Governance and Innovation Network for Enhanced Regulations (GINGER)

RESEARCH REPORT

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Executive Summary

This report provides a comprehensive analysis of the GINGER project, outlining its objectives, key findings, and recommendations. The project aimed to assess the National Digital Economy and E-Governance Bill 2024, employing a combination of qualitative and quantitative methodologies to ensure a thorough evaluation.

The study relied on data set from a test group and a control group. While the test group was used as a control factor for the use and deployment of E-governance tools, the control group acted as a baseline to compare the results from the test group. Key findings indicate there is a lapse in the use of internet mechanisms in the dispensation and execution of government, highlighting significant trends, challenges, and opportunities within the scope of the project. Additionally, the report identifies critical areas for improvement and offers actionable recommendations to enhance the bill and any future initiatives. The research engaged data enumerators who experienced challenges during data collection, ranging from difficulty in accessing respondents due floods in certain areas of the country (Borno State faced flooding at the time) and language barriers to lack of trust, individual reservations and unwillingness to participate in the data survey phase of this report.

Among the key outcomes, capacity building and bridging the gap through legislative tools as well as policy initiatives are key, which underscore the importance of strategic interventions in addressing the identified issues. This report serves as a crucial resource for stakeholders, providing data-driven insights and informed recommendations to guide decision-making and policy development. Finally, the section on General Comments reflects suggestions for the legislature to consider as the draft of the E-Bill is processed for the final stages before enactment.

Section 1:

Research Context: Understanding E-Governance/Digital Governance

1.0 Overview of the Report

The strong emergence of Artificial Intelligence and its impact on all areas of human relation is no longer minimal but very visible and monumental. The digital area is at the fore of championing transformative governance represented by a blend of artificial intelligence and minimal human interaction. The purpose of the GINGER Project was to conduct a critical analysis and assess the impact and feasibility of the National E-Governance and Digital Economy Bill in Nigeria. Using a test and control group during the trial phases provided data that pinpointed obvious areas of concern.

Surveys were deployed by enumerators across Nigeria's six geopolitical zones, with questions on the bill's awareness levels and the use of some digital tools and government digital services which enable the bill's key provisions. The survey captures insights from businesses in different sectors and from citizens on their experiences, perceptions, and expectations of digital government services in Nigeria. The findings emphasise the need for improved accessibility, enhanced trust, and targeted training to optimise digital adoption and satisfaction. By leveraging both qualitative and quantitative methodologies, the project ensures a robust and comprehensive evaluation, underscoring the necessity for strategic interventions to enhance the effectiveness of digital governance.

Core areas of this project include different perspectives to digital governance, as well as the intersection between the use of technology and social factors impacting society core values of trust and confidence. The research findings not only highlight significant trends and opportunities but also pinpoint areas requiring urgent attention and improvement. The reflection on data sets covering Nigeria's geo-political zones shows that a digital ecosystem is possible irrespective of the challenges occasioned by complexities of digital transformation in the pursuit of a thriving digital economy.

Divided into both textual and statistical analysis, this report contains a conclusion and recommendation which is expected to positively influence the deployment of the framework for a more robust and operative positive impact in Nigeria.

2.0 Understanding E-Governance/Digital Governance

Digital Era Governance (DEG) emphasises the role of digital technologies in transforming governance, enhancing efficiency, and fostering sustainable development.

The emergence of digital technologies has significantly influenced social and economic conditions, resulting in evident transformations in the public sector and public administration, including governance.[1] Specifically, the Internet's transformative influence has significantly affected not only internal governmental functions but also the relationships between government and citizens and government and businesses, leading to the emergence of a new public administration framework known as Digital Era Governance (DEG)[2], which emphasises that modern technologies are key drivers of innovative, sustainable, and competitive governance.

Digital platforms, including transaction-based systems and virtual communities, often take place within extensive networks featuring many concurrent interactions, thus challenging traditional governance methods like contracts and hierarchical relational norms. Therefore, it is essential to gain a deeper understanding of the governance methods and decisions that address the requirements of the digital era.[3]

Digital governance is enabled through digital technologies centred on various combinations of information, communication, and other connectivity tools. In digital governance, there is a significant emphasis on digital technologies capable of handling pertinent data to value-added transactions and the heuristics that enable autonomous decision-making to ensure the continuity of exchanges (for instance, sophisticated algorithms like matching algorithms and Artificial Intelligence).[4] These digital technologies enable a transition to automated governance methods that are fundamentally different from their analogue versions. Therefore, digital governance is a unique category of governance that supports innovative ways of organising, creating, and capturing value, thereby extending beyond the mere digitisation of traditional analogue governance methods.[5]

The United Nations regularly advocates for digital government as a catalyst for sustainable governance, reflected in the theme choices for three recent editions of the Global E-Government Survey: the 2024 Survey[6] underscores the growing role of digital transformation and digital government in speeding up the achievement of the 2030 Agenda for Sustainable Development and ensuring that no one is excluded, or offline, in the digital era. The Survey indicates that digital technologies, among other factors, have enabled governments to take a significant part in tackling the difficulties related to the global health crisis and in providing essential public services effectively during a time of increasing isolation, uncertainty, and vulnerability.

[1]Haug, Nathalie, Sorin Dan, and Ines Mergel. "Digitally-Induced Change in the Public Sector: A Systematic Review and Research Agenda." Public Management Review 26, no. 7 (July 13, 2023): 1–25. https://doi.org/10.1080/14719037.2023.2234917 .
[2]Yuan, Yun-Peng, Yogesh K. Dwivedi, Garry Wei-Han Tan, Tat-Huei Cham, Keng-Boon Ooi, Eugene Cheng-Xi Aw, and Wendy Currie. "Government Digital Transformation: Understanding the Role of Government Social Media." Government Information Quarterly 40, no. 1 (October 2022). https://doi.org/10.1016/j.giq.2022.101775
[3]Chen, Liang, Tony W. Tong, Shaoqin Tang, and Nianchen Han. "Governance and Design of Digital Platforms: A Review and Future Research Directions on a Meta-Organization." Journal of Management 48, no. 1 (November 17, 2021): 147–84. https://doi.org/10.1177/01492063211045023.
[4]Grigalashvili, Vephkhvia. "Digital Government and Digital Governance: Grand Concept." International Journal of Scientific and Management Research 06, no. 01 (2023): 01-25. https://doi.org/10.37502/ijsmr.2023.6201.
[5]Hanisch, Marvin, Curtis M. Goldsby, Nicolai E. Fabian, and Jana Oehmichen. "Digital Governance: A Conceptual Framework and Research Agenda." Journal of Business Research 162 (July 2023): 113777. https://doi.org/10.1016/j.jbusres.2023.113777.
[6]Li Junhua Under-Secretary-General for Economic and Social Affairs United Nations. "E-Government Survey 2024 Accelerating Digital Transformation for Sustainable Development with the Addendum on Artificial Intelligence," 2024.https://desapublications.un.org/sites/default/files/publications/2024-09/%28Web%20version%29%20E- Government%20Survey%202024%20 1392024.pdf.

