

ETHICAL CHALLENGES OF THE APPLICATION OF TECHNOLOGY TO CORPORATE GOVERNANCE IN NIGERIA

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Abstract

The integration of digital technologies into corporate governance frameworks introduces complex ethical challenges relating to fairness, accountability, transparency, confidentiality, inclusivity, equity, data privacy and protection, and algorithmic decision-making authority. Poor ethical practices including may consequently have a downward effect on the corporate governance practices of an organisation. The qualitative research methodology was employed using the doctrinal design that involved the use of primary and secondary sources of data such as the Constitution of the Federal Republic of Nigeria 1999 (as amended), Companies and Allied Matters Act 2020, other legislation, journal articles and other secondary sources of information. The study found that the ethical utilisation of technology in corporate governance enhances the benefits of using technology in corporate governance practices of companies in Nigeria. Corporate governance principles of transparency, accountability and fairness are better upheld by the ethical deployment of technological tools by

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companies. This paper recommended that the directors and management of companies should through effective technology governance ensure that companies deploy technology innovations ethically.

Keywords: Corporate Governance, Ethical Challenges, Ethical Deployment, Technology Governance, Technological Tools

1.0 INTRODUCTION

The rapid advancement of digital technologies particularly Artificial intelligence (AI), Big Data analytics, Blockchain, and the Internet of Things (IoT) has significantly transformed the landscape of corporate governance globally. Contemporary corporations increasingly rely on these technologies to enhance decision-making, improve transparency, strengthen internal controls, and facilitate efficient stakeholder engagement. In this regard, technology has become a central tool for modern corporate governance, redefining traditional governance structures and processes. Recent scholarship emphasizes that the integration of digital technologies into corporate governance systems has led to improved efficiency, accountability, and real-time monitoring of corporate activities. For instance, Moses Peace Richard observes that the deployment of AI in corporate governance enhances decision-making, risk management, financial reporting, and stakeholder protection, thereby strengthening governance outcomes.¹

Moreso, the adoption of information and communication technologies (ICTs) has been useful in addressing the issue of inefficiency in traditional governance systems, particularly by promoting

¹ Moses Peace Richard, 'Legal Perspective on the Use of Artificial Intelligence in Corporate Governance in Nigeria: Potentials and Challenges' (2024) 34 *Journal of Legal Studies* 48, 52-54.

transparency, accountability, and public trust.² Despite these significant benefits, the application of technology in corporate governance raises ethical concerns. The increasing reliance on algorithmic systems introduces risks such as data privacy violations, algorithmic bias, lack of transparency (opacity), and diminished human oversight. Technological tools improve organisational performance; however, they also pose serious ethical challenges, particularly in relation to fairness, accountability, and responsible decision-making.³ In the Nigerian context, these challenges can be exacerbated by structural and institutional limitations. Weak accountability mechanisms and conflicting institutional objectives often hinder the effective implementation of ethical governance frameworks.⁴

Additionally, the absence of a comprehensive regulatory framework for emerging technologies, particularly, Artificial Intelligence creates gaps in oversight and enforcement, thereby increasing the risk of unethical practices.⁵ Ethical considerations are fundamental to the legitimacy and effectiveness of corporate governance systems. Ethical governance bothers on principles such as integrity, transparency, fairness, accountability, and responsibility, and they are necessary to ensure public trust and sustainable performance of a company.⁶

² AA Abdulrasaq Ajadi Ishola and others, 'Charting Digital Governance: ICT Research in Nigeria's Public Administration' (2025) 7 *Frontiers in Sustainable Cities* 1, 3-5.

³ Abraham Mutitu Kiruga, 'The Impact of Artificial Intelligence on Corporate Governance: Ethical Implications and Governance Challenges' (2024) 12(4) *Universal Journal of Management* 60, 63-65.

⁴ Godwin I Alegbeleye, Paschal C Igbokwe and Idris Sule, 'Digitalization of Corporate Governance on Ethical Standard in the Nigeria Public Sector' (2024) 9(6) *Advance Journal of Current Research* 1, 7-9.

⁵ Richard (n 1).

⁶ John Ugoani and Grace Udo, 'Ethical Governance and National Development in Nigeria' (2024) SSRN Paper 4864245, 6-8.

2.0 CONCEPTUAL FRAMEWORK

The conceptual framework for this research is built on the interaction between corporate governance principles (including accountability, fairness, and transparency), technological innovations (including Artificial Intelligence, blockchain, and data analytics), and ethical considerations (which include privacy, fairness, and responsibility). The ethical challenges that arise due to the integration of technology in corporate governance occur at the intersection of these concepts, particularly where technology outpaces legal and institutional frameworks, as is evident in Nigeria.

2.1 Technological Innovation in Corporate Governance

Technological innovation in corporate governance involves the integration of digital tools such as Artificial Intelligence (AI), blockchain, big data analytics, and automation into governance processes. These technologies enhance efficiency, transparency, and monitoring capabilities. Technological innovations enable real-time data processing, predictive decision-making, and improved internal controls, thereby transforming traditional governance practices.⁷ However, such innovations also introduce complex ethical and regulatory concerns, particularly in emerging economies like Nigeria.

