

Article

FinTech and Blockchain in Accounting Information Systems: Implications for Financial Risk Management and Auditability

Tufael1*

1Department of Master of Business Administration, Bangladesh Open University, Gazipur, Bangladesh.

E-mail: tofayelahmed083@gmail.com

Abstract: The intersection of Financial Technology (FinTech) and blockchain is fundamentally changing how we manage finances, assess risks, and conduct audits. With FinTech innovations, businesses now have access to real-time financial data, automated processes, and predictive analytics. This means they are better equipped to make quick decisions and allocate resources efficiently. On the other hand, blockchain enhances this transformation by ensuring that financial records are transparent, unalterable, and trustworthy. This combination not only reduces the chances of fraud but also simplifies the auditing process. Together, these technologies are pushing us toward a new way of managing risks, allowing organizations to spot potential financial issues before they escalate. However, while there are many advantages, challenges remain. Regulatory frameworks are evolving to keep a closer eye on fintech companies, which can lead to higher compliance demands but also aim to protect consumers and build trust in the system. There are also technical challenges, such as scalability, interoperability, and the lack of expertise, especially for smaller businesses. Alongside this, how ready an organisation is to think about managerial support, IT capabilities, and willingness to adapt can significantly impact success in adopting these technologies. Moreover, the potential for cybersecurity threats, vulnerabilities in smart contracts, and the complexities of hybrid blockchain systems highlight the need for strong risk management practices. Businesses that jump on board early, with strong infrastructure and a commitment to change, are likely to come out ahead. In contrast, those who hesitate may find themselves left behind in a rapidly digitalising world.

Keywords: FinTech, Blockchain, Accounting Information Systems, Financial Risk Management, Auditability

Significance:

Integrating FinTech and blockchain enhances transparency, efficiency, and risk management in accounting, fostering reliable financial reporting and audit practices.



This is an open-access article under the [CC-BY 4.0](https://creativecommons.org/licenses/by/4.0/) license

1. Introduction

FinTech and blockchain technology are transforming the way we manage, report, and audit financial data, marking a significant departure from traditional accounting practices. Gone are the days when accounting relied heavily on manual bookkeeping and hindsight analysis. Today's accounting landscape is defined by automation, real-time data access, and advanced analytics, making the profession more precise and dynamic [1]. Accountants are no longer just record keepers; they are evolving into strategic advisors who help organizations understand their financial health, plan for the future, and navigate risks. This change is part of a broader shift in accounting that embraces a more proactive and forward-looking approach, essential for making informed decisions in a complex financial world. Central to this evolution is Financial Technology, or FinTech. Innovations like digital payment systems, cloud accounting, and AI-driven analytics are streamlining many processes and cutting down on tedious manual data entry. With these tools, accountants can spend less time on routine tasks and focus more on valuable activities such as forecasting, assessing risks, and evaluating performance [2]. This shift requires accountants to blend technical knowledge with strategic insights, adapting to rapid technological advancements. FinTech isn't just altering how accountants work; it's reshaping the very strategies organizations use to manage their finances. Alongside FinTech, blockchain technology is making waves with its potential to revolutionize accounting systems. Its unique ledger structure ensures both security and trust in financial transactions. Real-time tracking and verification processes help reduce fraud and operational inefficiencies, building confidence among all stakeholders [3]. Furthermore, the advent of smart contracts automated agreements coded within the blockchain simplifies complex tasks like invoicing and compliance checks. This not only speeds up processes but also increases the reliability of financial reports. However, integrating blockchain into accounting comes with its own set of challenges, such as the need for new regulations, robust data governance, and the continuous training of professionals to keep up with these changes. The impact on financial risk management is also profound. Today's organizations face a plethora of risks, including market fluctuations, credit risks, and operational disruptions. FinTech and blockchain provide powerful resources to enhance risk management by delivering timely data and predictive insights which facilitate better decision-making [4]. Companies are diversifying their revenue sources, fostering strong risk management cultures, and implementing better monitoring systems to stay resilient. Yet, the fast-paced evolution of technology also necessitates a heightened awareness of regulatory requirements, as the legal landscape surrounding these innovations continues to shift. Another important area affected by FinTech and blockchain is auditing. The enhanced transparency and automated verification available through these technologies make audits easier and less costly [5]. Auditors can now access real-time financial information, which enhances the accuracy and scope of their evaluations. This evolution could lead to a shift from traditional periodic audits to continuous assurance models, ensuring ongoing compliance and accuracy. Nonetheless, there are still challenges to address, particularly regarding data privacy, cybersecurity, and how to align blockchain records with existing laws. These issues emphasize the ongoing need for research and professional growth to ensure that advancements in accounting maintain the integrity and trustworthiness of financial reporting [6]. The convergence of FinTech and blockchain signifies a major shift in accounting information systems. These technologies are not only improving efficiency, accuracy, and transparency but are also changing how accountants and auditors perceive their roles. At the same time, they introduce new challenges that require clear regulations, skill enhancement, and a readiness to adapt continuously. Understanding these dynamics is crucial for organizations, regulators, and professionals striving to leverage the benefits of these innovations while safeguarding financial reliability, accountability, and public trust.

