

Mitigating COVID-19 risk: Digital Substitution in Nigeria

- ❖ **Digital substitution to mitigate the risks of both the pandemic and associated lockdowns was low in Nigeria. The numbers of people able to work and school remotely were small due to low levels of smartphone ownership, the type of job and sector, whether they were in urban or rural areas, and their level of education.**
- ❖ **Government should stimulate greater smartphone uptake by enabling competitive local, regional rural, community and micro network and services providers with lower-cost business models than those currently offered in the market through costly national licences.**
- ❖ **Very low percentages of respondents applied for the Central Bank of Nigeria Credit Facility Grant and the Social Register Cash Transfer programme. There appear to be low levels of awareness of programmes or that people may be eligible for them. Government could use digital communications, even basic phone, low-cost USSD services, for information campaigns but also to implement programmes to strengthen social safety nets.**
- ❖ **Low levels of business and personal tax registration in Nigeria (8% and 19% respectively) means resource mobilisation is weak and the funds for COVID-19 related business and social relief are limited. Tapping into international taxation reforms, BEPS, to ensure that multinational enterprises pay a fair share of tax wherever they operate would provide the country with considerable external revenue.**
- ❖ **Government should explore ways to leverage the increased visibility of formal and informal firms through their digital footprints both for the purposes of improved tax collection and extending social protection to the informal sector.**

Introduction

Across the globe, how people, businesses and nations conduct their social, economic and political activities has changed as a result of the COVID-19 pandemic and the containment measures taken to combat it. The ability of people to digitally substitute access to their work, schooling, banking and retail has determined the degree to which they have been able to mitigate the health and economic risks associated with the pandemic and the associated lockdowns.

Finding trustworthy methods of data collection for evidence-based policy development, particularly during hard lockdown periods in early 2020 when the world was still learning about the virus, has been one of the major issues faced by African policymakers and governments seeking to respond rapidly to the crises but also to leverage digital demand spurred by the pandemic for post-pandemic economic reconstruction. In 2021, Research ICT Africa (RIA) carried out a national phone survey in Nigeria to understand how individuals accessed and utilised the internet, particularly to maintain their livelihoods during lockdowns. This policy brief provides a high-level summary of the findings from the Nigerian phone survey. It primarily aims to determine the extent of datafication and digital substitution in Nigeria to provide an evidence-base for the next inevitable pandemic and for post-COVID-19 economic recovery.

RIA employed the random digit dialling (RDD) method to enhance people's participation in data collection during lockdown which restricted the possibility of face-to-face interaction. RDD is a type of probability sampling in which computer software generates random phone numbers for research initiatives (Elliott, 2020). For the Nigerian survey, RIA used phone number blocks allocated to mobile network carriers that have been assigned to users and therefore assumed to be active. The representativeness of phone survey data is comparable to face-to-face interviews. However, considerable variances in mobile phone ownership by gender, region, or education may make the data less representative. Since 2018, Nigeria's mobile phone ownership has increased from 63.3% (After Access survey) to 90% in 2021 (Kemp, 2021). In 2021, Nigeria's 16 to 64-year-olds had 99.5% mobile phone penetration (Gilbert, 2021). Of the over 3 024 successful phone interviews, and the data was weighted using the census-based RIA After Access survey for analysis. Inverse selection probabilities were used in weighting, allowing us to extrapolate the results to the Nigerian population.¹

¹ More details are found in the forthcoming full IDRC-funded COVID-19 Response for Equity (CORE): Nigerian report.

