

THE ROLE OF INFORMATION TECHNOLOGY IN INCREASING AUDIT PROCESS EFFICIENCY

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ABSTRACT

Auditing is an important activity in ensuring compliance, transparency and integrity in the business environment. However, as technology advances, audit industry players are increasingly integrating technology solutions to improve their operational efficiency. This research aims to analyze the impact of applying technology at various stages of the audit process and how this can improve the quality of audit results and optimize the use of resources. The research method involves surveys, interviews, and documentation analysis of audit companies that have adopted technology in their audit processes. The research results show that the application of information technology in the audit process has a positive impact in increasing the efficiency, accuracy and responsiveness of auditors to business changes. Information technology enables automation of various audit stages, big data analysis, as well as real-time monitoring, resulting in a more efficient and transparent audit process. In addition, the use of information technology in storing and managing audit data, electronic documentation and access control provides strong support for the smooth implementation of audits. However, research also reflects the complexity in auditors' views of business relationships, which are sometimes at odds with technological developments. Therefore, this research confirms that the integration of information technology in auditing requires a careful balance between technological innovation and traditional audit principles.

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1. INTRODUCTION

The increasing complexity of business activities in the digital era raises the risk of misinterpretation and presentation of financial reports. Users of financial reports face difficulties in evaluating the quality of financial reports because they have to rely on independent auditors' reports (Kusuma & Setyaningsih, 2020). Auditors play a critical role in ensuring the accuracy and integrity of financial reports, but ironically, there are challenges in the field related to the use of information technology in auditing computerized accounting-based information systems (Dila, 2021).

In practice, not many auditors are able to fully utilize access to the role of information technology in auditing computerized accounting information systems, starting from the input, process, to output stages (Mahatmyo, 2014). This is caused by the limitations of "brainware" in the field of auditors who have a relatively limited understanding of information technology. Even though information technology has become a common part of the business world, auditors who truly understand information technology, especially those who can answer scientific standards in meeting the audit needs of computerized accounting information systems, are still relatively few (Elisabeth, 2019).

Expertise in economics and accounting, complemented by a deep understanding of computer programming, is still rare among auditors. As a result, even though there is various software or applications that can be used for auditing, the price of the application program software is still relatively high (Manik, 2018). This challenge shows the need to develop auditor competency in understanding and optimally utilizing information technology, so that they can be more effective in carrying out accounting audits and ensuring the quality of the financial reports produced (Diani, 2014).

In the current era, almost all accounting transactions have shifted to computerized data processing, encouraging the need for computerization in the audit process. Both internal auditors and external auditors can now utilize computer tools or information technology as an integral part of their audit procedures, especially in processing data related to audit information systems (Fauziyah, 2019). Auditors'

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good understanding of information technology, along with related controls, allows them to more deeply analyze information systems relevant to financial reporting, including understanding the obstacles that may arise. This approach not only increases the efficiency of the audit process, but also provides a solid foundation for auditors in handling problems related to information technology and ensuring the reliability of the financial reports produced (Zahirah et al, 2021).

The use of computer tools or information technology in audit practice brings a number of conveniences for auditors. With this approach, auditors can be more efficient in compiling audit working papers, accessing information related to the audit process, detecting potential fraud, carrying out regular monitoring, compiling audit reports, and storing audit files more regularly (Prajanto, 2020). The use of information technology also simplifies the data analysis process, provides better monitoring capabilities, and reduces costs associated with conducting audits. As a result, the audit process becomes more effective and efficient, increasing the auditor's ability to produce audit reports that are accurate and useful for stakeholders (Riandani, 2017).

The increasing use of information technology requires auditors to include electronic audit evidence in audits because currently a lot of accounting data such as journals, ledgers, fund transfers, invoices and other financial information is only available in electronic form (soft copy) (Deviani & Badera, 2017). The increasing need for audits requires auditors to use more sophisticated techniques in making decisions, keeping records and performing a myriad of other audit management functions. Auditors must also learn to assess and evaluate the various techniques used by auditees, recognizing opportunities to use more sophisticated techniques in order to carry out the audit function in a more efficient and effective way (Oktavia, 2015). Information technology can be a very valuable tool for carrying out audit activities more effectively and efficiently.

Literature Review

Information Technology

Technology is the creation of objects that can be observed sensorily to serve human needs or ideas. Meanwhile, Information (Indonesian) and Information (English) come from "To -Inform" which means to tell. The following are various opinions regarding information technology:

- Martin et al (2005): Information technology is not only limited to computer technology (hardware and software) used to process and store information, but also includes communication technology to transmit information.
- Lucas (1999): Information technology is any form of technology applied to process and transmit information in electronic form. Microcomputers, mainframe computers, barcode readers, transaction processing software, spreadsheet software, and communications and networking equipment are examples of information technology.
- Sawyer (2003): Information technology is technology that combines computing (computers) with high-speed communication lines that carry data, voice and video.

