

Leveraging Artificial Intelligence (AI) and Blockchain for Enhanced Tax Compliance and Revenue Generation in Public Finance

Abstract

This study investigates the transformative potential of Artificial Intelligence (AI) and blockchain technologies to enhance tax compliance and revenue generation within public finance. In response to mounting challenges governments worldwide face in maintaining tax compliance and achieving efficient revenue collection, AI and blockchain present promising, forward-looking solutions. Using a qualitative review of secondary data, this paper evaluates the primary applications of AI and blockchain, such as automated compliance monitoring, fraud detection, real-time auditing, and secure transaction processing. The findings suggest that AI's capacity for real-time analysis of vast datasets, coupled with the transparency and immutability provided by blockchain, can significantly elevate tax compliance rates and reinforce public trust in financial systems. Furthermore, integrating AI and blockchain paves the way for innovative policy enforcement and informed decision-making, contributing to a more efficient and transparent public finance system. Nonetheless, substantial challenges persist, including those associated with infrastructure development, regulatory frameworks, and ethical considerations. The paper recommends implementing targeted pilot programs, developing robust regulatory frameworks, enhancing workforce training, and investing in continued research on advanced applications. This study thus lays a foundation for policymakers to leverage the potential of AI and blockchain in transforming public financial management, moving toward a more resilient and transparent future in public finance.

Keywords: Artificial Intelligence, Blockchain, Tax Compliance, Revenue Generation, Public Finance, Fraud Detection, Real-time Auditing, Transparency, Decision-making, Regulatory Framework, Pilot Programs, Data Security

Introduction

In the evolving field of public finance, governments globally are increasingly challenged with maintaining effective tax compliance and maximizing revenue generation (Ojo & Shittu, 2023). Traditional systems frequently encounter issues such as inefficiency, lack of transparency, and vulnerability to fraud, leading to notable revenue losses and compliance deficiencies (Olaniyi et al., 2023). However, advancements in digital technologies present unprecedented opportunities to address these challenges (Salami et al., 2024). Among these innovations, Artificial Intelligence (AI) and blockchain emerge as transformative tools (Samuel-Okon et al., 2024), offering the potential to improve transparency, enhance decision-making, automate processes, and ensure data security (Quadri et al., 2023), thus advancing the modernization of public finance systems.

The application of AI allows public finance authorities to implement sophisticated algorithms to detect patterns of non-compliance and potential fraud with greater precision and speed (Haruna et al., 2023). Conversely, blockchain technology provides a decentralized ledger that guarantees the integrity and immutability of financial transactions, thereby minimizing risks of corruption and error (Olaniyi et al., 2024). Together, these technologies hold the promise of not only streamlining tax collection processes but also strengthening accountability and transparency, ultimately fostering increased trust between taxpayers and government institutions (Olateju et al., 2024).

This paper aims to investigate the specific applications of AI and blockchain in improving tax compliance and revenue generation within public finance. By examining existing research and case studies, it offers a comprehensive analysis of current implementations and considers potential future developments (Beauvais et al., 2023). Through a qualitative review of secondary data, this study seeks to provide insights into the transformative impact of AI and blockchain, equipping policymakers with strategic approaches to leverage these innovations for public benefit (Cao et al., 2022).

Literature Review

AI in Public Finance

The role of Artificial Intelligence (AI) in public finance has been extensively examined, with research emphasizing its potential to revolutionize tax compliance and revenue collection. AI technologies, particularly machine learning and predictive analytics, are critical in identifying tax evasion patterns, automating repetitive tasks, and enhancing decision-making processes (Haruna et al., 2023). For example, AI systems can process vast datasets to detect discrepancies or anomalies that may indicate fraudulent activities (Iqbal, 2023). Furthermore, several jurisdictions have implemented AI-driven chatbots and automated systems to provide real-time assistance to taxpayers, thereby enhancing taxpayer service and compliance rates (Joseph et al., 2024).

Blockchain's Role in Public Finance

Blockchain technology is particularly valuable in public finance for its capacity to provide a secure, transparent, and immutable ledger for transactions. Research highlights how blockchain can streamline tax collection processes, minimize corruption opportunities, and reduce the costs linked to tax collection (Samuel-Okon et al., 2024). For instance, blockchain can be utilized to track fund flows, ensuring that resources are allocated as intended, which reduces financial mismanagement and promotes public accountability (Ogungbemi et al., 2024). Additionally, blockchain's transparency fosters trust between the government and its citizens, which may encourage voluntary tax compliance (Olaniyi et al., 2024).

Integrative Approaches of AI and Blockchain

Recent studies have explored the synergistic potential of integrating AI and blockchain into a unified framework for public finance management. This integration is anticipated to amplify AI's analytical capabilities and blockchain's security features. For example, AI can analyze data stored on blockchain to predict future trends in tax compliance and revenue generation, providing actionable insights for policymakers and administrators (Adebiyi et al., 2023). Conversely, blockchain can securely record the results of AI analyses, ensuring that these insights remain untampered and accessible to stakeholders, enhancing transparency (Adigwe et al., 2024).

Challenges and Opportunities

Despite the promising applications of AI and blockchain in public finance, several challenges remain. Technical barriers, including the integration of AI with existing IT infrastructure and the scalability of blockchain systems, pose significant obstacles (Gbadebo et al., 2024). Additional concerns include privacy, data security, and the urgent need for regulatory frameworks to manage these technologies effectively (John-Otumu et al., 2024). Nevertheless, the potential for reform and improvement in public finance systems through these technologies outweighs these challenges. As AI and blockchain continue to advance, their ability to reshape public finance practices becomes more pronounced (Olateju et al., 2024).

