



TOWARDS THE DEPLOYMENT OF ARTIFICIAL INTELLIGENCE FOR TAX ADMINISTRATION IN NIGERIA: AN ETHICAL AND LEGAL ANALYSIS.

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ABSTRACT: *The rapid advancement of artificial intelligence (AI) in the 21st century has begun to transform key sectors of the global economy, including taxation. In Nigeria, while the government had acknowledged AI's potential benefits by establishing initiatives such as the National Centre for Artificial Intelligence and Robotics (NCAIR) in 2020, the country remained at an early stage of AI integration, particularly within its tax administration. This study examined the ethical and legal dimensions of deploying AI in Nigeria's tax administration. The study adopted a doctrinal research methodology that analysed existing laws, policy documents, and international best practices. The study found that although AI could revolutionise tax processes by enhancing efficiency and accuracy, significant legal and ethical challenges persisted, including data privacy risks, cybersecurity vulnerabilities, lack of transparency, and regulatory uncertainty. Nigeria's reliance on general statutes such as the Cybercrimes Act, 2024 and the Nigeria Data Protection Act, 2023, without a specific AI regulatory framework, was identified as a major impediment to safe and effective AI adoption. The research recommended the creation of a robust, dedicated legal and ethical framework to regulate AI deployment in taxation, with an emphasis on safeguarding taxpayer rights, fostering innovation, and building public trust. It concluded that timely regulatory intervention was critical to ensure that Nigeria could responsibly leverage AI's potential in its tax system.*

KEYWORDS: Artificial Intelligence, Data Privacy, Nigeria, Transparency, Taxation, Tax.



INTRODUCTION

The proliferation of Artificial Intelligence (AI) systems and digital technology has provided transformational gateways.¹ These, however, have been accompanied with possible threats to various countries of the world.² Some of these threats include but are not limited to data bias, lack of transparency and accountability, cyber security attacks, breach of data privacy and intellectual property infringement.³

Positively, AI has also facilitated the performance of tasks that conventionally necessitate cognitive functions of human beings, such as reasoning, decision-making, and learning, among others. Thus, it is said that, in the 21st century, there has been an increase in the integration of artificial intelligence across numerous industries of global economies, some of which include but are not limited to health care, finance, media, education and taxation.⁴

Although Nigeria is in the early stages of AI adoption, the federal government has acknowledged its manifold benefits and is implementing measures for its utilisation within the country.⁵ In this way, the federal government of Nigeria established the National Centre for Artificial Intelligence and Robotics (NCAIR) in 2020. The NCAIR primary objective is to promote the adoption and deployment of artificial intelligence in the Nigerian industry.⁶ Coming closer, in the area of taxation, the provisions of section 25(4) of the Federal Inland Revenue Service (FIRS) (Establishment) Act 2007 as amended by section 51 of the Finance Act⁷ is empowered with the authority to automate tax payment and filing.

According to the report of the Organisation for Economic Co-operation and Development (OECD) on tax administration in 2019, over 40 tax administrations either use artificial intelligence or are preparing to deploy it.⁸ In contrast, Nigeria ranked 138 of 172 countries in the Oxford Insight's 2020 AI Readiness Index, which evaluates the capacity of national governments to optimise the utilisation of artificial intelligence.⁹ This low global ranking stems

¹ Chukwubikem I Obianyo and Solomon V Ater, 'A Critical Appraisal of the Legal Framework of Artificial Intelligence Governance in Nigeria' (2022) 4(1) *Chukwuemeka Odumegwu Ojukwu University Journal of Private and Public Law* 48-62

² Klaus Schwab, 'The Fourth Industrial Revolution: What it Means, How to Respond' (weforum.org, 14 January 2016) <<https://www.weforum.org/stories/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond>> accessed 27th April, 2025.

³ Rina Caballar, '10 AI Dangers and Risks and How to Manage Them' (IBM, 3 September 2024) <<https://www.ibm.com/blog/10-ai-dangers-and-risks-and-how-to-manage-them/>> accessed 27th April, 2025.

⁴ Shahzada Akhter and others, 'Artificial Intelligence in the 21st Century: Opportunities, Risks, and Ethical Imperatives' EATP (2024) 30(5) <<https://doi.org/10.53555/kuey.v30i5.3125>> accessed 26th April, 2025.

⁵ Olisa Agbakoba Legal (OAL), Artificial Intelligence (AI) Regulation in Nigeria: Key Considerations, Recommendations, Legal Framework, and Policy Development for Artificial Intelligence (AI) in Nigeria (Mondaq, 5 October 2023) <<https://www.mondaq.com/nigeria/technology/1368562/artificial-intelligence-ai-regulation-in-nigeria-key-considerations-recommendations-legal-framework-and-policy-development-for-artificial-intelligence-ai-in-nigeria>> accessed 26th April 2025.

⁶ Draft National Artificial Intelligence Strategy, 12

⁷ Finance Act, 2019

⁸ OECD, 'Tax Administration 2019: Comparative Information on OECD and other Advanced and Emerging Economies' (2019, OECD Publishing) <<https://doi.org/10.1787/74d162b6-en>> accessed 26th April, 2025.

⁹ Shearer E, Stirling R, and Pasquarelli W, 'Government AI Readiness Index 2020' (IDRC & Oxford Insights, 1 April 2020) <<https://www.oxfordinsights.com/government-ai-readiness-index-2020>> accessed 25th April, 2025.



from a lack of formal AI frameworks which hinders innovation and integration of AI in different economic sectors. Without a systematic strategy or framework put in place as established by countries with high AI global index rankings, Nigeria may not adequately harness AI's potential, thereby resulting in lost opportunities for economic expansion.¹⁰ Many of these challenges are attributable to lack of clarity in regulations.¹¹

Currently, there is no formal specific law directly regulating the use of Artificial intelligence in Nigeria. However, there are laws which extend to but not directly regulate the use of Artificial in Nigeria. Some of which include but are not limited to Cybercrimes (Prohibition, Prevention, etc.) Act 2024, the Nigeria Data Protection Act 2023, the Security and Exchange Commission (SEC) Rules in Robo-Advisory Services, the Copyright Act 2022, the Nigerian Commission Communication Act 2003, among others.¹² The lack of a regulatory framework leads to inactivity risk.¹³ According to a survey carried out by an international law firm, Dentons, on 450 business leaders, it was recorded that about 69% of businesses postpone making AI investment decisions due to the lack of clarity regarding AI regulations.¹⁴ Laws that will be able to guarantee and enforce the proper use of artificial intelligence are currently being developed. this is because the subject of legislation, i.e. artificial intelligence is rapidly evolving and still undergoing advancement.¹⁵ And as Artificial intelligence is significantly deployed in the financial sector, which includes taxation¹⁶, the traditional methods employed

¹⁰Adrien Book, 'Should AI be Regulated? The Argument for and Against' (*WeAreDevelopers*, 14 July 2023) <<https://www.wearedevelopers.com/magazine/eu-ai-regulation-artificial-intelligence-regulations>> accessed 26th April, 2025

¹¹ Ater Solomon Vendaga, An Appraisal of the Impacts of Environmental Taxes and Laws in Attaining Environmental Sustainability in Nigeria (2024) 3(1) *Nnamdi Azikiwe University Law Review* 17, 17.

¹²Jeffrey Shin and Cameron Lee, 'AI Watch: Global Regulatory Tracker – Nigeria' (*White & Case*, 18 June 2024) <[https://www.whitecase.com/insight-our-thinking/ai-watch-global-regulatory-trackernigeria#:~:text=There%20is%20currently%20no%20specific,Artificial%20Intelligence%20Policy%20\(NAI\)](https://www.whitecase.com/insight-our-thinking/ai-watch-global-regulatory-trackernigeria#:~:text=There%20is%20currently%20no%20specific,Artificial%20Intelligence%20Policy%20(NAI))> accessed 26th April, 2025

¹³ Eva Wollenberg, Jon Anderson and Citalli Lopez, 'Legal Pluralism and Policies Supporting Pluralism' (2005) <<http://www.jstor.com/stable/resrep02047.7>> accessed 24th April, 2025.