2.2 Overview of Corporate Governance

Corporate governance refers to the system by which companies are directed, controlled, and held accountable.⁸ It encompasses the relationships among shareholders, management, and other

⁷ Erik Brynjolfsson and Tom Mitchell, 'What Can Machine Learning Do? Workforce Implications' (2022) 61 *Science* 1530, 1532-1533.

⁸ Masiye Banda and Austin Mwangi, 'Corporate Governance: A Conceptual Analysis' (2023) 14(17) *Research Journal of Finance and Accounting* 41, 41-43.

stakeholders.⁹ Modern corporate governance extends beyond internal control to include risk management, compliance, and stakeholder engagement, particularly in technologically driven environments.¹⁰ Recent scholarship on corporate governance emphasises that corporate governance also involves directing and controlling specific factors that includes ethical oversight, transparency, and accountability mechanisms within organisations.¹¹

2.3 Ethics and Corporate Responsibility

Ethics in corporate governance refers to the moral principles guiding corporate behaviour, including fairness, accountability, integrity, and transparency. Ethical governance ensures that corporate decisions are aligned with societal expectations and stakeholder interests. Ensuring that a company carries out its activities which includes its processes and operations in an ethical manner is a pointer to an ethically responsible company. Contemporary reasoning suggests that ethical considerations are critical in the deployment of technology, and this is because technological systems can amplify bias, inequality, and unethical decision-making if not properly regulated.¹²

3.0 THEORETICAL FRAMEWORK

The application of technology in corporate governance raises complex ethical issues relating to accountability, transparency, data protection, and stakeholder welfare. To critically analyse these challenges, this

⁹ Emre Yilmaz and Aylin Kaya, 'Corporate Governance: Unveiling Its Complex Theoretical Landscape' (2023) 8(2) *Academic Journal of Current Practice in Business and Management* 1.

¹⁰ Samuel O Idowu and others, 'Corporate Governance: Contemporary Developments and Future Directions' (2023) 31 *Corporate Governance: An International Review* 410, 412–414.

¹¹ *ibid.*

¹² Luciano Floridi and Josh Cowls, 'A Unified Framework of Five Principles for AI in Society' (2024) 14 *Harvard Data Science Review* 1, 5–7.

study adopts a multi-theoretical framework, primarily grounded in Stakeholder Theory and Agency Theory. These theories provide a comprehensive lens for understanding how technological innovation interacts with corporate governance structures and ethical obligations, particularly in developing economies such as Nigeria.

3.1 Overview of the Stakeholder Theory

The Stakeholder theory was introduced by R. Edward Freeman in 1980 and he first coined the phrase in his book titled, 'Strategic Management: A Stakeholder Approach'.¹³ Stakeholder theory involves an exchange of mutual and beneficial relationship between the firm and others; these others being those who are affected by companies' activities and who in turn affect the company. Stakeholders therefore include shareholders, employees, suppliers, customers, creditors, and members of the communities in which and around where the company operates.¹⁴ According to Freeman, a successful company is that which creates value for its stakeholders.¹⁵ This implies that prioritising the interests of not just shareholders but also stakeholders of a company will make a company successful according to this theorist.

Stakeholder theory posits that corporations are accountable not only to shareholders but to a broader network of stakeholders, including employees, customers, regulators, and society at large. Contemporary scholarship emphasises that firms operate in an environment characterised by diverse stakeholder expectations and increasing

¹³ Edward R Freeman, *Strategic Management: A Stakeholder Approach* (Vol. 46 Pitman 1984).

¹⁴ Vera Ekundayo and Louisa James, 'Stakeholder Theory and the Concept of Corporate Social Responsibility' (2016) 8(2) *A Journal of the Society for Corporate Governance Nigeria* 1733, 1790.

¹⁵ Edward R Freeman, 'Stakeholder Theory' <<https://www.stakeholdermap.com/stakeholder-theory-freeman.htm>> accessed 12 February 2026.

societal scrutiny, requiring governance systems that balance economic and social objectives.¹⁶ The Stakeholder theory may not be as relatively popular and practicable in developing nations such as Nigeria.¹⁷ But it holds sway in the need for companies to practice ethical deployment of technology in their corporate governance. The Stakeholder theory explains who is affected by technology governance and why ethical considerations are necessary. It shows that stakeholders of a company are affected by the the deployment of technology in a company and therefore, ethical technology utilisation and technology governance become a necessity.

3.2 Overview of the Agency Theory

Agency theory is a theory that explains the relationship between shareholders (principal) and directors and managers((agents). Agency Theory is primarily attributed to Michael C Jensen and William H. Meckling, who in their seminal work conceptualised the firm as a nexus of contracts between principals (shareholders) and agents (managers).¹⁸ The theory addresses the agency relationship, where agents are engaged to perform services on behalf of principals but may pursue their own interests.

This theory focuses on the existence of agency problems, and they include information asymmetry, opportunism, and conflicts of interest. Agency Theory provides a framework for understanding corporate governance, particularly in analysing conflicts of interest, monitoring

¹⁶ Hart O Awa, Willie Etim and Enyinda Ogbonda, 'Stakeholders, Stakeholder Theory and Corporate Social Responsibility' (2024) 9 International Journal of Corporate Social Responsibility 11, 3-5.

