



**POLICY BRIEF**

# Tracking the Socio-economic and Digital Impact of Data Governance in Africa:

Evidence from Ghana and Nigeria

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# Background

According to a 2023 [report](#) by the United Nations Conference on Trade and Development (UNCTAD), around 36 out of 54 African countries have enacted some form of data privacy and protection legislation, indicating a significant data governance uptake across the continent. This is a marked improvement on the previous 2022 [report](#) which indicated that 33 countries on the continent had data protection laws or regulations.



Notwithstanding some arguments against data governance practice in Africa, there is [overwhelming evidence](#) in support of its instrumentality in the continent's socio-economic development and digital transformation. This paper explores two insightful case studies of successful multi-sector data governance implementations in both Ghana and Nigeria that help drive innovation and financial digital inclusion, boost domestic developmental needs, and remove barriers to digital and socio-economic growth. It concludes that data governance, if effectively harnessed, is beneficial and capable of propelling Africa's emergence as a world digital market leader.

## Introduction

Data governance refers to the [technical, policy and regulatory frameworks](#) designed for the management, processing, and security of data in the digital ecosystem. With effective data governance in place, data availability, reliability, and consistency are guaranteed. Given its potential as the resource that drives global digitalisation and economic development, data is figuratively described as “the new oil”, which must be strategically commoditised for value to be derived from it. The [commoditisation of data necessitates a reliable data governance to make it retain its value](#) as an invaluable asset, enabling it to drive innovation, boost economic growth, and foster societal development. In addition, effective data governance mechanisms are expected to integrate safeguards against data-related harms/threats that may result from the usage and processing of data.

The World Bank identifies the eight key components or “pillars” that constitute the basis of any robust data governance programme as [data quality, data security and privacy, data architecture and integration, metadata management, data lifecycle management, regulatory compliance, data stewardship and data literacy](#). All these components capture both the enablers that facilitate the effective management of data (such as data quality standards, data stewardship, and metadata management) and the safeguards that protect data assets (such as data security, data privacy, and regulatory compliance).

No matter the sector, any data governance policy or law that is aimed at driving a developmental agenda must be guided by these pillars, depending on the contextual peculiarities of the data jurisdiction. But for any data governance policy to be effective, it must [encourage an ecosystem where there are multi-stakeholder efforts to improve data access and use](#). Furthermore, effective data governance policy must demonstrate the capability to combat such harms and risks that hamper the flow of data, limiting its economic and social potential.

On the global front, the impact of an effective data governance ecosystem on the unlocking of data value for socio-economic development as well as the growth of digitalisation is without doubt. In Africa, its importance is well-recognised, prompting the development of comprehensive policies, legal frameworks, and institutions to ensure effective data governance. Both at the national and regional levels, proactive data governance measures have been taken to demonstrate the state and non-state actors' strong commitment to boosting the continent's digital market.



Apart from the various African countries that, according to UNCTAD, have enacted data privacy legislation, regional economic communities on the continent, such as EAC, SADC, and ECOWAS, have enacted well-enforced data privacy and protection laws. As the umbrella body, the African Union has also played an invaluable role in adopting the Convention on Cyber Security and Personal Data Protection in 2014 for the harmonisation of continent-wide data protection laws and standards, as well as in publishing the AU Data Policy Framework, which represents a major step towards protecting data across the African continent. As a contextually grounded but forward-looking framework, the AU Data Policy Framework [sets out the principles aimed at guiding the responsible and ethical collection, storage, and processing of all forms of data on the continent](#).

Nevertheless, the narrative about the extent to which data governance has facilitated developments on the continent has been mixed. This is a result of the fact that the potential developments and benefits that data can bring to Africa are contingent [on how much effort the continent makes towards strengthening its data governance ecosystem](#). While much development has been constrained in the data spaces of some African countries owing to their poor data governance mechanisms, the narrative is different in others where data is well governed. In data spaces like the US and China, data's capability to unlock its vast potential is naturally bolstered by fuelling digital progress and generating different forms of value that enable these data spaces to achieve their socio-economic goals and drive their digitalisation agenda (CSEA, 2022).

This paper explores the success stories of two African data jurisdictions: Ghana and Nigeria. It examines two insightful case studies of stakeholders, focusing on respective data governance implementations that help drive innovation and financial digital inclusion, boost domestic developmental needs, and remove barriers to socio-economic growth. Furthermore, the paper discusses both 'the cases for' and 'the cases against' data governance in Africa. It concludes that data governance, if effectively harnessed, is a catalyst for the continent's journey towards achieving socio-economic development and digital transformation that can propel its emergence as a digital market leader to beat.