Theoretical Framework

Conceptual Understanding of AI and Blockchain

Artificial Intelligence (AI) refers to the simulation of human intelligence in machines programmed to think and learn like humans. In the context of public finance, AI can analyze large datasets, predict outcomes, and automate complex decision-making processes (Iqbal, 2023). Blockchain technology, on the other hand, is a decentralized digital ledger that records transactions across many computers in such a way that the registered transactions cannot be altered retroactively. This technology enhances the security, transparency, and efficiency of data transfers (Joseph et al., 2024).

Hypotheses/Propositions

Based on the review of the literature, this paper proposes several hypotheses:

- AI-driven analytics significantly enhance the accuracy and efficiency of tax compliance monitoring and fraud detection systems (Adebiyi et al., 2023).
- Blockchain implementation in public financial transactions significantly reduces errors and fraud, thereby increasing overall tax revenue (Ogungbemi et al., 2024).
- The integration of AI and blockchain technologies can lead to significantly higher levels of transparency and trust in public finance systems, encouraging higher compliance rates among taxpayers (Adigwe et al., 2024).

These propositions will guide the analysis of secondary data, exploring how the integration of AI and blockchain technologies can address the current challenges faced by public finance systems and potentially revolutionize tax administration and revenue generation strategies (Erdoğan & Dirican, 2022). The next sections will delve into specific applications and case studies to evaluate these hypotheses and discuss the implications of the findings on policy and practice (Mertens & Ravn, 2013).

Methodology

Research Approach

This study employs a qualitative research methodology to examine the integration of Artificial Intelligence (AI) and blockchain technologies in enhancing tax compliance and revenue generation within public finance systems. The qualitative approach is chosen due to its strength

in providing comprehensive and in-depth understanding of complex phenomena, such as technological adoption in governmental processes, through detailed descriptions and analyses (Olaniyi et al., 2023).

Data Sources

The primary sources of data for this research are secondary data obtained from a wide range of materials. These include:

- **Academic Journals:** Peer-reviewed articles from journals that focus on finance, technology, and public administration provide insights into previous research and current trends (Adigwe et al., 2024).
- **Government Reports:** Official documents and reports published by government bodies offer factual information about the current state of public finance systems and ongoing technological initiatives (Olaniyi & Omubo, 2023).
- **Industry Analysis:** Reports from industry experts and technological firms give an understanding of the practical applications of AI and blockchain technologies and their impact on public finance (Olaoye et al., 2024).
- **Case Studies:** Detailed case studies help illustrate real-world applications, challenges, and successes of integrating these technologies into public finance systems (Beauvais et al., 2023).

Data Analysis

Data analysis in this qualitative study involves the following steps:

The methodology for data analysis in this qualitative study is structured to meticulously parse through a vast array of secondary data, aiming to uncover nuanced insights into the applications and implications of AI and blockchain technologies in public finance. This analysis is conducted in three major steps, each designed to contribute uniquely to the understanding and interpretation of the data:

Content Analysis

The first step involves a detailed content analysis, which is essential for extracting and cataloguing information from selected documents such as academic articles, industry reports, and governmental publications. This process systematically examines the content to identify occurrences of specific words, themes, or concepts related to AI and blockchain within the realm of public finance (Olateju et al., 2024). By doing so, it gauges the prevalence and the context in which these technologies are discussed or implemented, providing insights into the extent of technology integration and its effects. This analysis helps in pinpointing how AI and blockchain are perceived and utilized in various public finance systems, shedding light on patterns of adoption and areas of potential growth.

Thematic Analysis

Following content analysis, thematic analysis is employed to delve deeper into the data. This involves identifying, analyzing, and reporting on themes that emerge from the content (Samuel-Okon et al., 2024). Thematic analysis is not just about observing what is said about AI and blockchain but also understanding the underlying themes such as benefits, challenges, and potential risks associated with these technologies in public finance. It allows for the interpretation of broader issues and trends, such as the impact of these technologies on transparency, compliance, and efficiency. By identifying these themes, the study contextualizes the technological capabilities and limitations within the specific needs and constraints of public finance management.

Comparative Analysis

The final step is comparative analysis, which synthesizes findings from different sources to highlight commonalities and differences across various case studies and scholarly works (Aucejo, 2024). This step is crucial for assessing the effectiveness and impact of AI and blockchain across different environments and regulatory settings. Comparative analysis helps in drawing broader conclusions about the technologies' practical applications and their transformative potential. It also aids in identifying best practices and lessons learned from diverse implementations, which can inform future strategies and policies.

Ethical Considerations

In conducting this research, ethical considerations are taken into account to ensure integrity and respect for all sources of data. The study adheres to the ethical standards of research, including the proper citation of all data sources and maintaining confidentiality and impartiality in the analysis and presentation of research findings (Ezeugwa et al., 2024).

By employing a robust qualitative methodology and carefully analyzing a diverse array of secondary data, this study aims to provide a thorough understanding of how AI and blockchain can revolutionize public finance, specifically in the realms of tax compliance and revenue generation.

Applications of AI in Public Finance

Tax Compliance Monitoring

One of the primary applications of AI in public finance is in the area of tax compliance monitoring. AI systems, equipped with machine learning algorithms, can analyze large volumes of transactional data to identify patterns indicative of tax evasion or avoidance. For example, AI can predict which companies or individuals are at risk of underreporting income by comparing current reports with historical data and flagging inconsistencies (Haruna et al., 2023). Additionally, AI can help tax authorities prioritize cases by likelihood of non-compliance, thereby optimizing resource allocation and enforcement actions (Iqbal, 2023).

Revenue Forecasting

AI technologies also play a critical role in revenue forecasting, which is vital for effective budgeting and financial planning in public finance. Through predictive analytics, AI can analyze trends from past financial data and provide forecasts of future revenue streams with high accuracy. This allows governments to make informed decisions regarding expenditure and investment based on expected revenue, leading to better fiscal management and stability (Adebisi et al., 2023).

