussion. Overall, there was an equal number of focus group participants who were self-employed and those who were employed by a company or someone else. However, there were more participants employed in formal economic activities in the rural area – especially the female participants. These are mostly civil servants/salaried government employees (such as public-school teachers).

**Figure 4: Respondents by main type of work**



Source: RIA Phone Survey data, 2021

**Table 4: Demographics of Focus Groups participants**

N=72	Male	Female	Rural	Urban
<b>Occupation</b>				
Employed	12	17	20	9
Self employed	19	10	8	21
Others	5	9	8	6
<b>Employment status</b>				
Full-time	32	32	32	32
Part-time	3	4	3	4
Others	1	0	1	0



**Table 5: Demographics of Focus Groups participants**

<b>N=72</b>	<b>Male</b>	<b>Female</b>	<b>Rural</b>	<b>Urban</b>
<b>Online Connectivity Platform</b>				
Phone	36	36	36	36
Laptop & others	0	0	0	0
Both	0	0	0	0
<b>Online work or sales during lockdown period</b>				
Yes	28	23	23	28
No	8	13	13	8
<b>Registered for online training</b>				
Yes	13	7	10	10
No	23	29	26	26

Source: Research ICT Africa, 2021

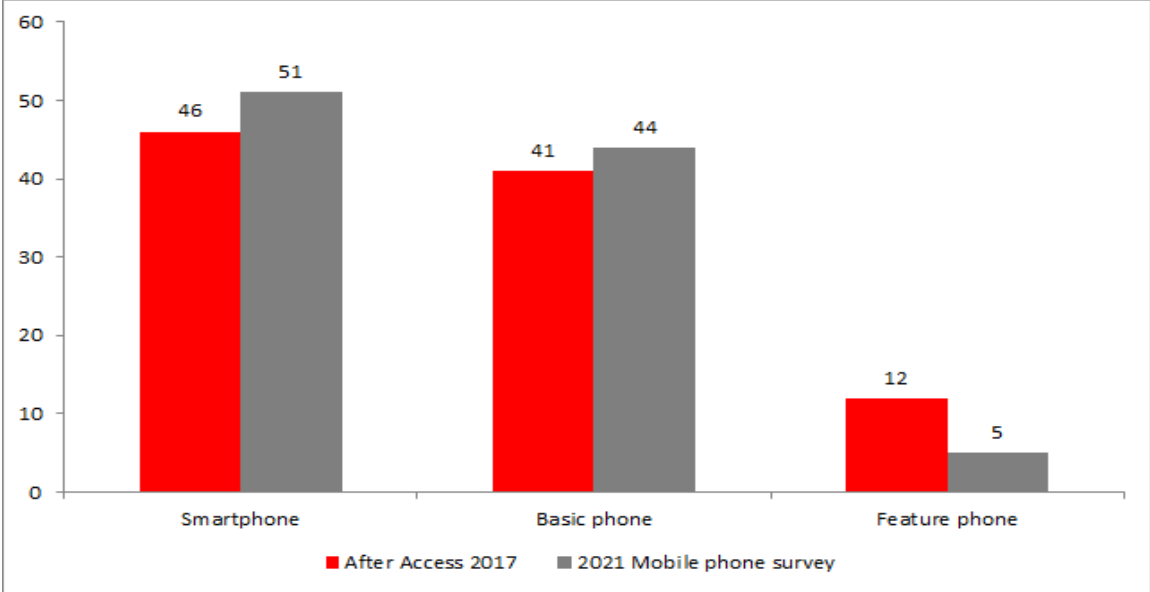
## 4.2. Smartphone adoption in Nigeria

Due to increased affordability and use of innovative technologies, smartphones are becoming the most used devices to access the Internet. Despite the benefits that mobile Internet can provide however, access to mobile Internet and smartphones varies across Sub-Saharan Africa. Mobile broadband has also increased substantially in Sub-Saharan Africa, but it is still the region with the largest coverage gap which continues to widen despite increases in coverage and adoption of smartphones.

Over half of the population (51%) in Nigeria were using smartphones, indicating an increase in use of smartphones in Nigeria from 46% in 2017. Around 45% of the population in Nigeria still use basic phones, which do not have Internet access capabilities. The results show that smartphones are still an inhibitor of Internet access in Nigeria. Yet, the 2021 mobile phone survey shows that smartphones have become a necessity and the most important access devices. Smartphones have been very central to the response to the pandemic. Many households and individuals that cannot afford computers and fixed devices depended on smartphones to connect to the Internet. For instance, the majority of school going children attended their online classes via smartphones while workers used smartphones to attend online meetings and conducted other online activities.

