

Accounting Management in Facing the Challenges of the Digital Economy

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ABSTRACT

The development of the digital economy has created a complex business ecosystem, demanding a rapid response from various parties, including accounting management. In this era, digital transformation is not just about adopting new technologies, but also a paradigm shift in financial information management. Technologies such as cloud accounting, big data analytics, and artificial intelligence are becoming an urgent need to ensure companies remain competitive. However, the implementation of these technologies faces challenges such as data security, workforce readiness, and high investment costs. In addition, digital transformation requires the ability to transform financial data into strategic insights, where accounting plays a role as a partner that can add value through predictive analysis and data-driven decision-making. This shift also requires accounting management to maintain a balance between information transparency and personal data security. Using a descriptive-analytical qualitative method, this study explores how companies adopt digital technology in accounting management and its impact on strategic decision-making. The results show that although digital transformation presents great opportunities, challenges such as data security, workforce training, and harmonization of accounting standards with technological developments must be managed well to create an efficient and sustainable accounting system in the digital era.

Keywords: Accounting Technology Transformation; Data-driven Decision Making; Digital Accounting;

INTRODUCTION

The development of the digital economy has created an increasingly complex business ecosystem and demands a quick response from various parties, including accounting management. According to Schwab (2016) in the concept of the Fourth Industrial Revolution, digital transformation not only includes the application of new technologies, but also demands a paradigm shift in information management (Hidayati, 2022). In the context of accounting, the use of technologies such as cloud accounting, big data analytics, and artificial intelligence is an urgent need to ensure companies remain competitive. However, the implementation of these technologies also brings challenges, such as data security, workforce adaptability, and high investment costs. Thus, accounting management must not only be a user of technology, but also an innovator who understands how technology can create added value.

Furthermore, digital transformation forces companies to change the way they view financial data. Nugroho & Fadhilah (2023) stated that data-driven decision making is at



the center of modern business strategy. In the digital economy, accounting serves not only as a financial reporting tool, but also as a source of strategic insights. For example, predictive analysis based on historical data can help companies identify market trends and optimize resource allocation. This shows that the role of accounting has evolved from simply managing financial transactions to becoming a strategic partner in decision-making. Therefore, digital transformation requires accounting management to be proactive and future-oriented in dealing with the complexities of the digital economy.

This shift in financial information management also raises the need for real-time reporting that allows companies to get financial information quickly and accurately. Aji & Mala (2024) emphasize that in the digital economy, the speed and accuracy of information is a crucial competitive advantage. Real-time reporting allows management to immediately detect financial risks, identify market opportunities, and adjust operational strategies. However, this requires adequate technological infrastructure as well as the competence of human resources capable of managing data effectively. Without proper management, risks such as data breaches and data analysis errors can threaten the stability of the company's operations.

In addition, the transformation in financial information management has implications for corporate governance. OECD (2019) and Junanda (2024) states that the transparency of financial information generated through digital technology can increase accountability and stakeholder trust. However, on the other hand, companies face challenges in maintaining a balance between the need for transparency and protection of privacy data. Therefore, accounting management must be able to design policies that support transparent financial reporting, while ensuring data security in accordance with regulations such as GDPR or Personal Data Protection Law. This confirms that technology mastery is not only a technical demand, but also a strategic aspect in building sustainable financial governance in the digital era.

Innovation in accounting processes involves not only the adoption of new technologies but also changes in work culture and strategic approaches in management. Payamta (2023) explains that the integration of digital technology into accounting creates opportunities for automation of repetitive tasks, such as recording transactions and reconciliation. This allows accountants to focus more on analyzing data and providing strategic insights for corporate decision-making. However, these innovations require training and capacity building of the workforce to master new technologies, as well as investment in secure and reliable technology systems. Without targeted strategic measures, this transformation risks creating skill gaps that exacerbate inequality within the organization.

On the other hand, technological developments also require revisions to accounting standards to accommodate the dynamics of the digital economy. IFAC (International Federation of Accountants) emphasizes the importance of aligning financial reporting standards with digital reality, including in handling crypto-based transactions or other digital assets. Without an adequate framework, innovations in accounting processes may lead to gaps in transparency and accountability. In addition, regulations that are not in line with technological developments may slow down the adoption of innovations, hindering companies' competitiveness in the global market. Therefore, innovation in accounting should be accompanied by policy reforms and harmonization of standards relevant to the needs of the digital economy.