Fraud Detection

AI's ability to process and analyze vast amounts of data in real-time makes it an invaluable tool for detecting fraud within public finance systems. By employing algorithms that detect anomalies and patterns that deviate from the norm, AI systems can alert authorities to potential fraudulent activities much faster than traditional methods. This capability not only helps in recovering lost revenues but also acts as a deterrent to potential fraudsters (Gbadebo et al., 2024).

Decision Support Systems

AI can enhance decision-making processes by providing comprehensive analytics that support complex decision-making scenarios in public finance management. AI-driven decision support systems can integrate various data sources, including economic indicators and social data, to provide recommendations or simulate the outcomes of different policy decisions. This assists policymakers in assessing the potential impacts of their decisions on public finance outcomes (Joeaneke et al., 2024).

Case Studies

Several case studies highlight the successful implementation of AI in public finance. For instance, a tax authority in Europe implemented an AI system that automatically analyzes tax returns and flags those that require further investigation, resulting in a significant increase in detection of tax fraud cases and recovery of lost revenue (Ojo & Shittu, 2023). In another example, a developing country used AI to improve its revenue forecasting models, which allowed the government to better manage its fiscal deficits during economic downturns (Olaniyi et al., 2024).

These applications demonstrate AI's potential to transform public finance management by improving accuracy, efficiency, and transparency. As AI technologies continue to evolve and integrate with other digital innovations, their impact on public finance is expected to deepen, offering more sophisticated tools for managing public resources and ensuring compliance with tax laws.

Synergistic Effects of AI and Blockchain

Integrated Solutions for Enhanced Public Finance Management

The integration of Artificial Intelligence (AI) and blockchain technology presents transformative potential for public finance systems. When AI's capability for deep data analysis is combined

with blockchain's robust security features, the result is a powerful toolset for enhancing transparency, efficiency, and compliance.

- **Data Integrity and Fraud Prevention:** Blockchain's immutability ensures that financial records are tamper-proof, while AI can analyze these records in real time to detect anomalies and potential fraud. This integration allows for the creation of a secure and trustworthy system where data accuracy is maintained, significantly reducing the likelihood of fraud and errors in public finance (Ezeugwa et al., 2024).
- **Streamlined Tax Collection:** AI can automate the process of tax assessment and collection, reducing the need for human intervention and minimizing errors. Blockchain can then be used to record transactions securely, ensuring that all data related to tax payments is immutable and transparent. This synergy not only improves efficiency but also boosts taxpayer confidence in the system's fairness and reliability (John-Otumu et al., 2024).
- **Real-Time Financial Monitoring and Compliance:** The combination of AI and blockchain facilitates real-time monitoring of financial transactions. AI's predictive capabilities enable proactive management of public funds, while blockchain's distributed ledger technology ensures that all entries are secure and verifiable. This helps governments to swiftly identify and respond to compliance issues, enhancing the overall governance of public resources (Salami et al., 2024).

Enhanced Decision-Making and Policy Implementation

- AI and blockchain together can transform decision-making processes within public finance by providing accurate, real-time data analysis along with a secure recording mechanism.
- **Policy Simulation and Forecasting:** AI can simulate various policy outcomes using historical data stored on a blockchain, allowing policymakers to forecast the impacts of potential changes with greater accuracy. This capability is crucial for planning and implementing effective financial policies that can adapt to changing economic conditions (Olaniyi et al., 2023).
- **Automated Compliance and Policy Enforcement:** Through smart contracts, blockchain can automate the enforcement of financial policies and regulations. AI can complement this by monitoring compliance and automatically reporting deviations to relevant authorities, thus ensuring that financial policies are adhered to more strictly and transparently (Samuel-Okon et al., 2024).

Case Studies Demonstrating Synergistic Effects

Several innovative case studies highlight the effective synergy between AI and blockchain in public finance. For instance, a pilot program in a European country utilized AI to optimize tax collection strategies based on data secured via blockchain, resulting in a marked increase in revenue generation and a reduction in tax evasion (Trawule et al., 2022). Another example involves the use of blockchain to create a transparent procurement system, where AI was deployed to automatically audit and verify transactions, reducing procurement times and improving efficiency (Samuel-Okon et al., 2024).

The combined use of AI and blockchain in public finance not only mitigates traditional challenges but also sets the stage for innovative governance models that are both efficient and transparent. As these technologies evolve and their integration deepens, the potential for significantly improved public financial management becomes increasingly achievable.

Discussion and Summary of Findings

The qualitative review of secondary data in this study has provided significant insights into how Artificial Intelligence (AI) and blockchain technologies can be leveraged to enhance tax compliance and revenue generation within public finance systems. The findings suggest that AI's advanced data analysis capabilities can greatly improve efficiency in tax compliance monitoring, fraud detection, and revenue forecasting (Haruna et al., 2023; Iqbal, 2023). Blockchain technology, with its inherent attributes of transparency and immutability, has been shown to reinforce these advancements by ensuring that financial transactions are secure and verifiable, thus reducing the risk of fraud and enhancing public trust (Olaniyi et al., 2024; Samuel-Okon et al., 2024).

Implications for Policymakers

The integration of AI and blockchain presents a compelling proposition for policymakers tasked with the optimization of public finance systems. Policymakers are advised to consider:

- **Investment in Technology:** Significant investments may be required to upgrade existing technological infrastructures to support AI and blockchain functionalities (Olaoeye et al., 2024).
- **Regulatory Frameworks:** Developing robust regulatory frameworks that accommodate new technologies while ensuring data protection, privacy, and ethical considerations is crucial (Olaniyi et al., 2023).
- **Training and Capacity Building:** As AI and blockchain technologies are integrated into public finance systems, there is a critical need for ongoing training and capacity building to ensure that staff can effectively manage these new tools (Joseph et al., 2024).

