



THE EFFECT OF DIGITAL TRANSFORMATION ON THE EFFECTIVENESS OF INTERNAL AUDITING AND FRAUD PREVENTION IN MODERN ORGANIZATIONS: A SYSTEMATIC LITERATURE REVIEW

PENGARUH TRANSFORMASI DIGITAL TERHADAP EFEKTIVITAS AUDIT INTERNAL DAN PENCEGAHAN KECURANGAN DALAM ORGANISASI MODERN: TINJAUAN LITERATUR SISTEMATIS

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Abstract

Digital transformation is the process of bringing technology into the work of organisations. The main goal is to make things work better, be more open and make decisions. Internal audits are important to make sure organisations are running smoothly and safely. This means audits need to be able to watch over control and manage risks properly. This is very important for organisations to achieve their goals. Stopping fraud is about finding and preventing actions that can hurt the organisation. This research is trying to figure out how digital transformation affects audits and stopping fraud. The researchers used a method called a 'systematic literature review'. This research is about describing things in detail. They got their information from international journals. They used Google Scholar, Scopus and Sinta to find articles from 2022 to 2025. What they found out is that technology like intelligence looking at data, blockchain, robotic process automation and electronic auditing can make internal audits better. These technologies can also make things more transparent. Help stop fraud. However, digital transformation is not easy to do. There are some problems, like auditors not being good enough with technology risks to cybersecurity and organisations not being ready. Digital transformation and internal audits are. Digital transformation can affect fraud prevention. Digital transformation is important for organisations. It can help with internal audits and fraud prevention.

Keywords : Digital Transformation, Internal Audit Effectiveness, Fraud Prevention, E-Audit.

Abstrak

Transformasi digital adalah proses membawa teknologi ke dalam pekerjaan organisasi. Tujuan utamanya adalah untuk membuat segala sesuatunya berjalan lebih baik, lebih terbuka, dan pengambilan keputusan lebih cepat. Audit internal penting untuk memastikan organisasi berjalan lancar dan aman. Ini berarti audit perlu mampu mengawasi, mengendalikan, dan mengelola risiko



dengan benar. Hal ini sangat penting bagi organisasi untuk mencapai tujuan mereka. Pencegahan kecurangan adalah tentang menemukan dan mencegah tindakan yang dapat merugikan organisasi. Penelitian ini mencoba untuk mengetahui bagaimana transformasi digital memengaruhi audit dan pencegahan kecurangan. Para peneliti menggunakan metode yang disebut 'tinjauan literatur sistematis'. Penelitian ini bertujuan untuk menjelaskan berbagai hal secara detail. Mereka mendapatkan informasi dari jurnal internasional. Mereka menggunakan Google Scholar, Scopus, dan Sinta untuk menemukan artikel dari tahun 2022 hingga 2025. Yang mereka temukan adalah bahwa teknologi seperti kecerdasan buatan dalam menganalisis data, blockchain, otomatisasi proses robotik, dan audit elektronik dapat meningkatkan audit internal. Teknologi ini juga dapat membuat segala sesuatunya lebih transparan dan membantu mencegah kecurangan. Namun, transformasi digital bukanlah hal yang mudah dilakukan. Terdapat beberapa masalah, seperti auditor yang kurang mahir dalam teknologi, risiko terhadap keamanan siber, dan organisasi yang belum siap. Transformasi digital dan audit internal sangat penting. Transformasi digital dapat memengaruhi pencegahan penipuan. Transformasi digital penting bagi organisasi. Hal ini dapat membantu dalam audit internal dan pencegahan penipuan.

Kata Kunci : Transformasi Digital, Efektivitas Audit Internal, Pencegahan Kecurangan, E-Audit.

1. INTRODUCTION

The rapid development of information technology has encouraged digital transformation in various sectors of the organization, including in the field of internal audit. Digital transformation is a shift from manual work systems to digital technology-based work systems. It includes various innovations such as artificial intelligence (AI), big data analytics, e-audit, blockchain, cloud computing, and digital information systems. According to Kazan & Kocamiş (2023) digital transformation in auditing allows the process of data collection, analysis, and evaluation to be carried out in real-time and more accurately than conventional audit methods. In addition, according to Azah Tul et al. (2024) the use of modern audit technology can increase the productivity, accuracy, and efficiency of auditors in companies. As a result, the digital shift is becoming an important phenomenon that cannot be separated from the development of contemporary auditing practices in today's digital era.