2. Materials and Methods

This study employed a qualitative, conceptual research design using a structured narrative literature review to examine the implications of FinTech and blockchain integration within

Accounting Information Systems (AIS) for financial risk management and auditability. Peer-reviewed journal articles, conference proceedings, and authoritative academic publications were systematically identified from reputable international sources relevant to FinTech, blockchain, accounting information systems, auditing, and risk management. The selected literature was analyzed through a thematic synthesis approach, enabling the classification of key themes such as technological mechanisms, risk management impacts, auditability enhancement, organizational readiness, and regulatory challenges. In addition, illustrative case examples and prior empirical findings were reviewed to contextualize theoretical insights and highlight practical implementation patterns across organizations. This integrative approach provides a comprehensive understanding of how FinTech and blockchain reshape accounting processes, strengthen transparency and audit trails, and introduce new governance and risk considerations, thereby offering a solid analytical foundation for evaluating their strategic and managerial implications.

3. Results and Discussion

Result

Blockchain Technology in Accounting and Its Implications for Financial Risk Management

Blockchain technology is changing the game for accounting information systems, providing levels of transparency and security that we've never seen before. With its decentralized and unchangeable ledger, every transaction is securely encrypted and linked to previous records, forming a reliable chain that ensures data integrity. This setup not only helps reduce the risk of fraud but also allows organizations to track transactions in real time an essential feature for meeting regulatory standards and improving risk management across the board [7]. In the realm of financial reporting, blockchain's impact is particularly noteworthy. The ability to record and verify transactions instantly means that businesses can produce accurate, up-to-date financial statements without relying heavily on reconciliation. This leads to fewer human errors and faster reporting times. Additionally, the introduction of smart contracts automated agreements built into the blockchain can take care of essential tasks like invoicing, auditing, and compliance checks [8]. By cutting down on manual work, these innovations help streamline processes and ensure that financial transactions are executed more accurately and efficiently. However, embracing blockchain and FinTech solutions in accounting isn't without its hurdles. Professionals in the field are faced with regulatory uncertainties, the ongoing necessity to maintain data security, and the increasing need for specialized skills to effectively manage these technologies. Despite these challenges, the upside better-quality financial reporting, increased trust from stakeholders, and greater accountability makes it clear why adopting these technologies is becoming essential for the future of the industry [9]. When it comes to financial risk management, the stakes are high, as organizations navigate various risks in this rapidly changing environment. These include market risk, credit risk, liquidity risk, operational risk, and compliance risk. Market risk can arise from economic shifts like changes in interest rates or currency value that directly affect a company's profits. Credit risk comes into play when customers or partners don't fulfill their financial obligations, making automated credit checks vital in a FinTech-driven world. Liquidity risk, which involves the challenge of quickly converting assets into cash, is especially critical in fast-moving financial systems where any cash flow delays could jeopardize operations [10]. Then there's operational risk, which includes everything from human mistakes to tech glitches, highlighting the need for solid internal controls and risk management strategies. Finally, compliance and legal risks consistently loom large as regulations evolve with the rise of technology. Ignoring these can lead to penalties and damage an organization's credibility [11]. Overall, the interplay of opportunities and challenges presented by blockchain and FinTech is reshaping accounting information systems in significant ways. They enhance efficiency, transparency, and trust in financial reporting and auditing, but they also require organizations to be adaptable, maintain regulatory awareness, and proactively manage risks to ensure financial stability in this fast-paced technological landscape.