Nonetheless, it is crucial to understand that the terms 'digital government' and 'e-government' are often used interchangeably, although they have slightly different implications.[7] Digital government pertains to the extensive digital strategies and frameworks established by governments to address the needs and issues of their citizens.[8] E-government emphasises the real information and communication technology employed to turn the government's objectives into reality. E-government refers to the digital transformation of processes, documents, and services to enhance governance through the application of contemporary technology.[9] Digital government utilises available tools to enhance the management and organisation of government services to meet the present needs of its citizens. This type of governance can improve the effectiveness of the agencies when public authorities and administrative staff collaborate effectively.

[7]Ibid
[8]UN DESA. "Chapter 1 • a Digital Government MoDel Framework for SuStainable Development Chapter 1 People Principles of Effective Governance for Sustainable Development," 2024. https://desapublications.un.org/sites/default/files/publications/2024-09/%28Chapter%201%29%20E-Government%20Survey%202024%201392024.pdf.
[9]Yang, Longzhi, Noe Elisa, and Neil Eliot. "Privacy and Security Aspects of E-Government in Smart Cities." Smart Cities Cybersecurity and Privacy, 2019, 89–102. https://doi.org/10.1016/b978-0-12-815032-0.00007-x.

3.0 Does Nigeria Need E-Governance? Examples of Success Stories

Numerous nations are formulating, executing, and enhancing their plans to overhaul governmental services through information and communication technologies (ICTs). This change in services is known as e-government, e-governance, digital government, online government, or transformational government.

The European Parliament, in its implementation of e-government within the European region, expressed that e-government signifies initiatives by public authorities to employ information and communication technologies (ICTs) to enhance public services and boost democratic engagement.[10] European e-government seeks to enhance government efficiency by lowering expenses related to electronic information management and communication, restructuring government agencies, and minimising administrative information silos.

The United States, in its execution of e-government, passed the E-Government Act in 2002. This law created a structure so federal agencies could deliver better services to citizens using technology and the internet[11]. It viewed 'electronic Government' as the utilisation of internet-based applications and various information technologies, along with the processes that facilitate these technologies, to - '(A) improve accessibility to and provision of Government information and services to the public, other agencies, and different Government entities; or (B) achieve enhancements in Government operations that could encompass effectiveness, efficiency, service quality, or transformation; information and services to the public, other agencies, and different Government entities'.

The E-Government act led to the establishment of the USA E-GOV Office which is central to the e-governance of the various departments and agencies in the US. One of the most prominent examples of this is the USA E-GOV Office acts as the United States Department of Agriculture (USDA) central hub for E-GOV Presidential Initiatives and Lines of Business, in addition to being the USDA contact for the Office of Management and Budget concerning E-GOV. The office offers supervision and direction for the creation and execution of comprehensive USDA policies, standards, and procedures related to E-GOV implementations. The office oversees USDA's E-GOV[12] partnerships with various US federal agencies. It recognizes and advocates for shared enterprise solutions to enhance USDA's business, information, and technology frameworks, aiming to lower overall funding needs. It also offers guidance on tackling and overcoming department-wide IT challenges and barriers to reaching E-GOV goals.[13]

[10]Davies, Ron. "IN-DEPTH ANALYSIS." European Parliamentary Research Service September 2015, no. PE 565.890 (2015). https://doi.org/10.2861/150280.
[11]US General Services Administration Blog Team. "Twenty Years of Making Government More Accessible through the E-Government Act." www.gsa.gov, 2022. https://www.gsa.gov/blog/2022/12/29/twenty-years-of-making-government-more-accessible-through-the-egovernment-act.
[12]USDA Chief Information Officer. "E-Government (E-Gov)." Usda.gov, December 11, 2024. https://www.usda.gov/about-usda/general-information/staff-offices/office-chief- information-officer/information-resource-management-center/e-government-e-gov.
[13]USDA. "PRESIDENTIAL E-GOVERNMENT INITIATIVES and LINES of BUSINESS," 2016. https://www.usda.gov/sites/default/files/documents/10e-gov2016notes.pdf.

4.0 Identifying Relevant Factors Affecting Functionality of E-Governance

Legal and regulatory structures
Existing legal and regulatory structures can influence the effectiveness of e-government.

Organisational and managerial factors
The success of e-government can be influenced by its organisational and managerial factors.

Political structures
Existing political structures can influence the effectiveness of e- government.

- Technological advancements Technological advancements can influence the effectiveness of e-government.
- Support from upper management
- The backing of upper management can influence the effectiveness of e-government.

Locating the appropriate government website is the initial phase of the user experience. Portal websites gather information on various services from several public organizations, commonly referred to as one-stop shops.

Swift government websites
eliminate user frustrations Any time under 3.8 seconds is deemed quick.

Portability
Government websites are still not reachable by all users on every device.

User-friendly government portals simplify life for users.
Users that are generally given details on how to access online government services. For instance, 95% of websites that feature a frequently asked questions section and 90% of websites provide some kind of guidance or demonstration on how to receive the service tend to have higher rates of user interactions.

Duration required to handle
services on these platforms.

Services enabling secure
authentication with eID simplify the process for citizens.

Services where personal
information is automatically filled in, simplifying the experience for users.