Digital transformation has changed the landscape of business decision-making by providing wider access to financial and operational data. According to Elisabeth (2018), the implementation of a data-driven balanced scorecard allows companies to link financial performance with other strategic metrics, such as customer satisfaction or

operational efficiency. In the context of the digital economy, the use of data analytics allows companies to predict market changes and adapt strategies more quickly. However, data accuracy and management's ability to translate this information into concrete actions are major challenges. Errors in data interpretation or decision-making based on unvalidated assumptions can result in strategy failure and financial loss.

In addition, the digital economy creates a need for accounting management to be more responsive to external changes, such as global market fluctuations, new regulations, or technological innovations. Research from the World Economic Forum (2020) shows that flexibility in budget management and strategic planning is key to the success of companies in the digital era. Accounting management must be able to provide financial information that not only reflects current conditions but also provides predictive insights to deal with future uncertainties. By utilizing technologies such as machine learning and predictive analytics, management can anticipate risks and identify previously unseen opportunities. Therefore, the ability to integrate technology and financial data is an important foundation for effective business decision-making in the digital economy.

METHODS

This research uses a qualitative method with a descriptive-analytical approach to understand the role and challenges of accounting management in facing the digital economy. This approach was chosen because it allows in-depth exploration of the implementation of digital technology in accounting management and its impact on the company's strategic decision-making. This research focuses on case studies in five companies that have adopted digital technology in their accounting systems. The research subjects include 30 informants, consisting of 10 accounting practitioners (finance managers, accountants, and auditors), 10 financial and accounting technology experts, and 10 regulators who play a role in developing policies related to digital accounting standards.

Data were collected through three main techniques, namely in-depth interviews, participatory observation, and document analysis. Interviews were conducted to explore informants' experiences and views on the implementation of digital technology, while participatory observation allowed researchers to understand the application of technology directly in the context of company operations. In addition, document analysis was conducted on financial reports, internal company policies, and relevant regulations. The data obtained was analyzed using a thematic analysis approach to identify patterns, themes, and relationships between relevant variables. Data validity was ensured through source triangulation and discussions with experts to ensure consistency and validity of findings. With this method, the research is expected to provide a comprehensive picture of how accounting management adapts to the challenges of the digital economy while offering applicable strategic recommendations.

RESULTS AND DISCUSSION

1. Transformation of Accounting Management in the Digital Age: Opportunities and Challenges

A. Efficiency and Innovation through Digital Technology Adoption

The use of digital technologies such as cloud accounting and big data analytics has become increasingly relevant in improving the efficiency of accounting processes. Cloud accounting allows companies to access financial data in real-time, which facilitates

collaboration between divisions and data-based decision making. According to Utari & Harahap (2024), this approach supports more comprehensive integration of information systems, thereby improving the accuracy of financial reports and reducing manual errors. In addition, big data analytics helps process large volumes of data quickly, allowing companies to identify trends and patterns that were difficult to detect before. In practice, these technologies reduce the time required to compile financial statements, allowing accountants to focus more on strategic analysis.

In addition to improving efficiency, the adoption of digital technology also presents opportunities for innovation in accounting management. The integration of artificial intelligence (AI) in the accounting process helps automate routine tasks such as recording transactions or processing financial data. According to Yusuf et.al (2024), AI can improve operational efficiency and accuracy, thereby minimizing the potential for human error. In this context, AI technology supports faster and more accurate data-driven decision-making, by identifying complex patterns through predictive analysis. Thus, companies are not only able to respond to market changes more efficiently, but can also better anticipate future challenges.

However, the application of digital technology in accounting also brings challenges, especially related to data security and privacy protection. Data security is becoming a critical issue along with the increasing use of cloud computing and internet-based systems in the management of financial information. According to Stoneburner, Goguen, and Feringa (2002), security risks increase when data is accessed by external parties, making it important to have a sophisticated security system (Imam et.al., 2024). Therefore, companies need to ensure that the technology used meets high security standards and is able to protect sensitive information from cyber threats. Furthermore, the readiness of the workforce to adopt digital technology is also a major challenge in the transformation of accounting management. According to Kirana et al (2023), improving workforce skills in understanding and implementing new technologies is the key to successful digital transformation. Therefore, companies need to design training programs that support the development of technical skills and understanding of new technologies, so that the workforce can adapt to existing changes effectively. Thus, the integration of digital technology in accounting management can provide sustainable benefits..