¹⁷ Ekundayo and James (n 14).

¹⁸ Michael C Jensen and William H Meckling, 'Theory of the Firm: Managerial Behaviour, Agency Costs and Ownership Structure' (1976) 3 Journal of Financial Economics 305, discussed in 'Jensen and Meckling at 50' (2025) 172 Journal of Financial Economics 104116.

mechanisms, and accountability structures within firms.¹⁹ The theorist posits that the existence of a structural separation between shareholders and managers, creates the potential for divergence of interests. This separation necessitates governance mechanisms to align managerial actions with shareholder objectives.²⁰ Shareholder objectives include making profit and ensuring the company remains a going concern.

The theory assumes that agents are rational and self-interested, and may prioritise personal benefits over the interests of principals.²¹ This assumption underpins the need for monitoring systems such as audits, board oversight, and performance incentives. Agency Theory provides a useful framework for understanding accountability and control in corporate governance. Regarding technological innovations, the Agency Theory is particularly relevant in explaining how technologies such as AI and blockchain can reduce information asymmetry through real-time data access, enhance monitoring and control mechanisms and minimise agency costs through automation and transparency. When corporate governance processes are automated, it makes for transparency and accountability. Therefore, with the use of AI and blockchain, shareholders can better monitor their agents, the activities and decision-making of their agents (the directors) and also the management. Digital technologies can strengthen corporate governance by improving data accuracy, oversight, and accountability

¹⁹ Sunil K Sharma and others, 'Agency Theory and Corporate Governance: A Review of Literature' (2023) 12 *Journal of Governance and Regulation* 45, 47–49.

²⁰ Eugene F Fama and Michael C Jensen, 'Separation of Ownership and Control Revisited' (2022) 26 *Journal of Law, Economics and Organization* 301, 305–307

²¹ Kathleen M Eisenhardt, 'Agency Theory: An Assessment and Review' (2022) 14 *Academy of Management Review* 57, 59–61.

structures.²² Technologies such as AI and blockchain technologies may reduce traditional agency problems but they may also create new forms of risk and ethical dilemmas, including lack of algorithmic transparency, data governance challenges and regulatory gaps.

4.0 ETHICAL CHALLENGES TO THE APPLICATION OF TECHNOLOGY IN CORPORATE GOVERNANCE IN NIGERIA

Corporate governance refers to the set of rules, practices, and processes that are employed by the board to direct and control a company.²³ Strong corporate governance ensures that organisations have high ethical standards.²⁴ The operations of a corporation may face ethical challenges. However, corporate governance frameworks are established to identify and mitigate risks to help protect the company's future.²⁵ The NCCG provides for the establishment of professional ethical standards for corporations.²⁶ This underscores the values for the protection and enhancement of the reputation of a company while promoting good conduct and investor confidence. The board has a responsibility to set the ethical tone of a company. The NCCG requires the board to formulate and periodically review the Code of Business Conduct and Ethics of the company.²⁷ The board has a further responsibility to monitor the adherence to the Code of

²² Moses Peace Richard, 'Artificial Intelligence and Corporate Governance: Opportunities and Challenges in Emerging Economies' (2024) 34 *Journal of Legal Studies* 48, 52–54.

²³ 'What is Corporate Governance? The 2025 Guideline' <<https://imd.org/blog/governance/what-is-corporate-governance/>> accessed 6 January 2026.

²⁴ *ibid.*

²⁵ *ibid.*

²⁶ NCCG 2018, p 24.

²⁷ NCCG 2018, p 24, recommended practices 24.1.h

Business Conduct and Ethics and this is to ensure compliance and that breaches are effectively sanctioned.²⁸

Besides corporate governance having to do with legal or structural, it is also an ethical system because it seeks to balance the interests of shareholders, management, other employees, creditors, and society. In Nigeria, the integration of technological tools such as artificial intelligence (AI), blockchain, big data analytics, and cybersecurity platforms into corporate governance processes has amplified ethical concerns. These challenges bother on transparency, confidentiality, accountability, algorithmic decision-making, inclusivity, data privacy and protection, cyber security and ethical responsibility, fairness, and inclusivity and equity. This chapter examines the ethical challenges posed by technological applications in corporate governance within the Nigerian context.

3.1 Transparency Versus Confidentiality

One of the ways to understand the ethical challenges associated with the use of technology in Nigeria is by contrasting the principle of transparency with that of confidentiality. Transparency and confidentiality are twin pillars of ethical corporate governance. Transparency is one of the principles of corporate governance, and it is also a core aspect of ethical governance. Transparency promotes accountability, stakeholder trust, and investor confidence, while confidentiality safeguards sensitive corporate and personal information. Transparency in corporate structures is required to mitigate the separation of ownership and control²⁹ by enabling business owners to be aware of the activities of the managers on managing their businesses so as to hold them accountable for their

²⁸ NCCG 2018, p 24, recommended practices 24.2.