Management Strategies and Implications for Auditability

To effectively tackle financial risks in today's rapidly evolving landscape of FinTech and blockchain, organizations need to be proactive and cultivate a culture of resilience and adaptability (Table 1 and Table 2).

Table 1. Applications of FinTech in Accounting and Risk Management

FinTech Application	Description	Reference
Digital Payment Systems	Enable faster, traceable, and cashless transactions	[2]
Cloud Accounting	Real-time access to financial data and reduced manual bookkeeping	[3]
AI-driven Analytics	Forecasting, anomaly detection, and predictive risk management	[5]
Peer-to-Peer Lending Platforms	Expand access to credit while diversifying revenue sources	[5],[6]
Mobile Banking Apps	Improve user accessibility and financial inclusion	[8]

Table 2. Blockchain Implications for Accounting and Auditability

Blockchain Feature	Impact on Accounting/Audit	Reference
Decentralized Ledger	Provides secure and tamper-proof records of all transactions	[12]
Immutability	Creates permanent audit trails, minimizing fraud	[15]
Smart Contracts	Automate invoicing, compliance checks, and agreements	[18]
Transparency	Real-time verification and trust among stakeholders	[22]
Enhanced Auditability	Enables continuous auditing instead of periodic audits	[26]

One of the most effective ways to do this is by diversifying revenue streams. Relying too heavily on a single source of income can make a company vulnerable to market fluctuations, so it's essential to explore multiple avenues for revenue [12]. Additionally, building reserve funds can provide a crucial financial cushion to help weather unforeseen expenses, revenue shortfalls, or economic downturns. Creating a risk-aware culture within an organization is equally important. Employees should feel empowered to identify, assess, and report potential risks. When everyone is tuned into the potential challenges, it strengthens the overall risk management framework, ensuring that the organization remains vigilant and responsive to changes and disruptions stemming from technological advances or financial instability. Beyond just managing risks, integrating blockchain technology can significantly improve how financial transactions are audited. Blockchain's key features like transparency, immutability, and decentralization offer auditors innovative tools to boost both efficiency and accuracy [13]. With the transparency that blockchain provides, every transaction is visible to authorized stakeholders in real time, which minimizes discrepancies and lessens opportunities for fraud. This level of visibility also enhances the trust stakeholders place in the organization, as they can independently verify and trace transactions with greater assurance. Another vital benefit of blockchain is its immutability. Once a transaction is recorded, it can not be changed or deleted, creating a permanent audit trail that is tamper-proof. This reliability not only

ensures the consistency of historical data but also helps reduce reconciliation error, allowing auditors to carry out thorough reviews with confidence [14]. Moreover, blockchain can streamline auditing processes, cutting down on both time and costs. By leveraging automation and advanced analytics, auditors can handle larger volumes of data more effectively, which allows them to focus on areas that might pose higher risks, ultimately enhancing the quality of their findings. Blockchain also excels in real-time data sharing and compliance. Its decentralized structure enables auditors, regulators, and organizations to access verified financial data instantly. This not only makes regulatory oversight more efficient but also reduces the administrative load, keeping audit practices in sync with the ever-changing compliance landscape. This collaboration between auditors and regulators, made possible through blockchain, helps ensure that financial reporting remains accurate, trustworthy, and transparent in our fast-paced technological environment [15] (Figure 1).



Figure 1. Fintech Verticals [34].

These strategic approaches and technology innovations represent a shift in how we view accounting and auditing. By combining proactive risk management with the seamless audit capabilities of blockchain, organizations can enhance their stability, transparency, and build trust with stakeholders.