Auditing

The definition of audit according to Arens & Loebbecke (1996), audit is the process of collecting and evaluating evidence about economic information to determine the level of conformity of the economic information with predetermined criteria, and reporting the results of the audit. Based on this explanation, it can be concluded that auditing is one of the attestation services of the public accounting profession where the person is called an auditor while the work is called auditing. Auditing according to Boynton et al (2001) is: "Auditing is the accumulation and evaluation of evidence about information, and established criteria. Auditing should be done by a competent, independent person.

2. METHOD

Descriptive analysis with a qualitative approach was used in this research. Researching a social or humanitarian problem using qualitative methods is a way to understand the meaning that some individuals or groups give to this problem. Questions and processes, data collection and analysis, inductive data analysis, and data interpretation are parts of the qualitative research process that require many steps. A qualitative approach is defined by research objectives that aim to understand symptoms in a way that does not necessarily require quantification, according to Lewis (2015). Research data was collected through the use of special research instruments. Observations and interviews are the basis of this research. These findings come from primary sources that provide data directly to researchers. It is

from these primary sources that information is obtained on the subject currently being investigated. This data is usually obtained through academic publications, news articles, and handwritten notes,

3. RESULTS AND DISCUSSION

The role of information technology in human activities today cannot be underestimated. On the contrary, information technology has become the main pillar in supporting various business activities, having a fundamental impact on organizational structure, operations and management. In the era of Information Technology, the types of work and types of workers have experienced a significant transformation, with the granting of greater autonomy and authority within organizations. One of the main contributions of information technology is the automation of tasks or processes previously carried out by humans. This capability enables high efficiency, freeing up human time from routine tasks and allowing focus on more intellectual activities. Apart from that, information technology also plays an important role in restructuring human roles, facilitating changes in a set of tasks or processes to increase productivity and responsibility (Maharsi, 2000).

Integration is another keyword in the role of information technology. Its ability to integrate various parts of an organization and provide relevant information to managers is the key to faster and more informed decision making. In addition, information technology also influences the organization's interface with the external environment, such as customers and suppliers. This creates more effective communication channels, strengthens relationships, and improves responsiveness to market needs. No less important, information technology has strategic potential. With the ability to form strategies, organizations can move towards competitive advantage. Utilizing sophisticated data and analytics can provide deep insight into markets and trends, enabling organizations to take steps that are more targeted and responsive to business dynamics. Overall, information technology is not just a supporting tool, but has become the main catalyst in organizational transformation and the way humans interact with the business world. By understanding and fully utilizing the potential of information technology, humans can optimize efficiency, improve the quality of decisions, and create significant added value in this ever-developing era (Ardi, 2013).

However, ironically, the rapid development of information technology initially contradicted the Auditor's point of view, which considered that a reasonable business relationship was carried out based on the philosophy of arm's length transactions - namely transactions between free or independent parties. Auditors believe that special relationships (or known as related party transactions) are transactions that can cause irregularities in the numbers recorded in accounting records. In fact, business transactions that are based on arm's-length transactions and the basic value of distrust are short-term business relationships. Each party only strives so that when a business transaction occurs, those involved are able to behave businesslike, so that each party can benefit from the transaction carried out.

The role of information technology in increasing the efficiency of the audit process is very significant and varied. Following are some of the main roles of information technology in this context:

1. **Process Automation** : Information technology opens up great opportunities for automation of various stages in the audit process, including data collection, testing, and analysis. This automation has a positive impact in reducing the manual workload of auditors, freeing them from time-consuming routine tasks. Apart from that, automation can also reduce the potential for human error, increase the accuracy of audit results, and ensure consistency in audit data management. By optimally utilizing information technology, auditors can focus on deeper and more strategic analytical activities, increasing the efficiency of the overall audit process, and providing significant added value to the credibility and reliability of audit reports.
2. **Big Data Analysis (Big Data)** : Information technology not only facilitates, but also opens the door to the big data analysis revolution in the world of auditing. This technology's ability to evaluate large amounts of data quickly and effectively has a positive impact on audit quality. By using sophisticated algorithms and data analysis software, auditors can identify patterns, trends and anomalies that may be difficult or even impossible to identify manually. This not only increases efficiency in detecting potential risks or fraud, but also provides auditors with deep insight into their clients' business dynamics. By applying information technology in big data analysis, auditors can ensure that their audit reports are supported by comprehensive and relevant information, increasing added value for stakeholders and increasing trust in the audit process.