²⁹ Adolf A Berle and Gardiner C Means, *The Modern Corporation and Private Property* (Macmillan 1932).

professional actions. In Nigeria, the Nigerian Code of Corporate Governance 2018 emphasises disclosure, accountability, and stakeholder engagement as ethical obligations of directors.³⁰

Confidentiality in a corporate setting protects sensitive corporate data, trade secrets, and personal information. The NDPA codifies confidentiality obligations, requiring lawful processing, minimisation, and secure handling of personal data.³¹ The integration of technological tools such as blockchain, artificial intelligence (AI), and big data analytics into governance processes in Nigeria intensifies the tension between the values of transparency and confidentiality, and this may affect good corporate governance. Technological tools enhance transparency through blockchain and AI compliance monitoring. For instance, blockchain is a technological tool that provides immutable and transparent records of shareholder voting and corporate actions, reducing manipulation³² and these enhance accountability. Blockchain brings about transparency; however, it risks exposing shareholder identities and transaction details.³³

Big Data Analytics has to do with extensive data collection and this may lead to misuse or unauthorised disclosure.³⁴ AI Compliance Monitoring is used for generating real-time alerts on irregularities, improving board oversight and regulatory reporting.³⁵ In the case of cybersecurity risks, weak IT governance in Nigeria increases

³⁰ NCCG 2018.

³¹ NDPA 2023.

³² Federal Ministry of Communications and Digital Economy, National Blockchain Policy for Nigeria (May 2023).

³³ *ibid.*

³⁴ Deji Olowu 'Electronic Evidence and Corporate Accountability in Nigeria: A Critical Appraisal' (2020) 12 African Journal of Law and Technology 88.

³⁵ Richard (n 5).

vulnerability breaches and consequently, undermines confidentiality.³⁶ However, excessive transparency may expose sensitive shareholder or employee data, raising confidentiality concerns under the Nigeria Data Protection Act 2023.³⁷ The Act provides that a data controller or data processor shall not process or permit a data processor to process on its behalf, sensitive personal data unless the data subject has given and not withdrawn consent to the processing of their personal data and for the purpose(s) for which consent has been given.³⁸

The NDPA seeks to regulate the processing of data to ensure that confidential or sensitive information of a data subject is not processed arbitrarily, without the consent of the data subject. This is to uphold the rights of a data subject to privacy. Ethical governance requires balancing transparency with privacy to ensure that technological outputs remain auditable without breaching confidentiality. This implies that upholding ethics in this context would mean ensuring that, when adopting technology in corporate governance processes. However, the goal is to enhance transparency; the information of data subjects should be treated as confidential. Thus, confidentiality is threatened when transparency mechanisms are over-extended without adequate safeguards. Transparency strengthens investor confidence³⁹ and fosters growth in a company. The ethical challenge in this context is with respect to balancing transparency with confidentiality.

³⁶ Ferguson Ogene, 'Cybersecurity and IT Governance Challenges in Nigeria: Strategic Investment Needs and the Path Forward for a Resilient Digital Economy' (2024) *International Journal of Computer Applications* (186)55, DOI: 10.5120/ijca2024924275.

³⁷ NDPA 2023.

³⁸ NDPA 30(1)(a).

³⁹ Michael C Jensen and William H Meckling, 'Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure' (1976) *Journal of Financial Economics* 3, 305.

Excessive transparency may violate privacy rights, while excessive confidentiality may obscure accountability.

Rigid transparency requirements can undermine corporate privacy, while inadequate disclosure erodes trust.⁴⁰ Therefore, ethical governance in a company requires an approach that allows privacy and also establishes selective disclosure mechanisms in the use of technological tools. The King IV Report integrates IT governance into ethical board duties, requiring directors to balance transparency with confidentiality in stakeholder reporting.⁴¹ The UK Corporate Governance Code 2018 embeds transparency into board responsibilities,⁴² while the Data Protection Act 2018 and UK GDPR safeguard confidentiality. Nigeria lags behind these jurisdictions, as its governance codes emphasise disclosure but provide limited guidance on confidentiality in the deployment of technology tools to corporate governance processes. Therefore, technological tools enhance transparency and also threaten confidentiality if adequate safeguards are not put in place.

3.2 Accountability and Algorithmic Decision-Making

Accountability and algorithmic decision-making as an ethical challenge to the application of technological innovations to corporate governance will be examined under the headings of accountability in corporate governance, algorithmic decision-making and ethical concerns.

(a) Accountability in Corporate Governance

⁴⁰ Olowu (n 34).

⁴¹ Institute of Directors in Southern Africa, King IV Report on Corporate Governance for South Africa 2016.

⁴² Financial Reporting Council (UK), UK Corporate Governance Code 2018.