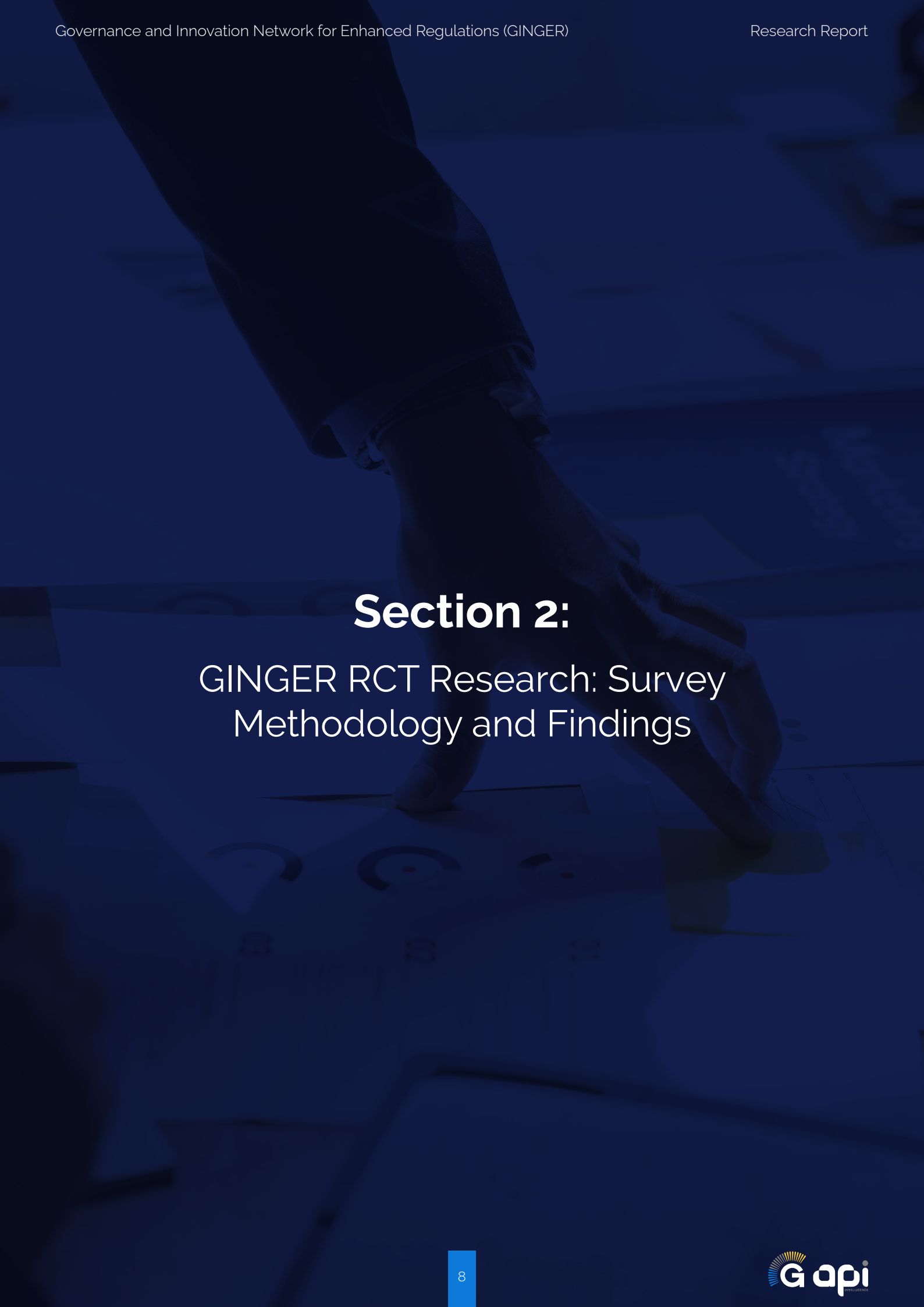
Awareness.
The advantages of e-government services need to be promoted to residents in both urban and rural settings.

Communication.
Authorities ought to convey the advantages, prerequisites, procedures, and anticipations of e-government to every interested party.

Citizen demand.
The interest in e-government from citizens is a factor that can influence its success.

Information security.
The security of information is a variable that can influence the effectiveness of e-government.

Infrastructure.
The available infrastructure can influence the effectiveness of e-government.

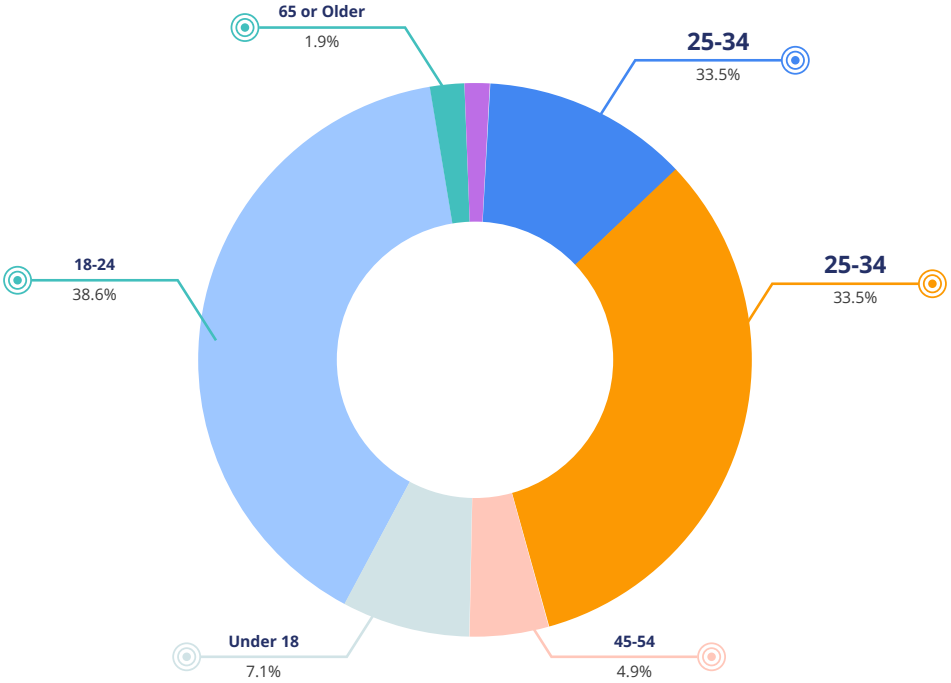


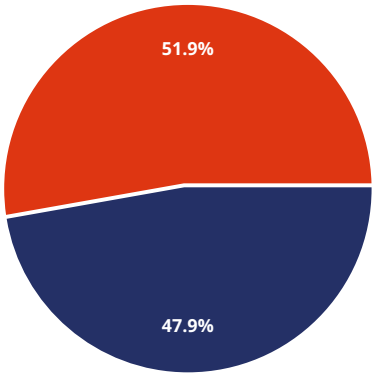
Section 2:

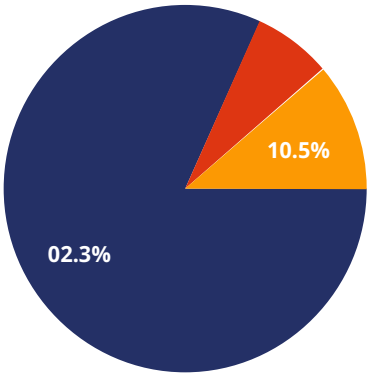
GINGER RCT Research: Survey Methodology and Findings

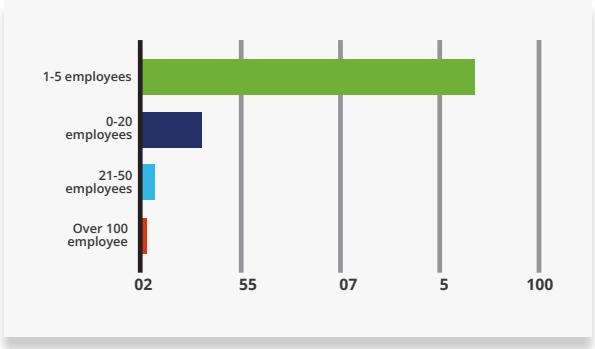
5.0 Methodology and Demographics

The survey, conducted between September and October 2024, explored the expectations, experiences, and views of Nigerian citizens. It included 494 participants selected to represent a diverse demographic range. Businesses were regrouped based on their self-reported use of online government services. Those who indicated having used such services were categorized as the test group for analysis. All figures presented in the report are rounded to the nearest whole number.









