# ACCOUNTING SYSTEM TRANSFORMATION IN THE DIGITAL ERA: IMPLICATIONS E-COMMERCE ON FINANCIAL PRACTICES AND REPORTING IN INDONESIA

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**Abstrak**

Teknologi di era digital mendorong banyak perubahan saat ini (2020-2025), khususnya dalam dunia bisnis dan memiliki pengaruh besar terhadap berbagai aspek kehidupan manusia, termasuk di bidang akuntansi. E-commerce merupakan bentuk transformasi di era digital yang telah mengubah cara kita berbisnis. Sistem akuntansi digital memiliki peran penting dalam mendukung akurasi data yang meningkatkan efisiensi dan akurasi dalam pengelolaan keuangan dalam suatu perusahaan. Penelitian ini bertujuan untuk menganalisis implikasi E-commerce terhadap praktik keuangan dan pelaporan di Indonesia dengan menggunakan metode kualitatif dan metode penelitian tinjauan literatur. Teknik pengumpulan data yang dilakukan adalah dengan menganalisis data online berupa jurnal atau artikel karya ilmiah yang diperoleh dari Google Scholar dan website lain yang berisi jurnal ilmiah. Hasil penelitian menunjukkan bahwa transformasi sistem akuntansi di era digital mampu meningkatkan akuntabilitas pelaporan keuangan, mengoptimalkan proses audit, dan mempercepat proses pengambilan keputusan bisnis strategis. Salah satu keterbatasan yang dialami dalam penulisan karya ilmiah ini adalah kurangnya fasilitas sastra. Penelitian ini memberikan informasi tentang penulis, dan dapat meningkatkan pemahaman tentang perkembangan akuntansi digital. Riset ini diharapkan dapat menjadi acuan awal terkait transformasi sistem e-commece accounting di era digital dalam lima tahun terakhir (2020-2025) terkait praktik keuangan dan pelaporan.
**Kata Kunci:** Teknologi Digital, E-Commerce, Sistem Akuntansi, Pelaporan Keuangan, Akuntansi Digital.

***Abstract***

*Technology in the digital era is driving many changes today (2020-2025), especially in the business world and has a great influence on various aspects of human life, including in the field of accounting. E-commerce is a form of transformation in the digital era that has changed the way we do business. Digital accounting systems have an important role in supporting data accuracy that increases efficiency and accuracy in financial management in a company. This study aims to analyze the implications of E-commerce on financial and reporting practices in Indonesia using qualitative methods and literature review research methods. The data collection technique carried out is by analyzing online data in the form of journals or articles of scientific papers obtained from Google Scholar and other websites containing scientific journals. The results of the study show that the transformation of the accounting system in the digital era is able to increase financial reporting accountability, optimize the audit process, and accelerate the strategic business decision-making process. One of the limitations experienced in writing this scientific paper is the lack of literary facilities. This research provides information about the authors, and can improve understanding of the development of digital accounting. This research is expected to be an initial reference related to the transformation of the e-commece accounting system in the digital era in the last five years (2020-2025) related to financial and reporting practices.*
***Keywords:*** *Digital Technology, E-Commerce, Accounting Systems, Financial Reporting, Digital Accounting.*

## INTRODUCTION

The transformation of accounting systems in the digital age has brought major changes in the way companies manage, process, and report financial data. If in the past accounting was synonymous with manual recording which required a lot of time and effort, now the system has developed to be more automated, integrated, and technology-based. These changes not only affect the transaction recording process, but also the way companies make financial decisions faster and more accurately. Digitalization makes financial information accessible in real-time, thus helping management in responding to increasingly complex business dynamics. One of the key factors driving this transformation is the development of e-commerce. E-commerce has changed the way companies interact with consumers, suppliers, and business partners. Transactions that occur online produce a much larger volume of data than conventional trading systems. This condition requires companies to have an accounting system that is able to process data quickly and accurately. Without adequate digital system support, companies will find it difficult to manage transactions that continue to increase every day.[3]

The development of e-commerce itself has gone through various stages since its emergence in the 1960s when computer-based communication began to be used in business activities. However, significant developments only occurred in the 1990s after the advent of the internet and the World Wide Web. Since then, digital business models have begun to grow rapidly and open up new opportunities for companies to reach the global market. In recent decades, e-commerce has continued to experience very rapid growth, supported by the increasing use of the internet, mobile devices, and digital payment systems that are increasingly accessible to the public. In Indonesia, the growth of e-commerce has a significant impact on the company's accounting system. Many organizations are starting to switch from manual systems to digital systems to improve efficiency and accuracy in managing financial data. However, this transformation process also faces various challenges. One of the main challenges is the limited number of human resources who have the ability in the field of accounting technology. Not all accounting personnel have adequate digital skills to operate increasingly complex technology-based systems.[4]