Accountability is one of the principles of corporate governance. It requires directors and managers to justify decisions, accept responsibility, and provide transparency to shareholders and other stakeholders.⁴³ Under the CAMA, directors owe duties of care, loyalty, and good faith to the company.⁴⁴ The requirement of accountability implies that directors exercise oversight over governance systems, including technological applications. The NCCG places emphasis on accountability as a principle, requiring boards to provide transparent disclosures and assume responsibility for corporate decisions.⁴⁵ The integration of technological tools particularly AI, machine learning, and algorithmic compliance systems into governance processes complicates accountability. Technological tools enhance accountability by generating real-time compliance alerts, immutable records (blockchain), and automated audit trails. However, reliance on algorithms also risks shifting responsibility away from human decision-makers, creating accountability gaps. AI systems used for compliance monitoring or risk assessment raise ethical questions about accountability. Reliance on algorithms also risks shifting responsibility away from human decision-makers, and this creates accountability gaps.

(b) Algorithmic Decision-Making and Ethical Concerns

Algorithmic systems are increasingly deployed in governance processes such as AI Compliance Monitoring, Risk Assessment Tools, and Automated Shareholder Verification. Algorithmic systems are used for AI Compliance Monitoring for automated detection of irregularities in financial reporting or shareholder voting⁴⁶ Algorithmic systems are also used as Risk Assessment Tools as predictive analytics

⁴³ Berle and Means (n 29).

⁴⁴ CAMA, ss 305-306.

⁴⁵ NCCG 2018.

⁴⁶ Richard (n 35).

used to evaluate corporate risks and recommend board actions.⁴⁷ Automated Shareholder Verification is another algorithmic system and it involves blockchain and AI systems used for validating shareholder identities during AGMs.⁴⁸

These technological tools promise efficiency; however, they raise ethical challenges one of which is that Algorithmic decision-making introduces opacity, raises questions about liability, and challenges due process. AI is “often described as a black box rendered opaque by the technical complexity of AI systems,” emphasising that opacity is inherent in the architecture of advanced machine learning models.⁴⁹ Opacity, is otherwise known as the “Black Box” Problem.⁵⁰ It shows AI systems as often lacking explainability, making it difficult for directors to justify decisions based on algorithmic outputs.⁵¹ The ‘black box’ problem, refers to the difficulty in understanding how AI systems generate decisions or outputs. This lack of transparency presents significant ethical and governance challenges, particularly in corporate decision-making contexts.

The ‘black box’ problem, refers to the difficulty in understanding how AI systems generate decisions or outputs. The black box problem arises where AI systems produce outputs without clear insight into how or why the algorithm got to the proposed solution, thereby

⁴⁷ *ibid.*

⁴⁸ Securities and Exchange Commission (Nigeria), *Guidance on Virtual and Hybrid General Meetings (2020-2021)*.

⁴⁹ Marco Almada, ‘Governing the Black Box of Artificial Intelligence’ (2023) SSRN Working Paper, 3–5.

⁵⁰ O.E. Aro, M. Nweze, and E.K. Avickson, ‘Blockchain Technology as a Tool for Corporate Governance and Transparency,’ *International Journal of Science and Research Archive*, (2024)13(01), 2479.

⁵¹ *ibid.*

creating opacity in decision-making processes.⁵² This opacity or lack of transparency presents significant ethical and governance challenges, particularly in corporate decision-making contexts. It limits accountability and undermines trust in automated systems. If an AI system produces flawed recommendations, it becomes uncertain who bears responsibility, whether it is the board, the developers, or the regulators. Directors are accountable for technological decisions, thereby making it necessary to have the human element for the purpose of oversight.⁵³ Ethical governance requires that directors document reliance on technological tools and ensure explainability to preserve accountability. Another ethical challenge regarding the use of algorithmic systems is that of Liability Allocation. This challenge is such that if an algorithm produces flawed recommendations, directors remain legally accountable, but responsibility may be diffused between boards, developers, and regulators. Furthermore, the ethical issue of Due Process bothers on the problem associated with automated decisions, which may deny stakeholders the right to be heard, undermining fairness and procedural justice.⁵⁴ The violation of due process erodes procedural fairness, and it occurs due to a lack of human oversight.

The UK Corporate Governance Code 2018 embeds accountability into board responsibilities. This implies that directors are required to oversee risk management and IT systems.⁵⁵ The Data Protection Act 2018 and UK GDPR impose obligations on algorithmic transparency and fairness. Algorithmic decision-making enhances accountability (through audit trails and compliance monitoring), efficiency, and

⁵² Bartosz Brożek and others, 'The Black Box Problem Revisited: Real and Imaginary Challenges for Automated Legal Decision Making' (2024) 32 *Artificial Intelligence and Law* 427, 430–432.

⁵³ *ibid.*

⁵⁴ Evidence Act 2011, s 84.

⁵⁵ Financial Reporting Council (UK), UK Corporate Governance Code 2018.

transparency, and it also risks undermining accountability by creating accountability gaps through opacity and liability diffusion, and due process violations. Nigeria lags behind these jurisdictions, as its governance codes emphasise accountability but provide limited guidance on algorithmic decision-making.