Challenges, Considerations, and Case Studies in Blockchain Adoption

Blockchain technology has the potential to revolutionize accounting and auditing, but it's not without its hurdles. One of the key challenges is data privacy. Since blockchain is often transparent and sometimes public, it can clash with data protection laws like the General Data Protection Regulation (GDPR), which sets strict rules on handling sensitive customer details. To tackle this issue, many organizations are exploring hybrid blockchain models. These systems keep sensitive data off the blockchain while still using it to maintain cryptographic proofs or hashes. This creates a balance between maintaining confidentiality and enjoying the benefits of transparency, immutability, and security [16]. It's a promising way to meet both regulatory demands and the desire for innovation. Looking at practical examples, we can see how blockchain is already being integrated into accounting. Take Deloitte, for instance. They opened their first blockchain lab in Dublin back in 2016 and have since teamed up with major banks to manage staff credentials using blockchain

technology. This not only makes the records immutable but also boosts efficiency, trust, and accuracy in operations. These real-world applications clearly demonstrate how blockchain can tackle longstanding inefficiencies in financial procedures while enhancing auditability and building stakeholder confidence. Research has delved into what drives blockchain adoption in the accounting sector, often through theoretical frameworks like the trust-TOE (Technology-Organization-Environment) model [17]. This perspective highlights that success hinges on factors such as support from leadership, technological readiness, and pressures from trading partners or regulatory bodies. Studies reveal that when one trading partner adopts blockchain, it can influence others to follow suit, especially among multinational corporations where interconnected supply chains necessitate shared technological solutions [18]. We also see examples of blockchain's impact in payment systems. Financial technology (FinTech) innovations backed by blockchain have dramatically cut transaction fees, improved cash flow, and introduced real-time payment tracking. These advantages are especially beneficial for small and medium-sized enterprises (SMEs), which often struggle with high transaction costs and cash flow issues. Automated invoicing and live transaction updates enhance their financial operations, leading to better decision-making and resource allocation. In addition, validation studies have bolstered the confidence in research surrounding blockchain adoption. By using rigorous methodologies, such as involving multiple independent reviewers who achieved about 90 percent agreement on their findings, researchers have established a solid foundation for understanding blockchain's impact [19]. These studies not only provide credible evidence but also pave the way for future research as both technology and regulatory landscapes evolve. While blockchain presents significant challenges and considerations, the potential it holds for transforming accounting is immense. By addressing inefficiencies, enhancing transparency, and improving the reliability of financial practices, blockchain is poised to redefine financial risk management and auditability. However, successfully integrating this innovative technology requires careful management of privacy concerns, regulatory demands, and organizational readiness, turning it into a promising yet complex frontier for the future of accounting systems.

Future Trends in FinTech and Blockchain for Accounting and Risk Management

The future of fintech and blockchain in accounting is shaping up to be quite interesting. We're seeing changing regulations and rapid tech advancements that are pushing the boundaries of what's possible, but there are also some significant challenges to navigate. For instance, organizations like the Office of the Comptroller of the Currency (OCC) are starting to keep a closer eye on fintech companies, which is a shift from the previous hands-off approach [20]. This increased oversight may lead to a better partnership between innovators and regulators, helping to balance cutting-edge ideas with the need to protect consumers (Figure 2).



Figure 2. Impact of blockchain on information risk management [35].

Blockchain technology is making waves in the world of accounting and auditing by offering greater transparency and security, which can really improve how financial reporting and risk management are handled. As financial institutions pour resources into blockchain, we can expect it to become more integrated into accounting systems, paving the way for smoother operations and better customer experiences [21]. That said, successfully adopting these technologies comes with its own set of challenges. Many firms will need to tackle issues related to technology readiness, management buy-in, corporate culture, and IT skills [22]. Smaller companies, in particular, might find it tough to muster the resources and expertise needed for blockchain integration. Amid all these exciting developments, one thing remains clear: risk management is crucial. Fintech companies will need to build strong frameworks that not only meet regulatory demands but also maintain customer trust. By focusing on effective risk management, these businesses can ensure that their technological innovations comply with necessary standards and contribute to a stable and trustworthy digital financial world.