Digitalisation and datafication

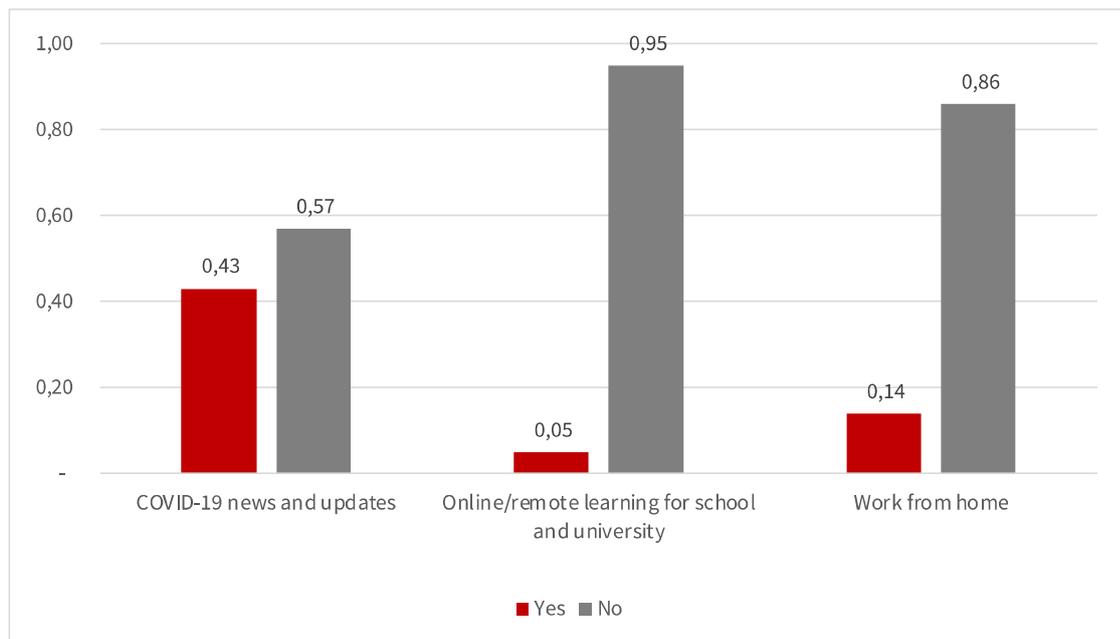
The ability of countries to benefit from the intensifying processes of digitalisation and datafication that characterise the digital economy are dependent on the extent (access and affordability) and quality of the population's Internet connectivity. More than 53% of respondents had Internet connection, over double the 26% recorded in 2017 (Gillwald et al., 2018). This aligns with the 2020 data provided by the Nigerian Communications Commission (NCC) which stated that 46% of Nigerians had Internet connectivity. Over 50% of those interviewed had smartphones, which is the primary source of Internet access in Nigeria as in the rest of Africa. Unlike in 2017 when only 20% of women compared to men used the Internet (Gillwald et al, 2018), the 2021 phone survey also revealed that 50% of women had Internet access compared to 57% of male respondents, a significant improvement in the gender gap. This trend towards gender parity, as internet services become more available and affordable, is evidenced in the adoption of earlier voice services. Likewise, the higher gross domestic products per capita of countries of the earlier gender parity generally (Gillwald et al., 2019).

Figure 1 below shows only 43% of respondents used the Internet to follow COVID-19 news and updates, learn remotely, and work from home during lockdown. Most of these people (52%) lived in townships around cities, with the remaining living in inner cities (27%), small towns (9%), suburbs (7%) and rural areas (3%). Men (61%) were more interested in news updates than women (39%). This could be due to underlying social and cultural gender constructs not revealed in a quantitative survey such as this.

Only 43% of respondents who used the Internet followed COVID-19 news and updates.

Those with tertiary education were substantially more interested in the COVID-19 updates and news (55%) than those with secondary education (34%), technical/vocational certificate holders (7%), and those who had completed primary school (4%). Nearly 9% of the survey respondents said they took online lessons outside of school or university (not represented in the diagram). More men (58%) than women (42%) participated in online learning activities outside of school and university. more likely to have access to the Internet. This aligns with RIA modelling of previous nationally representative After Access surveys which demonstrated that the determining factors of Internet access and use was education and income (Deen-Swarray, et al., 2016). Women are concentrated amongst the poor with less access to education, work outside the home and therefore income and therefore are disproportionately marginalised from accessing the Internet.

Less than one percent of those without formal education were interested in COVID-19 news and updates. This highlights the need for the government to target those less educated. With 62% of Nigerians dependent on radio, according to After Access data, this continues to be the most important channel for dissemination of official information. Although the pandemic lockdown regulations compelled Nigerians to switch to remote learning, only 5% of those interviewed took online lessons for school or university. Over 90% of individuals who took online courses for school and particularly university were urban residents, while less than 10% were rural residents.

Figure 1: Digital substitution during lockdown in Nigeria

Source: RIA Nigeria phone survey, 2021

Remote work was dependent on the job type or sector, with only certain jobs being susceptible to being moved online. Our survey showed that 24% of those in the service sector – such as secretaries, real estate agents, office assistants, directors and those in related job types – could work from home. A smaller but not insignificant percentage of people in other categories of work that could be undertaken remotely included casual workers (16%), the self-employed (15%) and business owners (15%). Occupations such as teachers, lawyers or health practitioners had the biggest proportion of persons that could work from home as opposed to other groups, with specific types of casual work such as cleaners and barbers (and likely work types with lower incomes) having the lowest proportion – at least two and half times lower than the other work types.