3.3 Data Privacy and Protection

Technological applications often involve extensive data collection. As corporations rely on digital platforms, artificial intelligence (AI), blockchain, and big data analytics to manage governance processes, vast amounts of personal and corporate data are collected, processed, and stored. The extensive data collection results in data privacy and protection emerging as ethical challenges in the application of technology to corporate governance. However, AI-driven monitoring and blockchain registries may conflict with these principles of data privacy and data protection. Regarding AI Monitoring systems, AI-driven compliance tools often require extensive data collection, and this results in concerns about surveillance and misuse of employee or shareholder information.⁵⁶ Blockchain registries enhance transparency, but it also risks exposing shareholder identities and transaction histories, thereby conflicting with confidentiality obligations under the NDPA.⁵⁷

Technological systems ought to respect the rights of shareholders and employees, and this can be done by ensuring that ethical governance embeds privacy by design.⁵⁸ The ethical risk created in this regard is misuse and unauthorised disclosure. The ethical dilemma lies in balancing the efficiency and transparency offered by technology with

⁵⁶ Richard (n 46).

⁵⁷ Federal Ministry of Communications and Digital Economy, National Blockchain Policy for Nigeria (May 2023).

⁵⁸ Olowu (n 40).

the obligation to respect privacy rights and protect sensitive information. In Nigeria, this challenge is particularly acute given the evolving regulatory landscape and infrastructural limitations. However, the NDPA establishes the statutory foundation for data privacy and protection, mandating lawful processing, data minimisation, and respect for data subject rights.⁵⁹ It requires corporations to implement safeguards such as encryption, access controls, and breach notification mechanisms.

Similarly, the Companies and Allied Matters Act 2020⁶⁰ recognises electronic records but does not provide detailed guidance on privacy in technological governance. However, despite these statutory provisions, enforcement remains weak, and many corporations lack the capacity to implement robust data protection measures. This gap creates ethical risks when technological tools are deployed without adequate safeguards. Weak IT governance in Nigeria could result in cybersecurity risks which would consequently increase vulnerability to breaches, undermining both privacy and trust.⁶¹ Cross-border data transfers have to do with a system where cloud-hosted governance platforms may transfer personal data abroad. This raises questions about adequacy and safeguards under the NDPA.⁶²

The NDPA provides that a data controller or data processor shall not transfer or approve for personal data to be transferred from Nigeria to another country unless the recipient of the personal data is subject to a law that binds corporate rules, code of conduct, contractual clauses, or certification mechanism that gives an adequate level of protection to

⁵⁹ Nigeria Data Protection Act 2023.

⁶⁰ CAMA 2020.

⁶¹ Ogene (n 36).

⁶² NDPA 2023, s 41.

the personal data based on the provisions of the NDPA.⁶³ Adequate level of protection occurs when it upholds principles that are substantially similar to the conditions required by the NDPA for the processing of personal data.⁶⁴ Furthermore, a data controller or data processor shall not transfer or approve for personal data to be transferred from Nigeria to another country unless one of the conditions set out in Section 43 of the Act⁶⁵ applies.

The UK GDPR and Data Protection Act 2018 impose strict obligations on corporations regarding data subject rights and algorithmic transparency.⁶⁶ In South Africa, the Protection of Personal Information Act 2013⁶⁷ complements the King IV Report 2016 by embedding privacy into ethical governance frameworks.⁶⁸ The UK and South Africa are ahead of Nigeria with respect to laws on data privacy and protection because the Nigerian governance codes emphasise disclosure but provide limited guidance on embedding privacy safeguards into technological governance. Therefore, technological tools both enhance governance efficiency and create privacy risks.

3.4 Cybersecurity and Ethical Responsibility

As corporations in Nigeria increasingly rely on digital platforms, artificial intelligence (AI), blockchain, and cloud services for governance processes, they face heightened risks of cyberattacks, data breaches, and system failures. Cybersecurity has become a defining ethical challenge in the application of technology to corporate governance. Thus, cybersecurity is not merely a technical requirement

⁶³ *ibid*, s 41(1)(a).

⁶⁴ *ibid*, s 42(1).

⁶⁵ *ibid*, s 43.

⁶⁶ Data Protection Act 2018 (UK); UK General Data Protection Regulation.

⁶⁷ Protection of Personal Information Act 2013 (South Africa)

⁶⁸ Institute of Directors in Southern Africa, King IV Report on Corporate Governance for South Africa 2016

but an ethical obligation that is within the ambit of directors' fiduciary duties of care and loyalty. Boards have a duty to protect corporate data and shareholder interests. The CBN's Risk-Based Cybersecurity Framework⁶⁹ imposes obligations on banks to adopt layered controls to mitigate cyberthreats on their financial processes.

The board committee on risk management is required to review and recommend for the board's approval at least annually, the Company's IT data governance framework to ensure that IT data risks are adequately mitigated and relevant assets are managed effectively.⁷⁰ To achieve this, the committee is to develop a framework to enable it proactively monitor and manage cyber threats and attacks as well as adverse social media incidents.⁷¹ When a company fails to implement adequate cybersecurity measures, it constitutes an ethical lapse that exposes stakeholders to fraud and identity theft. Weak IT governance in Nigeria exacerbates these risks, making cybersecurity an ethical imperative.⁷²

Ethical responsibility requires directors and boards to safeguard corporate and stakeholder data, ensure resilience, and maintain trust. Failure to integrate cybersecurity into governance frameworks undermines both legal compliance and ethical accountability. Corporate governance is premised on accountability, transparency, and stakeholder protection.⁷³ Going by this era of technology, these principles upon which corporate governance sits are better achieved

⁶⁹ Central Bank of Nigeria, Issuance of Risk-Based Cybersecurity Framework and Guidelines for Deposit Money Banks and Payment Service Banks (CBN Circular BSD/DIR/PUB/LAB/017/008, 31 May 2024).