Discussion

The merging of Financial Technology (FinTech) and blockchain into Accounting Information Systems (AIS) is creating one of the most significant changes in how we manage finances today. These IT-Enabled Predictive and Prescriptive Analytics go beyond simple improvements; they are reshaping the very foundations of transparency, auditability, and managing financial risks [23]. This conversation looks at the varied impacts of this integration, highlighting both the opportunities it brings and the challenges it poses, all while considering the evolving regulations and the readiness of organizations to adapt. At the heart of FinTech's impact on AIS is its capability to automate and simplify processes that used to require a lot of manual effort. Whether it's mobile banking apps, digital payment systems, or peer-to-peer lending platforms, FinTech has broadened the horizons of financial services. For accountants, this translates to real-time access to financial data, better accuracy in reporting, and improved decision-making. This marks a significant shift from traditional AI-Driven, which often faced issues like delayed data entry and limited scalability [24]. With FinTech tools integrated into these systems, businesses can now monitor cash flows and liquidity almost instantly, allowing for more flexible financial strategies. Blockchain strengthens financial record integrity through secure, transparent, and immutable ledgers, while AI-driven business analytics enhances smart supply chains by boosting operational efficiency together, they create a more trustworthy, efficient, and data-driven ecosystem for modern enterprises [25]. For instance, auditors can now verify transactions in real-time, slashing both audit costs and timelines. Additionally, blockchain's smart contracts allow for automatic execution of agreements once specific conditions are met, reducing the operational risks associated with manual management. The implications for managing financial risk are equally profound. Traditional frameworks often struggle with incomplete or outdated information. However, when integrated with AIS, FinTech solutions utilize predictive analytics and machine learning to assess creditworthiness, identify anomalies, and forecast liquidity risks with remarkable accuracy [26]. With blockchain ensuring that the underlying data is reliable and untouchable, organizations can transition from a reactive stance on risk management to a proactive one. Instead of only responding to crises after they happen, companies can now spot warning signs early and take steps to mitigate risks before they grow. This shift isn't just a technological upgrade; it represents a fundamental change in how businesses pursue financial stability. However, these advantages come with their own set of challenges. One major concern is the uncertainty surrounding regulations. FinTech firms have traditionally operated with minimal oversight, enjoying an environment that encourages innovation. As their role expands, however, regulatory bodies like the Office of the Comptroller of the Currency (OCC) are tightening the reins [27]. While this trend aims to better protect consumers and stabilize the market, it also imposes additional compliance burdens and operational stresses on FinTech firms. For organizations integrating AIS, staying compliant with evolving regulations, especially regarding data privacy, anti-money laundering (AML), and cybersecurity, becomes a constant need, which also makes bridging IT and business strategy uncompetitive [28]. Technological advancements, especially with