5.1 Capacity Building as the Catalyst for Digital Fluency in Nigeria

Definitions*

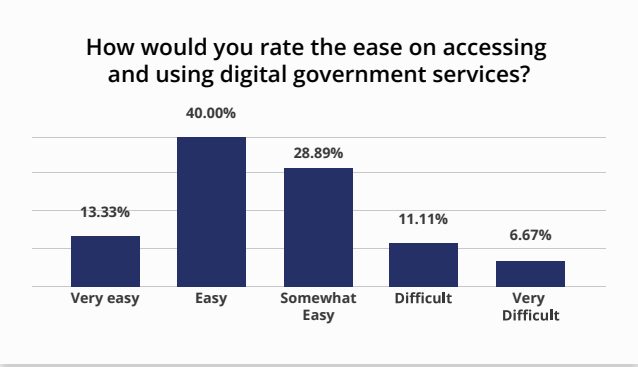
15 enumerators across Nigeria's 6 geopolitical zones. 494 businesses and citizens surveyed. The majority of the respondents were from Abuja and Lagos.[14]

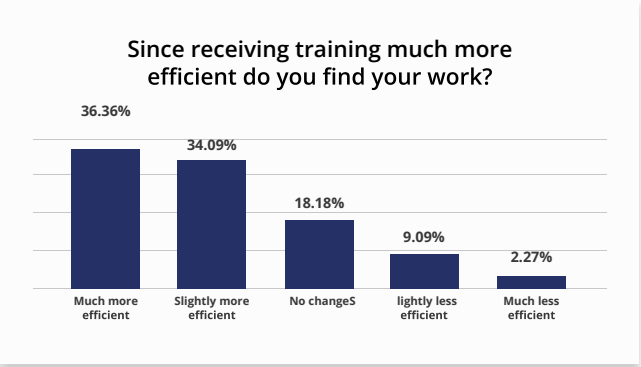
Business Demographic

The study hypothesis challenges the oversimplified access-to-usage narrative, emphasizing that digital literacy must evolve alongside infrastructural development and trust-building efforts. Our findings leverage the Diffusion of Innovations framework to argue that capacity building accelerates adoption only when supported by robust systemic conditions.

While a majority (53.33%) find digital government services easy to use, the remaining 46.67% experience varying levels of difficulty from somewhat easy to very difficult. Addressing these challenges through improved usability, better support, and targeted education will be key to making digital services more inclusive and user-friendly.

The results confirm that training positively impacts efficiency for the majority (70.45%), though focusing on the **18.18% no-change group and 11.36% with reduced efficiency** can ensure even broader benefits. Organisations can refine and personalize training to ensure inclusivity and consistent productivity gains.

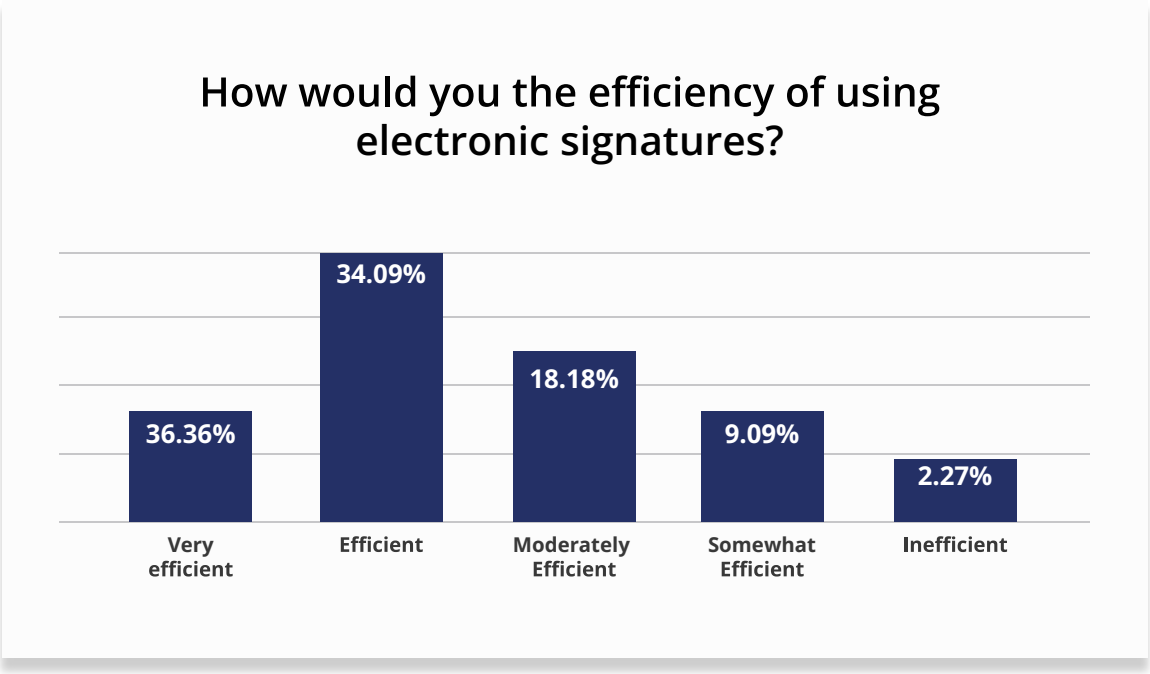




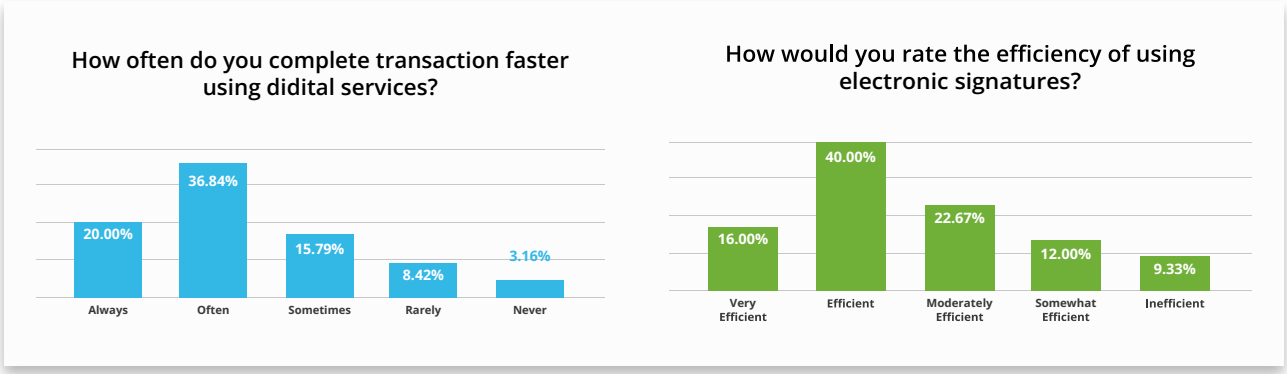
The majority of the respondents agree that implementing electronic signatures would significantly increase transaction speed and reduce errors when compared to traditional methods.

5.1.1 Transaction Efficiency and Trustworthiness through Digitization: This highlights that integrating trust mechanisms (e.g., encryption, transparent legal frameworks) is just as critical as technological tools. Drawing from behavioural economics, our findings suggest that perceived trust amplifies transactional certainty, reinforcing adoption loops.