# The case for Data Governance



There are vast opportunities that data governance can guarantee for the good of Africa. Through its strategic deployment of effective data governance policies and infrastructure, Africa can channel its rich and valuable data resources to drive economic growth, improve public services, and address social challenges. The following are the claims made in support of data governance as being beneficial for Africa

## **Potential to drive innovation and boost economic transformation**

Effective data governance has the potential to drive growth-motivated innovation, create a safe environment that stimulates investments, and promote cross-border data flows, all of which can result in significant economic benefits for Africa (Balogun, 2024). Furthermore, with the instrumentality of good data governance, Africa can leverage its enviable status as a champion of mobile technology to harness the potential of digitalisation for its economic transformation.



## Management of data for better data analysis

Since data governance entails outlining the roles and responsibilities of managing data, [a well governed data access and organisation process that provides resource for better data analysis](#) is crucial, especially when deciding how and what data is to be used to achieve the set business goals. As big data analytics continue to rise in Africa with the emergence of Artificial Intelligence (AI), effective data governance prevents the loss of control over personal data (Babalola, 2023). This helps address the emerging concerns over privacy and discrimination, which constrain the maximisation of data for the development of AI and emerging technologies in Africa.



## Provision of accurate and standardised data

Additionally, effective data governance promotes the standardisation of data formats and protocols in Africa (Ndemo and Thegeya, 2023), thus facilitating standardised cross-border data flows, cross-sector data sharing, and collaboration. Furthermore, it is capable of enriching and enhancing resource allocation. Strong data governance practices improve the provision of accurate and standardised data, which various stakeholders within the African data ecosystem, such as national statistics offices (NSOs), government agencies, private sector entities, academic institutions, and non-governmental organisations, use to produce multi-dimensional pro-development results for the betterment of the continent.



## Facilitation of strict adherence to regulatory compliance and international standards

Data governance frameworks enable African countries that engage more with the formidable international digital market models, like the US, Europe, and China, to adhere strictly to regulatory compliance and international standards (Balogun, 2024). Such African countries tend to comply with international data protection regulations like the General Data Protection Regulation (GDPR), which strengthens their international trade relations and cooperation. For cross-border data collection and sharing between these African countries and international digital markets to be productive and result in sustainable partnerships and credibility, the African countries should make the necessary investments to meet international standards.



## Provision of a support system for digital transformation and sustainable development

The implementation of robust data governance frameworks, grounded in African governments and institutions' committed policy and regulatory intervention, can help support digital transformation and sustainable infrastructure development across the continent (Abimbola, Aggad and Ndzendze (2021). As will be reviewed in one of our case studies, governments' demonstration of commitment towards enacting regulations and enforcing compliance often plays an invaluable role in laying a solid foundation for pro-development data governance

# The case against Data Governance



Despite the overwhelming evidence in support of the good that data governance is capable of facilitating for Africa's benefit, there are also arguments against its implementation in the continent. The most commonly found arguments against data governance in the literature are such concerns as the following:



## Constraint on innovation

Given its tendency to impose strict rules and limitations on data access and use for development needs, data governance and associated regulations may constrain innovation (The Data Values Project, 2021). With rules that are too rigid to adapt to emerging technologies and innovative ideas, data governance obstructs experimentation, thereby slowing down the development of innovative products and services. It is, however, suggested that extreme data governance rules be purposefully avoided to prevent constraints on innovation and provide an appropriate enabling environment.



## Negative impact on economic growth

The moment a policy measure, like data localisation, becomes too restrictive to the point of hindering data sharing and innovation, it can [negatively impact economic growth](#). African countries' imposition of data localisation barriers by storing data locally has the potential to deter foreign investment and hinder cross-border data flows. It is, however, [important to consider that allowing cross-border data flows can attract numerous investment opportunities to Africa](#).



## Cost burden

It is argued that the implementation of comprehensive data protection measures in Africa can be costly for small and medium-sized enterprises, especially in regions with limited resources (Geneva Internet Platform digwatch, 2024).



## Lack of awareness

In Africa, the lack of public understanding about data privacy rights is a major limitation to productive engagement with data governance frameworks (Folorunsho et al, 2024).

# Data governance, digital transformation and economic development in Ghana and Nigeria



Digitisation and digital technology adoption have become [widespread](#) in Africa, prompting the need for effective data governance that makes data value derivable, promotes trust, and drives economic growth and digital transformation agendas. Ghana and Nigeria are among the forward-looking African countries that have made coordinated efforts to put effective data governance measures in place to achieve these objectives.