In addition, technological infrastructure is also an important factor in the successful implementation of a digital accounting system. In some regions, limited internet access and technology facilities are still obstacles for companies to adopt digital systems optimally. Data security risks are also a major concern due to the increasing threat of cyberattacks that can disrupt the stability of the company's financial system. Therefore, companies need to ensure that the systems used have strong security protections to maintain data confidentiality and integrity. Despite facing various challenges, the implementation of digital accounting provides many benefits for companies. The integrated system is able to speed up the transaction recording process, reduce the possibility of human error, and increase transparency in the preparation of financial statements. With the support of information technology, financial statements can be prepared faster so that management can obtain the information needed to make strategic decisions.[5]

Technological developments such as artificial intelligence and cloud computing have also further strengthened the role of digital accounting in the business world. This technology allows the accounting process to be carried out automatically, from recording transactions to preparing initial financial statements. This provides an opportunity for accounting professionals to focus on more strategic financial analysis and planning, rather than just administrative work. To maximize the benefits of digital transformation, companies need to implement the right strategy. First, the company must choose accounting software that suits the needs of the business. The system used must be able to integrate with other sales, inventory, and financial management systems so that the data flow runs smoothly. Second, companies need to improve human resource competencies through digital skills training for accounting teams. Third, the data security aspect must be a top priority. Companies need to implement robust security systems, including the use of data encryption, double authentication, and periodic data backup procedures. This step is important to protect financial information from potential misuse or cyberattacks.[6]

In addition, the use of data analysis is also an important part of the digital accounting system. The data generated by the system not only serves as a record of transactions, but it can also be used to analyze business trends, manage cash flow, and identify opportunities and risks that may arise in the future. By making optimal use of data, companies can improve the quality of decision-making. Overall, the transformation of accounting systems in the digital era is an important step for companies to remain competitive in the modern business environment. Through the application of the right technology, human resource development, and strengthening data security, digital accounting systems can become strategic tools that support operational efficiency and business sustainability in the midst of increasingly dynamic economic competition.[7]

## RESEARCH METHODS

This research uses a qualitative method. Data collection techniques about business developments in the digital era are carried out through online data analysis, literature studies obtained from Google Scholar, online surveys and social media monitoring to collect information about digital businesses. The use of technologies such as big data and sentiment analysis can also be helpful in understanding the changes that are taking place in the digital business ecosystem. Descriptive qualitative research methods carried out only by literature study make it possible to build a comprehensive understanding of the phenomenon. observed. In the context of the transformation of international trade through digitalization and ecommerce, a descriptive qualitative approach from literature studies can be carried out. with the following steps [8]

First, identify relevant literature from various sources such as academic journals, textbooks, research reports, and online publications. By involving a variety of sources, we can ensure broad and representative coverage in exploring the chosen topic. Second, an in-depth analysis of the collected literature to understand the conceptual framework underlying the observed phenomena. This includes an understanding of key concepts such as digitalization, E-commerce, international trade, opportunities, and related challenges. Third, the synthesis of findings from the literature that has been identified to identify common patterns, trends, and differences in the understanding of the selected topics, this makes it possible to develop an in-depth understanding of the various dimensions of international trade transformation through digitalization and E-commerce. Fourth, the preparation of the results of the analysis into a clear and structured narrative in the form of paragraphs describing the findings and interpretation of the literature being studied. This approach makes it possible to present a comprehensive summary of what is already known about the topic based on previous research. Through this approach, the descriptive qualitative research method of the literature study makes it possible to generate in-depth insights into the transformation of international trade through digitalization and E-commerce, by leveraging the information available in the relevant literature. In addition, the development of E-commerce also encourages a transformation in business patterns and marketing strategies carried out by companies. Many business actors have begun to integrate various digital technologies such as cloud-based inventory management systems, customer data analysis, and the use of artificial intelligence to understand consumer behavior. Through the use of this technology, companies can identify market needs more quickly and develop more effective and targeted marketing strategies.[9]