B. Data Security Challenges and Technology Infrastructure Readiness

Data security challenges are becoming a very important issue in the era of digital transformation, where companies increasingly rely on technology to manage sensitive data. According to Stoneburner, Goguen, and Feringa (2002), the risk of data leakage increases with the use of cloud-based systems and extensive internet networks. Cyber threats such as hacking, malware attacks, and phishing can easily penetrate the security layer if not managed properly. In this context, companies need to have a comprehensive security strategy to protect their customer, financial, and operational data. In addition, the integration of technologies such as data encryption and multifactor authentication is necessary to enhance the security of digital systems.

In addition to security challenges, technology infrastructure readiness is also a crucial factor in supporting the implementation of digital technology. Stable and reliable infrastructure, such as high-quality internet networks and well-integrated software, is the main foundation for maintaining the company's operational performance. According to Indarto & Santoso (2024), the resilience of technology infrastructure directly affects the efficiency and speed of data processing. If the infrastructure is not ready, the company

will face the risk of system downtime that can disrupt daily business activities. Therefore, ensuring the availability and quality of technology infrastructure is a step that must be taken on an ongoing basis.

Another challenge that is no less important is the adaptation of the workforce to new technologies. According to Mendrofa et.al (2023), continuous training is needed to improve the skills of the workforce in operating complex digital systems. Without adequate human resource readiness, advanced technologies such as artificial intelligence and data automation cannot be fully utilized. Therefore, companies need to allocate sufficient resources to ensure the workforce can adapt well to the technological changes that occur. In this context, strengthening workforce capacity is key to addressing the risks associated with the implementation of digital technology. Finally, it is important for companies to implement appropriate security regulations and standards to protect personal data as well as company data from external threats. According to Simarmata & Situmorang (2023), compliance with regulations such as GDPR (General Data Protection Regulation) and ISO 27001 is essential to maintain customer trust and data integrity. The implementation of these regulations helps companies mitigate legal risks that may arise due to data security breaches. In addition, by ensuring compliance with global security standards, companies can strengthen their position in an increasingly complex and competitive market.

C. Workforce Capacity Development to Support Digital Transformation

Digital transformation in accounting management has created significant new challenges, especially in terms of workforce capacity building. In this study, the results of interviews with 30 informants consisting of accounting practitioners, technology experts, and financial management personnel show that improving technical skills and adapting to new technologies are the main keys in dealing with this change. According to Sulistyanto et.al (2021), workforce skills development is an important foundation in supporting digital transformation. In this context, the workforce in accounting faces the need to understand technologies such as artificial intelligence (AI), automation, and the use of cloud-based software. Interviews with practitioners show that most of the workforce still faces difficulties in mastering these new technology tools, which has an impact on operational efficiency and the accuracy of financial reports. Based on these findings, companies need to accelerate training and development initiatives to ensure the workforce remains relevant to technological developments.

In addition, the interviews also revealed that companies need a more structured and sustainable training strategy. According to Fadli et.al (2024), an effective training model should include an in-depth understanding of technology applications in the context of accounting operations, as well as real simulations that help the workforce respond to daily challenges. This is in line with the finding that routine training programs are not enough to build the skills needed in the long term. Companies also need to engage technology experts to provide specific technical guidance to make the training more effective. Furthermore, the interviews showed that there is a difference in readiness levels between experienced workers and those who are new to the workforce. Senior workers tend to be slower in adapting to new technologies, while younger workers who are more familiar with digital technology are more prepared for change. Therefore, it is important for companies to adopt a differential approach to training, which takes into account the needs and readiness levels of each individual.

Workforce capacity building is an aspect that cannot be ignored in the digital transformation process. Companies need to adopt a holistic training model, which

focuses not only on technology mastery, but also on soft skills aspects such as collaboration and communication in a digital environment. Thus, the workforce can adapt quickly and effectively, ensuring the sustainability and success of the company in facing challenges in the digital era.

2. The Role of Accounting Standards and Corporate Governance in the Digital Economy

A. Harmonization of Accounting Standards for Digital Transactions and Crypto Assets

In the context of digital transformation, harmonization of accounting standards for digital transactions and crypto assets is an urgent issue to be studied. International accounting standards such as IFRS (International Financial Reporting Standards) do not fully cover the new dynamics presented by digital transactions and crypto assets. In interviews with regulators, it was found that there is a significant gap between the practical needs in financial reporting and the existing regulatory framework. This necessitates a more flexible and inclusive revision to cover elements such as crypto, which has unique characteristics in terms of valuation, recognition and disclosure. Furthermore, the adaptation of accounting standards to digital transactions requires a deep understanding of blockchain technology and *smart contracts*. According to Juliyani et.al (2024), blockchain provides unprecedented transparency in financial reporting, but also demands adjustments to complex technical aspects. Existing regulations need to take into account the potential legal and technical challenges that may arise from the integration of this technology into conventional accounting systems. In interviews with accounting practitioners, many expressed the difficulty in creating a balance between maintaining data integrity and the application of evolving technology.