⁷⁰ NCCG 2023, p 11, recommended practices 11.5.6.6.

⁷¹ NCCG 2023, p 11, recommended practices 11.5.6.6(b).

⁷² Ogene (n 61).

⁷³ Berle and Means (n 43).

with robust cybersecurity. The CAMA⁷⁴ recognises electronic records, but it does not provide detailed cybersecurity obligations. The Nigeria Data Protection Act 2023 (NDPA) imposes duties of lawful processing and secure handling of personal data.⁷⁵ Since the board has been empowered for IT governance by the Code,⁷⁶ it is required to be ethically responsible in the issue of cybersecurity.

Therefore, regarding ensuring cybersecurity in the company, one of the things the board should do is to protect the interests of stakeholder Interests. Companies through their boards ought to safeguard the data and financial assets of shareholders, employees, and customers.⁷⁷ Having access to the data of stakeholders helps a company in running its affairs. However, this information that has been legally obtained must be safeguarded to avoid cyber threats. The board should also ensure resilience. This implies that boards must invest in systems capable of withstanding ransomware, phishing, and insider threats.⁷⁸ These are technology-related threats that a company could be exposed to by virtue of the integration of technology into its operations. Cyber threats undermine digital governance and this makes it necessary for the board to embed cyber resilience into technological systems of the company.⁷⁹

⁷⁴ CAMA 2020.

⁷⁵ NDPA 2023.

⁷⁶ NCCG 2023.

⁷⁷ R Edward Freeman, *Strategic Management: A Stakeholder Approach* (Pitman 1984).

⁷⁸ Ogene (n 72).

⁷⁹ Jeremiah Theophilus Nwaguiyi, Raymond Ezeh, Onyebuchi Christopher Okoye, Cyber Security Threats and Digital Governance in Nigerian Businesses, (2024) P.23 <<https://injasr.org/Oct2024/003%20CYBER%20SECURITY%20THREATS%20AND%20DIGITAL%20GOVERNANCE%20IN%20NIGERIAN.pdf>>accessed 1 January 2026

Board of directors must also ensure to maintain the trust of investors. Transparency in reporting cyber incidents is essential to preserve investor confidence.⁸⁰ In addition, it is crucial for the board to embed Privacy by Design. Ethical governance requires minimisation of data collection and encryption of sensitive information.⁸¹ Therefore, companies must in following the technology governance of their board, ensure data privacy.

When a board fails to uphold these responsibilities constitutes an ethical lapse, thereby exposing corporations to reputational harm and legal liability. weak IT governance in Nigeria exacerbates cybersecurity risks, making ethical responsibility a board-level imperative. The UK Corporate Governance Code 2018 embeds risk management and IT oversight into board responsibilities, requiring directors to ensure cybersecurity resilience.⁸² In South Africa, the King IV Report (2016) integrates IT governance into ethical board duties, explicitly linking cybersecurity to stakeholder protection.⁸³ Nigeria is not at par with the UK and South Africa with respect to mitigating cyberthreats in corporate governance because its governance codes emphasise accountability but provide limited guidance on cybersecurity as an ethical responsibility.

3.5 Inclusivity and Equity

Inclusivity and equity are fundamental ethical principles in corporate governance and it ensures that all stakeholders, particularly minority shareholders, employees, and vulnerable groups are fairly represented and able to participate in decision-making in a company.⁸⁴ Inclusivity

⁸⁰ *ibid.*

⁸¹ NDPA 2023.

⁸² Financial Reporting Council (UK), UK Corporate Governance Code 2018.

⁸³ Institute of Directors in Southern Africa, King IV Report on Corporate Governance for South Africa 2016.

⁸⁴ Berle and Means (n 73).

and equity are ethical challenges to technological corporate governance within Nigerian corporations. The integration of technological tools such as virtual annual general meetings (AGMs), blockchain voting, and AI-driven compliance systems has created new opportunities for efficiency and transparency. However, these technological innovations also risk exacerbating inequalities, especially in Nigeria where infrastructural deficits, digital illiteracy, internet access and socio-economic disparities persist. Though virtual AGMs and blockchain voting enhance corporate governance processes and bring about efficiency, they risk excluding shareholders with no or poor internet access and digital literacy. The SEC's guidance on hybrid meetings permits technological participation but does not address inclusivity gaps.⁸⁵ Nigeria's digital divide undermines equitable participation in governance.⁸⁶ Ethically, corporations must provide alternative participation channels to avoid disenfranchisement of minority shareholders.