One of the real impacts of digital transformation in the world of auditing is the shift from conventional auditing to digital auditing. In conventional audits, the audit process is usually done manually, with physical document examination, limited data sampling, and analysis that takes a long time. This condition often leads to limitations in detecting errors, increasing the risk of human error, and slowing down audit decision-making. On the other hand, according to Yuna (2022) digital audits allow auditors to use audit applications, analytics software, data mining, and digital systems to process large amounts of data automatically and in real-time. The use of audit technology can also improve the quality of audit results and help auditors conduct more efficient audits (Azah Tul et al., 2024).

In an organization, Internal audit is a strategic oversight function that aims to help management ensure that operational activities, financial management, internal control, and risk management run in accordance with organizational goals and regulations. Internal audits are very important because they help organizations evaluate how effective their internal control systems are. Through internal audits, companies can identify weaknesses in operational processes and find opportunities to improve their systems and procedures. Research conducted by Husain et al. (2025) showed that internal audits play a significant role in strengthening organizational control systems. Similarly, a study by Arimbi & Yuliana, (2024) found that effective internal audits contribute to better corporate governance, improve the accuracy of financial reporting, and reduce the risk of errors and irregularities. Therefore, internal audits are essential for maintaining organizational integrity and ensuring smooth operations, especially in today's increasingly complex business environment.



On the other hand, the development of new technology has also created new challenges. In the digital era, technology has made it easier for fraud and cyber-related crimes to occur, creating greater risks for organizations. Now, digital frauds such as cyber fraud, electronic data manipulation, misuse of information systems, and data breaches are growing more than ever in the form of manipulation of financial statements, misuse of assets, or corruption (Azah Tul et al., 2024). If internal controls and audit systems cannot keep up with technological advancements, the complexity of digital systems can create loopholes for fraudsters. Research shows that internal audits supported by information technology are more effective than manual audits in fraud detection and prevention (Dewi et al., 2024). Therefore, internal audit has an important role as a monitoring mechanism in detecting and preventing fraud in the digital era.

To meet these challenges, various contemporary audit technologies, such as AI, data analytics, e-audit, and blockchain, are beginning to be used to improve the efficiency of internal audits. Artificial intelligence can help auditors find abnormal transaction patterns and find indications of fraud automatically, while data analytics allows auditors to analyze large amounts of data quickly and accurately (Yuna, 2022). In addition, blockchain is considered to have the ability to improve transparency, data security, and real-time monitoring of transactions in addition to supporting internal controls regulated by COSO (Gülçin & Kocamış, 2023). The use of contemporary audit technology shows that digital transformation improves the efficiency of the audit process and helps organizations prevent fraud with better control systems.

In this context, the effectiveness of internal audits is becoming an increasingly important issue to pay attention to. According to Muazah et al. (2024) it is explained that an effective internal audit not only ensures compliance with regulations, but is also able to detect risks, prevent fraud, improve the quality of internal controls, and provide strategic recommendations for the organization. Digital transformation enables increased effectiveness of internal audits through automation, real-time monitoring, and more accurate data analysis (Yuna, 2022). However, the effectiveness of internal audits in the digital era is also influenced by technological readiness, auditor competence, and organizational ability to manage digital changes (Fauziah et al., 2025). Therefore, it is important to understand how digital transformation affects the effectiveness of internal audits in modern organizational practices.

Previous research has discussed internal auditing, fraud prevention, and audit technology separately. However, there is still room for research that combines digital transformation, internal audit performance, and fraud prevention in one comprehensive analytical framework. Some studies only discuss audit technologies that affect auditors' performance (Yuna, 2022), others only discuss fraud prevention in the digital age Azah Tul et al. (2024), and some studies concentrate on blockchain-based internal controls (Gülçin & Kocamış, 2023). This condition shows that there have not been many studies that have systematically examined how digital transformation affects the effectiveness of internal audits and fraud prevention at the same time. Therefore, it is important for this study to use the Systematic Literature Review (SLR) approach to gain a more comprehensive understanding of how digital transformation affects the effectiveness of internal auditing and fraud prevention simultaneously. Based on the findings of previous research, the SLR approach was used in this study.

Based on this explanation, digital transformation has significantly changed internal audit practices, while presenting new challenges in the form of increasingly complex fraud risks. As a result, it is important to understand the role of technology in supporting internal audit operations. This condition raises questions about the extent to which digital transformation is able to improve the efficiency of internal audits of organizations and how the use of digital technology contributes to fraud prevention. Therefore, this study aims to analyze the influence of digital transformation on the effectiveness of internal audit and fraud prevention through the Systematic Literature Review (SLR) approach based on the results of previous research, so as to provide a more comprehensive picture of the relationship between digital technology, the effectiveness of internal audit, and fraud prevention efforts in the digital era.