¹⁴ Dentons, 'AI Investment Trapped by Regulatory Uncertainty' (*Dentons*, 4 November 2024) <<https://www.dentons.com/en/about-dentons/news-events-and-awards/news/2024/november/ai-investment-trapped-by-regulatory-uncertainty#:~:text=Dentons%27%20%27Laws%20of%20AI%20Traction%27%20report%20offers%20a,close%20the%20gap%20between%20AI%20ambition%20and%20action>> accessed 25th April, 2025

¹⁵Chukwubikem I Obianyo, Solomon V Ater and Ikenna U Ibe, 'A Critical Appraisal of the Legal Framework for the Protection of Intellectual Property Rights of Non-Fungible Tokens (NFTs) and the Metaverse' (2023) 5(1) *Chukwuemeka Odumegwu Ojukwu University Journal of Private and Public Law* 212–219 <<https://www.nigerianjournalonline.com/index.php/COOUJPPL/article/view/3968>> accessed 26th April, 2025

¹⁶ Darrell West and John Allen, 'How Artificial Intelligence is Transforming the World' (*Brookings*, 24 April 2018) <<https://www.brookings.edu/articles/how-artificial-intelligence-is-transforming-the-world/>> accessed 25th April, 2025.



in the tax sector could potentially become eliminated through AI.¹⁷ But a significant risk of artificial intelligence in the taxation system is data security and privacy.¹⁸

The above means that the enforcement of adequate security measures by tax authorities is necessary to protect taxpayers from unauthorised access and breaches.¹⁹ Amidst the scepticism and anxiety surrounding artificial intelligence, the legal and ethical consideration of the implementation of artificial intelligence remains paramount; hence the reason for this paper. This is because there is the need to safeguard and protect the privacy of taxpayers and efficiently harness the benefits of artificial intelligence in taxation. A robust legal framework and ethical guidelines have to be established. In addition to reducing the risks and vulnerabilities associated with the use of artificial intelligence, legal and ethical frameworks are essential for preventing the misuse of instruments powered by artificial intelligence. This research aims to address the legal and ethical aspects of artificial intelligence in taxation in Nigeria, to which the adherence might maximise the merits of artificial intelligence.

Understanding Artificial Intelligence and Taxation

Artificial Intelligence

The term Artificial Intelligence was first coined by emeritus Stanford Professor John McCarthy in 1955 at Dartmouth. He defined the term as “*the science and engineering of making intelligent machines*”.²⁰ Indeed, the goal of McCarthy and his associates at the Dartmouth conference was to and as it was made possible, a proposal to actualise from their study a system that proceeds on the basis of the conjecture that every aspect of learning or any other feature of intelligence can in principle be so precisely described that a machine can be made to simulate it.²¹

Artificial intelligence is, therefore, a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations, or decisions influencing real or virtual environments. AI systems use machine- and human-based inputs to perceive real and virtual environments; abstract such perceptions into models through analysis in automated manner; and use model inference to formulate options for information or action.²² AI is also described as the capacity of a computer to execute cognitive activities often associated with humans, including perception, reasoning, learning, environmental interaction, problem solving, decision

¹⁷ Benjamin Alarie, Rory McCreight and Cristina Tucciarone, ‘Will AI Replace Tax Practitioners’, (Taxnotes, 30 October 2023) <<https://www.taxnotes.com/featured-analysis/will-ai-replace-tax-practitioners/2023/10/27/7hghl>> accessed 25th April, 2025.

¹⁸ Chukwubikem I Obiano and Solomon V Ater, ‘The Legal Implication of Data Privacy and Protection in the Age of Big Data and the Ever-Emerging Technologies in Nigeria’ (2023) 3 *Idemili Bar Journal* 35–50 <<https://journals.ezenwaohaetor.org/index.php/IBJ/article/view/2643>> accessed 26th April 2025.

¹⁹ KPMG, ‘What’s the Risk of Not Having a Clean AIGovernance in Place’ (KPMG, 13 February) <<https://kpmg.com/ch/en/insights/artificial-intelligence/governancerisk.html#:~:text=without%20a%20proper%20AI%20governance,unfair%20treatment%20within%20AI%20systems>> accessed 25th April, 2025.

²⁰ McCarthy, J., Minsky, M. L., Rochester, N., & Shannon, C. E., A Proposal for the Dartmouth Summer Research Project on Artificial Intelligence, August 31, 1955. *AI Magazine*, (2006) 27(4), 12

²¹ *Ibid.*

²² 15 United States Code, 9401(3).



making, and demonstration of creativity.²³ Artificial intelligence is a system capable of accurately interpreting external data, learning from it, and using that knowledge to accomplish specific objectives and tasks through adoption.²⁴

Tax and Taxation

As important as taxation is to the Nigerian economy, there is no tax legislation that has defined the term 'tax', let alone 'taxation'. This failure of the Nigerian tax laws to define the term tax has left much to be desired. Recourse shall be to dictionary definitions, judicial pronouncements and the opinions of scholars as to its meaning. The Black Law's Dictionary sees tax as a monetary charge imposed by the government on persons, entities, transactions, or property to yield public revenue..., the term embraces all governmental imposition on the person or property to yield public revenue...²⁵ The term embraces all government occupations and enjoyment duties, as well as imports and excises.

Lathan has defined the term 'tax' in *Matthews v Chicory Marketing Board*²⁶ as “a compulsory exaction of money by public authority for public purposes”. Summing up definitions of tax as offered by various other sources, Ayua concludes that:

The most important thing is a pecuniary burden laid upon individuals or persons or property to support the government and is a payment exacted by legislative authority.²⁷

Taxation, on the other hand, is the process of taxing or imposing a tax.²⁸ It is a term applied when a taxing authority, acting as a proxy for a government, levies or imposes a financial obligation on its citizens or indigenes. Ojijo and Oluwatosin define it as an important fiscal policy instrument at the disposal of governments to mobilise revenue and promote economic growth and development.²⁹ The term taxation, according to Kagan, applies to all types of involuntary levies, from income to capital gains to estate taxes. Taxation is used interchangeably with tax; however, the terms have separate meanings. To differentiate the term “taxation” from “taxes” or “tax”, “taxation” is usually referred to as an act, while the resulting revenue is called “taxes” or a “tax”.³⁰ Therefore, “taxation” is the act of imposing taxes and the fact of being taxed, while “tax” is money paid to the government other than for transaction-

²³ Arun Rai, Panos Constantinides and Saonee Sarker, 'Next Generation Digital Platforms: Toward Human-AI Hybrids' MIS Quarterly (2019) 43(1) <<https://wrap.warwick.ac.uk/id/eprint/113653/>> accessed 25th April, 2025.

²⁴ Andreas Kaplan and Michael Haenlein, 'Siri, Siri, in my Hand: Who's the Fairest in the Land? On the Interpretations, Illustrations, and Implications of Artificial Intelligence' BH (2018) 62(1) <<https://doi.org/10.1016/j.bushor.2018.08.004>> accessed 25th April, 2025.

²⁵ Bryan, A. G. *Black's Law Dictionary* (9th ed.). (Texas: Thomas Reuters Press, 2009)

²⁶ 1938) 60 CLR 263

²⁷ Ignatius Ayua, *Nigerian Tax Law* (Ibadan: Spectrum Law Publishing, 1996) 4

²⁸ Henry Black, *Black's Law Dictionary: Definitions of the Terms and Phrases of American and English Jurisprudence, Ancient and Modern* (4th edn, WPC 2010) 631.

²⁹ Odhiambo, O., & Olushola, O. Taxation and Economic Growth in a Resource-Rich Country: The Case of Nigeria (2018). InTech. doi: 10.5772/intechopen.74381

³⁰ Joycelyn U. Upaa, Agule Emmanuel Aondoaseer, and Adeniran Busari Ganiyu, *Impact of Capital Gains Tax on Nigeria Economy* (2023) 9(6) *International Journal of Economics, Finance & Entrepreneurship (NIRA-IJEFE)* 21, 34.



specific goods and services. Paying taxes to governments or officials has been a mainstay of civilisation since ancient times.³¹

Taxes enable governments to carry out their traditional functions, such as the provision of public goods and services, maintenance of law and order, defence against external aggression, and regulation of trade and business to ensure social and economic maintenance.³² Taxation is differentiated from other forms of payment, such as market exchanges, in that taxation does not require consent and is not directly related to any services rendered. Though taxes are designed for the collective good of all citizens, the tax responsibility of individual citizens is not specifically determined by any expected benefit receivable. Neumark, Cox and McLure³³ outline some important exceptions: payroll taxes, for example, are commonly levied on wages and salaries from labour in order to finance benefits at retirement, medical payments, and other social security programmes, all of which are likely to benefit the taxpayer in proportion to the amount paid. Because of the likely link between taxes paid and benefits received, payroll taxes are sometimes called “contributions” (as in Nigeria).³⁴

Whatever the objectives of tax in a country are, it is desirable that it is characterised by equity, neutrality, certainty, and efficiency.

Historical Foundation of Tax Administration in Nigeria

There have been various phases of evolution in the Nigerian tax system. Prior stages of tax administration employed a traditional approach. This stage was characterised by manual processing of data. During this period, taxpayers had the obligation to submit their tax-related information in hard copy format and these documents were manually assessed and processed by tax authorities. However, this manual approach has inherent errors, delays and inefficiencies; it faces the challenge of processing large amounts of data.³⁵

A new era of tax administration developed as a response to the shortcomings of the earlier Tax administration. This stage is geared towards utilising digital tools and data. Electronic filing system was adopted by tax authorities, enabling taxpayers to file their tax returns digitally. Through the establishment of online tax platforms, taxpayers can conveniently fulfil their tax obligations.³⁶ Tax authorities started adopting electronic filing systems, allowing taxpayers to submit their returns digitally.