## Ghana

The Government of Ghana has recorded successes in its data governance initiatives. It enacted [Data Protection Act, 2012 \(Act 843\)](#), the legislative framework that sets the tone for data privacy regulations in the country. The Act establishes The Ghana Data Protection Commission (DPC) and outlines the individual rights and responsibilities regarding personal data, collection, processing, sharing, and use.

Other important stakeholders that complement the DPC's data collection and management's efforts include Ghana Statistical Service, Ghana Revenue Authority, Electoral Commission, Births and Deaths Registry, and National Identification Authority. The DPC has reportedly positioned itself as [a regional trailblazer and a national forefront enabler of appropriate and authorised processing of quality data in a people-centric digitised ecosystem](#). Driven by a bold resolve to digitalise its economy, the government does not waver in its commitment to promoting digitalisation, considering data governance a crucial factor in maximising the opportunities that the digitalisation agenda can deliver for the economic good of the country. Regionally and internationally, Ghana's data governance initiative has recorded an outstanding result in charting the path for digital transformation, creating a platform for cross-sector digital collaboration (between public and private sectors that leverage data and digital innovation for economic benefits), and promoting digital inclusion. According to the 2024 GSMA Mobile Money Regulatory Index (MMRI), Ghana's ranking as the best in the world for Mobile Money regulation remains a major milestone in global financial digital governance. With 95.06% score, Ghana was considered to have improved on its previous score of 92.56% in 2023, which had placed it third globally behind Rwanda and Pakistan. But in 2024, Rwanda (95%), Qatar (94.21%), Malawi (93.88%), El Salvador (93.75%) and Pakistan (92.81%) trailed behind Ghana. This development marked Ghana's significant trajectory in financial digital inclusion, which is driven by its Mobile Money Interoperability (MMI) data governance policy. It is this incredible milestone that informs our choice of the Ghanaian data governance space for the present case study research.

Despite Ghana's sustained effort towards achieving a robust data governance framework, it still has its data governance challenges. These challenges include limited capacity building in the areas of training and awareness regarding data protection practices and compliance, difficulty in ensuring the accuracy and reliability of data collected across different government agencies remains a concern, poor cross-sector data collaboration between both the public and the private sectors in leveraging data for development initiatives, and constraint in ensuring effective enforcement of data protection regulations to address potential breaches and non-compliance.

## Nigeria

Although Nigeria's data governance seems to be at its nascent stage currently, the government has made significant data/digital policy and regulatory efforts that have demonstrated its data governance commitment. Nigeria's principal data protection legislation, which is the Nigeria Data Protection Act 2023 (NDPA), was signed into law by Nigeria's President, Bola Ahmed Tinubu on June 14, 2023. It operates under the control of the Nigeria Data Protection Commission (NDPC).

Prior to the enactment of NDPA, however, there had been an important policy framework, the Nigeria Data Protection Regulation 2019 (NDPR), which establishes the rights of data subjects and provides a framework for personal data collection, processing, storage, and sharing. Other institutions that complement the NDPC's efforts towards fostering a strong data governance regime in Nigeria include the National Information Technology Development Agency (NITDA), the Nigerian Communications Commission (NCC) and the National Identity Management Commission (NIMC).

The Nigerian government's data governance efforts, through its establishment of policies and development of legal frameworks to ensure the security, accuracy, and responsible use of data, have been a major boost to the country's pathway to digital transformation. These policies and legal frameworks are essential for leveraging digital technology across various sectors while mitigating harms associated with data privacy and compliance to guarantee trust in the country's digital space. In line with the country's efforts, the NITDA implemented a National Data Strategy (NDS), aimed at [harnessing the power of data for economic growth](#), while developing regulations to ensure data privacy and compliance with international standards, [which is crucial to fostering trust in data usage](#). Other government's initiatives that are strategically tailored towards driving national economic development and boosting digital market transformation are the National Digital Economy Policy and Strategy (NDEPS), National Data Policy (NDP), the National Blockchain Policy and National Broadband Plan (NBP). The NDEPS was devised by the Nigerian government as a policy strategy; the NDP was designed to strengthen data management and governance between 2023 and 2027, addressing data-related issues. While the National Blockchain Policy was orientated towards boosting economic growth and digital innovation. The National Broadband Plan was aimed at enhancing broadband penetration, as well as facilitating affordable internet access to more Nigerians.