3. **Security and Access Control** : The importance of access control in audits is strengthened by information technology systems that can provide maximum protection for audit data. With strict access controls, the system ensures that only authorized parties have access rights to access sensitive information in the audit process. In this way, the risk of data leakage can be significantly minimized, maintaining the confidentiality of audit information and the integrity of the entire process. This system also supports security principles that are very important in dealing with cyber security threats. With access controls implemented through information technology, auditors can work with confidence that audit data is closely guarded, providing confidence to stakeholders regarding the security and confidentiality of information throughout the entire audit cycle .
4. **Electronic Audit (E-Audit)** : The use of information technology not only enables, but also encourages the conduct of audits electronically, bringing about a significant transformation in traditional audit approaches. Auditors can leverage digital documents, electronic time stamping, and digital audit trails to support the entire audit process. By using digital documents, data collection and analysis becomes more efficient, reducing dependence on physical documents. Electronic time stamping provides accuracy and validity to audit records, while digital audit trails provide a detailed track record of each step in the audit process. Apart from increasing efficiency, conducting electronic audits also brings significant transparency. Auditors and related parties can easily access digital documents and audit trails, ensuring transparency and trustworthiness in the entire process. Thus, the application of information technology in auditing not only modernizes auditors' work methods, but also increases the accuracy, transparency and quality of audit results, providing significant added value in an ever-evolving business environment.
5. **Real-time Monitoring and Supervision** : Information technology systems provide an edge to auditors by enabling them to monitor and supervise business transactions in real-time. This capability opens the door to detecting potential risks and fraud more quickly and effectively. With real-time monitoring, auditors can identify anomalies or suspicious behavior instantly, enabling a more proactive response to situations that require immediate action. With these capabilities, information technology systems not only increase auditors' responsiveness to changes in the business environment, but also strengthen their role in maintaining the integrity and reliability of the audit process. This real-time monitoring provides auditors with an effective tool to mitigate risks and maintain the credibility of audit reports in a faster and more responsive manner.
6. **Data Storage and Management** : Information technology provides a secure and structured data storage solution for auditors . With a sophisticated storage system, auditors can easily access, store and manage audit documents efficiently. This not only provides security against data loss, but also reduces dependence on physical formats or paper documents. With structured data storage, auditors can organize and search for information more quickly, increase productivity, and maintain orderly audit documents. This provides significant flexibility in managing audit information, ensures continuity and sustainability and reachability of audit data, and makes a positive contribution to the overall efficiency and effectiveness of the audit process.
7. **Electronic Documentation** : Audit documentation has progressed significantly with the application of information technology, which allows the process to be carried out electronically. The main advantage of electronic audit documentation is its ability to facilitate the preparation of audit reports more quickly and accurately. Auditors can easily collect, organize, and review audit documents efficiently, minimizing the need for time-consuming manual processes. In addition, electronic documentation provides flexibility in accessing document revisions, allowing necessary changes to be made directly and well documented. This ability to track changes not only increases the security and transparency of audit documents, but also provides auditors with the flexibility to make adjustments quickly and respond to dynamics that may occur during the audit process. Thus, the application of information technology in audit documentation not only optimizes efficiency, but also produces audit reports that are more accurate and reliable .

By utilizing information technology effectively, the audit process can become more efficient, accurate and responsive to rapid changes in the business environment. Auditors who are skilled in using modern information tools and technology can provide significant added value in providing confidence to stakeholders regarding the reliability of financial reports.

4. CONCLUSION

The role of information technology in the audit process has a significant impact in increasing auditor efficiency, accuracy and responsiveness to modern business dynamics. Automation, big data analysis, and real-time monitoring are some aspects of information technology that have made a major contribution to the transformation in audit implementation. The application of information technology allows auditors to overcome the challenges of business complexity, from data collection, analysis, to preparing audit reports more effectively. Apart from that, information technology also strengthens security controls, facilitates access and management of audit documents, and supports electronic documentation processes. However, there are complex dynamics related to auditors' perceptions of business relationships colored by information technology. In conclusion, the integration of information technology in auditing is not only a practical necessity in improving efficiency, but also requires a good balance between technological advances and traditional audit principles, especially independence and objectivity.