Online portals for tax payments and transactions were established, enabling taxpayers to conveniently fulfil their tax obligations online. In 2015, Nigeria migrated to an electronic

³¹ Ater Solomon Vendaga, An Appraisal of the Impacts of Environmental Taxes and Laws in Attaining Environmental Sustainability in Nigeria (2024) 3(1) *Nnamdi Azikiwe University Law Review*, 17. <<https://www.naulawreview.org/2024/05/an-appraisal-of-the-impacts-of-environmental-taxes-and-laws-in-attaining-environmental-sustainability-in-nigeria-by-ater-solomon-vendaga/>> accessed 2nd June 2025

³² Adereti, S, Sanni, M, and Adesina J. Value added tax and economic growth of Nigeria. (2011)10(1). *European Journal of Humanities and Social Science*, 456-471.

³³ Neumark, F. Cox, . M. S. and McLure, C. E. (2020). Taxation. Encyclopedia Britannica. Retrieved online on 24th October, 2021 from: <<https://www.britannica.com/topic/taxation>> accessed 18th April, 2025

³⁴ *Ibid*

³⁵ Addis Tax Initiative, ‘The Digital Transformation of Tax Administration’ (*Addis Tax Initiative*, 19 July 2024) <<https://www.addistaxinitiative.net/news/digital-transformation-tax-administrations-0>> accessed 26th April, 2025

³⁶ *ibid*



system of taxation, with the Federal Inland Revenue Service (FIRS)'s introduction of the e-tax system in collaboration with the Nigeria Inter-Bank Settlement System (NIBSS).³⁷

Correspondingly, administrations globally are experiencing a substantial digital transformation through the deployment of advanced technologies such as artificial intelligence (AI), the Internet of Things, cloud computing and blockchain to enhance taxpayer experiences and streamline processes.³⁸ This stage indicates a profound transformation which addresses the obstacles and deficiencies of e-government services, indicating a retreat from the traditional system.

As highlighted by the Organisation for Economic Co-operation Development (OECD) (2016), this stage emphasises the essence of understanding the key elements that facilitate the prosperity of digital tax systems, which constitutes a broader wave of digitalization transforming the public transactions and services. This transformation is the OECD's Tax Administration 3.0 vision, 2020, which advocates for an extensive digital transformation of tax administration.³⁹

Legal and Institutional Frameworks for the Ethical and Legal Consideration of Artificial Intelligence Deployment in Taxation in Nigeria

In this section, the study examines both the institutional framework, which includes, but is not limited to, the Security and Exchange Commission Rules on Robo-Advisory, the National Centre for Artificial Intelligence and Robotics, and the National Information Development Agency and the legal framework surrounding artificial intelligence in the Nigerian taxation sector.

Legal Frameworks for Artificial Intelligence

In acknowledgement of the threats posed by AI, the international community has enacted legislation to address and minimise these risks.

International Laws

European Union Artificial Intelligence Act, 2024

The European Union Artificial Intelligence Act is the primary legislation on AI globally, which addresses the risks associated with artificial intelligence and aims to promote the development of trustworthy AI. The Act was enacted on 21 August 2024.⁴⁰

The regulation aims to establish robust protection for individuals' health, safety and fundamental rights while fostering the implementation of human-centred, reliable AI. It

³⁷ Oladejo Adeyemi and Mochunkeji Adewole, 'The Adoption of Electronic Systems for Tax Administration and Compliance' (*Andersen*, 16 June 2020) <<https://ng.andersen.com/the-adoption-of-electronic-systems-for-tax-administration-and-compliance/>> accessed 26th April, 2025.

³⁸ Rida Belahouaoui, 'Digital Taxation, Artificial Intelligence and Tax Administration 3.0: Improving Tax Compliance Behaviour a Systematic Literature Review Using Textometry (2016-2023)' *ARJ* (2024)1(1) <<http://dx.doi.org/10.1108/ARJ-12-2023-0372>> accessed 27th April, 2025.

³⁹ Benjamin Alarie (n 17)

⁴⁰ EU Artificial Intelligence Act, 'High-Level Summary of the AI Act' (*EU Artificial Intelligence Act*, 27 February 2024) <<https://artificialintelligenceact.eu/high-level-summary/>> accessed 26th April, 2025.



provides a cohesive regulatory framework for AI systems marketed or employed within the European Union. The Act applies uniformly to the uses of AI in the public service and private sector.⁴¹ However, there are certain exceptions, such as specialised applications of AI related to national defence and national security for AI systems, models, open-source models, and personal usage.⁴²

The Act employs a risk-based approach to regulation, implementing various restrictions for AI based on the level of risk they pose. The Act classifies AI applications into three risk categories. First, applications and systems that create an unacceptable risk. The development or use of an AI system that deliberately manipulates people into making detrimental decisions they would not make otherwise is classified under the Act as posing an unacceptable risk to users, and it is a prohibited AI practice.⁴³

Secondly, certain regulatory restrictions apply to high-risk applications, such as a Curriculum Vitae (CV) scanning tool that ranks job candidates. Thirdly, applications that are not specifically prohibited or classified as high-risk are largely left unregulated.⁴⁴ The AI Act establishes a defined a framework of risk-based rules for AI developers and deployers regarding certain applications of AI.⁴⁵ The possibility arises that more AI practices may be prohibited in the future, as the EU Commission can amend the list of prohibited practices in the Act.

Some of the prohibited AI practices include but are not limited to:

- a) AI used to exploit people's vulnerabilities (for example, vulnerabilities due to age or disability)
- b) Biometric identification systems that use susceptible traits to identify people.
- c) Law enforcement use of current remote biometric identification technology in public (unless there is an exemption, and pre-authorisation from a judicial or independent administrative authority is generally required).⁴⁶

⁴¹ National Enterprise Hub, 'EU Artificial Intelligence (AI) Act' (*National Enterprise Hub*, 24 February 2025) <<https://enterprise.gov.ie/en/what-we-do/innovation-research-development/artificial-intelligence/eu-ai-act/>> accessed 26th April, 2025.

⁴² *ibid*

⁴³ Matt Kosinski and Mark Scapicchio, 'What is the Artificial Intelligence Act of the European Union (EU AI Act)?' (*IBM*, September 2024) <<https://www.ibm.com/think/topics/eu-ai-act>> accessed 26th April, 2025.

⁴⁴ *ibid*

⁴⁵ European Commission, 'AI Act' (*European Commission*, 18 February 2025) <<https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai>> accessed 26th April, 2025.

⁴⁶ Klaus Schwab (n 2)



General Data Protection Regulation, 2018

The General Data Protection Regulation (GDPR), which serves as a framework for laws across the continent, came into force on May 25, 2018. According to the European Union, the GDPR was designed to improve individual rights and protections while harmonising data privacy regulations across all of its member countries.⁴⁷ The Data Protection Directive was superseded by the GDPR, which was designed to regulate how companies process and utilise personal data they collect from consumers online. It also provides rules for how information is transferred, whether it is partially or entirely through automated means.⁴⁸

The GDPR establishes guidelines for the collection and processing of personal information from individuals who live in and outside of the European Union (EU).⁴⁹ Furthermore, it prescribes the rights of the data subject, that is, the rights of the individuals whose personal data is being processed. These reinforced rights grant individuals more control over their personal data, including the requirement for an individual's explicit consent to be obtained before the processing of his or her personal data, the right to object, including to the use of personal data for the purposes of profiling, the right to rectification, to erasure and to be forgotten, among others. The GDPR defines individuals' fundamental rights in the digital age, the obligations of those processing data, methods for ensuring compliance, and sanctions for those in breach of the rules.⁵⁰

The GDPR significantly influences the creation and application of Artificial Intelligence (AI) technologies, which generally require processing massive amounts of data. AI systems, especially Large Language Models (LLMs), have to conform strictly to GDPR's requirements if they use data belonging to EU citizens or plan to be deployed for usage in the EU. The GDPR specifies that for any specific purpose, data usage should be restricted to the minimum required. AI mechanisms must abide by this, preventing the collection or manipulation of unnecessary data. In addition, data gathered for one aim should not be repurposed without additional consent.⁵¹

The GDPR imposes an obligation on organisations to guarantee the privacy and security of personal data, to notify individuals of data breaches, to uphold the secure transfer of data across

⁴⁷ Matt Burgess, 'What is GDPR? The Summary Guide to GDPR Compliance in the UK' (*Wired*, 24 March 2020) <<https://www.wired.com/story/what-is-gdpr-uk-eu-legislation-compliance-summary-fines-2018/>> accessed 26th April, 2025.