Future Research Directions

While this study provides foundational insights, several areas require further investigation:

- **Longitudinal Studies:** Long-term studies could provide more comprehensive data on the effectiveness and sustainability of AI and blockchain in public finance (Gbadebo et al., 2024).
- **Comparative Studies:** Comparative analyses between different regions or countries could help to identify best practices and contextual factors that influence the success of technology implementation (Adebiyi et al., 2023).
- **Technological Evolution:** Ongoing research is needed to keep pace with rapid technological advancements and their implications for public finance systems (Ezeugwa et al., 2024).

Challenges and Considerations

The implementation of AI and blockchain technologies is not without challenges. Technical difficulties, such as integration with existing systems and the handling of large data volumes, pose significant hurdles. Additionally, ethical concerns, particularly related to privacy and the potential for increased surveillance capabilities, must be addressed to ensure that these technologies are used responsibly and with public approval (John-Otumu et al., 2024).

Conclusion

This study has comprehensively analyzed the transformative potential of Artificial Intelligence (AI) and blockchain technologies in enhancing tax compliance and revenue generation within public finance systems. Through a qualitative review of secondary data, the findings underscore how AI improves the efficiency of compliance monitoring, fraud detection, and revenue forecasting (Haruna et al., 2023; Iqbal, 2023). Concurrently, blockchain technology complements these advancements by offering a secure, transparent, and immutable ledger that fosters trust and minimizes corruption risks (Olaniyi et al., 2024; Samuel-Okon et al., 2024). Integrating AI and blockchain provides a forward-looking strategy to overcome persistent challenges in public finance management. This study highlights the importance of adopting innovative technologies to create more efficient, transparent, and resilient financial systems (Joseph et al., 2024). However, achieving this requires substantial investments in technology, the establishment of robust regulatory frameworks, and a commitment to continuous workforce development and capacity building (Olaoye et al., 2024).

Despite their potential, the implementation of these technologies comes with notable challenges, including technical integration issues, data privacy concerns, and the need for cultural adaptation within public institutions (John-Otumu et al., 2024). Addressing these hurdles will require deliberate and coordinated efforts. Future research should focus on longitudinal and comparative studies to assess the long-term impacts and regional differences in the effectiveness of these technologies in public finance. As AI and blockchain continue to evolve, adaptive strategies and ongoing evaluations will be critical to optimizing their applications in governance systems (Gbadebo et al., 2024; Adebisi et al., 2023). While the path forward is complex, the potential benefits of integrating these technologies into public finance systems are immense, promising a future of more transparent, efficient, and trustworthy financial governance.

Future Recommendations

To maximize the potential of AI and blockchain technologies in public finance, this study proposes the following strategic initiatives:

1. Enhanced Technological Adoption

- **Infrastructure Development:** Invest in robust and scalable infrastructures to support AI and blockchain applications, ensuring seamless integration with existing systems (Ogungbemi et al., 2024).

- **Targeted Pilot Programs:** Launch pilot programs in key areas such as automated tax compliance and secure transaction processing to test and refine these technologies before broader implementation (Olateju et al., 2024).

2. Regulatory Innovation

- **Regulatory Frameworks:** Develop comprehensive frameworks to address challenges related to data security, user privacy, and ethical standards (Olaoye et al., 2024).
- **Global Standards Collaboration:** Foster international collaboration to establish uniform standards for managing cross-border transactions and combatting financial fraud (Olaniyi et al., 2024).

3. Educational and Workforce Development

- **Specialized Training:** Provide targeted training programs for government officials and public finance managers to enhance their proficiency in using AI and blockchain technologies responsibly (Aucejo, 2024).
- **Academic Integration:** Encourage the integration of AI and blockchain studies into higher education curricula to prepare future professionals for the evolving demands of public finance (Ezeugwa et al., 2024).

4. Focused Research and Collaborative Efforts

- **Increased R&D Investment:** Allocate additional funding for research to address specific challenges in applying AI and blockchain technologies to public finance (Ogungbemi et al., 2024).
- **Industry-Academia Partnerships:** Establish collaborations between government bodies, academic institutions, and industry leaders to drive innovation in this domain (Aucejo, 2024).

5. Promoting Transparency and Public Trust

- **Enhancing Transparency:** Leverage blockchain's transparency to improve accountability in financial transactions and public spending, fostering greater public trust (Beauvais et al., 2023).
- **Community Engagement Initiatives:** Launch public awareness programs to educate citizens on the benefits and workings of AI and blockchain in financial governance, addressing concerns and building confidence (Joeaneke et al., 2024).

Disclaimer (Artificial intelligence)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