The survey results also show smartphone adoption gaps across the spectrum of Nigerian society. Compared with the rural population, individuals who live in urban areas are more likely to have a smartphone. Of the population that lives in urban areas, 53% own a smartphone while only 33% of those who live in rural areas use smartphones - a significant smartphone location gap of about 38%. Hence, the lockdown policies which expected people to move online without taking into consideration the lack of necessary devices had severe negative effects on the rural population that is often poor and lacks the means of accessing the Internet.

**Figure 5: Type of mobile phone**



On the other hand, the results indicate that smartphone adoption is also driven by other socio-economic factors such as education, income and gender. The survey shows that individuals who have regular work are more likely to own a smartphone than those who do casual work and self-employed individuals. The probability of owning a smartphone among individuals with regular work is 73% compared to 48% and 47% among those in casual work and self-employment respectively. These results reinforce the finding that lack of affordability of smartphones might be one of the main inhibitors of smartphone adoption in Nigeria.

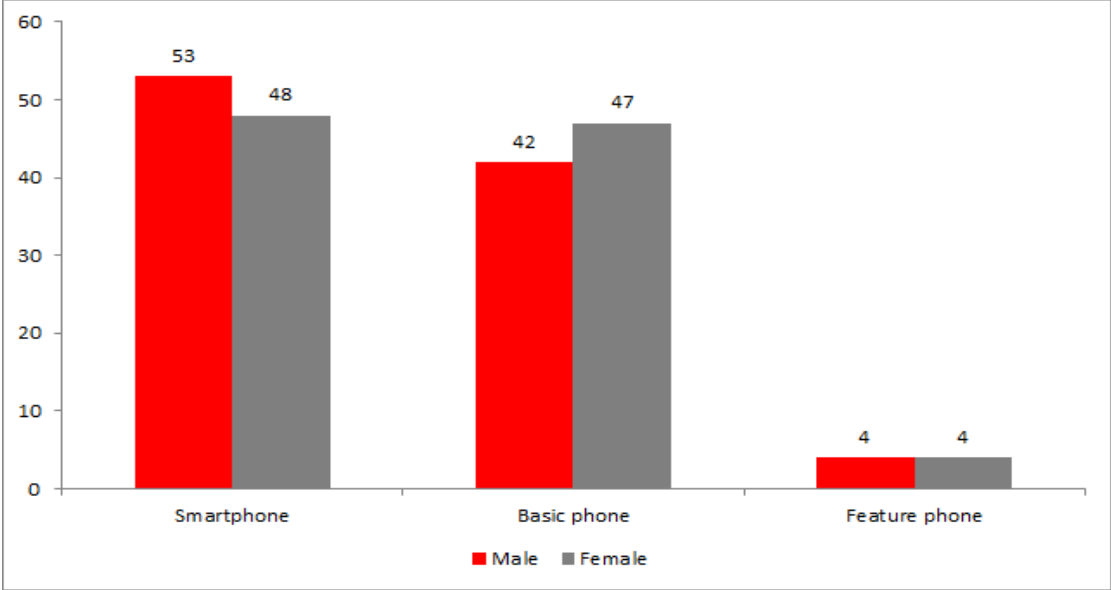
**Table 6: Demographics of Focus Groups participants**

	Regular work	Casual work	Self employed
Smartphone	73%	48%	47%
Feature phone	2%	6%	5%
Basic phone	24%	45%	48%

Source: RIA Phone Survey data, 2021

The 2021 survey data also indicates a significant gender gap in the ownership of smartphones. Smartphone ownership is highest among males, 53% as compared to 47% ownership among females. The data shows that females are more likely to own a basic phone than a smartphone. Indeed, the results support the findings of the 2017 RIA After Access Survey which shows that the majority of women, who are often in the lower economic pyramid of the society, cannot afford a smartphone. These results are a further indication that despite smartphones providing the cheapest way of accessing the Internet, they are still unaffordable to the majority of the population.

**Figure 6: Type of mobile phone used by gender**



Source: RIA Phone Survey data, 2021

In the focus group discussions, business owners were reported to be the most affected by restricted movement during the lockdown as it impacted their ability to conduct transactions. A participant recounted how long queues at ATMs and limits to the number of people being served at banks per day affected his business. He explained facing hardship because “If you want to go to the bank and collect money, the bank will only pick a few people to enter the branch, maybe six adults, and maybe you spend up to 5 hours, maybe on that day they will not allow you to enter you will [have to] come another day, the day when there's no lockdown and still spend time before they allow you to do what you want to do in the bank.” As salaried workers, particularly participants who were civil servants were not affected as much by bank closures because they continued to receive bank credit alerts for salary payments. Some could even conduct online transactions using their mobile devices.