Informality and e-commerce/financial flows

The COVID-19 pandemic encouraged the growth of the Nigerian e-commerce sector, which stimulated mobile money use as well as online financial transactions. Tax compliance is a critical element in Nigerian e-commerce flows. The Relevant Tax Audit (RTA) uses basic tax audits to conduct annual tax collection targets. However, this approach is inefficient in minimising tax fraud as some taxpayers do not always comply with tax audits (Badara, 2012). The survey asked participants and business owners if they were registered for individual and company tax registration. This information was matched with participant demographics to determine where to direct resources if the government undertook a programme to improve tax collection and grow the revenue base. Figure 2 below demonstrates low individual and company tax registration.

Figure 2: Personal and business tax compliance



Source: RIA Nigeria phone survey, 2021

As indicated in the figure, there is considerable under-collection of taxes, which deprives the government of a sizable sum of revenue. Business owners' tax compliance rate was 8%, and 19% of those who reported having registered for income tax worked in regular and casual jobs. According to individual income tax registration by gender, men were more likely to be registered (66%) than women (34%). Around 20% of men who were employed in the regular and temporary jobs were registered for income tax while 17% women employed in regular jobs were registered. Furthermore, 8% of those registered for tax were from rural areas, whereas 92% were from urban areas.

The results also showed that business owners or self-employed people with tertiary education credentials had the highest tax registration rate (43%), followed by people with a secondary school education (27%). Those with no formal education did not comply with tax obligations. Understanding the tax compliance dynamics is essential to proposing interventions to expand the tax base.

The use of mobile money and devices to make payments, send or receive gift cards and make local remittances were some of the key activities that significantly expanded during lockdown. In response to questions about their online payment history and tendencies for sending and receiving money around, 26% said they had sent or received money.²

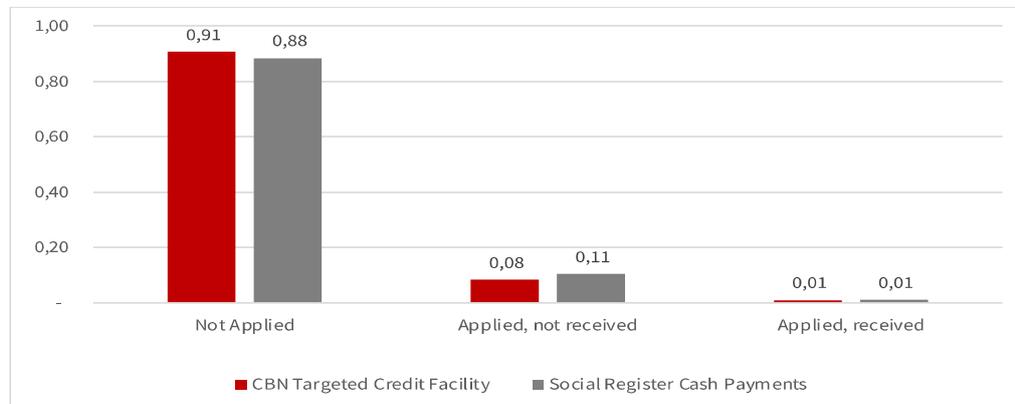
Social protection

The Nigerian Government took steps to reduce the social and economic impact of the COVID-19 pandemic. Obiakor et al. (2021) report that the government intervened in ways that impacted on education, income, employment, and livelihoods. After a four-month lockdown in four urban states (Lagos, Ogun, Kano, and Abuja) in April 2020, the government extended the Social Investment Programme (NSIP) through the Conditional Cash Transfer or Social Register Cash Transfer programme, providing NGN20,000 (USD51.58) a month for four months to the poorest and most vulnerable populations (Obiakor et al., 2021). In-kind social protection, such as lower electricity and gas prices, helped reduce the shocks induced by the pandemic. In three of the four lockdown states, a food distribution programme also supplied 77,000 metric tons of food to poor households (Obiakor et al., 2021). In addition, the government's Micro Small and Medium-Sized Enterprises Development Fund (MSMEDF) established the Central Bank of Nigeria (CBN) Credit Facility worth NGN50 billion

² The full CORE Nigeria report provides more detail regarding various demographic traits as well as the direction of the remittances in terms of urban to rural areas.

(USD128.95 million) to help businesses affected by COVID-19 and other natural disasters. The phone survey carried out asked if respondents had received assistance from the Social Register Cash Transfer programme, the CBN Credit Facility Grant programme, food relief programmes or healthcare programmes.