blockchain, come with their own complexities too. While it's praised for its transparency and security, issues like scalability and energy consumption are ongoing concerns. For major financial institutions that process millions of transactions daily, blockchain's current limitations can become bottlenecks. Moreover, the skills needed to design, implement, and maintain blockchain-based AIS are still hard to find, making it challenging for many businesses to make this transition smoothly. These technical hurdles are often compounded by organizational issues such as resistance to change, tight IT budgets, and a lack of managerial support. Research shows that the size of the firm and its IT expertise heavily influence the willingness to adopt blockchain technologies, with smaller companies frequently falling behind due to limited resource [29]. Adopting and implementing new technologies like FinTech and blockchain within organizations requires more than just a shift in tools; it demands a fundamental cultural change. This isn't just about making a technological choice it's about rethinking how the entire organization operates. For example, auditors have to move away from traditional methods that rely on random sampling and embrace continuous auditing practices that blockchain technology enables. Similarly, accountants will need to develop new digital skills ranging from data analysis to understanding blockchain coding. These shifts involve considerable investment in training, change management, and aligning strategies, all of which can pose significant challenges for organizations striving to modernize their financial systems. Another critical aspect to consider is risk management. As FinTech and blockchain become more prevalent, regulators are insisting on well-defined risk management strategies in financial analytics and predicting market trends to protect against potential systemic weaknesses [30]. The risks associated with cybersecurity are particularly heightened in these digital environments. While blockchain does a good job of preventing data tampering, it is not entirely foolproof threats like 51% attacks and weaknesses in smart contract codes still exist. Furthermore, FinTech solutions that rely on cloud services and interconnected systems are susceptible to service outages and data breaches. Without strong governance in place, these vulnerabilities could compromise the trust that these technologies aim to build. Therefore, firms must invest in robust risk management systems that combine technological protections with policies for constant monitoring, contingency plans, and compliance checks. Looking ahead, the future of integrating FinTech and blockchain into accounting information systems (AIS) and advanced business analytics is both exciting and complex [31]. On the one hand, as regulations evolve, we can expect a more stable and trustworthy environment that encourages wider adoption while still protecting consumers. On the other hand, the regulatory demands might slow down innovation, especially for smaller firms that may not have the resources to keep up. As blockchain technology matures, it is likely to overcome some of its current limitations, such as scalability, making it easier to integrate into financial reporting and auditing processes. As more financial institutions recognize the strategic benefits of blockchain, investments in research development and healthcare systems performance will likely lead to enhancements in usability and efficiency [32]. However, the speed at which companies adopt these technologies will strongly depend on their readiness for change. Firms that have a solid IT infrastructure and dedicated management are likely to emerge as leaders in this transition, gaining competitive edges from improved transparency, cost savings, and better risk management. In contrast, organizations that hesitate in adopting these innovations may find themselves lagging in an increasingly digital financial landscape. Over time, the pressure to keep up may push even hesitant firms toward adopting new technologies, though the pace and success of these changes can vary widely across different industries and regions. Ultimately, the blending of FinTech, blockchain, and accounting information systems highlights a larger trend in financial management and revolutionizing business analytics frameworks to merge the technology and governance [33]. The ability to manage risks effectively while still embracing innovation will be key to the resilience and competitiveness of organizations in the digital age. The conversation reveals that while technology provides powerful tools to enhance transparency, efficiency, and security, it also calls for new regulatory frameworks, shifts in organizational mindsets, and evolved risk management strategies. Striking this balance will be essential to unlocking the full potential of FinTech and blockchain in the realms of accounting and

financial risk management.

4. Conclusion

The integration of FinTech and blockchain into AIS represents more than a technological upgrade; it is a fundamental redefinition of financial risk management and auditability. By enhancing transparency, accuracy, and predictive capabilities, these tools allow firms to shift from reactive to proactive approaches in governance. Yet, the success depends on balancing innovation with regulation, adopting robust risk management frameworks, and ensuring organizational readiness. Firms that strategically embrace these technologies will strengthen both competitiveness and trust, while those that hesitate may struggle to keep pace in a financial landscape where digital transformation is no longer optional but essential.

Author contribution

T. written whole manuscript.

REFERENCES

- [1] Abdelraheem, A. A. Elhadi, A. M. Hussaien, M. A. A. Mohammed, and Y. A. E. Elbokhari, "The effect of information technology on the quality of accounting information," *Accounting*, vol. 7, no. 1, pp. 191–196, 2021, doi: 10.5267/j.ac.2020.9.017.
- [2] A. Akhir, S. K. Papia, S. Nashid, F. Rahman, and A. Islam, "Integrating business analytics and machine learning for immediate decision making through a unified framework," *Journal of AI ML DL*, vol. 1, no. 1, pp. 1–8, 2025, doi: 10.25163/ai.1110366.
- [3] M. Hasan, "Managing digital transformation: A project management perspective," *Business and Social Sciences*, vol. 2, no. 1, pp. 1–8, 2024, doi: 10.25163/business.2110531.
- [4] M. M. Afifa, H. Vo Van, and T. Le Hoang Van, "Blockchain adoption in accounting by an extended UTAUT model: Empirical evidence from an emerging economy," *Journal of Financial Reporting and Accounting*, vol. 21, no. 1, pp. 5–44, 2022, doi: 10.1108/JFRA-12-2021-0434.
- [5] M. J. Diba and M. R. Haque, "Artificial intelligence in regulatory compliance and risk management for monitoring standards, tax compliance, and anti-money laundering," *Journal of AI, ML & DL*, vol. 1, no. 1, pp. 1–8, 2025, doi: 10.25163/ai.1110444.
- [6] H. O. Aifuwa and K. Embele, "Board characteristics and financial reporting quality," *Journal of Accounting and Financial Management*, vol. 5, no. 1, pp. 30–44, 2019.
- [7] M. Akter, M. I. Hossain, and M. R. Haque, "Strengthening national economic security through predictive financial risk analytics," *Business and Social Sciences*, vol. 2, no. 1, pp. 1–7, 2024, doi: 10.25163/business.2110429.
- [8] A. M. Alrabei and D. S. Ababnehi, "The moderating effect of information technology on the relationship between audit quality and the quality of accounting information: Jordanian auditors' perception," *Journal of Theoretical and Applied Information Technology*, vol. 99, no. 14, pp. 3365–3378, 2021.
- [9] M. J. Diba, "AI for financial forecasting and strategic decision-making using predictive analytics to improve budgeting, forecasting, and risk management," *Journal of Primeasia*, vol. 5, no. 1, pp. 1–7, 2024, doi: 10.25163/primeasia.5110493.
- [10] R. Ball and L. Shivakumar, "Earnings quality in UK private firms: Comparative loss recognition timeliness," *Journal of Accounting and Economics*, vol. 39, no. 1, pp. 83–128, 2005, doi: 10.1016/j.jacceco.2004.04.001.
- [11] M. Sharfuddin, P. Choudhury, and K. M. Ahmed, "Integration of universal management