3.6 Inclusivity in Corporate Governance

The Nigerian Code of Corporate Governance 2018 emphasises inclusivity by requiring boards to consider diversity and stakeholder engagement in governance processes.⁸⁷ The board is required by the Code to have a policy and establish measurable objectives for achieving diversity.⁸⁸ To achieve diversity as required by the code,⁸⁹ a company would have to expand its corporate network to allow for inclusivity. General Meetings of companies are important platforms used by the Board to engage shareholders to facilitate greater understanding of the Company's business, governance, and

⁸⁵ Securities and Exchange Commission (Nigeria), Guidance on Virtual and Hybrid General Meetings (2020–2021).

⁸⁶ Nwaguiyi, Ezeh, and Okoye (n 79).

⁸⁷ NCCG 2018, p 2.

⁸⁸ *ibid*, p 2, recommended practice 2.4.

⁸⁹ NCCG 2018.

performance.⁹⁰ During general meetings, shareholders are presented with an opportunity to exercise their ownership rights and express their views to the Board on any areas of interest.⁹¹ The Code stipulates that the venue of a General Meeting should be accessible to shareholders, to ensure that shareholders are not disenfranchised on account of the choice of venue.⁹²

Technological applications, such as virtual AGMs, promise broader participation by enabling shareholders to join meetings remotely.³ By approval of virtual meetings for companies, the Code, therefore, also requires that everyone should be able to attend general meetings as appropriate and not be disenfranchised by reason of the meeting venue. Therefore, whether it is a physical meeting or a virtual meeting, there should be inclusivity. However, inclusivity is undermined when technological platforms exclude stakeholders without access to reliable internet, digital devices, or technical literacy. Minority shareholders, particularly in rural areas, may be disenfranchised, and this raises ethical concerns about fairness and representation. This is because, going by the importance of corporate meetings, the exclusion of a person from attendance at a general meeting would preclude the person from being adequately represented, and this is tantamount to unfairness because such a person will lose the opportunity to give his opinion to which he is entitled. Blockchain voting systems also offer secure and transparent mechanisms for shareholder engagement.

4.0 CONCLUSION

This paper examined the ethical challenges associated with the application of technological innovations in corporate governance in

⁹⁰ *ibid*, p 21.

⁹¹ *ibid*.

⁹² NCCG 2018, p 21, recommended practices 21.3.

Nigeria, highlighting the complex interplay between evolving digital tools and existing legal frameworks. While technologies such as artificial intelligence, blockchain, and data analytics offer significant benefits which include enhanced efficiency, transparency, accountability, and real-time decision-making their deployment within corporate governance structures raises profound ethical concerns that cannot be overlooked.

A central finding of this study is that the integration of technology into corporate governance has outpaced the development of adequate legal, regulatory, and ethical frameworks in Nigeria. Issues such as algorithmic opacity (the “black box” problem), data privacy violations, cybersecurity risks, and the potential for bias in automated decision-making systems pose significant threats to fairness, accountability, and stakeholder trust. These challenges are further compounded by structural deficiencies within the Nigerian regulatory environment, including fragmentation, weak enforcement mechanisms, and outdated evidentiary rules, particularly in relation to emerging technologies such as blockchain and AI.

The study also demonstrates that while traditional corporate governance theories particularly the Agency Theory provide a useful foundation for understanding accountability and control, they are insufficient on their own to address the ethical complexities introduced by technological innovation. There is therefore a need for a multi-theoretical and interdisciplinary approach, incorporating stakeholder-oriented and ethics-driven frameworks that reflect the realities of a digitally transformed corporate landscape. The ethical application of technology in corporate governance is not merely a technical or legal issue but a question of responsible innovation. For Nigeria to fully harness the transformative potential of technological advancements, it must adopt a governance approach that prioritises transparency,

accountability, fairness, and inclusivity. Only through such a balanced and forward-looking framework can technology serve as a tool for sustainable corporate growth and societal development, rather than a source of new ethical and governance risks.

5.0 RECOMMENDATIONS

This paper recommends that the legislature should ensure there are comprehensive legal and institutional reforms which are aimed at aligning Nigeria's corporate governance framework with global best practices in digital governance. To this end, these reforms will be aimed at strengthening the data protection and cybersecurity frameworks in Nigeria. It will also be to introduce mandatory ethical standards for the deployment of technological systems in corporate decision-making. The board has a responsibility to set the ethical tone of a company. The NCCG requires the board to formulate and periodically review the Code of Business Conduct and Ethics of the company

This paper recommends that companies' management should ensure to practice technological inclusion so that the benefits of digital transformation will be distributed equitably across corporate structures. the manuscript underscores the importance of technological inclusion emphasising that the benefits of digital transformation must be equitably distributed across corporate structures and the broader society. Furthermore, Government agencies and parastatals should make policies that would promote digital literacy, infrastructural development, and inclusive access in order to bridge the digital inequalities within Nigeria.

This paper further recommends that firms should focus on capacity building as it relates to technological advancements. The need for capable corporate personnel in companies to drive the effective and

ethical deployment of technology cannot be over-emphasised. Since the board has a responsibility to set the ethical tone of a company, the capacity of company directors should be strengthened to ensure that they are empowered to do so and additionally, formulate and periodically review the code of business conduct and ethics of the company.