[14]More respondents were surveyed in Abuja and Lagos because, as key urban centres, the cities are strategic for digitally-enabled businesses in Nigeria. While Abuja is Nigeria's administrative and political capital, Lagos, is a major commercial centre and Nigeria's most populous city



5.1.2 Public Service Efficiency in the Digital Age: This acknowledges that while digitised services can transform public service delivery, they are often undermined by infrastructural disparities and inequities in digital access. For instance, a rural citizen with limited internet access may experience diminished benefits compared to urban users.



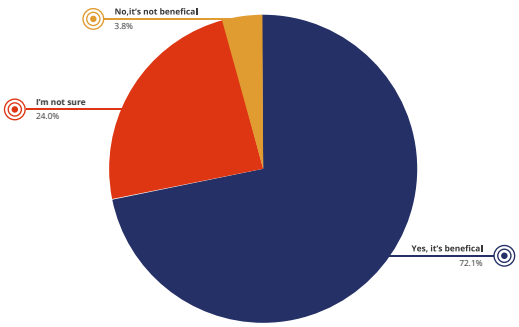
The majority (82.10%) of respondents express some level of satisfaction with digital government services, but only 35.79% are highly satisfied. The 17.90% who are dissatisfied highlight areas for improvement, such as service reliability, user experience, or functionality, to enhance overall quality and satisfaction.

The responses show that electronic signatures are largely regarded as efficient, with 78.67% of responses indicating positive perceptions. However, the presence of 21.33% who find them less efficient points to specific areas where usability, speed, or reliability improvements may enhance user satisfaction and adoption rates.

5.2 Nigerians are Interested in Digital and E-Government Services

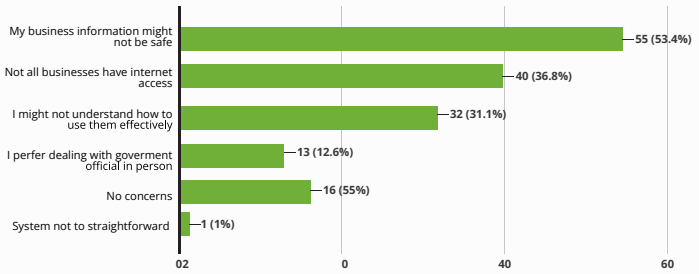
Survey respondents are largely favourable towards digital government services and believe they could increase business and public service delivery and user satisfaction.

Do you think offering more government services online is beneficial for businesses like yours?



What concerns do have about using online government services for your business? (Select a that apply)

100 responses

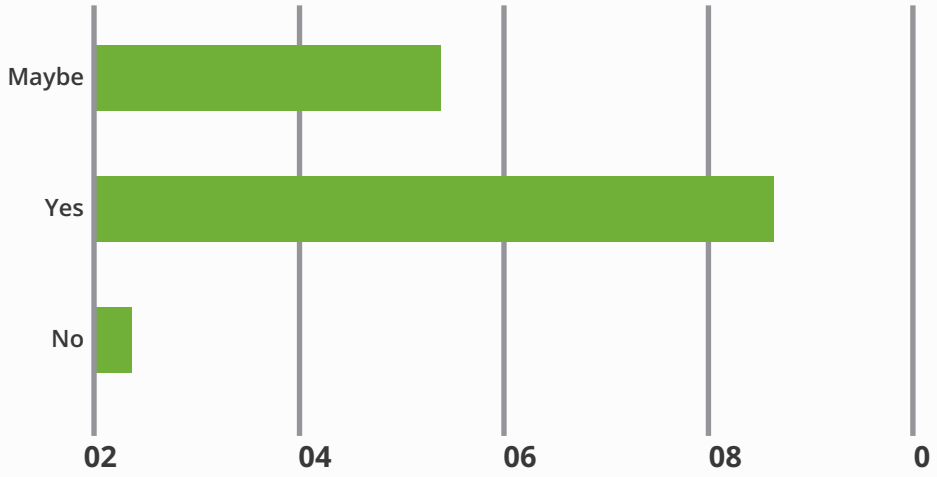


While a strong majority (72.1%) believe that offering more government services online is beneficial for businesses like theirs, 27.9% remain uncertain or disagree. To build broader confidence, the government should communicate clear business advantages, provide success stories, and address any concerns around accessibility or reliability.

While many see the value in online government services, key concerns remain. Over half (53.4%) worry about the safety of their business information, while 38.8% point to lack of internet access and 31.1% to challenges in using the services effectively. Addressing these concerns through stronger data protection, improved digital access, and user education will be crucial for building trust and adoption.

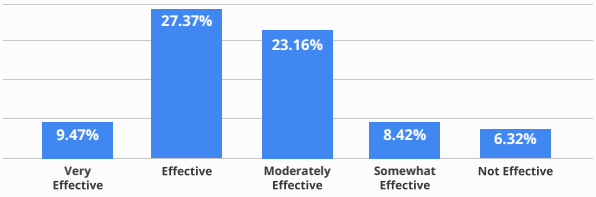
63.5% of individuals and businesses are open to increasing their knowledge of digital tools and believe that increasing knowledge of digital tools can enhance the uptake and utilisation of digital tools and services.

Would you be interested in training on how to better use Government online services for your business?

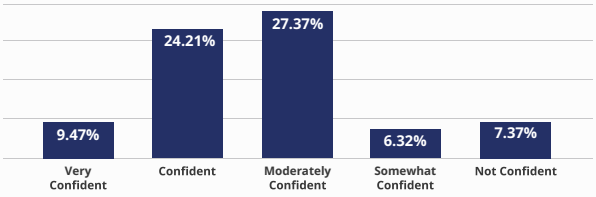


- Most respondents feel the new customer protection measures would be effective in resolving customer complaints.
- Majority of the respondents expressed confidence in the legal backing of the new customer protection measures.

How effective will the new guidelines be in resolving customer complaints?