The development of digital payment methods has also accelerated the growth of E-commerce. Currently, consumers can make transactions with various payment options such as digital wallets, bank transfers, credit cards, and pay later payment systems. This convenience provides flexibility for consumers to make transactions and increases the level of public trust in the digital trading system. On the other hand, business actors can also get a faster and more efficient payment process compared to conventional payment systems. In the future, the development of E-commerce is expected to be increasingly influenced by digital technology innovations such as big data, artificial intelligence, and logistics automation. This technology allows companies to improve operational efficiency, speed up the distribution process, and provide a more personalized shopping experience for consumers. With the right regulatory support, adequate digital infrastructure, and increased digital literacy of the public, E-commerce has great potential to continue to grow and become one of the main pillars in the global digital economy.[10]

| NO | METHOD STAGES | BRIEF DESCRIPTION |
|---|---|---|
| 1 | Literature Identification | Collect relevant literature from academic journals, books, research reports, and online publications to obtain a wide range of information regarding digitalization and E-commerce. |
| 2 | Literature Analysis | Analyze in depth the collected literature to understand the conceptual framework as well as key concepts such as digitalization, E-commerce, international trade, opportunities, and challenges. |
| 3 | Synthesis of Findings | Combining various research results to find patterns, trends, and differences of views related to international trade transformation through digitalization and E-commerce. |
| 4 | Narrative Preparation | Compile the results of the analysis in the form of systematic and structured paragraphs to provide a comprehensive overview based on previous research. |

## RESULTS AND DISCUSSION

The development of information technology in the last decade has developed all over the world. Along with that, E-commerce practices are also increasing. This has a major effect on the country's economic development, both macro and micro. To support this, a device is needed that regulates the problem of the use of information technology in business in more depth. The international agency of the United Nations through UNCITRAL has formulated an E-commerce policy model that can be used by countries around the world. The rapid development of E-commerce in recent years has made E-commerce a great business prospect in the world of commerce. According to research conducted by A.T Kearney, with a population of almost more than 240 million people, the Indonesian E-commerce market in 2013 reached USD 1.3 billion. Indonesia is a potential market for E-commerce businesses, recorded internet users in Indonesia reach 39 million of which around 5 million or 12% of them use the internet as a means of transactions. Asia is still a promising market for the growth of E-commerce, especially China and ASEAN countries. It is predicted that the growth of E-commerce in ASEAN from 2013 to 2017 will reach 25%, this result is still far above the market growth in the United States which is only 11% and EU countries which is only 10%. Now let's take a look at the countries where E-commerce is growing the fastest. Southeast Asia dominates the top 10 E-commerce markets by sales growth, and the region as a whole is the fastest-growing region for E-commerce, with growth [11]

18.6% in 2023.The Philippines topped the list of the fastest-growing E-commerce market, with a growth of 24.1%. This is followed by India, Indonesia, Malaysia, and Thailand. Despite already being the world's 2nd largest E-commerce market, the U.S. is still in the top 10 for E-commerce growth, with the market increasing by 10.5% in 2023. [12]

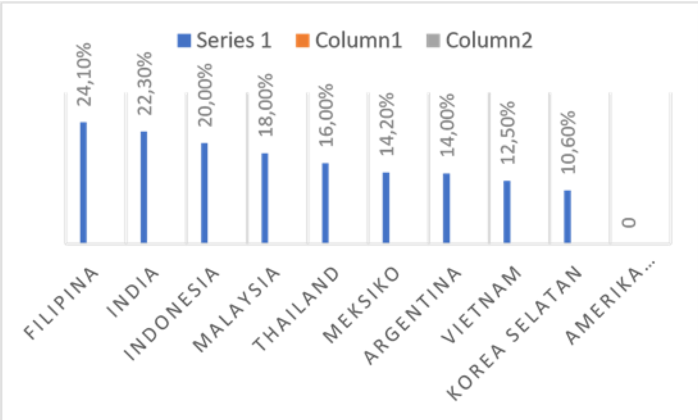

Figure 1 The Fastest Growing E-Commerce Market Worldwide

Southeast Asia has become one of the largest growth centers in the global E-commerce industry. Countries in the region, such as Indonesia, Singapore, and Malaysia, have witnessed significant increases in the adoption and use of E-commerce platforms by consumers and businesses in recent years. This growth is driven by a variety of factors, including increased internet access, the growth of the middle class, and a shift in consumer preferences that increasingly prioritize the convenience and convenience of online shopping.