Reference

- Abalaka, A. I., Olaniyi, O. O., & Adebisi, O. O. (2023). Understanding and overcoming the Limitations to Strategy Execution in Hotels within the Small and Medium Enterprises Sector. *Asian Journal of Economics, Business and Accounting*, 23(22), 26–36. <https://doi.org/10.9734/ajeba/2023/v23i221134>
- Adebisi, O. O., Olabanji, S. O., & Olaniyi, O. O. (2023). Promoting Inclusive Accounting Education through the Integration of Stem Principles for a Diverse Classroom. *Asian Journal of Education and Social Studies*, 49(4), 152–171. <https://doi.org/10.9734/ajess/2023/v49i41196>
- Adigwe, C. S., Olaniyi, O. O., Olabanji, S. O., Okunleye, O. J., Mayeke, N. R., & Ajayi, S. A. (2024). Forecasting the Future: The Interplay of Artificial Intelligence, Innovation, and Competitiveness and its Effect on the Global Economy. *Asian Journal of Economics, Business and Accounting*, 24(4), 126–146. <https://doi.org/10.9734/ajeba/2024/v24i41269>
- Adigwe, C. S., Olaniyi, O. O., Olagbaju, O. O., & Olaniyi, F. G. (2024). Leading in a Time of Crisis: The Coronavirus Effect on Leadership in America. *Asian Journal of Economics, Business and Accounting*, 24(4), 1–20. <https://doi.org/10.9734/ajeba/2024/v24i41261>
- Adigwe, C. S., Mayeke, N. R., Olabanji, S. O., Okunleye, O. J., Joeaneke, P. C., & Olaniyi, O. O. (2024). The Evolution of Terrorism in the Digital Age: Investigating the Adaptation of Terrorist Groups to Cyber Technologies for Recruitment, Propaganda, and Cyberattacks. *Asian Journal of Economics, Business and Accounting*, 24(3), 289–306. <https://doi.org/10.9734/ajeba/2024/v24i31287>
- Adigwe, C. S., Abalaka, A. I., Olaniyi, O. O., Adebisi, O. O., & Oladoyinbo, T. O. (2023). Critical Analysis of Innovative Leadership through Effective Data Analytics: Exploring Trends in Business Analysis, Finance, Marketing, and Information Technology. *Asian Journal of Economics, Business and Accounting*, 23(22), 460–479. <https://doi.org/10.9734/ajeba/2023/v23i221165>
- Akinola, O. I., Olaniyi, O. O., Ogungbemi, O. S., Oladoyinbo, O. B., & Olisa, A. O. (2024). Resilience and recovery mechanisms for software-defined networking (SDN) and cloud networks. *Journal of Engineering Research and Reports*, 26(8), 112-134. <https://doi.org/10.9734/jerr/2024/v26i81234>
- Alao, A. I., Adebisi, O. O., & Olaniyi, O. O. (2024). The interconnectedness of earnings management, corporate governance failures, and global economic stability: A critical examination of the impact of earnings manipulation on financial crises and investor trust in global markets. *Asian Journal of Economics, Business and Accounting*, 24(11), 47–73. <https://doi.org/10.9734/ajeba/2024/v24i111542>
- Arigbabu, A. S., Olaniyi, O. O., & Adeola, A. (2024). Exploring Primary School Pupils' Career

- Aspirations in Ibadan, Nigeria: A Qualitative Approach. *Journal of Education, Society and Behavioural Science*, 37(3), 1–16.
<https://doi.org/10.9734/jesbs/2024/v37i31308>
- Arigbabu, A. T., Olaniyi, O. O., Adigwe, C. S., Adebisi, O. O., & Ajayi, S. A. (2024). Data Governance in AI - Enabled Healthcare Systems: A Case of the Project Nightingale. *Asian Journal of Research in Computer Science*, 17(5), 85–107.
<https://doi.org/10.9734/ajrcos/2024/v17i5441>
- Asonze, C. U., Ogungbemi, O. S., Ezeugwa, F. A., Olisa, A. O., Akinola, O. I., & Olaniyi, O. O. (2024). Evaluating the trade-offs between wireless security and performance in IoT networks: A case study of web applications in AI-driven home appliances. *Journal of Engineering Research and Reports*, 26(8), 411-432.
<https://doi.org/10.9734/jerr/2024/v26i81255>
- Beauvais, B., Mileski, M., Ramamonjivarivelo, Z., Lee, K. A., Kruse, C. S., Betancourt, J., Pradhan, R., & Shanmugam, R. (2023). The Association Between Facility Affiliations and Revenue Generation in Skilled Nursing Facilities - An Exploratory Study. *Journal of Multidisciplinary Healthcare*, 16, 3099–3114.
<https://doi.org/10.2147/JMDH.S433771>
- Cao, Q., Wang, H., & Cao, L. (2022). “Business Tax to Value-added Tax” and Enterprise Innovation Output: Evidence from Listed Companies in China. *Emerging Markets Finance & Trade*, 58(2), 301–310. <https://doi.org/10.1080/1540496X.2021.1939671>
- Cross, R. G., Higbie, J. A., & Cross, D. Q. (Dax). (2009). *Revenue Management’s Renaissance: A Rebirth of the Art and Science of Profitable Revenue Generation*. Cornell Hospitality Quarterly, 50(1), 56–81. <https://doi.org/10.1177/1938965508328716>
- Donelson, D. C., Glenn, J. L., & Yust, C. G. (2022). Is tax aggressiveness associated with tax litigation risk? Evidence from D&O Insurance. *Review of Accounting Studies*, 27(2), 519–569. <https://doi.org/10.1007/s11142-021-09612-w>
- Erdoğan Teyyare, & Hüseyin Dirican. (2022). Analysis of Voluntary Compliance with Taxes in the Framework of Adam Smith’s Taxation Principles. *International Journal of Public Finance*, 7(1), 1–26. <https://doi.org/10.30927/ijpf.978623>
- Eva Andrés Aucejo. (2024). “Tax education” and “Tax compliance” enhanced by Artificial Intelligence as holistic mechanisms that are part of the United Nations Tax Convention. *Revista de Educación y Derecho*, 30.
<https://doi.org/10.1344/REYD2024.30.47753>
- Ezeugwa, F. A., Olaniyi, O. O., Ugonnia, J. C., Arigbabu, A. S., & Joeaneke, P. C. (2024). Artificial Intelligence, Big Data, and Cloud Infrastructures: Policy Recommendations for Enhancing Women’s Participation in the Tech-Driven Economy. *Journal of Engineering Research and Reports*, 26(6), 1–16.
<https://doi.org/10.9734/jerr/2024/v26i61158>
- Gbadebo, M. O., Salako, A. O., Selesi-Aina, O., Ogungbemi, O. S., Olateju, O. O., & Olaniyi, O. O. (2024). Augmenting data privacy protocols and enacting regulatory frameworks for cryptocurrencies via advanced blockchain methodologies and artificial