⁴⁸ European Council, 'The General Data Protection Regulation' (*European Council*, 13 June 2024) <<https://www.consilium.europa.eu/en/policies/data-protection-regulation/>> accessed 25th April, 2025

⁴⁹ The Investopedia Team, 'General Data Protection Regulation (GDPR): Meaning and Rules' (*Investopia*, 4 May 2024) <<https://www.investopedia.com/terms/g/general-data-protection-regulation-gdpr.asp>> accessed 25th April, 2025

⁵⁰ OECD (n 8)

⁵¹ Exabeam, 'The Intersection of GDPR and AI and 6 Compliance Best Practices' (*Exabeam*, 5 July 2024) <<https://www.exabeam.com/explainers/gdpr-compliance/the-intersection-of-gdpr-and-ai-and-6-compliance-best-practices/#:~:text=The%20GDPR%20stipulates%20that%20for,be%20repurposed%20without%20additional%20consent>> accessed 26th April, 2025.



borders, and to follow certain practices to be in compliance. Infractions may result in large fines, up to €10 million or 2% of a firm's annual revenue.⁵²

National Legislations

The legal framework for artificial intelligence in Nigeria is still in its nascent stage; however, there are several legislations that can regulate the deployment of artificial intelligence in Nigeria.

Constitution of the Federal Republic of Nigeria, 1999 (as amended)

The Constitution does not explicitly make provisions for the regulations of AI. However, Section 37 of the Constitution guarantees and protects the fundamental right of privacy of citizens, their homes, correspondence, telephone conversations and telegraphic communications.⁵³ The state must also direct its policy towards the promotion of science and technology in accordance with Section 18.⁵⁴

Nigeria Data Protection Act, 2023

On 12 June 2023 the Nigeria Data Protection Act (NDPA) was enacted. The Nigeria Data Protection Act, 2023 (the Act) is the first comprehensive legislation on data protection in Nigeria, replacing the Nigeria Data Protection Regulations 2019 (NDPR) as the principal legislation on data protection in Nigeria.⁵⁵ NDPA parallels the European Union (EU) General Data Protection Regulation (GDPR) concerning several new legal principles.⁵⁶

The Act seeks to safeguard the rights of data subjects and provide means of redress and remedies in the case of violation of such rights. Furthermore, it serves as an instrument to fortify the legal foundation of the national digital economy.⁵⁷ The Act regulates the processing of personal data, regardless of whether it is conducted by automated means or not. The scope of the Act extends to businesses that process personal data through manual or non-automated means; such businesses must comply accordingly.⁵⁸

It predominantly applies to companies or entities incorporated under Nigerian law for business purposes within Nigeria, as well as those not incorporated under Nigerian law or established in the country. This is provided their operations involve the processing and use of large amounts of personal data of Nigerian residents and citizens in their regular business.⁵⁹ Although the Act

⁵² *ibid*

⁵³ Constitution of the Federal Republic of Nigeria, 1999 s37; *Incorporated Trustees of Digital Rights Lawyers Initiative v National Identity Management Commission* CA/IB/291/2020

⁵⁴ *Ibid*, s18(2)

⁵⁵ Tiwalola Osazuwa and others, 'Highlights of the Data Protection Act, 2023' (*Aelex*, 8 September 2023) <<https://www.aelex.com/highlights-of-the-data-protection-act-2023-nigeria/>> accessed 26th April, 2025.

⁵⁶ Emmanuel Ido, Timothy Ogedele, and Sumbo Akintola, 'Introducing the Nigeria Data Protection Act 2023' (*Aluko & Oyebo*, 20 June 2023) <<https://www.aluko-oyebode.com/insights/nigeria-data-protection-act-2023-ndpa/>> accessed 25th April, 2025.

⁵⁷ Nigeria Data Protection Act, s1(e)(h)

⁵⁸ Tiwalola Osazuwa and others (n 55)

⁵⁹ Olumide Osundolire, Toyin Bashir and Thelma Okorie, 'Nigeria Data Protection Act: What Individuals, Businesses and Organizations Should Know' (*Banwo & Ighodalo*, 22 June 2023) <<https://banwo->



does not apply to the processing of personal data confined to personal and domestic purposes. However, this exemption applies only where such processing does not constitute a breach of a data subject's essential right to privacy.⁶⁰

FIRS Establishment Act, 2007 (as Amended)

The Finance Act, 2020 introduced significant amendments to sections 25 and 26 of the Federal Inland Revenue Service (Establishment) Act (FIRSEA), enhancing the powers of the Federal Inland Revenue Service (FIRS). Under the amended provisions, the FIRS is now authorised to deploy proprietary or third-party Payment Processing Companies (PPCs) or digital platforms as agents for the collection of taxes due on international transactions involving the supply of digital services.⁶¹

Additionally, the FIRS has been granted the authority to deploy technology to automate various aspects of the tax administration process, including assessment, collection, and information gathering. However, before implementing such technological measures, the FIRS is required to give the affected taxpayer a notice period of at least 30 days.

The amendments also empower the FIRS to seek and receive assistance in the collection of revenue claims or in relation to other tax matters arising from agreements between Nigeria and other countries or international bodies. Moreover, section 26 of the FIRSEA now mandates taxpayers to provide the FIRS with access to relevant information stored in their devices or cloud computing facilities. A taxpayer's refusal to allow FIRS access to such systems attracts a penalty of ₦25,000 for the first month of default and ₦10,000 for every subsequent month during which the default continues. With these amendments, FIRS has pledged 100% automation of its tax system.⁶²

Securities and Exchange Commission Rules on Robo-Advisory Services, 2021

The Securities and Exchange Commission (SEC) Rules on Robo-Advisory Services is a legislative framework that mandates a Robo-Adviser, an individual who offers digital consultation services to apply measures that will minimise inaccuracies and bias in algorithms.⁶³

In accordance with the SEC Rules on Robo-Advisory Services, AI providers and deployers are expected to comply with the following:

[ighodalo.com/grey-matter/nigeria-data-protection-act-what-individuals-businesses-and-organizations-should-know](https://www.ighodalo.com/grey-matter/nigeria-data-protection-act-what-individuals-businesses-and-organizations-should-know)> accessed 26th April, 2025.

⁶⁰ *ibid*

⁶¹ PricewaterhouseCoopers (PwC), *FIRS Issues Public Notice on the Deployment of Automated Solutions* (PwC Nigeria, 2021) <<https://pwc-nigeria.typepad.com/files/pwc-tax-alert---firs-issues-public-notice-on-the-deployment-of-automated-solutions.pdf>> accessed 26 April 2025.

⁶² Joseph Chibueze, 'We're Working to Fully Automate Tax Administration Processes, Says FIRS' *The Guardian* (Abuja, 1 July 2022) <<https://guardian.ng/business-services/were-working-to-fully-automate-tax-administration-processes-says-firs/>> accessed 26th April 2025.

⁶³ Jeffrey Shin, Cameron Lee, 'AI Watch: Global Regulatory Tracker – Nigeria' (*White & Case*, 27 January 2025) <[67](https://www.whitecase.com/insight-our-thinking/ai-watch-global-regulatory-trackernigeria#:~:text=There%20is%20currently%20no%20specific,Artificial%20Intelligence%20Policy%20(N AIP).> accessed 25th April, 2025.</p></div><div data-bbox=)



- a) To secure systems that interact with clients which are mainly algorithm-driven, a Robo-Adviser shall establish adequate governance and supervision mechanisms to effectively reduce the risk of error or bias in the algorithms.⁶⁴
- b) The Robo-Adviser should be sufficiently staffed with experts to develop and evaluate the method of the algorithms.⁶⁵
- c) Ensuring that the requirements set out in the Commission's Guidelines on Technology Risk Management are adhered to⁶⁶
- d) Robo-Advisers shall implement internal policies and procedures to address technology risks.⁶⁷

Draft National Artificial Intelligence Strategy, 2024

The Federal Ministry of Communications, Innovation, and Digital Economy (FMCIDE) in August 2024 released the draft of the National Artificial Intelligence Strategy (NAIS), which was developed by the National Centre for Artificial Intelligence and Robotics (NCAIR) in collaboration with the National Information Technology Development Agency (NITDA).⁶⁸

One of the objectives of the Draft Strategy is to promote ethical and responsible use of AI in order to maximise the potential of AI to achieve sustainable development, social inclusion and other national goals.⁶⁹ The Draft NAIS developed 5 strategic pillars in order to achieve its objectives. Each pillar serves as a framework in order to foster the deployment and deployment of AI in Nigeria.⁷⁰

The pillars include building a foundational AI infrastructure, building and sustaining a world-class AI ecosystem, accelerating AI adoption and sector transformation, ensuring responsible and ethical AI development and developing a robust AI governance framework.⁷¹ In addition to the implementation plan, the draft makes provision for a proposed implementation plan which consists of governance structures and coordination mechanisms, resource allocation and funding mechanisms, key milestones and timelines, and a monitoring and evaluation framework. The Draft Strategy outlined 6 broad AI risks, which include ethical concerns, data security breaches and rapid technological change. In addition to these risks is a mitigation strategy to address these risks.⁷² The NAIS adopted the Identify, Assess, Mitigate, Monitor and

⁶⁴ Securities and Exchange Commission Rules on Robo-Advisory Services, s6(a)

⁶⁵ *ibid*, s6(b)

⁶⁶ *ibid*, s6(d)(iv)

⁶⁷ *ibid*, s9(a)

⁶⁸ Damilola Salawu and others, 'Overview of the Draft National Artificial Intelligence Strategy 2024' (*Olaniwun Ajayi*, 30 September 2024) <<https://www.olaniwunajayi.net/blog/overview-of-nigerias-draft-national-artificial-intelligence-strategy-2024/>> accessed 25th April, 2025.