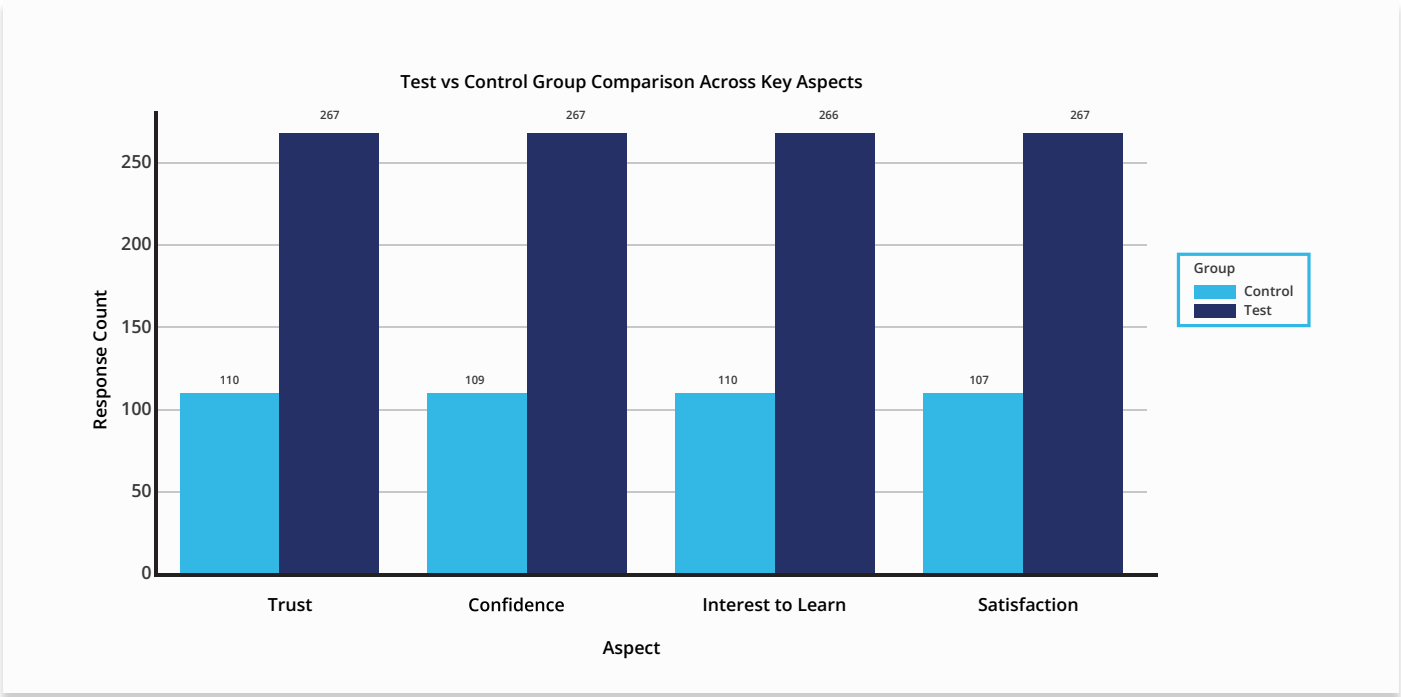
How confident are you in the legal backing of these new consumer protection measures?



While a majority (60%) view the new guidelines as effective to some degree in resolving customer complaints, 14.74% remain skeptical, rating them as only somewhat or not effective. Strengthening implementation and clearly communicating impact could help boost overall confidence in the guidelines.

While most respondents (61.05%) expressed moderate to high confidence in the legal backing of the new consumer protection measures, 13.69% remain uncertain or lack confidence. This suggests a need for clearer communication around the legal framework to strengthen public trust and support.

5.3 Behavioural Differences Between Users and Non-Users of Digital Government Services



A comparative analysis between respondents who have used online government services (Test group) and those who have not (Control group) reveals notable behavioural differences. The Test group consistently showed higher trust in data security, greater confidence in using digital platforms, and a stronger willingness to learn more about online services. They also tended to report higher satisfaction with government service delivery. These findings underscore the potential of exposure and usage experience to positively influence perception, confidence, and digital engagement among citizens and private sector actors.

6.0 Key Takeaways

- **Businesses:** The survey highlights that while digital government services are gaining traction among Nigerian businesses, addressing trust, usability, and accessibility barriers is crucial for sustained growth. By prioritising these areas, the government can enhance the effectiveness, adoption, and satisfaction with its digital service offerings.

- **Citizens:** A user-centric approach addressing trust, accessibility, and usability, combined with targeted outreach and education campaigns, can significantly expand adoption and public satisfaction. These strategies will ensure the success of Nigeria's digital government initiatives.

Section 3:

Review of the National Digital Economy and E-Governance Bill

7.0 Review of the National Digital Economy and E-Governance Bill[15]

This section highlights key sections of the National Digital Economy and E-Governance Bill, noting challenges based on insights from the GINGER research, with recommendations to be considered for the bill implementation process.

Section	Nigerian Reality/ Challenge(s)	Recommendation(s)
Part I, Section 3: Requirement to Provide Access to Information in Paper Form Highlights criteria for electronic information to satisfy paper form requirements	• Section rightly allows electronic information to satisfy paper form requirements if integrity and accessibility are ensured. This provision can however be strengthened.	• Strengthen provision by requiring regulatory agencies (e.g., NITDA) to define standards for '*reliable access*' and mandate use of inclusive formats (e.g., text-to-speech, offline access) and periodic audits of accessibility and equity compliance.
Part II, Section 12: Dispatch and Receipt of Electronic Communication Relates with time and place of dispatch and receipt of electronic communications	Assumes reliable internet access for all, which is unrealistic across rural Nigeria. Other challenges include: • Uneven internet penetration (esp. in rural areas) • Digital literacy gaps • Heavy mobile-first, low smartphone quality • Power outages disrupt usage of digital tools	• Instead of falling back to paper, promote USSD- and SMS-based acknowledgment protocols, which work on basic phones and offline environments. • Introduce equity clauses such as SMS confirmation and encourage the deployment of Digital Access Points (DAPs) - kiosks in local governments or post offices where citizens can securely access or acknowledge electronic communication. This can serve as official proxies or secure public retrieval options in underserved areas. • Mandate that "receipt" be legally recognized once communication has been sent via any two verifiable digital channels (e.g., SMS + email) to address latency and accessibility issues. • Establish a national registry of digital addresses (email, phone numbers) linked to NIN/ BVN to streamline communication in low-infrastructure areas
Section 35 (6): Carriage of Goods & Exclusivity of Data Messages Provides for strict distinction between the use of data messages and paper documents: when data messages are used, paper documents are invalid	• Many logistics companies, clearing agents, and SME traders rely on paper and informal channels. • Blockchain-based or e-logistics systems are still nascent and fragmented. • As such, strict binary between data messages and paper documents risks legal	• Given these challenges, it is important to consider transitional hybrid models and create sector-specific digital readiness thresholds to govern implementation: • Permit digitally stamped physical records only as transitional support tools, tied to a phase-out plan led by agencies like NITDA and FCCPC. • Recommend open-source platforms for hybrid transactions, where both