Harmonization of accounting standards should also consider the interests of various stakeholders, including investors, auditors, and regulators, all of whom have different expectations of the resulting financial information. Certainty and consistency of reporting are critical to maintaining market confidence. Therefore, changes should address the need for a framework that addresses the imbalance between data transparency and personal data protection. In facing this challenge, collaboration between academics, practitioners and regulators is needed to create solutions that can accommodate the dynamics of the digital economy as a whole.

B. Transparency in Governance to Increase Stakeholder Trust

Transparency in corporate governance in the digital era is increasingly becoming a key demand in maintaining stakeholder trust. According to Nopriyanto (2025), transparency is a crucial element in managing risk and improving a company's operational efficiency. The application of technologies such as blockchain has shown great potential in improving transparency, where data can be accessed by all authorized parties in real-time and with a higher level of trust. However, a key challenge lies in the protection of personal data and the confidentiality of sensitive information. In interviews with governance practitioners, many highlighted the importance of striking a balance between data accessibility and protection against potential misuse of information.

Furthermore, the application of technologies such as blockchain presents opportunities to reduce human error and improve data accuracy. According to Ferdiana (2024), the advantage of blockchain lies in the ability to securely and immutably document every transaction, which ensures data integrity over time. In practice,

however, companies need to ensure that the system not only increases transparency but also remains efficiently operable without posing significant technical barriers. In interviews with company leaders, it was found that the main challenge lies in integrating new technologies with existing systems, which requires special attention to changing internal policies that support transparent data management.

In addition, it is important for companies to build a culture of transparency that encourages collaboration between divisions and promotes open communication. According to Farhan (2024), transparency serves not only to protect data, but also to strengthen the relationship between companies and external stakeholders such as investors and customers. In this context, interviews show that companies that implement transparency consistently can increase credibility and trust in the eyes of the public. Therefore, digital transformation geared towards governance transparency needs to be supported by a long-term commitment from all elements of the organization to create a transparent and accountable ecosystem.

C. Regulatory Challenges in Supporting Technology-Based Governance

Regulatory challenges in supporting technology-based governance present significant obstacles that need to be overcome to ensure the sustainability of company operations in the digital era. According to Suryadarma & Faqih (2024), rigid regulations are often difficult to adjust to rapid technological developments. In interviews with legal experts, it was found that the mismatch between the existing legal framework and the needs of modern technology creates uncertainty for companies in adopting technology-based governance practices. Regulations that are too general or too specific can cause administrative barriers that slow down technological innovation, while the need for flexibility is increasing to accommodate complex digital dynamics.

Furthermore, regulators' efforts to create adaptive policies to support technology-based governance require close collaboration with technology experts and business practitioners. According to Fitriana (2024), integration between the public and private sectors is crucial to ensure that regulation serves not only as a controller but also as a facilitator of innovation. Interviews with regulators revealed that while there is a push to create more flexible policies, a key challenge is maintaining a balance between data protection and evolving business needs. Therefore, there is a need for better oversight to ensure that regulations are able to provide sufficient space for technological adaptation without compromising integrity and accountability.

In facing this challenge, companies need to take an active role in interacting with regulators to support the development of more inclusive and sustainable regulations. According to Idris & Nurnajamudin (2023), active participation in policy discussions will help companies understand regulatory expectations and strengthen compliance without hindering technological innovation. In addition, it is important to create a consistent feedback mechanism to improve existing regulations based on first-hand experience of technology implementation in the field. Thus, technology-based governance can develop harmoniously with a dynamic and adaptive regulatory environment.

CONCLUSIONS

The transformation of accounting management in the digital era presents a great opportunity to improve efficiency and innovation through the adoption of technologies such as cloud accounting and big data analytics. These technologies enable faster and more accurate data processing, and support data-driven decision-making. The adoption of artificial intelligence (AI) also accelerates the automation of routine tasks in the accounting process. However, key challenges include data security and workforce

readiness to adopt new technologies. Data security is becoming a critical issue with the rise of cyber threats, making it important to ensure secure and resilient systems. In addition, improving the technical skills of the workforce is key to the success of digital transformation. Companies need to design continuous training to ensure the workforce is ready for technological change. In addition, it is important to ensure a stable technology infrastructure that supports efficient operations. By addressing these challenges, companies can utilize the full potential of digital technology to enhance better and sustainable accounting management

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