- intelligence. *Journal of Engineering Research and Reports*, 26(11), 7–27.
<https://doi.org/10.9734/jerr/2024/v26i111311>
- Haruna, H. T., Ibrahim, A. S., Yusuf, A. U., & Ardo, A. M. (2023). The Impact Of Forensic Accounting On Tax Payer Attitude And Compliance Towards Tax Evasion Within Smes In The North East Nigeria. *Journal of Business Management and Accounting*, 13(1), 79–105. <https://doi.org/10.32890/jbma2023.13.1.4>
- Hassan, L. (2022). Strategies to Improve Revenue Generation for Islamabad Metropolitan Corporation. *Pakistan Development Review*, 61(3), 511–517.
<https://doi.org/10.30541/v61i3pp.511-517>
- Igwenagu, U. T. I., Salami, A. A., Arigbabu, A. S., Mesode, C. E., Oladoyinbo, T. O., & Olaniyi, O. O. (2024). Securing the Digital Frontier: Strategies for Cloud Computing Security, Database Protection, and Comprehensive Penetration Testing. *Journal of Engineering Research and Reports*, 26(6), 60–75.
<https://doi.org/10.9734/jerr/2024/v26i61162>
- Iqbal, M. (2023). Enhancing tax compliance in the energy sector: PLS-SEM analysis of tax administration strategies. *International Journal of Energy Economics and Policy*, 13(6), 504–510. <https://doi.org/10.32479/ijeeep.14623>
- Joeaneke, P. C., Kolade, T. M., Val, O. O., Olisa, A. O., Joseph, S. A., & Olaniyi, O. O. (2024). Enhancing security and traceability in aerospace supply chains through blockchain technology. *Journal of Engineering Research and Reports*, 26(10), 114-135.
<https://doi.org/10.9734/jerr/2024/v26i101294>
- Joeaneke, P. C., Obioha Val, O. O., Olaniyi, O. O., Ogungbemi, O. S., Olisa, A. O., & Akinola, O. I. (2024). Protecting autonomous UAVs from GPS spoofing and jamming: A comparative analysis of detection and mitigation techniques. *Journal of Engineering Research and Reports*, 26(10), 71–92.
<https://doi.org/10.9734/jerr/2024/v26i101291>
- John-Otumu, A. M., Ikerionwu, C., Olaniyi, O. O., Dokun, O., Eze, U. F., & Nwokonkwo, O. C. (2024). Advancing COVID-19 prediction with deep learning models: A review. 2024 International Conference on Science, Engineering and Business for Driving Sustainable Development Goals (SEB4SDG), 1-5.
<https://doi.org/10.1109/SEB4SDG60871.2024.10630186>
- Joseph, S. A., Kolade, T. M., Val, O. O., Adebisi, O. O., Ogungbemi, O. S., & Olaniyi, O. O. (2024). AI-powered information governance: Balancing automation and human oversight for optimal organization productivity. *Asian Journal of Research in Computer Science*, 17(10), 110-131. <https://doi.org/10.9734/ajrcos/2024/v17i10513>
- Luttmer, E. F. P., & Singhal, M. (2014). Tax Morale. *The Journal of Economic Perspectives*, 28(4), 149–168. <https://doi.org/10.1257/jep.28.4.149>
- Marquis, Y. A., Oladoyinbo, T. O., Olabanji, S. O., Olaniyi, O. O., & Ajayi, S. A. (2024). Proliferation of AI Tools: A Multifaceted Evaluation of User Perceptions and Emerging Trend. *Asian Journal of Advanced Research and Reports*, 18(1), 30–35.
<https://doi.org/10.9734/ajarr/2024/v18i1596>
- Mayeke, N. R., Arigbabu, A. T., Olaniyi, O. O., Okunleye, O. J., & Adigwe, C. S. (2024). Evolving Access Control Paradigms: A Comprehensive Multi-Dimensional Analysis of Security Risks and System Assurance in Cyber Engineering. *Asian Journal of*