**1. E-commerce Development in Singapore**

Singapore is one of the countries in Southeast Asia that is experiencing rapid development in the E-commerce industry. This is supported by high internet penetration, advances in digital technology, and modern and integrated infrastructure. This condition makes Singapore a very conducive environment for digital-based business growth. Platforms such as Lazada, Shopee, and Qoo10 are major players by providing various products, ranging from fashion, electronics, to household needs. In addition to being supported by large companies, the growth of E-commerce in Singapore is also driven by the active role of small and medium enterprises (SMEs) that utilize digital technology to expand market reach. The Singapore government also plays a role through various digitalization programs, such as training and technology assistance for business actors. In addition, Singapore's strategic geographical position makes it a logistics and distribution hub in the Southeast Asian region, supported by an efficient transportation and storage system. However, despite these advantages, the E-commerce industry in Singapore still faces several challenges, such as increasingly fierce market competition, changing consumer demands, and risks related to data security and privacy. However, with strong technological support and pro-business government policies, E-commerce in Singapore is predicted to continue to grow and become a reference for other countries in the region.[13]

**2. E-commerce Development in Malaysia**

Malaysia has also shown significant E-commerce development in recent years. This growth is driven by the increasing use of the internet and smartphones, which make it easier for people to access digital services. With the increasing level of digital literacy, Malaysia is becoming a potential market for E-commerce businesses. Platforms such as Lazada, Shopee, and 11Street are major players that offer various products and services to consumers. In addition, the development of E-commerce in Malaysia is also supported by the active involvement of SMEs who are starting to switch to online sales systems. This helps to increase the competitiveness of small businesses as well as expand their market. The Malaysian government has an important role to play in driving digital transformation through various policies and programs, such as digitalization training and upgrading of technology infrastructure, including internet networks and logistics systems. Another factor that supports the growth of E-commerce in Malaysia is its strategic location in the Southeast Asian region, making it easier for digital trade activities. With these various supports, the E-commerce industry in Malaysia continues to grow steadily. However, challenges such as increasingly fierce competition and the need to increase consumer confidence remain things that need to be considered by business actors.

**3. E-commerce Development in Indonesia**

The development of E-commerce in Indonesia is also supported by the role of MSMEs who are increasingly active in selling online, so that they are able to reach a wider market. In addition, the influence of social media and the young generation (Gen Z) is huge in driving the growth of E-commerce. This generation tends to prefer online shopping because it is considered more practical and flexible. Factors such as prices, promos, ease of payment, and attractive user experience are the main reasons for the increase in digital transactions. The government also contributes through the development of digital infrastructure, the provision of internet access, and the MSME digitalization program. However, there are several challenges that are still faced, such as data security issues, consumer trust, and logistical constraints in Indonesia which is one of the largest E-commerce markets in Southeast Asia with very rapid growth. This is influenced by the increasing number of internet users, the growth of the middle class, and changes in people's lifestyles which increasingly lead to online shopping. The value of E-commerce transactions in Indonesia has increased significantly, and most internet users have taken advantage of digital platforms to shop. Platforms such as Tokopedia, Shopee, Bukalapak, Lazada, and Blibli are the main drivers in this ecosystem.

several regions. Nonetheless, with great market potential and ever-expanding innovations, E-commerce in Indonesia is expected to continue to grow in the future.

| Factors driving increased use of E-commerce | |
|---|---|
| Comfort and convenience | E-commerce offers the convenience of shopping from anywhere and anytime, without having to visit a physical store. |
| Increased internet penetration | More and more people have internet access, which opens up wider opportunities for online shopping. |

| | |
|---|---|
| Diverse product selection | E-commerce provides a wide range of products from a variety of sellers, giving consumers more choice. |
| Attractive promos and discounts | E-commerce often offers a variety of promos and discounts that attract consumers to shop. |
| COVID-19 Pandemic | Restrictions on activities outside the home during the pandemic encouraged an increase in the use of E-commerce. |

| Trends in the use of E-commerce in Indonesia | |
|---|---|
| Fashion is the most popular category | A Statista survey shows that 70.13% of respondents use E-commerce to buy fashion products (clothes and shoes). |
| Beauty and food products are also popular | In addition to fashion, beauty products (49.73%) and food (40.8%) are also widely purchased through E-commerce. |
| Significant GMV growth | The Ministry of Trade (Kemendag) noted that the gross merchandise value (GMV) of E-commerce in Indonesia continues to increase, with an estimated 34.84% in 2029. |
| Leading e-commerce | Tokopedia and Shopee are the most accessed E-commerce in Indonesia. |

**Challenge:**

While the use of E-commerce continues to increase, there are several challenges that need to be addressed, including:

- Security and privacy concerns:

1. The security of personal data and online transactions is an important concern for consumers.

   Fierce competition:

2. The E-commerce market is increasingly competitive, so business actors need to continue to innovate and provide the best experience for customers.