Figure 3: Distribution of social protection applicants and recipients in Nigeria



Source: RIA Nigerian phone survey, 2021

Figure 3 above shows that only 8% of respondents applied for the CBN Credit Facility Grant and only 1% of those who applied were successful. Only 1% of those who applied for the Social Register Cash Transfer programme were also successful while 11% of those who applied for the programme did not receive the grant.³ The majority of respondents did not even apply to the programmes. Since only those who were conducting business activities and could produce evidence that they were impacted by COVID-19 were targeted by the CBN loan facility, it is possible that fewer people genuinely operated businesses and could meet the requirements. Small business owners who in most cases are not registered for tax payment were probably not interested in being under the radar of authorities, which relates to the issue of informality.

Conclusion and recommendations

The survey showed that there was an increase in the uptake of online tools during lockdown in Nigeria, predominantly for following COVID-19-related news and updates. Of those surveyed, a relatively low percentage were able to work remotely, and an even lower percentage used the internet to access school or university classes. However, the survey would have included only a percentage of students in its sample. The analysis shows low levels of tax registration at both individual and business level as well as a low number of respondents who applied and successfully received the social protection programmes put in place by the government. As countries around the world struggle to recover from the economic ravages of the pandemic, as well as building resilience against future pandemics, the following policy recommendations are made:

³ RIA cannot establish how many applicants qualified for these programmes and therefore cannot make an assumption that all respondents did.

Tap into global digital taxes to get tax revenues from those who profit most from digitalisation

- ❖ Stimulate greater smartphone ownership enables households and enforce cost-based (with fair rates of return) pricing of data by operators as a bare minimum to undertake basic remote learning and work. Increase access to smartphones through subsidising or reducing customs and excise duty on handsets and enable the entry of competitive internet service providers with lower cost business models that could better service rural areas, including by setting up mesh Wi-Fi across townships.
- ❖ Prepare for the inevitable next pandemic when people are unable to access public Wi-Fi or work or school connectivity by considering affordable and subsidised home connectivity, such as smart televisions and set-top boxes, and fibre which is reducing considerably in cost, or meshed wireless network connectivity.
- ❖ Through participation in the BEPS reform of international taxation rules access global digital tax revenues those who profit most from digitalisation – global technology companies that do not have physical presence in the country and who remain untaxed on their revenues generated there.
- ❖ Leverage the visibility to state arising from digital footprints of informalising firms moving online to recoup legitimate taxation and of the informal sector to maximise the benefits of social protection programmes, and not only for taxation purposes.
- ❖ Raise awareness of digital alternatives and opportunities for online access to government information and services. It is also vital to improve information sharing on the availability of the programmes and eligibility criteria so that those who do not apply do so through making informed decisions rather than through a lack of awareness of the programmes.

For more RIA updates, sign up [here](#).

Authors

Name: Tapiwa Chinembiri and Alison Gillwald

Email: tchinembiri@researchictafrica.net

Enquiries: info@researchictafrica.net

Workshop 17, Ports Edge, V&A Waterfront, Cape Town

T: +27 21 447 6332

www.researchictafrica.net

References

Badara, M. S. (2012). The Effect of Tax Audit on Tax Compliance in Nigeria (A Study of Bauchi State Board of Internal Revenue). *Research Journal of Finance and Accounting*, 3(4), 8.

- Deen-Swarray, M., Gillwald, A. Morrell, A. & Khan S (2016). *Lifting the Gender Veil on ICT Indicators in Africa*. Policy Paper 13, Research ICT Africa.
https://www.researchictafrica.net/publications/Evidence_for_ICT_Policy_Action/Policy_Paper_13_Lifting_the_veil_on_gender_ICT_indicators_in_Africa.pdf?_ga=2.18560956.485533570.1662066562-226201512.1658671584.
- Elliott, R. (2020). What is Random Digit Dialling ? *GeoPoll*. <https://www.geopoll.com/blog/what-is-random-digit-dialling/>
- Gillwald, A., Galpaya, H., & Aguerra A (2019). Understanding the gender gap in Global South. In Sey, A & Hafkin, N.(Eds) *Taking Stock: Data and Evidence on Gender Equality in Digital Access, Skills, and Leadership*. United Nations University & EQUALS Global Partnership.
<https://www.itu.int/en/action/gender-equality/Documents/EQUALS%20Research%20Report%202019.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>
- Kemp, S. (2021). *Digital in Nigeria: All the Statistics You Need in 2021*. DataReportal – Global Digital Insights. <https://datareportal.com/reports/digital-2021-nigeria>
- Obiakor, T., Iheonu, C., & Ihezue, E. (2021). *COVID-19 in Nigeria*.
<https://socialprotection.org/discover/publications/covid-19-nigeria>