However, Nigeria's giant strides towards achieving digital transformation have been fraught with sundry challenges, which stifle the country's pace of digital growth and development. These challenges range from bad leadership, [planning, decision-making and monitoring](#), limited funding and resources, [infrastructure deficit](#), disincentives to non-state actors through the government's burdensome taxation policy; to ineffective data management. Despite the aforementioned challenges, the Nigerian government has not rested on its oars in increasing [digital literacy and access to technology across its population](#) so as to facilitate digital inclusion. It makes [data governance a critical factor](#) in various sectors in Nigeria, such as telecommunication, healthcare, finance, and banking services, supporting all forms of initiative that help drive transformation in such areas as data and digital infrastructure, data regulation enforcement and compliance, and data quality and security. It is historic that the African Union (AU), last February, [officially endorsed Nigeria as the Digital Trade Champion under the Africa Continental Free Trade Area \(AfCFTA\) Digital Trade Protocol](#) in recognition of its commitment to promoting digital enterprise and innovation through an effectively regulated data ecosystem.

## Case Studies

The following case studies, representing the different stakeholders contacted, are presented in separate boxes to substantiate the economic and digital benefits of effective data governance vis-à-vis its ability to drive innovation and financial digital inclusion, boost domestic developmental needs, and remove barriers to socio-economic growth. These boxes below relate the positive impact of effectively implemented data governance on a mobile money FinTech (MTN MoMo Ghana) and a telecom (Globacom Nigeria).

### Case Study 1: Financial Inclusion and Data Interoperability: MTN Mobile Money (MoMo) Ghana

The MTN Mobile Money (MoMo) Ghana platform, as a financial digital innovation, started in 2010, allowing money to be sent from one wallet to another on different telecommunication networks only through the token system. But the system remained complicated until the Mobile Money Interoperability (MMI) system in Ghana, reckoned as one of the first interoperable systems in Africa, was introduced by the Government of Ghana through Ghana Interbank Payments and Settlement Systems (GhIPSS) in May 2018. The GhIPSS project was part of the government's initiative to [reduce cash as the predominant mode of payment, drive financial inclusion, and reduce the number of unbanked populations in Ghana.](#) The GhIPSS Board of Directors comprises members from the Bank of Ghana, the Ministry of Finance, and the Association of Bankers. The Ghana Chamber of Telecommunications primarily organises, and channels consultations on MMI.

The MMI type in Ghana, which is the most common in Africa, is known as the horizontal platform interoperability or account-to-account (A2A) interoperability, wherein users of one mobile money service can transfer or make payments to another mobile money provider. Since its introduction in Ghana, the MMI has stimulated a dynamic digital payment ecosystem, charting a direct path to financial inclusion in the country. It applies domestically or across borders and between mobile money services like MTN MoMo Ghana, Vodafone, and AirtelTigo, or to other financial service providers like banks. The introduction of the MMI in Ghana has increased the consumer base of MTN MoMo Ghana. The Bank of Ghana reported that registered Momo accounts, as of November 2024, stood at 71.9 million, with active accounts increasing to 23.3 million, adding that the value of Momo transactions was about GH¢298.6 billion.

. MTN MoMo Ghana is simple and safe to use, with zero monthly rates to worry about, and is available for every customer on any Ghanaian MTN number.

The MTN Momo Ghana's interoperability platform is designed to provide a secure, convenient, and inclusive financial services ecosystem, promoting financial inclusion and economic growth. Its two notable contributions are its facilitation of increased financial inclusion and promotion of digitalisation by enabling seamless access to digital payments between its platform and other existing mobile money platforms in and outside of Ghana.



## Regulatory frameworks for the MTN MoMo Ghana interoperability

The Government of Ghana has played a crucial role in supporting MTN Ghana's interoperability efforts through regulatory frameworks. Basically, the law that governs the interoperability policy in Ghana is not mandated by regulation. However, it is mandated by the Bank of Ghana (BoG) that facilitated the mobile money interoperability system in 2018, offering a clear regulatory roadmap to interconnect different parts of the payment system. While promoting financial inclusion through digital payments, the BoG, being the primary regulator, oversees the interoperability system. It ensures the enforcement and compliance with the data privacy and protection standards to guarantee consumers' data rights, thereby promoting trust.

Other important legal frameworks that play ancillary roles to that of the BoG towards regulating MTN MoMo Ghana interoperability are the following:

- **National Payment Systems Act, 2019 (Act 987):** This act provides a comprehensive framework for the development and regulation of payment systems in Ghana, including mobile financial services.
- **Payment Systems Regulations, 2020:** These regulations outline the requirements for payment system operators, including interoperability, security, and customer protection.
- **Data Protection Act, 2012 (Act 843):** This act regulates the processing of personal data, ensuring that customers' data is protected and secure.