REFERENCES

1. Ardi, B. K. (2013). Pengaruh kemajuan teknologi informasi terhadap perkembangan sistem informasi akuntansi. *Jurnal Ekonomi No, 38*.
2. Arens, A. A., & Loebbecke, J. K. (1996). Auditing Pendekatan Terpadu. *Salemba Empat*.
3. Boynton, W. C., Kell, W. G., Johnson, R. N., & Wheeler, S. W. (2001). *Modern auditing*. Hoboken: J. Wiley & Sons.
4. Deviani, T., & Badera, I. D. N. (2017). Sistem Informasi Sebagai Pemoderasi Pengaruh Kompleksitas Audit Dan Time Budget Pressure Terhadap Kualitas Audit. *E-Jurnal Akuntansi Universitas Udayana, 18(2)*, 1171-1201.
5. Diani, D. I. (2014). Pengaruh Pemahaman Akuntansi, Pemanfaatan Sistem Informasi Akuntansi Keuangan Daerah Dan Peran Internal Audit Terhadap Kualitas Laporan Keuangan Pemerintah Daerah (Studi Empiris pada Satuan Kerja Perangkat Daerah di Kota Pariaman). *Jurnal Akuntansi, 2(1)*.
6. Dilla, P. A. M. (2021). Pengaruh Independensi, Kompetensi Dan Skeptisme Profesional Terhadap Kualitas Audit Judgment. *Hita Akuntansi dan Keuangan, 2(2)*, 333-349.
7. Elisabeth, D. M. (2019). Kajian terhadap peranan teknologi informasi dalam perkembangan audit komputerisasi (studi kajian teoritis). *METHOMIKA: Jurnal Manajemen Informatika & Komputerisasi Akuntansi, 3(1)*, 40-53.
8. Fauziyah, E. M. (2019). Pengaruh Penerapan Sistem Akuntansi Keuangan Daerah, Kompetensi Aparatur Pemerintah Dan Pemanfaatan Teknologi Informasi Terhadap Kualitas Laporan Keuangan Dengan Sistem Pengendalian Internal Sebagai Variabel Moderasi (Pada Organisasi Perangkat Daerah di K. *Jurnal Riset Akuntansi Tirtayasa, 4(2)*, 196-209.
9. Kusuma, M. W., & Setyaningsih, P. R. A. (2020). Pengaruh Independensi, Kompetensi, Pengalaman Kerja, Dan Ukuran Kap Terhadap Audit Delay Yang Dimediasi Oleh Kualitas Audit. *JRAMB, Prodi Akuntansi, Fakultas Ekonomi, UMB Yogyakarta, 6(1)*, 23-36.
10. Lewis, S. (2015). Qualitative inquiry and research design: Choosing among five approaches. *Health promotion practice, 16(4)*, 473-475.
11. Lucas Jr, H. C. (1999). *Information technology and the productivity paradox: Assessing the value of investing in IT*. Oxford University Press.
12. Maharsi, S. (2000). Pengaruh Perkembangan Teknologi Informasi Terhadap Bidang Akuntansi Manajemen. *Jurnal Akuntansi dan keuangan, 2(2)*, 127-137.
13. Mahatmyo, A. (2014). *Sistem informasi akuntansi suatu pengantar*. Deepublish.
14. Manik, T. (2018). Analisis Peranan Sistem Informasi Akuntansi Dalam E-Commerces Terhadap Pengendalian Bisnis Online. *Jurnal Ilmiah Akuntansi dan Finansial Indonesia, 1(2)*, 51-64.
15. Martin, E. W., Brown, C. V., DeHayes, D. W., Hoffer, J. A., & Perkins, W. C. (2005). Managing information technology.
16. Oktavia, I. R. (2015). Peranan teknologi informasi dalam audit. *Bhirawa, 2(2)*, 78-84.
17. Prajanto, A. (2020). Project Based Learning sebagai Model Pembelajaran Risk Based Audit dengan Media Aplikasi Audit Tool Linked Archive System (ATLAS). *JAKA (Jurnal Akuntansi, Keuangan, dan Auditing), 1(1)*.

18. Riandani, R. (2017). Pengaruh kompetensi SDM, pemanfaatan teknologi informasi, dan pengendalian intern terhadap kualitas laporan keuangan (Studi empiris pada SKPD Kab. Limapuluh Kota). *Jurnal Akuntansi*, 5(2).
19. Sawyer, W. (2003). Using information technology: A practical introduction to computer and communication. *London: Career Education*.
20. Zahirah, F. R., Melenia, F., & Aminy, A. R. (2021). Continuous Audit: Penerapan dan Pengendalian Pelaksanaan Fungsi Audit Berbasis Teknologi Informasi. *BALANCE: Jurnal Akuntansi, Auditing dan Keuangan*, 18(2), 200-216.