- information systems in the extended organization solving fundamental challenges,” *Research Sustainability*, vol. 1, no. 3, pp. 1–12, 2024, doi: 10.69937/pf.rs.1.3.84.
- [12] F. V. Beest, G. J. M. Braam, and S. Boelens, “Quality of financial reporting: Measuring qualitative characteristics,” Radboud University Nijmegen, Working Paper, 2009.
- [13] M. J. Diba and F. Zannat, “The artificial intelligence (AI) era’s evident effect on accounting careers and skills,” *Business and Social Sciences*, vol. 1, no. 1, pp. 1–9, 2023, doi: 10.25163/business.1110390.
- [14] E. Bonsón and M. Bednárová, “Blockchain and its implications for accounting and auditing,” *Meditari Accountancy Research*, vol. 27, no. 5, pp. 725–740, 2019, doi: 10.1108/MEDAR-11-2018-0406.
- [15] A. Biswas, A. Islam, A. Akhir, F. Rahman, S. Nashid, and S. K. Papia, “Bridging IT and business strategy and the impact of data-driven analytics on organizational performance and innovation,” *Applied IT & Engineering*, vol. 2, no. 1, pp. 1–8, 2024, doi: 10.25163/engineering.2110364.
- [16] D. C. Burgstahler, L. Hail, and C. Leuz, “The importance of reporting incentives: Earnings management in European private and public firms,” *The Accounting Review*, vol. 81, no. 5, pp. 983–1016, 2006, doi: 10.2308/accr.2006.81.5.983.
- [17] M. Sharfuddin and P. Choudhury, “Enhancing data reliability in management information systems through artificial intelligence driven validation and error detection models,” *Journal of AI, ML & DL*, vol. 1, no. 1, pp. 1–8, 2025, article no. 10442.
- [18] F. Casino, T. K. Dasaklis, and C. Patsakis, “A systematic literature review of blockchain-based applications: Current status, classification and open issues,” *Telematics and Informatics*, vol. 36, pp. 55–81, 2019, doi: 10.1016/j.tele.2018.11.006.
- [19] M. R. Haque and M. Akter, “Crisis prevention and early-warning systems in financial risk management for U.S. market stability,” *Journal of Primeasia*, vol. 4, no. 1, pp. 1–8, 2023, doi: 10.25163/primeasia.4110489.
- [20] E. Cheung, E. Evans, and S. Wright, “An historical review of quality in financial reporting in Australia,” *Pacific Accounting Review*, vol. 22, no. 2, pp. 147–169, 2010, doi: 10.1108/01140581011074188.
- [21] N. Chowdhury, M. S. Mia, M. I. Hossain, S. K. Papia, and S. Nashid, “Integrating business analytics into public health management: A data-driven approach,” *Business and Social Sciences*, vol. 1, no. 1, pp. 1–7, 2023, doi: 10.25163/business.1110346.
- [22] N. Chowdhury, M. S. Mia, M. I. Hossain, A. Biswas, and I. Jahan, “AI-driven business analytics and organizational growth: Sectoral adoption, governance challenges, and strategic priorities in the U.S.,” *Journal of AI ML DL*, vol. 1, no. 1, pp. 1–8, 2025, doi: 10.25163/ai.1110382.
- [23] J. G. Coyne and P. L. McMickle, “Can blockchains serve an accounting purpose?” *Journal of Emerging Technologies in Accounting*, vol. 14, no. 1, pp. 101–111, 2017, doi: 10.2308/jeta-10489.
- [24] M. Sharfuddin and S. K. Papia, “Management information systems driven green marketing intelligence for sustainable consumer engagement,” *Journal of Primeasia*, vol. 4, no. 1, pp. 1–7, 2023, doi: 10.25163/primeasia.4110496.
- [25] H. M. R. Haque and M. N. M. Khan, “Strategic integration of big data analytics to enhance risk management, sustainable supply chains, and business competitiveness in the United States,” *Business and Social Sciences*, vol. 1, no. 1, pp. 1–8, 2023, doi: 10.25163/business.1110498.
- [26] A. Durnev and C. Mangen, “Corporate investments: Learnings from restatements,” *Journal of Accounting Research*, vol. 47, no. 3, pp. 679–720, 2009, doi: 10.1111/j.1475-679X.2009.00340.x.
- [27] K. M. Hasan and M. R. Haque, “Leadership competencies for managing AI and IT modernization

