

The Impact of Accounting Information System Quality, Information Quality, and Data-Driven Culture on Financial Decision-Making Effectiveness in Technology and Digital-Based Companies

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Abstract

The objective of this research is to examine the effect of accounting information system quality, information quality, and data driven culture on the effectiveness of financial decision making in technology and digital based companies in Indonesia. Quantitative method was used. It was based on a survey of the workers in these firms that use accounting information systems and financial information. The sampling technique was purposive sampling and data collection was conducted through online questionnaires using google forms. Data were analyzed by multiple linear regression. The results indicate that the quality of accounting information systems, the quality of information and data-driven culture have positive and significant influence on the efficiency of financial decision making. Among these three characteristics, data driven culture has the most dominating impact on financial decision making effectiveness. The results show that the quality of accounting information systems, information quality and organizational culture towards the use of data are important variables to improve the quality of financial choices in technology and digital-based companies. It is anticipated that the research will be a reference for firms to improve information systems, increase information quality, develop a data-driven culture for making financial decisions effectively and promote sustainability of the company.

Keywords: accounting information system quality, information quality, data-driven culture, financial decision-making effectiveness.

INTRODUCTION

The emergence of the digital economy has transformed the way companies work, from the management of finances to the decision-making process. Technology and digital businesses are operating in a very dynamic business environment with fast changing markets, significant rivalry, continuous technology improvements and increasing data volumes that need to be efficiently managed (Jefriyanto & Riyanto, 2021). The competence of a company to make fast, suitable and information-led financial decisions is an important determinant of corporate success in such a case. Financial decision-making efficacy refers to how well a corporation can make good financial decisions based on relevant data, leading to better

operational efficiency, profitability, risk management, and long-term sustainability of the organization (Yusuf et al., 2025; Damanik et al., 2025). Good decision making includes planning, investment, cash flow management, financing structures and evaluation of financial performance (Baskoro et al., 2025; Mawitjere et al., 2025). Or bad financial decisions can lead to the waste of resources, investment mistakes, inability to adapt to market changes, and loss of competitive ability (Judijanto et al., 2024).

The quality of accounting information system affects the effectiveness of financial decision making (Anindya et al., 2024; Pamungkas et al., 2023). The quality of accounting information system is the system's ability to provide accurate, integrated, accessible and secured financial information which meets the management needs of the business (Fujianti & Hendratni, 2020). In technological and digital companies the accounting information system is not only a system for registering transactions, but also the main source for the generation of financial reports, business analyzes and strategic information for the management decision process (Rahmadi et al., 2023; Sri & Anggraini, 2023). A good quality system will give firms real time information, lessen mistakes made when recording, speed up reporting procedures and increase co-ordination between work divisions (Hendratni et al., 2025). In addition to the quality of accounting information system, it is believed that the information quality is closely associated with effectiveness of financial decision making. The quality of information is the correctness, completeness, relevance, consistency, timeliness and the understandability of information in the decision-making process (Anggraini et al., 2024). The digital business environment creates big data, and quality of information is an important aspect, inasmuch as financial decisions are highly dependent on the information available. Accurate and relevant information assists management to identify business opportunities, assess risks, allocate assets in the most efficient way and design appropriate financial plans. Another aspect likely to influence the success of financial decision making is a data-driven culture. That's the kind of culture you get in a company that decides data at all levels. A data-driven culture ensures that strategic decisions are rooted in empirical analysis, not in pure intuition or personal experience (Mulyadi et al., 2023). This culture is becoming more important in technology-oriented and digital businesses, as firms have access to a wide array of data sources, which can be used to improve the quality of financial choices (Mulyadi et al., 2024). A data-driven culture encourages cross-functional collaboration, improves the analytical capabilities of employees, and increases the adoption of analytical technology to evaluate the financial health of a firm (Anggraini & Khairunnisa, 2025).

The objective of this research is to analyze the impact of accounting information system quality, information quality and data-driven culture on the effectiveness of financial decision-making in technology and digital based enterprises. The study is expected to complement the literature in accounting information systems, management accounting, information systems and financial management by providing theoretical empirical evidence on the factors affecting the effectiveness of financial decision making. The research also seeks to understand the contribution of the quality of accounting information systems, the quality of information and the data-driven culture in the improvement of the quality of the organization's financial choices.

METHOD

The present research is quantitative and uses the survey technique. The study population is workers of technology and digital-based enterprises in Indonesia that have implemented computerized accounting information systems for their operational operations and financial decision making. The respondents were selected using purposive sampling based on the criteria of permanent employee status, minimum tenure of one year, involved in the use of financial information or accounting information systems and the use of digital systems to support financial decision making processes in the company. The research was designed with 200 respondents. Data collection was performed through the distribution of online surveys via Google Forms. The variable of Accounting Information System Quality was measured by means of the dimensions of system reliability, system integration, ease of use, reaction time and system flexibility. The quality of the information was evaluated in terms of accuracy, completeness, relevance, timeliness and understandability. The variable Data-Driven Culture was studied based on the dimensions of data accessibility, evidence-based decision making, data sharing, analytical orientation, and management support for data exploitation. The Financial Decision-Making Effectiveness variable was measured in terms of decision accuracy, decision timeliness, financial planning effectiveness, risk assessment competence and decision quality. All the research indicators were measured with a five-point Likert scale where 1 = strongly disagree and 5 = strongly agree. Hypothesis testing used multiple linear regression analysis to know the partial and simultaneous influence of Accounting Information System Quality, Information Quality, Data-Driven Culture on Effectiveness of Financial Decision. Manufacturing in technology and digital-based firms.