## The situation before and after MTN MoMo Ghana's interoperability

<b>Before</b>	<b>After</b>
<ul style="list-style-type: none"><li>• Before May 2018, when the the MTN MoMo platform embraced interoperability, public demand for the platform stood at 90,000 as a result of inaccessibility and low mobile phone penetration.</li></ul>	<ul style="list-style-type: none"><li>• By August 2018, three months later, public demand rose considerably to 800,000 as a result of accessibility and high mobile phone penetration.</li></ul>
<ul style="list-style-type: none"><li>• Customers incurred high transaction costs when using third-party services to transfer money across different platforms</li></ul>	<ul style="list-style-type: none"><li>• With interoperability in place, customers can transfer money across different platforms, with little and affordable cost.</li></ul>
<ul style="list-style-type: none"><li>• MTN Ghana's mobile money platform was a closed system, meaning that customers could only send and receive money within the MTN network.</li></ul>	<ul style="list-style-type: none"><li>• MTN Ghana's mobile money platform was an open system, meaning that customers could send and receive money, transacting between the MTN network and other networks/mobile money/ financial services.</li></ul>
<ul style="list-style-type: none"><li>• There was limited interoperability between MTN Ghana's mobile money platform and other mobile network operators, banks, and financial institutions.</li></ul>	<ul style="list-style-type: none"><li>• There is unlimited interoperability between MTN Ghana's mobile Money platform and other mobile network operators, banks, and financial institutions.</li></ul>

- The lack of interoperability resulted in fragmented financial services, making it difficult for customers to access a wide range of financial services.

- Customers can access a wide range of financial services.

- There was a poor competition rate among mobile money platforms, which constrains innovation and effective services.

- There is increased competition among mobile money platforms, which drives innovation and better services.

- Before interoperability, there were worrying transactions, as the then-existing token system made sending money from the MTN Momo account to other accounts quite expensive and difficult.

- There are seamless transactions between different mobile money platforms, banks, and other financial institutions, given the smooth transaction flow and interoperability.

- There was a poor customer experience, as customers had delayed service when using the services MTN MoMo Ghana.

- There is improved customer experience, as customers now have a more convenient and user-friendly experience when using the services MTN MoMo Ghana.

# ◆ The operation of interoperability in MTN MoMo Ghana

Interoperability facilitates seamless interactions and transactions between the MTN MoMo Ghana and different mobile financial services, banks, and other financial institutions. Here is a simplified overview of its operation vis-à-vis its key components and transaction flow:

## 1. Key Components

- ◆ **Interoperability Platform:** This centralised platform enables communication and data exchange between financial institutions and mobile network operators.
- ◆ **Application Programming Interfaces (APIs):** Standardised APIs allow different systems to communicate with each other, enabling seamless transactions and data sharing/exchange.
- ◆ **Mobile Money Platforms:** MTN Ghana's mobile money platform and those of other mobile network operators are connected to the interoperability platform.
- ◆ **Banking Systems:** Participating banks' systems are also connected to the interoperability platform.

## 2. Transaction Flow

- ◆ **Customer Initiated Transaction:** An MTN Ghana customer initiates a transaction, such as sending money to a recipient on a different mobile network or banking platform.
- ◆ **Transaction Request Sent:** The transaction request is sent from MTN Ghana's mobile money platform to the interoperability platform

- ◆ **Platform Routes Transaction:** The interoperability platform routes the transaction request to the recipient's mobile money platform or banking system.
- ◆ **Recipient's Platform Processes Transaction:** The recipient's platform processes the transaction, and the funds are credited to the recipient's account.
- ◆ **Confirmation Sent:** A confirmation of the successful transaction is sent back to the sender's platform, and the sender is notified.

## **Benefits of the MTN MoMo Ghana interoperability**

By embracing interoperability, the MTN MoMo Ghana platform has complied with the government's regulations but also unlocked significant socio-economic, financial, digital, technical, and technological benefits for itself, its clientele, and the broader Ghanaian economy.