2. RESEARCH METHOD

This study used a qualitative descriptive design with a systematic literature review (SLR) approach. The data sources in this study consisted of national and international scientific journal articles discussing digital transformation, internal audit effectiveness, and fraud prevention in modern organisations. The sampling technique used was purposive sampling with inclusion criteria, namely articles published in 2020–2025, indexed in scientific databases such as Scopus, Sinta, and Google Scholar, relevant to the research topic, and available in full text. The selected articles were then analysed systematically to identify the influence of digital transformation on internal audit effectiveness and fraud prevention.

3. RESULT AND DISCUSSION

Based on the results of the Systematic Literature Review that has been conducted, we can see that digital transformation has a major impact on the effectiveness of internal audits and fraud prevention in organizations in Indonesia. Several studies show that digital technologies such as artificial intelligence, blockchain, electronic audit, data analytics, continuous auditing, and digital audit systems can make audits more efficient, strengthen internal controls, make transparency better, and speed up the fraud detection process in organizations. Using technology helps organisations make their internal audits work better and stop fraud from happening. Digital transformation is really important for organisations in Indonesia because it helps them make their internal audits work better and prevent fraud. Organisations in Indonesia need transformation to make sure their internal audits are effective and to prevent fraud from happening. Digital technology is a part of this because it helps organisations, in Indonesia do their internal audits in a better way.

Review of Related Literature

No	Researcher (Name & Year)	Research Variables	Research Title	Research Results
1	Gülçin Kazan & Tuğçe Uzun Kocamış (2023)	X: Blockchain Technology Y: Internal Control Effectiveness	<i>Assessing the Impact of Blockchain Technology on Internal Controls Within the COSO Framework</i>	Blockchain improves transparency, accountability, and effectiveness of COSO-based internal controls.
2	Ahmed Almgrashi & Abdulwahab Mujalli (2024)	X: Sustainable Risk Management Y: Risk-Based Internal Auditing	<i>The Influence of Sustainable Risk Management on the Implementation of Risk-Based Internal Auditing</i>	Risk management has a positive effect on the implementation of risk-based internal auditing.
3	Sara Amaroach & Jalal Azegagh, (2025)	X: Information Technology Y: Risk Management & Internal Audit Effectiveness	<i>The Role of Information Technology and Internal Audit in Risk Management</i>	Information technology strengthens internal audits and supports organizational risk management.
4	Marc Eulerich, Anna Eulerich, & Annika Bonrath (2025)	X: AI, Data Analytics, RPA Y: Internal Audit Performance	<i>Technology and Internal Auditing: An Overview of Performance Effects</i>	AI, RPA, and data analytics improve the efficiency and effectiveness of internal audits.
5	Zulkiffly Baharom	X: Digital	<i>Theoretical and Practical</i>	Digital technology



	(2025)	Technologies Y: Internal Auditing Transformation	<i>Insights into Digital Technologies in Internal Auditing</i>	supports continuous auditing and internal audit transformation based on AI and blockchain.
6	Yuna Si (2022)	X: Big Data Audit & Decision Tree Algorithm Y: Internal Audit Optimization	<i>Construction and Application of Enterprise Internal Audit Data Analysis Model Based on Decision Tree Algorithm</i>	Big data audits improve risk detection accuracy and internal audit effectiveness.
7	Kadir Gökoğlan, Hüseyin Sevim, & Sultan Kılıç (2025)	X: Digital Transformation & AI-Assisted Auditing Y: Internal Audit Efficiency	<i>Digital Transformation and Artificial Intelligence- Assisted Auditing</i>	AI-assisted auditing improves audit efficiency but poses data security and audit ethics risks.
8	Dewi Arimbi, Tarjo, & Rita Yuliana (2024)	X: Internal Audit & Audit Committee Y: Fraud Detection	<i>The Role of Internal Audit and The Audit Committee in Detecting Financial Statement Fraud</i>	Internal audit and audit committees are effective in detecting financial statement fraud
9	Rahmadhianti Nur Fitria, Laurenza Sitorus, Nabilla Arianisari, & Saproni (2025)	X: Data Analytics & Transformational Leadership Y: Internal Audit Quality	<i>Enhancing Internal Audit Quality Through Data Analytics and Transformational Leadership</i>	Data analytics improves the quality of your organization's internal audit reports.
10	Cecilia Ancelin Feodora Anthony, Wira Natali Angeline Lumban Gaol, Hans Nehemia Natanael Purba, Helga Claresta Raudina, & Agus Maulana (2023)	X: Digital Technology & Internal Audit Y: Fraud Control	<i>Peranan Audit Internal dalam Pengendalian Fraud di Era Digital</i>	Digital-based internal audits strengthen fraud control through audit software and monitoring systems.