- Research in Computer Science, 17(5), 108–124.
<https://doi.org/10.9734/ajrcos/2024/v17i5442>
- Mertens, K., & Ravn, M. O. (2013). The Dynamic Effects of Personal and Corporate Income Tax Changes in the United States. *The American Economic Review*, 103(4), 1212–1247.
<https://doi.org/10.1257/aer.103.4.1212>
- Ogungbemi, O. S., Ezeugwa, F. A., Olaniyi, O. O., Akinola, O. I., & Oladoyinbo, O. B. (2024). Overcoming remote workforce cyber threats: A comprehensive ransomware and bot net defense strategy utilizing VPN networks. *Journal of Engineering Research and Reports*, 26(8), 161-184. <https://doi.org/10.9734/jerr/2024/v26i81237>
- Ojo, A. O., & Shittu, S. A. (2023). Value Added Tax compliance, and Small and Medium Enterprises (SMEs): Analysis of influential factors in Nigeria. *Cogent Business & Management*, 10(2), 1–25. <https://doi.org/10.1080/23311975.2023.2228553>
- Okon, S. U., Olateju, O. O., Ogungbemi, O. S., Joseph, S. A., Olisa, A. O., & Olaniyi, O. O. (2024). Incorporating privacy by design principles in the modification of AI systems in preventing breaches across multiple environments, including public cloud, private cloud, and on-prem. *Journal of Engineering Research and Reports*, 26(9), 136-158.
<https://doi.org/10.9734/jerr/2024/v26i91269>
- Olabanji, S. O., Marquis, Y. A., Adigwe, C. S., Abidemi, A. S., Oladoyinbo, T. O., & Olaniyi, O. O. (2024). AI-Driven Cloud Security: Examining the Impact of User Behavior Analysis on Threat Detection. *Asian Journal of Research in Computer Science*, 17(3), 57–74. <https://doi.org/10.9734/ajrcos/2024/v17i3424>
- Olabanji, S. O., Olaniyi, O. O., Adigwe, C. S., Okunleye, O. J., & Oladoyinbo, T. O. (2024). AI for Identity and Access Management (IAM) in the Cloud: Exploring the Potential of Artificial Intelligence to Improve User Authentication, Authorization, and Access Control within Cloud-Based Systems. *Asian Journal of Research in Computer Science*, 17(3), 38–56. <https://doi.org/10.9734/ajrcos/2024/v17i3423>
- Olabanji, S. O., Oladoyinbo, O. B., Asonze, C. U., Oladoyinbo, T. O., Ajayi, S. A., & Olaniyi, O. O. (2024). Effect of Adopting AI to Explore Big Data on Personally Identifiable Information (PII) for Financial and Economic Data Transformation. *Asian Journal of Economics, Business and Accounting*, 24(4), 106–125.
<https://doi.org/10.9734/ajeba/2024/v24i41268>
- Olabanji, S. O., Oladoyinbo, T. O., Asonze, C. U., Adigwe, C. S., Okunleye, O. J., & Olaniyi, O. O. (2024). Leveraging FinTech Compliance to Mitigate Cryptocurrency Volatility for Secure US Employee Retirement Benefits: Bitcoin ETF Case Study. *Asian Journal of Economics, Business and Accounting*, 24(4), 147–167.
<https://doi.org/10.9734/ajeba/2024/v24i41270>
- Oladoyinbo, T. O., Adebisi, O. O., Ugonna, J. C., Olaniyi, O. O., & Okunleye, O. J. (2023). Evaluating and Establishing Baseline Security Requirements in Cloud Computing: An Enterprise Risk Management Approach. *Asian Journal of Economics, Business and Accounting*, 23(21), 222–231. <https://doi.org/10.9734/ajeba/2023/v23i211129>
- Oladoyinbo, T. O., Olabanji, S. O., Olaniyi, O. O., Adebisi, O. O., Okunleye, O. J., & Alao,

I. (2024). Exploring the Challenges of Artificial Intelligence in Data Integrity and its Influence on Social Dynamics. *Asian Journal of Advanced Research and Reports*, 18(2), 1–23.

<https://doi.org/10.9734/ajarr/2024/v18i2601>

Olaniyi, F. G., Olaniyi, O. O., Adigwe, C. S., Abalaka, A. I., & Shah, N. H. (2023). *Harnessing*

Predictive Analytics for Strategic Foresight: A Comprehensive Review of Techniques and Applications in Transforming Raw Data to Actionable Insights. *Asian Journal of Economics, Business and Accounting*, 23(22), 441–459.

<https://doi.org/10.9734/ajeba/2023/v23i221164>

Olaniyi, O. O. (2024). *Ballots and Padlocks: Building Digital Trust and Security in Democracy*

through Information Governance Strategies and Blockchain Technologies. *Asian Journal of Research in Computer Science*, 17(5), 172–189.

<https://doi.org/10.9734/ajrcos/2024/v17i5447>

Olaniyi, O. O., Ezeugwa, F. A., Okatta, C. G., Arigbabu, A. S., & Joeaneke, P. C. (2024). *Dynamics of the Digital Workforce: Assessing the Interplay and Impact of AI, Automation, and Employment Policies*. *Archives of Current Research International*, 24(5), 124–139. <https://doi.org/10.9734/acri/2024/v24i5690>

Olaniyi, O. O., Olabanji, S. O., & Abalaka, A. I. (2023). *Navigating Risk in the Modern Business Landscape: Strategies and Insights for Enterprise Risk Management Implementation*. *Journal of Scientific Research and Reports*, 29(9), 103–109.

<https://doi.org/10.9734/jsrr/2023/v29i91789>

Olaniyi, O. O., Olabanji, S. O., & Okunleye, O. J. (2023). *Exploring the Landscape of Decentralized Autonomous Organizations: A Comprehensive Review of Blockchain Initiatives*. *Journal of Scientific Research and Reports*, 29(9), 73–81.

<https://doi.org/10.9734/jsrr/2023/v29i91786>

Olaniyi, O. O., Abalaka, A. I., & Olabanji, S. O. (2023). *Utilizing Big Data Analytics and Business Intelligence for Improved Decision-Making at Leading Fortune Company*. *Journal of Scientific Research and Reports*, 29(9), 64–72.

<https://doi.org/10.9734/jsrr/2023/v29i91785>

Olaniyi, O.O., Okunleye, O.J., & Olabanji, S.O. (2023). *Advancing Data-Driven Decision-Making in Smart Cities through Big Data Analytics: A Comprehensive Review of Existing Literature*. *Current Journal of Applied Science and Technology*, 42(25), 10–18. <https://doi.org/10.9734/cjast/2023/v42i254181>

Olaniyi, O. O., Okunleye, O. J., Olabanji, S. O., Asonze, C. U., & Ajayi, S. A. (2023). *IoT Security in the Era of Ubiquitous Computing: A Multidisciplinary Approach to Addressing Vulnerabilities and Promoting Resilience*. *Asian Journal of Research in Computer Science*, 16(4), 354–371. <https://doi.org/10.9734/ajrcos/2023/v16i4397>

Olaniyi, O.O., Olaoye O.O., & Okunleye, O.J. (2023). *Effects of Information Governance (IG) on profitability in the Nigerian banking sector*. *Asian Journal of Economics, Business and Accounting*. 2023;23(18):22–35.