### **1. Socio-economic Benefits**

- Interoperability has enabled MTN Ghana to expand its mobile financial services, reaching a wider population and promoting financial inclusion.
- It facilitates the creation and sustenance of businesses, jobs, and other opportunities for the Ghanaian youth in the Fourth Industrial Revolution, thus transforming how business is conducted. The Momo industry reportedly creates jobs for numerous agents in Ghana, such as service providers, merchants, retailers, and Fintech companies, cutting down on unemployment and unproductiveness.
- It brings about increased customers' access to services, as they can now access a range of services, including payments, transfers, and purchases, across different platforms and networks.

## 2. Financial and Digital Benefits

- It serves as a powerful tool for the advancement of financial inclusion in Ghana, widening the customer base as well as enabling easier access to digital payments across different platforms. The Financial Inclusion (FI) report of the Bank of Ghana (BoG) in 2024 stated that Ghana achieved about 97 percent financial inclusion in terms of access, making the country one of the fastest-growing financial and digital markets in Africa.
- It makes financial services more accessible, affordable, and efficient for all.
- It has accelerated Ghana's financial sector growth, transforming it from a manual system confined to only the banks to a more open space that includes telecommunication firms and Fintechs.

## 3. Technical Benefits

- It makes domestic and cross-border trading or transactions seamless for MTN MoMo Ghana consumers.
- It removes barriers to digital payment adoption in the country.
- It has eliminated the long queues that used to constitute a nightmare in banks during paydays, as funds can now be easily transferred from a bank account to the Momo account for further disbursement to the appropriate payees.

## 4. Technological Benefits

- The adoption of interoperability by the MTN MoMo Ghana has driven investment in digital infrastructure, including data centres, fibre optic cables, and cellular networks.
- It promotes the adoption of robust cyber-security measures to protect customers' data and transactions.
- The open architecture of interoperable systems encourages innovation, enabling developers to create new financial services and applications.








## MTN MoMo Ghana interoperability challenges

Despite the various benefits that the MTN MoMo Ghana has delivered for the economic and digital good of its clientele and the country since the adoption of the interoperability policy in 2018, it has also experienced several challenges. Here are some of the challenges and the Government's proactive steps towards fixing the challenges.

Challenges	Specifics
<b>Technical</b>	<ol style="list-style-type: none"><li><b>1. Integration complexities:</b> Integrating different systems and platforms to enable seamless transactions.</li><li><b>2. Technical glitches:</b> Occasional technical issues, such as downtime or delayed transactions.</li><li><b>3. Interoperability testing:</b> Ensuring that different platforms can communicate seamlessly.</li></ol>
<b>Financial</b>	<ol style="list-style-type: none"><li><b>1. Investment in infrastructure:</b> Investing in infrastructure to support interoperability</li><li><b>2. Transaction costs:</b> Managing transaction costs to ensure profitability.</li><li><b>3. Revenue sharing:</b> Negotiating revenue-sharing agreements with partners.</li></ol>
<b>Regulatory</b>	<ol style="list-style-type: none"><li><b>1. Compliance with regulatory requirements:</b> Ensuring compliance with regulatory requirements, such as anti-money laundering (AML) and know-your-customer (KYC) regulations.</li><li><b>2. Licensing and permits:</b> Obtaining necessary licenses and permits to operate interoperable services.</li></ol>

	<p><b>3. Regulatory updates:</b> Keeping up-to-date with regulatory changes and updates.</p>
<p><b>Operational</b></p>	<p><b>1. Customer education:</b> Educating customers on the benefits and usage of interoperability.</p> <p><b>2. Agent network management:</b> Managing agent networks to ensure seamless transactions.</p> <p><b>3. Transaction fees:</b> Managing transaction fees to ensure competitiveness.</p>
<p><b>Security</b></p>	<p><b>1. Fraud and scams:</b> Increased risk of fraud and scams due to the openness of the system.</p> <p><b>2. Cybersecurity threats:</b> Protecting customer data and transactions from cyber threats.</p> <p><b>3. Compliance with security regulations:</b> Ensuring compliance with relevant security regulations.</p>

## **To cope with the above-listed challenges, MTN Ghana has:**

-  Upgraded its infrastructure to support interoperability.
-  Implemented robust security measures to protect customer data and transactions.
-  Conducted customer education programmes to promote awareness and adoption.
-  Collaborated with stakeholders, including regulators, partners, and industry players, to address challenges and promote interoperability.
-  Continuously monitored and evaluated its interoperability services to identify areas for improvement.



## Government's steps towards strengthening the interoperability system

Also, the Government of Ghana has strategically demonstrated a strong commitment toward enabling MTN Ghana to implement interoperability, thereby enhancing the overall digital payments ecosystem and promoting financial inclusion. To this end, the Government has helped considerably in strengthening the data governance policy of interoperability by providing the necessary support system, investing in digital infrastructure, and implementing robust security measures.