⁶⁹ Draft of the National Artificial Intelligence Strategy, p26

⁷⁰ *ibid*, p27

⁷¹ *ibid*, p28

⁷² *ibid*, p51



Review Procedure contained in the National Institute of Standards and Technology Framework for AI Risk Management for mitigating these risks.⁷³

Cybercrimes (Prohibition and Prevention) Act, 2024

The Cybercrimes (Prohibition and Prevention) (Amendment) Act 2024 was enacted as legislation on February 28, 2024.⁷⁴ The Nigerian government enacted the Cybercrimes Amendment Act of 2024 to improve and enhance the Cybercrimes Act of 2015. The Act is a significant move as it strives to equip law enforcement agencies with the necessary resources needed to effectively combat contemporary cyber threats and to ensure improved freedom of expression in the country.⁷⁵

The Act criminalises cybercrime, fostering detection, prosecution, and punitive measures against offenders. Additionally, by promoting cybersecurity, the law safeguards computer systems, networks, electronic communications, data, and software. It is unwavering in upholding intellectual property rights, privacy, and the maintenance of vital national information infrastructure. The act provides a comprehensive framework for addressing cyber crimes within Nigeria, from prevention to resolution.⁷⁶

It encompasses a wide variety of online crimes, including child pornography, data theft, computer fraud, identity theft, unauthorised computer access, cyberstalking, cybersquatting, cyberterrorism, and more. Furthermore, it requires service providers to keep data, collaborates with law enforcement, and permits, under some circumstances, the eavesdropping of electronic communications. The Act is fundamental to improving cybersecurity safeguards and preventing cyberattacks in Nigeria.⁷⁷

Institutional Frameworks

Various government agencies are involved in regulating the use of artificial intelligence in Nigeria, with the National Information Technology Agency (NITDA) playing a key role.

Federal Inland Revenue Service

The Federal Inland Revenue Service (FIRS) serves as Nigeria's primary institution responsible for the deployment of artificial intelligence (AI) and digital technologies in tax administration. In recent years, FIRS has undertaken significant reforms aimed at modernising the country's tax system, leveraging automation, data analytics, and emerging AI-driven solutions to

⁷³ Jeffrey Shin, Cameron Lee, 'AI Watch: Global Regulatory Tracker – Nigeria' (White & Case, 27 January 2025) <<https://www.whitecase.com/insight-our-thinking/ai-watch-global-regulatory-tracker-nigeria>> accessed 25th April, 2025

⁷⁴ Bukola Adesokan, 'Nigeria Cybercrimes (Prohibition, Prevention, etc.) Act Amendment: Charting Future Direction' (*Tech Hive Advisory*, 13 November 2024) <<https://www.techhiveadvisory.africa/insights/nigeria-cybercrimes-prohibition-prevention-etc-act-amendment-charting-future-direction>> accessed 25th April, 2025.

⁷⁵ Oreoluwa Adebayo, 'The National Assembly Amends The Cybercrimes(Prohibition, Prevention, Etc.) Act' (*Mondaq*, 19 May 2024) <<https://www.mondaq.com/nigeria/security/1466724/the-national-assembly-amends-the-cybercrimes-prohibition-prevention-etc-act>> 27th April, 2025.

⁷⁶ KPMG (n 19)

⁷⁷ Sadiq Ilegieuno, Jacob Obi, and Collins Ogbu, 'The Reach and Impacts of the Cybercrime Act, 2015 on Providers of ICT Services' (*Templars*, 10 July 2018) <<https://www.templars-law.com/knowledge-centre/the-reach-and-impacts-of-the-cybercrime-act-2015-on-providers-of-ict-services/>> accessed 27th April, 2025.



improve efficiency, transparency, and compliance. Through initiatives like the launch of the TaxPro Max platform, the agency has demonstrated its commitment to using technology to streamline taxpayer registration, automate tax assessments, enhance payment processing, and improve information gathering. FIRS's broader strategy aligns with global trends where tax authorities increasingly use AI for risk profiling, fraud detection, predictive analysis, and taxpayer engagement. By driving these innovations, FIRS is positioning itself at the forefront of digital tax administration in Africa, contributing to higher revenue collection and a more responsive, technology-driven public sector.

National Centre for Artificial Intelligence and Robotics

In recognition of the transformative potential of artificial intelligence, the Nigerian federal government established the National Centre for Artificial Intelligence and Robotics (NCAIR) in 2020. The Centre's primary objectives are to promote the adoption and deployment of artificial intelligence in the Nigerian industry and government as well as to establish a knowledge hub for artificial intelligence and robotics in order to foster economic growth, enhance quality of life and bolster global competitiveness. Additionally, the Centre is dedicated to providing training and education in these fields.⁷⁸

NCAIR is a digital innovation and research institution that focuses on artificial intelligence, robotics and drones, the internet of things, and emerging technologies, with the goal of revolutionising the Nigerian digital economy, in line with the National Digital Economy Policy and Strategy (NDEPS).⁷⁹ The National Artificial Intelligence Strategy was jointly developed by the National Centre for Artificial Intelligence and Robotics (NCAIR) and the National Information Technology Development Agency (NITDA) with assistance from private bodies.⁸⁰

National Information Technology Development Agency (NITDA)

The National Information Technology Development Agency was established by virtue of the National Information Technology Development Agency Act 2007.⁸¹

The Agency is mandated to create a framework for the planning, research, development, standardisation, application, coordination, monitoring, evaluation and regulation of Information Technology practices, activities and systems in Nigeria.⁸²

⁷⁸ Bashir Ibrahim Hassan, 'Artificial Intelligence Benefits Outweigh the Risks – Kashifu Inuwa' (*Business Day*, 11 August 2023) <<https://businessday.ng/interview/article/artificial-intelligence-benefits-outweigh-the-risks-kashifu-inuwa/#:~:text=Currently%2C%20we%20have%20developed%20a,use%20of%20AI%20in%20Nigeria>> accessed 25th April, 2025.

⁷⁹ Abdullahi Lamino, 'Nigeria can Achieve Development Agenda, Accelerate Growth with AI- FG' (*Radio Nigeria*, 29 December 2024) <<https://radionigeria.gov.ng/2024/12/03/nigeria-can-achieve-development-agenda-accelerate-growth-with-ai-fg/>> accessed 25th April, March 2025.

⁸⁰ Seun Koleolu and Olawale Atanda, 'Analysis of Nigeria's National Artificial Intelligence Strategy' (*Pavestones*, 16 August 2024) <<https://pavestoneslegal.com/analysis-of-nigerias-national-artificial-intelligence-strategy/>> accessed 27th April, 2025.

⁸¹ National Information Technology Development Agency Act, s1(1)

⁸² Ibid, s6



In a bid to enhance national security and vibrancy of the industry, the agency offers advice to the government on ways of promoting the development of information technology in Nigeria, including introducing appropriate information technology legislation.⁸³ It also ensures the provision of guidelines to promote the establishment and maintenance of appropriate information technology and systems application and development in Nigeria for public and private sectors, urban-rural development, the economy and the government. As an alternative to paper-based methods, the agency creates guidelines for electronic governance and monitors the use of electronic data interchange and other forms of electronic communication transactions in government, commerce, education, the private and public sectors, labour, and other fields where the use of electronic communication may improve the exchange of data and information.⁸⁴

Nigeria Data Protection Commission

The Nigeria Data Protection Act (NDPA) established the Nigeria Data Protection Commission, whose mandate, among others, is to oversee the implementation of the Nigeria Data Protection Act (NDPA).⁸⁵ The NDPC, unlike its predecessor, is an independent body with perpetual succession and a common seal. The NDPC replaces the Nigeria Data Protection Bureau (NDPB), which was instituted in February 2022 by the former president of the Federal Republic of Nigeria as a specialised body to regulate data protection in Nigeria.⁸⁶

The NDPC also issued a draft General Application and Implementation Directive (GAID). The GAID requires data processors utilising AI to comply with the three GAID, Nigeria Data Protection Act, and other regulations in the process of carrying out their operations. In addition, The GAID provides that data controllers must take into consideration the rights of data subjects and implementation by design.⁸⁷