RESULT AND DISCUSSION

Based on the data analysis of respondents who work in the technology and digital-based business in Indonesia, all the research instruments used are valid and reliable so that the research instruments are adequate to be used in the next stage of analysis. The results of multiple linear regression analysis indicated that Accounting Information System Quality, Information Quality and Data-Driven Culture simultaneously had a positive and significant effect on Financial Decision-Making Effectiveness. The coefficient of determination (0.512) indicates that 51.2% of the variance in Financial Decision-Making Effectiveness could be explained by the three independent variables in this research. The partial tests results indicated that all independent variables have a positive and significant effect on the Financial Decision Making Effectiveness, so that all hypotheses of the study were accepted.

The results of this study reveal that the Quality of Accounting Information System has a positive and significant impact on the Effectiveness of Financial Decision-Making in organizations operating in the technology and digital sectors. This conclusion emphasizes the importance of the quality of accounting information systems as a major need for effective financial decision making, since the trustworthiness of the systems provides the decision makers with fast, accurate, integrated and accessible financial data. The timeliness of financial information is critical for organizations in fast changing business environment that are technology and digital oriented so that they are able to respond to market changes, manage cash flows, make investment decision and mitigate business risks. The highly precise accounting information systems reduce the errors in recording, increase the consistency and velocity of data and speed up the operations of reporting. This permits management to make decisions based on up-to-date facts. Along with increasing operational efficiency, the quality of accounting information systems improves collaboration between departments, because all parts of the company use the same sources of information. Hence, firms should constantly

improve the quality of their accounting information systems including technology integration, system security, reporting features, and digital infrastructure maintenance to further improve the effectiveness of financial decision-making.

The study results indicate that Information Quality has a positive significant effect on Financial Decision Making Effectiveness. The results indicate the importance of the quality of information used in the decision making process in affecting the success of the financial choices of the organization. Accurate, complete, relevant, timely and understandable information enables management to make more objective assessments of the financial position of the organization, resulting in a higher degree of accuracy in decision-making. However, the organization may suffer financial losses because of inaccurate or delayed information that can lead to errors in budget planning, risk assessment, and investment strategy development. High quality of information also has a positive effect on the trust of decision-makers in the used information systems, which leads to a more efficient assessment process and less reliance on intuition only. In technology and digital-based organizations that produce large volumes of financial data every day, the quality of information is a major factor in the success of an organization to convert data into strategic insight. The organizations need to have data management processes to ensure the accuracy, consistency and timeliness of information so that each financial action contributes to the best achievement of the company objectives.

The study found that the most dominating element in the Financial Decision-Making Effectiveness in technology and digital organizations is Data-Driven Culture. The results show that the effectiveness of financial decisions is more affected by an organizational culture that places data as the main basis for decision-making than by other technical factors. A data-driven culture helps all levels of the organization to use empirical evidence, quantitative analysis, and validated information before making policies or strategy. This leads to more objective, consistent and low-risk decisions. Technology and digital-based companies collect data from a variety of sources including financial transactions, consumer behavior, operational operations and market research. These data can be used to facilitate the company planning and evaluation processes. Once this kind of data-driven organizational culture is built, decision-making is faster because every part of the company learns how to use the information they have at their disposal as a basis for action. The dominance of this variable indicates that the quality of information systems and data alone is not enough for effective financial decision-making, but an organizational culture that promotes analytical, objective and evidence-based thinking for all workers and executives is also critical. In an effort to ensure a continuous improvement of the effectiveness of financial decision-making, companies need to develop a data-driven culture through the development of data literacy, analytical competencies, information systems and the promotion of leadership that encourages the use of data in every decision-making process.

CONCLUSION

The results of the study show that Accounting Information System Quality, Information Quality and Data-Driven Culture have a positive and significant effect on the effectiveness of financial decision making in technology and digital-based companies. The survey also found that the most influential aspect affecting Financial Decision-Making Effectiveness was Data-Driven Culture. When an organization creates a culture where data is at the center of all decisions, financial decision making becomes more objective, more accurate and faster. This, in turn, makes a company more responsive to changes in the business environment. In practice, technology and digital-based companies need to continually improve the quality of their accounting information systems through system integration, better data security, and

better financial reporting capabilities. The information used in the decision making process should also be of high degree of correctness, relevance and timeliness. Furthermore, a Data-Driven Culture needs to be a strategic priority, which can be realized by improving data literacy, developing employees' analytical skills, establishing an infrastructure to support data analysis, and gaining management commitment to an evidence-based decision-making approach to continuously increase the effectiveness of financial decision-making and support sustainable business growth.