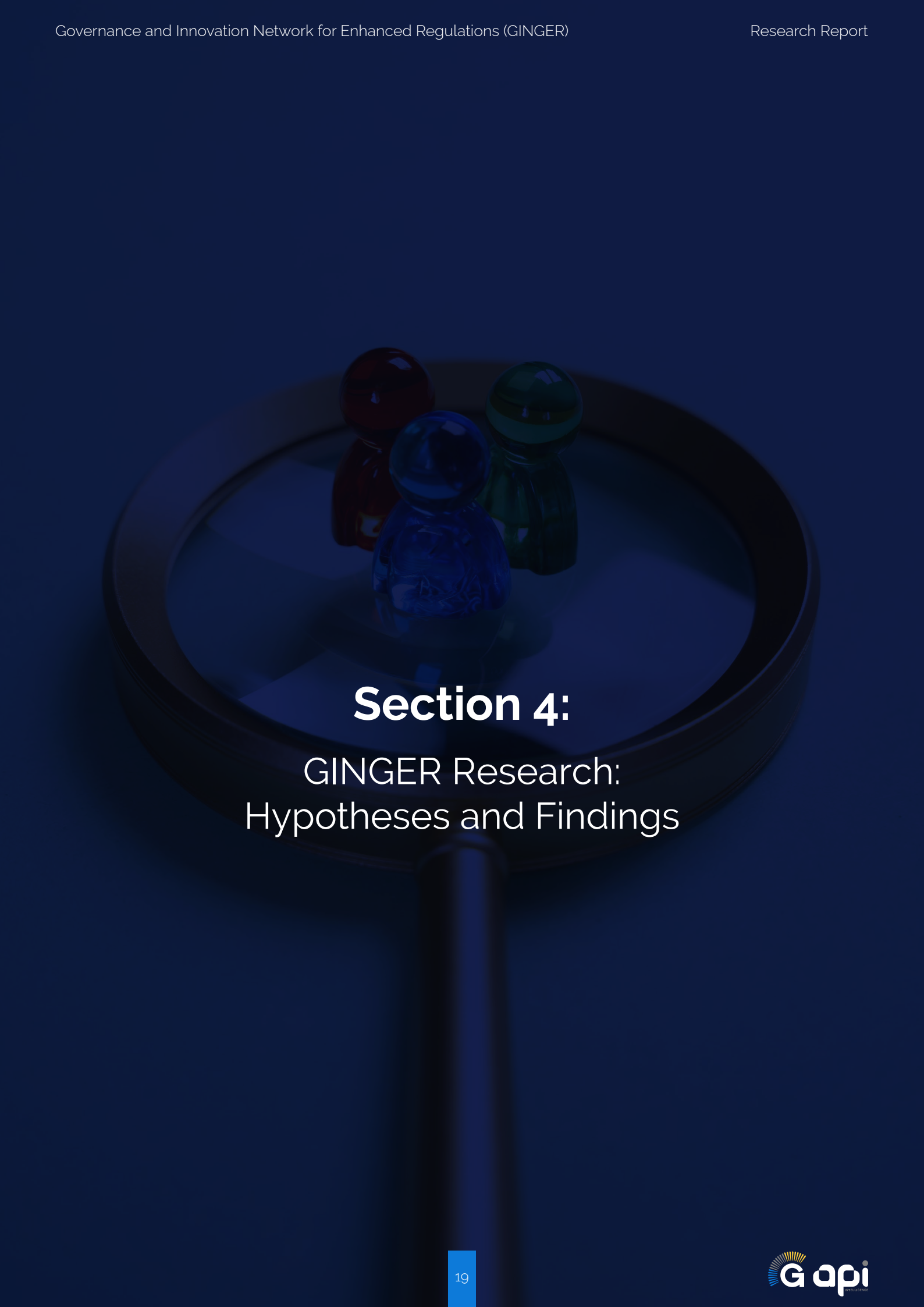
[15]National Digital Economy and E-Governance Bill, 2024. Federal Ministry of Communications, Information and Digital Economy. July 2024. https://fmcide.gov.ng/wp-content/uploads/2024/07/National%20Digital%20Economy%20and%20E-Governance%20Bill%2C%202024%20-%20Draft.pdf?_t=1721838823

	conflicts, especially in informal sectors.	digital and scanned physical documents are reconciled for record-keeping - especially for MSMEs. • Introduce accreditation for digital brokers or agents who can help low-tech traders manage digital transactions.
Section 36 (4): Vendor Disclosures and Consumer Protection Outlines key information to be provided by vendors/ service providers to enable consumers make informed decisions	• High incidence of hidden fees (e.g., fintechs, telcos, delivery services) • Weak enforcement by consumer protection bodies • Poor digital financial literacy	• Enforce pre-disclosure rules for ALL digital vendors, mandating clear fee tables *before* any transaction (mirroring CBN fintech guidelines). • Recommend NITDA and FCCPC jointly publish and maintain a national pricing disclosure schema, possibly linked to APIs used by price comparison platforms. • Mandate a " Know Your Charges" (KYCg) label or icon, like a digital compliance badge, for apps/ websites that meet disclosure standards.
Part VII, Section 37 (4): Cancellation of Contract Before Processing Lists Circumstances where a vendor or service provider shall not hold consumers liable for charges related to a transaction	• The provision focuses on the delivery of physical items, and might offer inadequate protection for consumers buying digital products or services • The provision does not consider cases where non-delivery are as a result of circumstances beyond the vendor's control	• Broaden protection to encompass digital products and services • Implement a provision that relieves vendors from responsibility when non-delivery results from unexpected events or circumstances outside their control
Part VII, Section 38 (5): Consumer's Personal Information Enables collection of consumer consent using an online opt-in or opt-out process	• The opt-in or opt-out method, might not provide equal protection for consumers' rights. • The legislation fails to indicate that the opt-out procedure must be readily accessible, such as a one-click option.	• Obligate vendors to offer a visible, one-click opt-out option to ensure simple retraction of consent. • Create a system for routinely assessing and revising the law to guarantee it continues to effectively safeguard consumers' rights against changing technologies and business methodologies
Part X, Section 51: Digital Government Infrastructure Relates to the use of Digital Government Infrastructure	• Lacks clarity on intergovernmental coordination and funding for ICT rollouts.	• Mandate a Digital Infrastructure Coordination Framework. Integrate USPF/ PPP models and performance audits for equitable access.
Part XI, Section 54: Digital Government Services Relates to the delivery of Digital Government Services by public institutions	• While the provision outlines parameters for proper delivery of digital government services, it highlights no binding service standards or citizen redress mechanisms	• Mandate Minimum Service Standards (MSS), digital performance dashboards, and a centralized complaints/ redress portal.
Part XI, Section 56: Enhancement of Electronic Records	• No mandated audit trails, encryption, or archiving standards	• Reference data protection laws. • Mandate encryption, ISO standards, and secure metadata logging for all records.
New Sections to be Considered	• The bill contains no clear provisions on cybersecurity, trust, digital inclusion, or enforcement oversight	• Add sections on digital equity strategy, independent oversight, trust audits, cybersecurity rating, and mandatory literacy training.

7.1 Legal Strategy for Digital Equity Without Reverting to Paper

The National Digital Economy and E-governance Bill provides an opportunity for transition from paper use to digitally-enabled tools. As such, while there are infrastructural gaps, the following options may be considered instead of requiring physical options:

- Embed legal mandates for multi-channel digital communication that include SMS/USSD
- Institutionalize digital equity as a regulatory principle under NITDA, NOT as a paper-based exception clause.
- Include a clause for "Digital Infrastructure Progress Reviews" that allows parliament or regulators to assess whether infrastructure gaps still justify certain waivers or transitions.