The Commission complements the work of statutory institutions of government in their shared objectives of safeguarding the privacy of natural persons. Additionally, it supports the right to privacy as guaranteed by Section 37 of the 1999 Constitution of the Federal Republic of Nigeria (CFRN, as amended), Article 12 of the Universal Declaration of Human Rights, Article 17 of the International Covenant on Civil and Political Rights (ICCPR), Section 8 of the Child Rights Act, Part IV of the Consumer Code of Practice Regulations (Nigerian Communications Commission), and Article 5.4 of the Consumer Protection Regulation (Central Bank of Nigeria).⁸⁸

⁸³ *ibid*

⁸⁴ *ibid*

⁸⁵ Nigeria Data Protection Act, s4(1)

⁸⁶ Darrell West and John Allen (n 16)

⁸⁷ Olatomiwa Olawole, 'Adoption of Artificial Intelligence (AI) in Nigeria's Legal Landscape: Examining the Intellectual Property, Data Privacy, and Ethical Considerations' (*Mondaq*, 10 January 2025) <<https://www.mondaq.com/nigeria/privacy-protection/1567242/the-adoption-of-artificial-intelligence-ai-in-nigerias-legal-landscape-examining-intellectual-property-data-privacy-and-ethical-considerations>> accessed 26th April, 2025

⁸⁸ Muiyiwa Atoyebe, 'Privacy of Electronic Communication in Workplaces in Nigeria' (*Omaplex*, 9 July 2024) <<https://omaplex.com.ng/privacy-of-electronic-communication-in-workplaces-in-nigeria/>> accessed 27th April, 2025



One of the Commission's primary responsibilities is to oversee the implementation of technological and organisational measures to improve the security of personal information. It also seeks to promote the advancement of personal data protection technologies, in accordance with recognised international best practices and applicable international law.⁸⁹

Prospects and Challenges of Deploying Artificial Intelligence in Tax Administration in Nigeria

Prospects of Deploying Artificial Intelligence in Nigeria's Tax Administration

The Nigerian tax system, administered at the federal level by FIRS, has long grappled with challenges such as tax evasion, inefficient collection, and a narrow tax base. These inefficiencies have led to significant revenue leakages and limited the government's ability to achieve fiscal goals. However, the rise of Artificial Intelligence (AI) presents a transformative opportunity to address these longstanding issues by modernising tax administration, enhancing compliance, and boosting revenue.⁹⁰

Enhancing Compliance and Reducing Tax Evasion

According to a report by the Federal Inland Revenue Service (FIRS), tax evasion is estimated to cost Nigeria over ₦5 trillion annually.⁹¹ Tax avoidance is another source of revenue leakage. Taxpayers may exploit loopholes in tax laws or use aggressive tax planning strategies to minimise tax liabilities.⁹² This can result in significant revenue loss for the government.

AI, particularly Machine Learning (ML), can analyse vast and diverse datasets, including bank records, telecommunications data, social media activity, and government databases, to identify patterns indicative of tax evasion or underreporting.⁹³ ML algorithms improve over time, allowing tax authorities to detect fraudulent behaviours and discrepancies, such as mismatches between reported income and actual economic activity. This data-driven approach enables proactive identification of high-risk taxpayers, making enforcement more targeted and effective.

In Nigeria's large informal sector, where much taxable income remains unreported, AI can help uncover hidden economic activities. Predictive analytics can also generate taxpayer risk profiles, forecasting potential non-compliance and enabling authorities to focus resources

⁸⁹ Nigeria Data Protection Act, s5

⁹⁰ McKinsey & Company, *Reimagining Tax Authorities for the Future* (16 October 2020) <<https://www.mckinsey.com/industries/public-and-social-sector/our-insights/reimagining-tax-authorities-for-the-future>> accessed 26 April 2025.

⁹¹ *Ibid.*

⁹² OECD, *Tax Administration 3.0: The Digital Transformation of Tax Administration* (Paris, 2019) 20. <https://www.oecd.org/en/publications/tax-administration-3-0-the-digital-transformation-of-tax-administration_ca274cc5-en.html> accessed 27th April, 2025

⁹³ World Bank, *Filling the Gap by Filing Taxes: How Technology Can Aid Governments in Tax Collection* (World Bank, 5 February 2021) <<https://www.worldbank.org/en/news/feature/2021/02/05/filling-the-gap-by-filing-taxes-how-technology-can-aid-governments-in-tax-collection>> accessed 26th April 2025.



where they are most needed. Such proactive methods mark a shift from traditional, reactive tax enforcement to a smarter and more efficient system.

Streamlining Tax Administration and Document Processing

Manual tax administration is often slow, error-prone, and vulnerable to corruption. AI tools, particularly those leveraging Natural Language Processing (NLP), can automate routine processes such as document classification, data extraction from tax returns, and record organisation. This not only reduces human error but also accelerates tax processing, cuts administrative costs, and enhances overall accuracy.

For example, NLP systems can quickly extract and categorise data from large volumes of tax documents, eliminating the need for manual sorting and enabling faster decision-making.⁹⁴ Automating these workflows increases efficiency and frees up tax officials to focus on complex or high-risk cases.

Improving Taxpayer Engagement and Support

Complex tax regulations often deter voluntary compliance. NLP-powered chatbots and virtual assistants can make tax systems more accessible by offering real-time, user-friendly assistance.⁹⁵ These tools help taxpayers understand their obligations, guide them through filing procedures, and provide timely support, even outside business hours.⁹⁶

Such services simplify compliance for taxpayers, especially individuals and small businesses unfamiliar with legal tax frameworks. Enhanced communication also fosters trust, transparency, and a more cooperative relationship between the tax authority and the public.

Strengthening Fraud Detection and Risk Assessment

AI enhances fraud detection by identifying anomalies in tax filings and financial behaviours. NLP can scan for inconsistencies or suspicious language in filings, flagging entries for further investigation.⁹⁷ Combined with ML, AI systems can conduct comprehensive risk assessments, drawing from a wide array of data sources to identify high-risk individuals or companies likely to engage in tax fraud or avoidance. AI also helps detect sophisticated tax avoidance schemes, such as transfer pricing or profit shifting, which often go unnoticed under traditional systems. By identifying these strategies early, AI strengthens revenue protection and promotes tax equity.

⁹⁴ Bhumika Dutta, 8 NLP Techniques to Extract Information (4 February 2022) <<https://www.analyticssteps.com/blogs/nlp-techniques-extract-information>> accessed 26th April 2025.

⁹⁵ Ofurum, C. N., Amaefule, L. I., Okonya, B. E., & Amaefule, H. C. Impact of E-Taxation on Nigeria's Revenue and Economic Growth: A Pre – Post Analysis. (2018) *International Journal of Finance and Accounting*, 7(2), 19-26.

⁹⁶ Alexander Raikov, *Decreasing Tax Evasion by Artificial Intelligence* (2021) 54 IFAC-PapersOnLine 172, <<https://www.sciencedirect.com/science/article/pii/S2405896321018772>> accessed 26 April 2025.

⁹⁷ Folorunso, B. A. P., & Nwankwo, C. B. Harnessing the power of AI for taxation: Nigeria's path to improved revenue generation and transparency (2024) *Nnamdi Azikiwe University Journal of Private and Property Law*, 1(2), 113–123. <<https://journals.unizik.edu.ng/nauijpl/article/view/4375a>> accessed 26th April, 2025



Supporting Data-Driven Tax Policy and Strategy

AI's capacity to analyze public sentiment, especially through NLP-driven sentiment analysis of social media and online platforms, allows tax authorities to better understand public attitudes towards tax policies. This feedback can inform data-driven revisions to tax laws, making them more responsive to citizens' needs and concerns. Predictive analytics can also help tax agencies anticipate trends in compliance, forecast revenue, and allocate resources efficiently. These insights support strategic planning and the creation of more effective, equitable tax policies.

Facilitating Training and Institutional Knowledge Management

AI can aid in the professional development of tax officials by powering e-learning platforms tailored to individual learning styles.⁹⁸ NLP can generate customised educational content and assist in the efficient retrieval of tax guidelines, case studies, and regulations. Such systems promote continuous learning, ensure consistency in tax administration, and help build a competent and responsive tax workforce.

Curbing Revenue Leakages and Optimising Collections

One of the most critical issues facing Nigeria's tax system is revenue leakage, estimated by FIRS to cost over N5 trillion annually. AI addresses this by automating and tightening enforcement processes, detecting evasion and inefficiencies, and optimising collection strategies. AI-powered systems can determine the most effective techniques for securing tax payments, reducing delays, and improving overall collection performance.⁹⁹

Integrating AI technologies, including Machine Learning and Natural Language Processing into Nigeria's tax administration has the potential to revolutionise the system.¹⁰⁰ From improving compliance and fraud detection to streamlining operations and enhancing taxpayer engagement, AI offers a multifaceted solution to long-standing challenges. As Nigeria seeks to expand its tax base and strengthen revenue generation, adopting AI not only aligns with global best practices but also lays the foundation for a more accountable, efficient, and citizen-focused tax system.