Discussion

1. The Relationship of Digital Transformation to the Effectiveness of Internal Audits in Modern Organizations

Based on the results of research that has been conducted, digital transformation is very influential in increasing the effectiveness of internal audits in modern organizations. By using digital technologies such as artificial intelligence, blockchain, data analysis, process automation, and electronic audit systems, auditors can work faster, more precisely, and more efficiently. Digital technology allows auditors to conduct direct supervision, speed up data processing, and improve the quality of decision-making in the audit process.

Research conducted by Kazan & Kocamiş (2023) explains that blockchain technology can improve transparency, accountability, and effectiveness of internal controls. Meanwhile, another study conducted by Eulerich et al. (2025) found that the use of artificial intelligence, process automation, and data analysis can improve the efficiency and effectiveness of internal audits Almgrashi & Mujalli



(2024) also found that sustainable risk management has a positive influence on the implementation of risk-based internal audits.

The results of the study show that digital transformation helps modern organizations create more effective, more transparent, and more integrated internal audit systems. Thus, the supervision process can run more optimally and help the organization achieve its goals.

2. The Relationship of Digital Transformation to Fraud Prevention in Modern Organizations

Digital transformation is really important for stopping fraud in companies. Using tools like audit software and big data analytics helps people who check the books find problems and fraud faster than they could before.

Arimbi & Yuliana (2024) said the people who do audits and the audit committees have a big job in finding fraud in financial statements. Also Anthony et al. (2023) that using tools, for internal audits can help stop fraud by using audit software and automated systems to watch what is going on. Yuna Si said in 2022 that using data audits and special algorithms can make it easier to find risks and make internal audits better.

This shows that digital transformation helps companies stop fraud by using technology that's faster and more accurate. Digital transformation also helps reduce mistakes that people make and makes it easier to see what is going on with company data. Digital transformation and fraud prevention go hand in hand because digital transformation helps companies have fraud prevention systems.

3. The Relationship of Digital Transformation to the Effectiveness of Internal Audit and Fraud Prevention in an Integrated Manner in Modern Organizations

Digital transformation is really connected to how internal audits and fraud prevention work in companies today. Using technology makes internal audits better and also makes the company's internal control system and supervision stronger so that fraud can be prevented.

The use of intelligence, blockchain, data analytics and digital audit systems lets auditors watch what is happening in real time find problems faster and find signs of fraud more accurately. These technology based audit systems help companies be more transparent, accountable and make sure they are watching what is going on so that the risk of fraud is lower.

However changing to digital also has some problems like cybersecurity risks keeping data ethical issues with using artificial intelligence and not having auditors who are good with digital technology. Gökoğlan et al. (2025) that using intelligence in internal audits can make it more likely that the company's data is not safe and that information is not confidential. So companies need to make sure auditors are good at their jobs make their information systems safer and use technology in a way so that digital transformation works well.

Based on what was found out we can say that digital transformation is good for audits and preventing fraud in companies today. Using technology in the internal audit process makes things more efficient, transparent and supervised better and makes the company's internal control system stronger in the digital age. Digital transformation and the use of technology, in internal audits and fraud prevention are very important for companies to prevent fraud and have good internal control systems.

4. CONCLUSION

1. Digital transformation is really good for internal audits in a company. When we use things like intelligence and digital audit systems the audit process is faster and more accurate. We can also see what is going on clearly.
2. Digital transformation helps companies make their internal controls stronger with technology. This means we can watch what is happening and look at data easily. So companies can make decisions faster.
4. Using technologies like audit software and big data analytics helps companies find and stop fraud faster. This means companies can react to problems quickly.



5. Digital transformation also makes internal audits better. Companies more transparent. The audit systems are getting better and using data so companies can see how they are doing and what risks they face.
6. Even though digital transformation is helpful there are still some problems to fix like keeping data safe and making sure artificial intelligence's used fairly. So companies need to make their staff better, at using technology and keep their systems safe. This way companies can use transformation to work better and smarter.

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