- Digital Divide:

Uneven internet and device access throughout Indonesia can be an obstacle for some people to participate in E-commerce.

Keeping financial statements for an E-commerce business involves several important steps, including collecting transaction data, creating a general journal, moving data to the general ledger, preparing balance sheets, and creating key financial statements such as income statements, balance sheets, and cash flow statements. It is important to choose the right accounting method, such as accrual accounting, to get an accurate financial picture, especially for businesses with complex operations.

Here are the steps and important points in recording E-commerce financial statements:

1. Financial Recording Cycle

The process starts from collecting transaction data such as invoices and bank statements which are then recorded in a general journal chronologically. The data is transferred to the general ledger to be categorized into asset, liabilities, income, and expense accounts as the basis for the preparation of the balance sheet.

2. Preparation of Main Reports

The core financial statements consist of income statements to measure profitability performance, balance sheets to look at financial positions at a specific point in time, and cash flow statements to monitor the movement of money in and out in real terms.

3. Selection of Accounting Methods

Companies can use accrual methods that record transactions as they occur to get a more accurate picture of financial health, or cash methods that only record transactions when physical money changes hands for simpler operations.

4. Benefits of Digitalization and Financial Inclusion

Digital technology expands global market reach and saves operational costs significantly. In addition, financial inclusion provides access to capital for MSMEs through financial technology platforms such as peer-to-peer lending and crowdfunding without full dependence on conventional banks.

5. Control and Quality of Reports

E-commerce systems allow for real-time logging, but require very strict internal controls to prevent fraud. The quality of accurate reports is highly dependent on adherence to accounting principles and a disciplined organizational culture in managing financial data.

Here are some of the impacts of E-commerce financial reporting:

| | |
|---|---|
| 1. Increased Efficiency and Accuracy | • E-commerce enables the automation of the financial reporting process, reduces manual errors, and increases the speed of transaction recording.<br>• Real-time reporting systems allow businesses to monitor financial performance directly and make more timely decisions. |
| 2. Changes in Consumption Patterns and Preferences | • E-commerce is changing the behavior of consumers, who tend to prefer to shop online, thus requiring conventional merchants to adapt and utilize technology.<br>• Transparent and accessible financial reporting can increase consumer confidence and facilitate safer transactions. |
| 3. Challenges in Internal Control | • While E-commerce offers a variety of benefits, businesses also need to face security and fraud risks.<br>• The implementation of strong internal controls is necessary to protect financial data, prevent unauthorized access, and ensure the accuracy of financial statements. |
| 4. Impact on financial performance | • E-commerce can help MSMEs expand the market, increase sales, and reduce operational costs.<br>• However, the adoption of E-commerce and an effective accounting information system is also necessary to improve financial performance.<br>• Detailed and accurate financial reporting can provide insights into business performance, help identify areas for improvement, and drive sustainable growth. |
| 5. Better Decision Making | • Comprehensive financial statements provide the information necessary for strategic decision-making, such as investments, product development, and market expansion. Data analysis from financial statements can also help businesses understand market trends, consumer preferences, and competitors' performance. |

Some of the leading E-commerce applications in ASEAN are Shopee, Lazada, Tokopedia, and Bukalapak. Shopee and Lazada are big players throughout the ASEAN region, while Tokopedia and Bukalapak are more focused on the Indonesian market. Here are some details about the E-commerce app:

1. Shopee:

This Singapore-based E-commerce platform has millions of monthly active users and offers a wide range of products from various brands and small businesses. Shopee is also known for its various attractive promos and transaction security guarantees.

2. Lazada:

Lazada is another leading E-commerce platform in Southeast Asia, founded in 2012. Lazada has thousands of local and international sellers and operates in six ASEAN countries Malaysia, Thailand, Singapore, Indonesia, the Philippines, and Vietnam.

3. Tokopedia:

Tokopedia is a very popular Indonesian E-commerce platform, known for its wide range of products and services offered. Tokopedia is one of the major players in the Indonesian E-commerce market and has a large user base.

4. Squirrel:

Bukalapak is another Indonesian E-commerce platform that focuses on the local market. Bukalapak also has a large user base and offers a wide range of products and services.