REFERENCES

- Jefriyanto, J., & Riyanto, D. (2021). Tingkat Pemahaman Dan Minat Pengurus Dewan Kemakmuran Masjid Terhadap Financial Technology (Fintech) Syariah. *Jurnal Ilmiah Ekonomi Islam*, 7(1), 75-80.
- Yusuf, M., Malelak, M. I., Hendratni, T. W., Juansa, A., Rianty, E., & Minarsi, A. (2025). *Optimalisasi Manajemen Keuangan Untuk Pertumbuhan Bisnis*. Henry Bennett Nelson.
- Damanik, F. H. S., Sirait, H., Minarsi, A., Abae, I., Hendratni, T. W., & Purba, J. H. V. (2025). *Transformasi Ekonomi: Inovasi dan Pertumbuhan Ekonomi Global di Abad ke-21*. Star Digital Publishing.
- Baskoro, S. E., Luthfiana, H., Martini, I. A. O., Hendratni, T. W., Fatchuroji, A., Sawitri, I., ... & Ridwanulloh, M. S. (2025). *Pengantar Manajemen: Buku Ajar*. Star Digital Publishing.
- Mawitjere, P. S., Hendratni, T. W., Mottoh, R. J. R., Martantina, L., Yuanita, I., Prasetya, D., ... & Gustina, G. (2025). *Manajemen Keuangan: Konsep Dasar dan Aplikasi*. Star Digital Publishing.
- Judijanto, L., Anggraini, F. D., Supartha, I. K. D. G., Irmadiani, N. D., Mudjiyanti, R., & Putri, A. (2024). *Bisnis Digital: Tren dan Perkembangannya Saat Ini*. PT. Green Pustaka Indonesia.
- Anindya, D. A., Aisyah, S., Anggraini, D. P., Fadillah, T. D., Habibie, M., Risal, T., & Nurhusna, S. (2024). Evaluation of revenue accounting system at pos indonesia pulo brayan branch using framework matrix approach. *Economic and Business Horizon*, 3(2), 61-70.
- Fujianti, L., & Hendratni, T. W. (2020). Pengenalan Aplikasi Akuntansi Ukm Berbasis Handphone Pada Pelaku Usaha Mikro Kecil Dan Menengah (Ukm) Batik Cirebon. *Abdi Laksana: Jurnal Pengabdian Kepada Masyarakat*, 1(1).
- Pamungkas, E. W., Nurchayati, N., Haris, N., Nugrahani, N., Putuhena, H., Usman, E., ... & Indarto, S. L. (2023). *Akuntansi manajemen: Teori & konsep-konsep dasar akuntansi manajemen terkini*. PT. Sonpedia Publishing Indonesia.
- Rahmadi, H., Risakotta, K. A., Aryani, F., Carolina, C., Rinaldi, M., Winanto, A., ... & Amalia, M. M. (2023). *Buku Ajar Pengantar Akuntansi*. PT. Sonpedia Publishing Indonesia.
- Sri, D., & Anggraini, F. D. (2023). Efektifitas Pembelajaran Daring dan Luring: Suatu Studi Komparasi. *Jurnal informasi akuntansi*, 1(3), 113-119.
- Rahmadi, H., Risakotta, K. A., Aryani, F., Carolina, C., Rinaldi, M., Winanto, A., ... & Amalia, M. M. (2023). *Buku Ajar Pengantar Akuntansi*. PT.
- Hendratni, T. W., Sudarmaji, E., Widyaningsih, M., Azizah, W., Nugroho, A., Azzahra, F., & Putri, S. M. A. (2025). PELATIHAN LITERASI KEUANGAN DAN FINANCIAL TECHNOLOGI DALAM MENGELOLA KEUANGAN PRIBADI. *SULUH: Jurnal Abdimas*, 7(1), 78-86.
- Anggraini, F. D., Sumartono, S., & Rusman, H. (2024). Information Technology Audit in Optimizing Resources and Utilization of Financial Information Systems. *TECHNOVATE: Journal of Information Technology and Strategic Innovation Management*, 1(1), 35-44.

- Anantadjaya, S. P., Setiawan, B. A., Violin, V., Moridu, I., & Bailusy, M. N. EXPLORING FINANCIAL TECHNOLOGY'S IMPACT ON GENERATION.
- Mulyadi, M., Oktrivina, A., Hendryadi, H., & Hendratni, T. W. (2023). The islamic religiosity and financial well-being: a moderated mediation model of financial behavior and literacy. *Jurnal Reviu Akuntansi Dan Keuangan*, 13(2), 249-268.
- Mulyadi, M., Hendratni, T. W., & Wulandjani, H. (2024). Analysis of the effect of financial literacy and financial behavior on the performance of MSMEs Setu Babakan with digital competency as a moderating variable. *Edelweiss Applied Science and Technology*, 8(6), 5310-5328.
- Anggraini, F. D., & Khairunnisa, K. (2025). Transformasi Ekonomi Digital dan Kinerja UMKM: Analisis Pengaruh Digitalisasi Akuntansi Terpadu: Digital Economic Transformation and MSME Performance: An Analysis of the Impact of Integrated Accounting Digitalization. *Al Dzahab*, 6(2), 95-110.