### 1. Provision of Support System for Interoperability

- ◆ **Interoperability Guidelines:** The Bank of Ghana, in collaboration with the government, has developed guidelines for interoperability, providing a framework for mobile network operators to follow.
- ◆ **Interoperability Testing:** The government has supported interoperability testing, ensuring that different mobile money platforms can communicate seamlessly.
- ◆ **Awareness and Education:** The government has launched awareness and education campaigns to promote interoperability's benefits and encourage customer adoption.

### 2. Digital Infrastructure

- ◆ **Ghana's Digital Agenda:** The government's digital agenda aims to transform Ghana into a digital economy, with a focus on infrastructure development, digital literacy, and innovation.
- ◆ **National Fibre Optic Infrastructure:** The government has invested in a national fibre optic infrastructure, providing high-speed connectivity across the country.

- ◆ **Cellular Network Infrastructure:** The government has encouraged investment in cellular network infrastructure, enabling mobile network operators like MTN Ghana to expand their coverage and improve services.

## 3. Security Measures

- ◆ **Encryption:** Transactions are encrypted to ensure confidentiality and security.
- ◆ **Authentication:** Customers are authenticated to prevent unauthorized transactions.
- ◆ **Fraud Detection:** The interoperability platform has built-in fraud detection mechanisms to prevent fraudulent transactions.

# Case Study 2: -Digital Inclusion and Right of Way Regulations: Globacom Nigeria

Globacom Nigeria United is one of the leading players in the Nigerian telecommunications sector. As of 2023, it had over 60.7 million subscribers, making it the second largest (after MTN) mobile operator in Nigeria. For Globacom and other broadband operators in Nigeria, Right of Way's (RoW) disparately exorbitant charges by some state governments in the country, in addition to the lack of designated paths for fibre optic cables to pass through, used to be a huge issue. A RoW is generally a type of legal right that is given to other persons to enable them to use land for transportation purposes, ranging from highways, public footpaths, rail transport, canals, and electrical transmission lines to oil and gas pipelines. For telecoms like Globacom, the RoW charge is a levy paid by telecommunication companies to state governments, permitting telecommunication companies to dig up the roads and install telecommunications hardware such as optic fibre cables that carry internet traffic. This charge has been fraught with inconsistencies across the states in terms of charges and has negatively impacted broadband infrastructure, bringing about uneven digital development.

Before the Nigerian government intervened in this crucial area of digital infrastructure, Globacom had inadvertently limited its investments in cable laying across the country, which made its broadband penetration a serious problem. Most state governments made Right of Way charges too prohibitively exorbitant for telecoms like Globacom. This development took its toll on the telecom's digital operations and clientele, constraining improved internet access and quality and slow broadband expansion. By 2020, as part of its effort to review the impact of multiple taxations in the telecommunications industry across the various states in Nigeria, the government agreed to a uniform Right of Way charge of N145 One Hundred and Forty-Five Naira only) (approximately US\$0.37 (Thirty-Seven Cents) per linear meter of fibre to be paid by all telecommunication operators to lay fibre cable [anywhere in the country](#). The move was strategically aimed at deepening growth in broadband infrastructure and penetration for the country's socio-economic development, as well as reducing the transfer of RoW charges/costs by telecommunications companies to customers.

The Nigerian government's decisive step towards harmonising the RoW charges was a clear demonstration of its serious commitment to digital infrastructure investment in the telecommunications sector. The government has the mandate to regulate all telecoms to foster digital infrastructure development through laws like the Nigerian Data Protection Regulations (NDPR) and the Nigerian Communications Act, as well as policies like the National Broadband Plan and the National Digital Economy Policy and Strategy (NDEPS) (2020-2030).

Globacom has been instrumental in supporting the Nigerian government's National Broadband Plan, which aims to increase broadband penetration to 70% by the end of 2025. It has contributed considerably to the growth of broadband penetration in Nigeria, from below 6% in 2013 to 42.24% in October 2024. It has consistently invested in infrastructure like the Glo-1 submarine cable, a development that has enabled it to offer affordable data plans to its teeming subscribers.