In addition, there are also several other E-commerce applications operating in ASEAN, such as Zalora (for fashion) and Blibli (in Indonesia). However, Shopee, Lazada, Tokopedia, and Bukalapak are some of the most recognizable names and have a significant market share in the ASEAN region.

## CONCLUSION

The development of digital technology in recent years has brought major changes in various areas of life, including in the fields of accounting and finance. One of the most visible changes is the emergence of e-commerce as part of the transformation of the digital economy. The presence of e-commerce has changed the way companies carry out business activities, from transaction processes, data management, to the preparation of financial statements. This condition requires the accounting system to adapt to technological developments in order to be able to provide faster, more accurate, and relevant financial information for management and other stakeholders. The results of the study show that the implementation of e-commerce has a significant influence on accounting practices in companies. The integration between the e-commerce system and the accounting system allows the transaction recording process to be carried out automatically, thereby increasing operational efficiency. In addition, financial reports can be accessed in real-time, making it easier for management to monitor the company's financial condition and make more informed decisions. 'However, digital transformation in the accounting system also presents several challenges. The readiness of human resources, data security, and adaptive regulatory support are important factors in the successful implementation of this system. Therefore, improving the competence of accounting personnel and strengthening the information security system needs to be carried out so that the use of digital technology can run optimally and sustainably.

## REFERENCES

D. Appelbaum, A. Kogan, and M. A. Vasarhelyi, “Big data dan analitik dalam keterlibatan audit modern: Kebutuhan penelitian. Audit: Jurnal Praktek & Teori.,” Am. Account. Assoc., vol. 36, no. 4, pp. 1–27, 2017.

E. Bonson and M. Bednarova, “Praktik pelaporan CSR perusahaan Zona Euro.,” J. Akutansi, vol. 18, no. 2, pp. 182–193, 2015.

E. Brynjolfsson and A. McAfee, Zaman mesin kedua: Kerja, kemajuan, dan kemakmuran di masa teknologi yang brilian. W. W. Norton & Perusahaan. 2014.

L. Cai and Y. Zhu, “Tantangan kualitas data dan penilaian kualitas data di era big data.,” J. Ilmu Data, vol. 14, no. 2, pp. 1–10, 2015.

C. Christauskas and R. Miseviciene, “Akuntansi berbasis komputasi awan untuk bisnis kecil hingga menengah.,” Ekon. Tek., vol. 23, no. 1, pp. 14–21, 2012.
J. Dai and M. A. Vasarhelyi, “Menuju akuntansi dan jaminan berbasis blockchain.,” J. Sist. Inf., vol. 31, no. 3, pp. 5–21, Sep. 2017
D. J. Janvrin and M. Weidenmier Watson, “‘Big Data’: Sentuhan baru untuk akuntansi.,” J. Pendidik. Akunt., vol. 38, pp. 3–8, 2017
J. P. Krahel and W. R. Titera, “onsekuensi big data dan formalisasi pada standar akuntansi dan audit,” Cakrawala Akunt., vol. 29, no. 2, pp. 409–422, Jun. 2015
D. Lombardi, R. Bloch, and M. Vasarhelyi, “Keadaan dan masa depan profesi audit saat ini.,” JISTEM - J. Inf. Syst. Technol. Manag., vol. 8, no. 21, pp. 15–35, 2014
T. P. Nugrahanti, N. Puspitasari, and I. G. P. R. Andaningsih, “Mengubah Praktik Akuntansi Melalui Teknologi: Peran Kecerdasan Buatan, Analisis Data, dan Blockchain dalam Otomatisasi Proses Akuntansi.,” J. Akunt. dan Keuang. Sains Barat, vol. 2, no. 03, pp. 19–21, 2023.
D. E. O’Leary, “Mengonfigurasi arsitektur blockchain untuk informasi transaksi di konsorsium blockchain: Kasus sistem akuntansi dan rantai pasokan.,” Sist. Cerdas dalam Akuntansi, Keuang. dan Manaj., vol. 24, no. 4, pp. 138–147, Oct. 2017
S. Pajriana and J. L. Telaumbanua, “Transformasi Digital di Sektor Akuntansi di Era Digitalisasi: Tinjauan Literatur.,” J. Ilm. Manaj. Ekon. Dan Akunt., vol. 2, no. 2, pp. 60–69, 2025.
Z. Rezaee and J. Wang, “Relevansi big data dengan praktik dan pendidikan akuntansi forensik.,” J. Audit Manajerial, vol. 34, no. 3, pp. 268–288, Oct. 2019.