- projects," *Applied IT & Engineering*, vol. 2, no. 1, pp. 1–8, 2024, doi: 10.25163/engineering.2110532.
- [28] S. Fatima, M. Ishtiaq, and A. Javed, "Impact of accounting information system on corporate governance: Evidence from Pakistani textile sector," *International Journal of Law and Management*, vol. 63, no. 3, pp. 431–442, 2021, doi: 10.1108/IJLMA-11-2020-0395.
- [29] S. Nashid, S. K. Papia, A. Islam, A. Akhir, F. Rahman, and A. Biswas, "The role of deep learning and AI in revolutionizing business analytics: Frameworks, applications, and managerial implications," *Applied IT & Engineering*, vol. 2, no. 1, pp. 1–8, 2024, doi: 10.25163/engineering.2110365.
- [30] I. Jahan, N. Chowdhury, M. S. Mia, M. I. Hossain, and A. Biswas, "Transforming business operations through IT-enabled predictive and prescriptive analytics: Challenges, opportunities, and best practices," *Applied IT & Engineering*, vol. 2, no. 1, pp. 1–7, 2024, doi: 10.25163/engineering.2110381.
- [31] I. Jahan, M. S. Mia, N. Chowdhury, M. I. Hossain, and A. Biswas, "Artificial intelligence in financial analytics and predicting market trends and risk management," *Journal of AI ML DL*, vol. 1, no. 1, pp. 1–8, 2025, doi: 10.25163/ai.1110385.
- [32] M. S. Mia, M. I. Hossain, I. Jahan, N. Chowdhury, and S. Nashid, "Smart supply chains applying AI-based business analytics for operational efficiency," *Paradise*, vol. 1, no. 1, pp. 1–8, 2025, doi: 10.25163/paradise.1110383.
- [33] S. Nashid, S. K. Papia, N. Chowdhury, M. S. Mia, and M. I. Hossain, "Advanced business analytics in healthcare enhancing clinical decision support and operational efficiency," *Business and Social Sciences*, vol. 1, no. 1, pp. 1–8, 2023, doi: 10.25163/business.1110345.
- [34] H. Han, R. K. Shiwakoti, R. Jarvis, C. Mordi, and D. Botchie, "Accounting and auditing with blockchain technology and artificial intelligence: A literature review," *International Journal of Accounting Information Systems*, vol. 48, p. 100598, 2023, doi: 10.1016/j.accinf.2022.100598.
- [35] S. Demirkan, I. Demirkan, and A. McKee, "Blockchain technology in the future of business cyber security and accounting," *Journal of Management Analytics*, vol. 7, no. 3, pp. 189–208, 2020, doi: 10.1080/23270012.2020.1794111.