Challenges of Deployment of AI in Tax Administration

The National Artificial Intelligence Strategy (NAIS) serves as a foundation for the structuring of AI Policy in Nigeria and for the deployment of secure AI systems in Nigeria. However, it is still at the draft stage and it lacks implementation details and funding sources.¹⁰¹ Furthermore, the strategy lacks some essential elements. The draft does not address the impact of AI on human rights.¹⁰² The Nigerian legal framework on AI is marked by its pluralism, with multiple

⁹⁸ Ibid

⁹⁹ African Development Bank. Formalizing the Informal Sector: The Role of AI in Expanding Nigeria's Tax Base. (2022) *Economic Policy Review*, (10) 2

¹⁰⁰ Muhamad Taqi, Aam Slamet Rusydiana and Abdilllah Arif Nasution, Sentiment Analysis on Tax Compliance: Pros and Cons (2023) 21 *Review of Economics and Finance*, 1745-1750.

¹⁰¹ Abdulhameed Salihu, 'Regulating the Future: The Current State and Prospects of Artificial Intelligence Policy in Nigeria' SSRN (2024) 1(1) < <https://dx.doi.org/10.2139/ssrn.5117653> > accessed 26th April, 2025

¹⁰² Olaide Awaal-Bolanta, 'Artificial Intelligence Governance in Nigeria: Analysis of Gaps in Existing Legal Frameworks' EKSULJ (2024) 8(1)



laws coexisting to regulate the use of AI. Although this can encourage diversity, innovation and adaptability in the adoption of AI, it also raises the possibility of inconsistency, complexity, and difficulties with enforcement and compliance as a result of overlapping regulation.¹⁰³

Absence of Comprehensive AI Legal Framework

The lack of regulatory framework leads to inactivity risk. According to a survey carried out by an international law firm, Denton, on 450 business leaders, it was recorded that about 69% of businesses postpone making AI investment decisions due to the lack of clarity regarding AI regulations.¹⁰⁴

The absence of a direct regulatory framework on AI hinders the development and innovation of AI in Nigeria because it generates reluctance to invest in AI start-ups and projects owing to ambiguity around legal obligations that may impose constraints on their investment and engagement with AI.¹⁰⁵ Consequently, this may result in brain drain as AI start-ups and investors migrate to countries with better AI ecosystems and regulatory frameworks. Nigeria's low ranking on the AI global index is a result of a lack of a framework guiding the use of AI. It is apparent that Nigeria's extant legislative framework for artificial intelligence is limited since it does not specifically regulate the use of artificial intelligence. Instead, current general regulations pertaining to technology, data protection, and consumer protection govern AI.¹⁰⁶ The implementation of AI is too complex to be governed by several laws across different legal systems.¹⁰⁷

Liability of AI Systems

The applicable laws governing AI in Nigeria lack liability and legal frameworks for AI systems. The Data Protection Act 2023 focuses on data privacy but does not adequately address the complexities of assigning liability for AI-driven decisions or failures.¹⁰⁸ In sectors like finance, where AI systems can make critical decisions, it is unclear who bears responsibility if an AI system makes an error, whether it be the developer, the user, or the data provider. For instance, where an AI system is used in tax assessments and the AI algorithm makes errors in tax calculation leading to incorrect tax liabilities or unfair audits, consequently.¹⁰⁹ The

<https://www.researchgate.net/publication/386371071_Artificial_Intelligence_Governance_In_Nigeria_Analysis_Of_Gaps_In_Existing_Legal_Frameworks_ARTIFICIAL_INTELLIGENCE_GOVERNANCE_IN_NIGERIA_A_ANALYSIS_OF_GAPS_IN_EXISTING_LEGAL_FRAMEWORKS> accessed 26th April, 2025.

¹⁰³ Eva Wollenberg, Jon Anderson and Citalli Lopez, 'Legal Pluralism and Policies Supporting Pluralism' (2005) <<http://www.jstor.com/stable/resrep02047.7>> accessed 26th April, 2025

¹⁰⁴ Dentons (n 14)

¹⁰⁵ Adrien Book, 'Should AI be Regulated? The Argument for and Against' (*WeAreDevelopers*, 14 July 2023) <<https://www.wearedevelopers.com/magazine/eu-ai-regulation-artificial-intelligence-regulations>> accessed 26th April, 2025.

¹⁰⁶ Obianyo & Ater (n 1)

¹⁰⁷ *Ibid*

¹⁰⁸ Lionel Ebenibo and others, 'Evaluating the Sufficiency of the Data Protection Act 2023 in the Age of Artificial Intelligence (AI): A Comparative Case Study of Nigeria and the USA' *IJSSR* (2024) 5(1) <<https://doi.org/10.56781/ijssr.2024.5.1.0044>> accessed 27th April, 2025.

¹⁰⁹ Rory McCreight and Benjamin Alarie, 'Automated Tax Planning: Who's Liable When AI Gets It Wrong' (*Taxnotes*, 25 September 2023) <<https://www.taxnotes.com/featured-analysis/automated-tax-planning-whos-liable-when-ai-gets-it-wrong/2023/09/22/7h97l>> accessed 25th April, 2025



complexity and autonomous and continuous learning features of AI systems make traditional concepts like breach, or defect and causation difficult to apply.¹¹⁰

Data Protection and Privacy Regulation

The Data Protection Act 2023 represents Nigeria's most important attempt to address the privacy and security challenges that arise as a result of the use of AI. The Act does not fully address AI-driven profiling, automated decision-making, and algorithmic accountability; thus, the scope of the Act lacks thorough coverage of AI issues. Furthermore, the Act regulates international data transfers; however, The Act has limitations due to its weak enforcement mechanisms regarding cross-border data transfers.¹¹¹

Limitations of Applicable Regulatory Frameworks

Similarly, there is no particular government agency conferred with authority whose primary responsibility is to regulate AI. AI is governed by multiple agencies: the Federal Ministry of Communications, Innovation and Digital Economy (FMCIDE) deals with policy development; the National Information Technology Development Agency (NITDA) and Nigeria Data Protection Commission (NDPC) regulate the use of AI in respect of data systems and technology infrastructures; the Nigerian Communications Commission (NCC) governs the deployment of AI in the communication sector; and the Securities and Exchange Commission (SEC) makes provisions on the deployment of AI in financial services. This issue of multiple legal institutions having partial jurisdiction over the regulation of AI diminishes the efficiency of these agencies and results in overlapping responsibilities and gaps in the governance of AI.¹¹²

Limited AI Expertise and Institutional Capacity

Nigeria's capacity to successfully implement AI governance is hampered by a lack of AI professionals and regulatory specialists. In comparison to international AI powerhouses, the nation's current digital infrastructure is inadequate, and there are not many AI research institutes.¹¹³

Data Privacy and Security

The advancement of AI has raised some concerns about the potential drawbacks of its application. These issues include both ethical and legal implications.¹¹⁴ While AI systems essentially aim to improve the efficiency of tasks, their ethical implications are not taken into consideration. For example, technology that maximises efficiency and cost-effectiveness may

¹¹⁰ Megan Howarth and others, 'AI Liability – Who is Accountable When Artificial Intelligence Malfunctions?' (Taylorwessing, 7 February 2025) <<https://www.taylorwessing.com/en/insights-and-events/insights/2025/01/ai-liability-who-is-accountable-when-artificial-intelligence-malfunctions#:~:text=The%20broader%20remit%20is%20significant%20as%20it.>> accessed 26th April, 2025.

¹¹¹ Ibid

¹¹² Obianyo & Ater (n 1)

¹¹³ Ibid

¹¹⁴ Ibid



inadvertently breach privacy rights, promote bias, or make crucial choices without human oversight.¹¹⁵

The usage of AI raises questions regarding data security and privacy because it entails processing enormous volumes of sensitive financial data. Strong security measures are required to shield data against breaches and unwanted access. Breach of the data: Similar to other web-based tools, these technologies might be susceptible to data breaches in the absence of proper security measures, which could lead to inappropriate access to or disclosure of private user data. For tax professionals, the prospect of private data being exposed in a data breach is a major concern.¹¹⁶

Bias and Discrimination

AI systems that depend on biased data or faulty algorithms may unintentionally reinforce prejudice and discrimination. Maintaining justice and equity in tax law and accounting requires that AI be impartial.¹¹⁷ In the context of AI, biases can be present in Training Data which is used to teach the algorithms relied on by AI systems and tools how to formulate and draw conclusions. This data may contain inherent biases as a by-product of historical policies, social norms, and institutional and operational practices.¹¹⁸

Biases may exist in AI's training data, which teaches the algorithms that AI systems and tools rely on how to formulate and draw conclusions. Due to institutional and operational procedures, societal conventions, and past policies, this data may be biased by nature.¹¹⁹

In 2019 the Dutch tax authorities used a self-learning algorithm to develop risk profiles to identify child care benefits fraud. Due to discriminatory algorithms, the Dutch tax authorities unjustly charged thousands of parents with fraud. Families suffered terrible repercussions.¹²⁰ Due to excessive debts owed to the tax agency, several families, many of whom were members of ethnic minorities or had lower incomes, were forced into poverty. A few of the victims killed

¹¹⁵ Rachid Ejami, 'Ethical Artificial Intelligence Framework Theory (EAI FT): A New Paradigm for Embedding Ethical Reasoning in AI Systems' IJFMR (2024) 6(5) <<https://doi.org/10.36948/ijfmr.2024.v06i05.28231>> accessed 27th April, 2025.