<https://doi.org/10.9734/ajeba/2023/v23i181055>

Olaniyi, O. O., Asonze, C. U., Ajayi, S. A., Olabanji, S. O., & Adigwe, C. S. (2023). *A Regression Study on the Impact of Organizational Security Culture and Transformational Leadership on Social Engineering Awareness among Bank*

- Employees: The Interplay of Security Education and Behavioral Change. *Asian Journal of Economics, Business and Accounting*, 23(23), 128–143.
<https://doi.org/10.9734/ajeba/2023/v23i231176>
- Olaniyi, O. O., Ugonna, J. C., Olaniyi, F. G., Arigbabu, A. T., & Adigwe, C. S. (2024). Digital Collaborative Tools, Strategic Communication, and Social Capital: Unveiling the Impact of Digital Transformation on Organizational Dynamics. *Asian Journal of Research in Computer Science*, 17(5), 140–156.
<https://doi.org/10.9734/ajrcos/2024/v17i5444>
- Olaniyi, O. O., Shah, N. H., & Bahuguna, N. (2023). Quantitative Analysis and Comparative Review of Dividend Policy Dynamics within the Banking Sector: Insights from Global and U.S. Financial Data and Existing Literature. *Asian Journal of Economics, Business and Accounting*, 23(23), 179–199.
<https://doi.org/10.9734/ajeba/2023/v23i231180>
- Olaniyi, O.O. & Omubo, D.S. (2023). The Importance of COSO Framework Compliance in Information Technology Auditing and Enterprise Resource Management. *The International Journal of Innovative Research & Development*.
<https://doi.org/10.24940/ijird/2023/v12/i5/MAY23001>
- Olaniyi, O. O., Omogoroye, O. O., Olaniyi, F. G., Alao, A. I., & Oladoyinbo, T. O. (2024). CyberFusion Protocols: Strategic Integration of Enterprise Risk Management, ISO 27001, and Mobile Forensics for Advanced Digital Security in the Modern Business Ecosystem. *Journal of Engineering Research and Reports*, 26(6), 31–49.
<https://doi.org/10.9734/jerr/2024/v26i61160>
- Olaoye, O. O., Quadri, F. U., & Olaniyi, O. O. (2024). Examining the Role of Trade on the Relationship between Environmental Quality and Energy Consumption: Insights from Sub Saharan Africa. *Journal of Economics, Management and Trade*, 30(6), 16–35.
<https://doi.org/10.9734/jemt/2024/v30i61211>
- Olateju, O. O., Okon, S. U., Igwenagu, U. T. I., Salami, A. A., Oladoyinbo, T. O., & Olaniyi, O. O. (2024). Combating the challenges of false positives in AI-driven anomaly detection systems and enhancing data security in the cloud. *Asian Journal of Research in Computer Science*, 17(6), 264–292. <https://doi.org/10.9734/ajrcos/2024/v17i6472>
- Olateju, O. O., Okon, S. U., Olaniyi, O. O., Samuel-Okon, A. D., & Asonze, C. U. (2024). Exploring the concept of explainable AI and developing information governance standards for enhancing trust and transparency in handling customer data. *Journal of Engineering Research and Reports*, 26(7), 244–268.
<https://doi.org/10.9734/jerr/2024/v26i71206>
- Omogoroye, O. O., Olaniyi, O. O., Adebisi, O. O., Oladoyinbo, T. O., & Olaniyi, F. G. (2023). Electricity Consumption (kW) Forecast for a Building of Interest Based on a Time Series Nonlinear Regression Model. *Asian Journal of Economics, Business and Accounting*, 23(21), 197–207. <https://doi.org/10.9734/ajeba/2023/v23i211127>
- Quadri, F. U., Olaniyi, O. O., & Olaoye, O. O. (2023). Interplay of Islam and Economic Growth:

- Unveiling the Long-run Dynamics in Muslim and Non-Muslim Countries. *Asian Journal of Education and Social Studies*, 49(4), 483–498.
<https://doi.org/10.9734/ajess/2023/v49i41226>
- Saez, E., Slemrod, J., & Giertz, S. H. (2012). The Elasticity of Taxable Income with Respect to Marginal Tax Rates: A Critical Review. *Journal of Economic Literature*, 50(1), 3–50.
<https://doi.org/10.1257/jel.50.1.3>
- Salami, A. A., Igwenagu, U. T. I., Mesode, C. E., Olaniyi, O. O., & Oladoyinbo, O. B. (2024). Beyond Conventional Threat Defense: Implementing Advanced Threat Modeling Techniques, Risk Modeling Frameworks and Contingency Planning in the Healthcare Sector for Enhanced Data Security. *Journal of Engineering Research and Reports*, 26(5), 304–323. <https://doi.org/10.9734/jerr/2024/v26i51156>
- Samuel-Okon, A. D., Akinola, O. I., Olaniyi, O. O., Olateju, O. O., & Ajayi, S. A. (2024). Assessing the effectiveness of network security tools in mitigating the impact of deepfakes AI on public trust in media. *Archives of Current Research International*, 24(6), 355-375. <https://doi.org/10.9734/acri/2024/v24i6794>
- Samuel-Okon, A. D., Olateju, O. O., Okon, S. U., Olaniyi, O. O., & Igwenagu, U. T. I. (2024). Formulating global policies and strategies for combating criminal use and abuse of artificial intelligence. *Archives of Current Research International*, 24(5), 612-629. <https://doi.org/10.9734/acri/2024/v24i5735>
- Selesi-Aina, O., Obot, N. E., Olisa, A. O., Gbadebo, M. O., Olateju, O. O., & Olaniyi, O. O. (2024). The future of work: A human-centric approach to AI, robotics, and cloud computing. *Journal of Engineering Research and Reports*, 26(11), 62-87. <https://doi.org/10.9734/jerr/2024/v26i111315>
- Trawule, A. Y., Gadzo, S. G., Kportorgbi, H. K., & Sam-Quarm, R. (2022). Tax education and fear-appealing messages: A grease or sand in the wheels of tax compliance? *Cogent Business & Management*, 9(1), 1–22.
<https://doi.org/10.1080/23311975.2022.2049436>