Section 4:

GINGER Research: Hypotheses and Findings

The Governance and Innovation Network for Enhanced Regulations (GINGER) project focused on testing the perception and feasibility of Nigeria's National Digital Economy and E-Governance Bill for its pilot phase. The bill supports the legal validity and enforceability of digitally enabled tools including electronic contracts, electronic signatures and timestamps.[16]

Within this scope, the Randomised Control Trial (RCT) research methodology was employed to test 8 hypotheses around the knowledge and use of digital tools that are provided for by the bill; and the use of RCTs. Beyond the findings specifically related to the focus bill and the use of digital tools, the research study provided insights into the broader implications of applying experimental approaches like RCTs to shape policy design, build awareness and support adaptive and iterative policy design. The research hypotheses are as follows:

8.0 GINGER Research Hypotheses

S/N	Hypotheses
H1	Training and capacity building in digital tools will lead to more efficient usage and increased compliance with relevant digital policies and regulations.
H2	Increased knowledge and understanding of digital tools will positively influence the uptake and utilisation of these tools by citizens.
H3	Implementing electronic transactions will significantly increase transaction speed and reduce errors
	compared to traditional methods
H4	The use of electronic signatures will achieve legal recognition and reduce document fraud
H5	Digital government services will enhance public service delivery efficiency and increase user satisfaction
H6	Consumer protection measures will decrease consumer complaints and fraud.
H7	Integrating the RCT framework within a Community of Practice (COP) will lead to more coherent policy outcomes.
H8	Policies tested and refined through the RCT framework will demonstrate higher levels of stakeholder buy-in and compliance.

9.0 GINGER Intervention and Findings

To test these hypotheses, 15 data enumerators were deployed across Nigeria's 6 geo-political zones. These enumerators, who were educated on relevant digital tools that support some of the bill's provisions, trained study participants on the use of these tools; after which they were asked about testing these tools for a period of time. As part of the GINGER project, a community of practice was also formed, comprising government and private sector stakeholders including policy makers, policy consultants and expert analysts, members of academia including professors of law and statistics, and SME representatives. The CoP was tasked with supporting the validation of the RCT research methodology to support better project outcomes

A major assumption that was held before embarking on the research study was that awareness elicits compliance: when people become aware of a new solution or digital/e-governance tool that supports ease of their operations, they are inclined to increase use., which will positively influence adoption and influence uptake.

Below is a summary of our findings and recommendations to support low-tech interventions and trust building:

[16]National Digital Economy and E-Governance Bill, 2024. Federal Ministry of Communications, Information and Digital Economy. July 2024. https://fmcide.gov.ng/wp-content/uploads/2024/07/National%20Digital%20Economy%20and%20E-Governance%20Bill%2C%202024%20-%20Draft.pdf?_t=1721838823

Challenge Area	Findings[17]	Barrier Identified	Intermediate Recommendation (Low-Tech & Trust-Building)
Digital Literacy & Capacity (H1 – H2) Awareness elicits compliance: H1 and H2 posit that training and capacity building in digital tools will lead to more efficient usage as increased knowledge of these tools should naturally lead to increased uptake.	• Majority of surveyed businesses are run by educated people, most of whom are urban dwellers • However, four-fifths of them admit that they are unsure or completely mistrust the government in keeping their business information safe when using online services.	Knowledge alone does not translate to adoption without supporting conditions	• Use SMS-based microlearning and radio edutainment segments on digital tools and service access • Deploy community-based digital champions (e.g., NYSC corps, faith leaders) trained to provide local support
Infrastructural Gaps (H1, H5)	Majority of the surveyed businesses (59.2%) highlight poor internet connection as a major challenge when using government online services.	Internet access and smartphones are unevenly distributed	• Require MDAs to develop USSD-compatible service versions (e.g., for payments, complaints, and queries) • Pilot public-access smart kiosks (e.g., in LGAs, post offices) with offline services and trained attendants
Trust in Digital Transactions (H3–H4) H3 and H4, highlight how digitisation influences transaction processes, increasing speed, reducing errors and reducing incidences of document fraud (the use of e-signatures for example) compared to traditional methods.	While 70% of surveyed businesses believe that online government services are beneficial in terms of time & cost savings and ease of access, trust is the highest concern with using online government services (53%); followed by internet accessibility concerns (38%)(issues with poor internet connection that may disrupt transactions)	Low trust in digital platforms, despite understanding benefits	• Use community validation models: e.g., messages endorsed by trusted local actors • Build in visual proof of action, such as SMS receipts with ministry logos and codes- Publish public performance dashboards on complaints resolved and services delivered digitally
Digital Government Service Delivery (H5) H5 indicates that the use of digital government services will enhance public service delivery efficiency and increase user satisfaction	While over 60% of surveyed businesses would like to see more digital government services and are interested in training on how to use these services, access to efficient internet connection remains a concern.	Efficiency gains are uneven, marginalizing low-connectivity users	• Mandate multilingual IVR systems (Interactive Voice Response) for key public services • Set up rotating mobile service days (" Digital Mondays") where service teams visit LGAs physically but process requests digitally
Consumer Protection & Confidence (H6) H6 argues that effective consumer protection measures will decrease consumer complaints and fraud	Although, majority of the surveyed businesses express confidence in consumer protection measures, a sixth of them (16%) still express low confidence in the interventions.	Existing frameworks lack teeth if citizens don't believe in them	• Deploy real-time SMS verification for transactions, showing vendors are registered- Integrate " digital trust badges" on vendor sites or apps verified by FCCPC/ NITDA • Mandate **offline opt-out** mechanisms from marketing and unfair charges

[17]Based on insights from over 100 businesses surveyed

Policy Coherence & Stakeholder Inclusion (H7–H8) H7 posits that integrating the RCT framework within a Community of Practice (COP) will lead to more coherent policy outcomes; H8 argues that policies tested and refined through the RCT framework will demonstrate	The CoP supported the research validation, thereby supporting policy recommendations and outcomes.. However, on the field, enumerators worked to overcome challenges including stakeholder trust deficit, via open communication and transparency, in order to get their buy-in towards project execution.	Stakeholder buy-in is fragile, especially in top-down digital initiatives	• Co-create rural-level feedback loops during policy testing via SMS surveys or townhall codes- Require RCT reports to include resistance factors and resolution pathways- • Add a "citizen panel" to Digital Economy Act implementation

9.1 Summary of Findings

1. **Foundation:** Training and capacity building (H1, H2) establish a baseline for digital literacy but require parallel investments in trust and infrastructure to sustain impact.

2. **Efficiency:** Transactional innovations (H3, H4) enhance speed and security but demand trust-enabling frameworks for adoption.

3. **Impact:** Public service efficiency and consumer protection (H5, H6) create societal value but are sensitive to access disparities and enforcement gaps.

4. **Innovation:** Policy experimentation through RCTs (H7, H8) drives iterative improvement but depends on overcoming stakeholder resistance and institutional inertia.

10.0 Recommendations

1. **Expand Training and Support:** Develop advanced and personalised training to build user confidence and address usability challenges.

2. **Enhance Communication:** Highlight timesaving, cost-efficiency, and sustainability benefits through targeted campaigns.

3. **Foster Inclusivity:** Address the needs of low-confidence users and those facing accessibility barriers to ensure equitable digital adoption.

4. **Prioritise Trust and Security:** Addressing trust deficits through stronger security and better communication can drive broader adoption.

5. **Training and Outreach:** Tailored training programmes and multi-channel outreach can bridge knowledge gaps and foster confidence in digital government services.

6. **Rural Inclusion:** Expanding digital services to rural businesses is essential for equitable adoption and growth.

Governance and Innovation Network for Enhanced Regulations (GINGER)

RESEARCH REPORT

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