The NDPR has substantially helped increase the Nigerian telecommunications sector's awareness of the need to protect customers' personally identifiable information (PII). Two of the key components of the NDEPS, which are Developmental Regulation and Solid Infrastructure, indicate the government's focus on creating a regulatory environment that supports the growth of the digital economy and building the necessary infrastructure to support the digital economy. Globacom and its clientele (customers) have derived benefits from the government's digital infrastructure intervention through its review of the RoW charges: reduced cost of infrastructure development, improved network connectivity, and encouragement of new business models. It is not surprising to note the growth rate of Globacom's subscribers from 45 million before 2020 to over 70 million today. Globacom has leveraged the network expansion that resulted from the reduction of RoW charges for faster and more extensive network deployment, leading to higher penetration rates of mobile and internet services, thereby promoting digital inclusion and development.

The benefits of the waived or reduced/low RoW fees to Nigeria as a country are immense. It enables better access to information and services for the citizens, facilitates educational opportunities and remote jobs, promotes social equity, and accelerates the implementation of e-governance initiatives, and health services, boosting economic growth. With improved broadband connectivity, innovation and competitiveness are fostered, as the deployment of digital infrastructure helps accelerate the adoption of emerging technologies like Artificial Intelligence (AI), the Internet of Things (IoT), and Blockchain.

# Conclusion

The evidence presented in the case of the MTN MoMo Ghana clearly shows that there would not have been ambience for successful innovation and financial digital inclusion in Ghana if the government had not initiated a closely regulated and strengthened data governance policy of interoperability as effective safeguards. The implication is that interoperability is a game changer in the MTN MoMo Ghana and other fintechs and telecoms. However, its effectiveness is squarely based on close regulation, leading to innumerable benefits for the organisation, its customers, and the country as a whole. Also, in the case of Globacom, one of the leading telecoms in Nigeria, the government's intervention in this crucial area of digital infrastructure through its reduction of the right-of-way charges was a proactive step at removing barriers to digital development and socio-economic growth. The government's commitment to the implementation of digital governance policies like National Digital Economy Policy and Strategy (2020-2030) for the good of its mobile operators like Globacom helps a great deal in leveraging digital technologies to drive economic growth and diversify the economy, with undivided focus on the key components of the Policy Framework like developmental regulation and solid digital infrastructure investment. The effective implementation of robust data governance laws and policies has the potential to create innovation, drive socio-economic growth, and promote digital growth and development, thereby reinforcing the claim that data governance, if effectively harnessed in the African digital space, is good and capable of propelling the continent's emergence as a world digital market leader to beat.

# References:

- Abimbola, O., Aggad, F. & Ndzendze, B. (2021). "What is Africa's Digital Agenda?," Policy Brief No. 3. Berlin: Africa Policy Research Institute [https://afripoli.org/uploads/publications/Africas\\_Digital\\_Agenda\\_final.pdf](https://afripoli.org/uploads/publications/Africas_Digital_Agenda_final.pdf)
- Babalola, O. (2023). Data protection legal regime and data governance in Africa: An overview in B. Ndemo et al. (eds.), Data Governance and Policy in Africa, Information Technology and Global Governance [https://doi.org/10.1007/978-3-031-24498-8\\_4](https://doi.org/10.1007/978-3-031-24498-8_4)
- Balogun, K. (2024). "Strengthening data-sharing practices in Africa: Recommendations for responsible data governance and economic development" Policy Brief Centre for the Study of Economies of Africa <https://cseaafrica.org/images/posts/21766846.pdf> Accessed on 11 April 2025
- Centre for the Study of Economies of Africa (2022). "Foundations for Pro-development Digital Governance Framework in Africa" <https://cseaafrica.org/foundations-for-pro-development-digital-governance-framework-in-africa/> Accessed on 11 April 2025
- Folorunsho, A., Olanipekun, K., Adewumi, T.O. & Samuel, B. (2024). A policy framework on AI usage in developing countries and its impact in Global Journal of Engineering and Technology Advances 21(01), 154-166 DOI: <https://doi.org/10.30574/gjeta.2024.21.1.0192>
- Geneva Internet Platform digwatch, (2024, December 17). Challenges and opportunities in Africa's digital transformation: Data governance and sharing under scrutiny <https://dig.watch/updates/challenges-and-opportunities-in-africas--digital-transformation-data-governance-and-sharing-under-scrutiny>
- Ndemo, B. & Thegeya, A. (2023). "A data governance framework for Africa" Policy Brief No DG001 Kenya: African Economic Research Consortium <https://africaportal.org/wp-content/uploads/2023/06/DG001.pdf>
- The Data Values Project (2021, October 11). Avoiding extremities in data governance: An interview with Dr Adedeji Adeniran <https://.data4sdgs.org/blog/avoiding-extremes-data-governance-interview-dr-adedeji-adeniran>