## 2. References

Adewale, M. (2020). *37% girl child literacy level in Kano worrisome, says UNICEF – Nigeria—The Guardian Nigeria News – Nigeria and World News*. <https://guardian.ng/news/37-girl-child-literacy-level-in-kano-worrisome-says-unicef/>

Akwagyiram, A. (2020, April 2). African governments team up with tech giants to fight coronavirus lies. *Reuters*. <https://www.reuters.com/article/us-health-coronavirus-africa-social-medi-idUSKBN21K1DH>

Agbedo, O., Anazia, D., Awodipe, T. et. al. (2020, August 8). FG's COVID-19 Palliatives: Why Nigerians are not feeling the impact. *The Guardian*.

<https://guardian.ng/saturday-magazine/fgs-covid-19-palliatives-why-nigerians-are-not-feeling-the-impact/>

Bankole, O. M., & Oludayo, B. S. (2012). Internet use among undergraduate students of Olabisi Onabanjo University, ago Iwoye, Nigeria. *Library Philosophy and Practice*, 812, 1–16.

Central Bank of Nigeria. (2020). *CBN POLICY MEASURES IN RESPONSE TO COVID-19 OUTBREAK AND SPILLOVERS*. <https://www.cbn.gov.ng/out/2020/fprd/cbn%20policy%20measures%20in%20response%20to%20covid-19%20outbreak%20and%20spillovers.pdf>

Chinembiri, T., Onuoha, R., & Kabinga, M. (2021, August 27). RIA survey finds gender inclusivity in Nigeria's COVID response. *Research ICT Africa*. <https://researchictafrica.net/2021/08/27/ria-survey-finds-gender-inclusivity-in-nigerias-covid-response/>

Elliott, R. (2020, September 29). What is Random Digit Dialing? *GeoPoll*. <https://www.geopoll.com/blog/what-is-random-digit-dialing/>

Gillwald, A., Mothobi, O., & Rademan, B. (2018). *The State of ICT in South Africa*.

[https://researchictafrica.net/wp/wp-content/uploads/2018/10/after-access-south-africa-state-of-ict-2017-south-africa-report\\_04.pdf](https://researchictafrica.net/wp/wp-content/uploads/2018/10/after-access-south-africa-state-of-ict-2017-south-africa-report_04.pdf)

Gillwald, A., Odufuwa, F., & Onkokame, M. (2018). *The State of ICT in Nigeria*.

<https://researchictafrica.net/wp/wp-content/uploads/2018/12/After-Access-Nigeria-State-of-ICT-2017.pdf>

Andam, S.A., Edeh, H., Oboh, V., Pauw, K., & Thurlow, J. (2020). Impacts of COVID-19 on the food system and poverty in Nigeria. Academic Press (Elsevier).

<https://reader.elsevier.com/reader/sd/pii/S2452263520300045?token=3652902D73E76D68AF0CDFBF254E74E42E8FE6A74E7BFD395C99DA5507B8E6EB4FFF976AFDB64BCA4164EADDDE2D3598&originRegion=eu-west-1&originCreation=20221001114019>

ITU. (2021). 2.9 billion people are still offline. ITU Press Release. <https://www.itu.int/en/mediacentre/Pages/PR-2021-11-29-FactsFigures.aspx>

MTN Group. (2022). COVID-19: Enjoy 300 Free SMS. *MTN Nigeria*. <https://www.mtn.ng/covid-19-freesms/>

Nigeria Communication Commission. (2020). *Industry Statistics*. <https://www.ncc.gov.ng/statistics-reports/industry-overview#view-graphs-tables-6>

Obiakor, T., Iheonu, C., & Ihezue, E. (2021). *COVID-19 in Nigeria*.

<https://socialprotection.org/discover/publications/covid-19-nigeria>

Odiboh, O., Olonode, A., Adesina, E., & Yartey, D. (2018). Influence of e-communication and digital culture on Nigeria's indigenous socio-cultural systems: A focus on Abeokuta and Ota, Nigeria. *2018 4th International Conference on Information Management (ICIM)*, 71–75.

Ogbo, E., Brown, T., & Sicker, D. (2017). Understanding Mobile Service Substitution and the Urban-Rural Digital Divide in Nigeria. *Available at SSRN 2944367*.

Ogunode, N.J., Abigeal, I. and Lydia, A.E. (2020). Impact of COVID 19 on Higher Institution Development in Nigeria. *Electronic Research Journal of Social Sciences and Humanities*. Vol 2: Issue II, pg. 126 - 135. [0.-Impact-of-COVID.pdf](#)

Ujah, E. (2021, October 6). *How CBN saved Nigeria's economy from Post-COVID- 19 crisis—Emefiele*. Vanguard News. <https://www.vanguardngr.com/2021/10/how-cbn-saved-nigerias-economy-from-post-covid-19-crisis-emefiele/>

World Bank Group. (September 2022). *The World Bank In Nigeria*.