¹¹⁶ Rory McCreight and Benjamin Alarie, 'The Ethics of Generative AI in Tax Practice' (*Taxnotes*, 31 July 2023) <<https://www.taxnotes.com/featured-analysis/ethics-generative-ai-tax-practice/2023/07/28/7gzb1>> accessed 28th April, 2025.

¹¹⁷ Law cyborg, 'Exploring the Ethical Implications of AI in Tax Law and Accounting' (*Lawcyborg*, 11 June 2024) <<https://lawcyborg.com/tax/knowledge-base/exploring-the-ethical-implications-of-ai-in-tax-law-and-accounting>> accessed 28th April, 2025.

¹¹⁸ Joshua Aslett and others, 'Understanding Artificial Intelligence in Tax and Customs Administration' (2024)1(6) IMF <<http://dx.doi.org/10.5089/9798400290435.005>> accessed 25th April, 2025.

¹¹⁹ Olatomiwa Olawole, 'The Adoption Of Artificial Intelligence (Ai) In Nigeria's Legal Landscape: Examining Intellectual Property, Data Privacy, And Ethical Considerations' (*Mondaq*, 10 January 2025) <<https://www.mondaq.com/nigeria/privacy-protection/1567242/the-adoption-of-artificial-intelligence-ai-in-nigerias-legal-landscape-examining-intellectual-property-data-privacy-and-ethical-considerations>> accessed 26th April, 2025

¹²⁰ Uva, 'The Dutch Childcare Benefit Scandal Shows that We Need Explainable AI rules' (*Uva*, 8 February 2024) <<https://www.uva.nl/en/shared-content/faculteiten/en/faculteit-der-rechtsgeleerdheid/news/2023/02/childcare-benefit-scandal-transparency.html?cb&cb>> accessed 27th April, 2025.



themselves. The number of children placed in foster care exceeded one thousand.¹²¹ Bias and fairness in AI algorithms are also pressing ethical issues. If not properly addressed, biases in AI systems can lead to unfair outcomes, such as biased financial recommendations or discriminatory practices.¹²²

Lessons from other Jurisdictions

Analysing the legislative frameworks and regulatory strategies adopted by other jurisdictions concerning the deployment of AI in tax administration can offer significant insights for Nigeria. A number of nations and international organisations have considered the legal and ethical implications of using AI in public services.

The European Union Artificial Intelligence governance framework addresses risks particularly caused by artificial intelligence applications and sets prohibitions and clear requirements for Artificial Intelligence systems for high-risk applications.¹²³ The operation of AI systems relies on the collection and utilisation of personal data, hence requiring rigorous regulations to uphold and safeguard the privacy of individuals. The proposed EU legislation seeks to limit the uncontrolled functioning of AI systems.

In addition to GDPR, the AI Act aims to grant the EU substantial authority over the development, application, and regulation of AI. Particularly, in order to guarantee that the interests and concerns of the users are taken into consideration, the Act is directed by ethical standards, accountability, and openness.¹²⁴ Other countries, such as China, have established the Chinese Cybersecurity Law, and the New Generation AI Development Plan offers cybersecurity and data protection measures in AI that prioritise rapid risk management and compliance. With an integrated approach based on achieving superiority in AI while ensuring its ethics and security, China is applying the technology cautiously and avoiding its stated risks.

In this regard, China is confident in putting AI-safe measures into place that are in line with future international standards while working to create a new AI operational paradigm that should strengthen China's position as the world's top AI superpower.¹²⁵ By finding a careful balance between encouraging innovation and protecting moral principles and the interests of society, Canada has taken a proactive approach to regulating AI. The nation has established important government-led programmes, like the Pan-Canadian AI Strategy and the Canadian AI Ethics Council, to promote the responsible development of AI and address pertinent ethical

¹²¹ Melissa Heikkila, 'Dutch Scandal Serves as a Warning for Europe Over Risks of Using AIgorithms' (*Politico*, 29 March 2022) <<https://www.politico.eu/article/dutch-scandal-serves-as-a-warning-for-europe-over-risks-of-using-algorithms/>> accessed 26th April, 2025.

¹²² Beatrice Adelakun, Tomiwa Majekodunmi and Oluwole Akintoye, 'AI and Ethical Accounting: Navigating Challenges and Opportunities' (2024) 6(6) *International Journal of Advanced Economics*, 205-223 <<https://doi.org/10.51594/ijae.v6i6.1229>> accessed 30 March 2025.

¹²³ Anamoji Sam, 'Ethical and Regulatory Framework Of Artificial Intelligence (AI) In Nigeria: The Dilemma Of Global Adaptation for Sustainable Growth' *International Journal of Innovative Social Sciences & Humanities Research* (2024) 12(3) 55-65

¹²⁴ Savio Jacob, 'AI Regulations Around the World: A Comprehensive Guide to Governing Artificial Intelligence' (*Spice works*, 30 April 2024) <<https://www.spiceworks.com/tech/artificial-intelligence/articles/ai-regulations-around-the-world/>> accessed 27th April, 2025.

¹²⁵ *ibid*



issues in the AI sector. These programmes are essential in assisting the stakeholders in working together to create policies that respect moral principles and technological advancement.¹²⁶

Additionally, a number of Australian laws support efficient AI governance. The National Artificial Intelligence Ethics Framework serves as the foundation for AI regulation in Australia, guiding the ethical principles that guide the development and implementation of AI systems. By ensuring that AI technologies are developed ethically, Australia fosters public trust in the technology.¹²⁷

CONCLUSION AND RECOMMENDATIONS

The deployment of AI systems in Nigeria can increase the efficiency of taxation; however, it is accompanied by possible threats. Amidst these potential benefits and risks of adopting AI the legal and ethical considerations of AI are of the essence. This examination of the legal and ethical considerations of the prospects of deploying AI in Nigeria's tax system has revealed the inadequacy of extant laws and ethical frameworks in addressing the risks arising from the use of AI. Ethical and legal considerations are essential to mitigate the risks and vulnerabilities associated with the use of AI and harness the transformative potentials of AI. The following are recommended:

1. **Implementation of Formal Policy:** The Nigerian government should establish a comprehensive AI law that includes extensive provisions for AI deployment, regulation, and oversight. This should adopt a risk-based approach that mirrors the European Union's AI Act, where the potential risks of AI systems determine the level of regulation. Additionally, legislators should explicitly define and address key AI-related concepts applicable to its use in taxation. This includes specifying who is liable for harm caused by the abuse or malfunction of AI systems
2. **Adoption of Ethical Guidelines for the Deployment of AI:** Although they belong to different spheres, ethical principles and legal regulation are both effective ways to assign modern technology, like AI its appropriate role in society. Ethical considerations in AI implementation are critical for ensuring that AI systems are developed and used in a responsible and fair manner. The adoption of ethical principles is essential in order to mitigate ethical issues.
3. **Implementation of a Human Right based Approach to the Adoption of AI:** An AI Governance Framework in Nigeria must ensure that AI application is pro-people, or human-centric, to avoid the risks of ethical values. Such a framework must conform to the protection of citizens' rights, which includes the right to privacy, data protection, freedom of information and speech, etc. it should be potent enough to address issues of data breaches arising from non-authorisation and lack of consent.
4. **Collaboration:** There should be collaboration of various stakeholders – government, academia, businesses, and civil society – in creating AI regulations. This cooperation can

¹²⁶ ibid

¹²⁷ ibid



facilitate knowledge exchange, resource sharing, and the adoption of a collaborative framework for sustained development.

5. **Capacity Building and Training:** To ensure the successful integration of AI in taxation, there is a need for extensive training programmes for tax officials. This training should cover the operation and maintenance of AI systems, as well as the interpretation of AI-generated insights. Continuous professional development will be essential to keep tax officials abreast of technological advancements. Additionally, government agencies must receive funding and technical training to enforce AI governance effectively.
6. **Amendment of Laws:** In order to adequately address concerns related to data security and privacy associated with the use of AI in tax, extant legislation on data protection and cybercrime should be reviewed and amended to provide stringent measures. Establishing clear guidelines for the collection, storage, and utilisation of taxpayer data; access controls; and compliance with international data protection standards will build public trust and mitigate potential legal issues.