World bank Group. (June 2020). *Nigeria in the times of COVID-19: Laying foundations for a strong recovery*. <https://openknowledge.worldbank.org/bitstream/handle/10986/34046/Nigeria-in-Times-of-COVID-19-Laying-Foundations-for-a-Strong-Recovery.pdf?sequence=4&isAllowed=y>

## 8. Appendix: Methodology

### 8.1. Qualitative Approach: Focus Group discussions

Analysing social issues is a complex phenomenon which can not only rely on quantitatIVES. For instance, it might be very difficult to capture the COVID-19 experiences for different groups of population in a model. In order to capture some factors that cannot be explained or captured in quantitative models, Research ICT Africa also conducted qualitative studies. The qualitative study, which is used to complement the quantitative analysis, provides rich descriptions of complex phenomena and allows researchers to illuminate the experience of the marginalised. The quantitative data was collected by conducting focus group discussions. Transcriptions of the focus group discussions were coded for categories, themes, and issues that have emerged from surveys conducted by RIA on digital substitution during the COVID pandemic. Data from the focus group discussions was triangulated with primary data available. Specifically, government websites, social media, and policy records were consulted and compared to findings from the focus group discussions. This data was further used to complement results obtained from the quantitative data. The focus group discussions allowed the participants to share their own opinions, challenges, and experiences during the

lockdown period. The six focus groups were held at two sites - in Dawakin Tofa, Kano State and in Ifako-Ijaye, in Lagos State between Sunday, December 5 and Thursday, December 9, 2021.

### 8.1.1. Site selection

Dawakin Tofa, an agrarian community in a rural local government area of Kano State and Ifako- Ijaye, an urban district in Lagos State were selected as focus group sites not only because of the high population density and number of COVID-19 cases reported in the two states. Marked differences exist between the sites, geographically and also in terms of socio-cultural and economic organisation, making it an evocative study. The criteria for site selection included network coverage in the area, accessibility, public services (such as schools, banks, ATMs), researcher safety and security.

Lagos state is the former Federal Capital Territory (FCT) and current economic fulcrum of Nigeria. It is located in south-western Nigeria. Although the population is diverse, the Yoruba make up the largest ethnic group in the State. Lagos state's competitive business markets make it the financial, commercial, educational centre in the country, and increasingly the hub for companies venturing into Africa. Recognized as a mega-city, Lagos is reported to have a population of approximately 20 million people. Urban-rural divide and economic disparity is high in Lagos with two-thirds of Lagosians reported to live in slums (Cheeseman and de Gramont, 2017). Towns and villages in Ifako-Ijaye, the research site, are in recent times being transformed into commercial hubs partly due to proximity to Ikeja, the capital of Lagos State. Ifako-Ijaye consists mainly of middle working and lower-income social classes.

Kano State on the other hand, is situated in the north-western region of Nigeria. It is the second most populous state in the country. A historic kingdom and traditional emirate, Kano city was a major commercial centre along the trans-Sahara trade routes. Kano is presently the second largest commercial centre in the country after Lagos. Predominately Muslim, the Hausa-Fulani make up the largest ethnic group in the state. As with most of the northern Nigerian states, literacy rates, especially for females are low – 37% girl child literacy level according to UNICEF (Adewale, 2020). The research site, Dawakin Tofa, is about 30 km from Kano city.

### 8.1.2. Participant Recruitment

At each research site, consent of the Head of Town was secured prior to study commencement. A screening process was used to obtain the desired demographic profile of participants representative of the population. Specific recruitment criteria, as listed in Table 9 below included educational level, employment status, digital literacy and remittance flows during the lockdown. All participants were conversant in English at varying levels of fluency. In terms of distribution, the structure of the focus group had equal participation between males and females (36 each).

Six focus groups were held at the two sites between Sunday, December 5 and Thursday, December 9, 2021. The study was conducted by Mr. Fola Odufuwa (the Project Lead), on behalf of Research ICT Africa.[UCT1] Table 9 below gives the focus group breakdown. With the exception of the mixed group sessions, the groups were purposefully arranged to be gender specific. Cultural sensitivity and experience working with the research groups indicates that some women are generally less reticent to

share their opinions and experiences, and more likely to share information about gender-specific issues with other women. All focus group discussions were conducted in English with interpretation being provided by the research team as needed. The average time spent per session was 70 minutes. With the consent of participants, the discussions were recorded and later transcribed.

**Table 9: Research locations for Focus Groups**

	<b>State</b>	<b>Location</b>	<b>Category</b>	<b>Focus Group classification</b>
South West	Lagos	Ifako-Ijaye	Urban	Male, Female, Mixed
North West	Kano	Dawakin Tofa	Rural	Male, Female, Mixed

*Source: Research ICT Africa, 2021*