

Increasing SME Performance Through Quality Information Technology and Top Management Support

Iwan Koerniawan^{1*}, Boge Triatmanto², Diana Zuhroh³

^{1,2,3} Department of Doctoral Economics Science, Universitas Merdeka Malang, Indonesia

Abstract

This research aims to analyze the influence of information technology quality and top management support on the performance of the city of Semarang. This research contributes to providing feedback for SME managers or owners in making decisions regarding the importance of digitizing accounting, in this case, the accounting information system. This quantitative research uses an explanatory research approach guided by a questionnaire that tests the relationship and influence between research variables. Data analysis was obtained using the SEM approach by analyzing 132 respondents who had used the accounting information system application for at least one year. The research results show that the quality of information technology use and top management support significantly affect SME performance. The implication of this research underscores the importance of investing in improving the quality of information technology and top management support for the performance of small and medium-sized enterprises (SMEs) in Semarang City. It indicates that the utilization of effective accounting information systems and active support from top management can enhance the competitiveness and operational efficiency of SMEs. Therefore, SME managers or owners need to consider adopting and optimizing accounting information systems in their strategic decision-making processes to enhance business performance and growth.

Article Info

Keywords:

Ease of Use,
End-User Satisfaction,
Quality of Information,
SME Performance,
Top Management Support

JEL Classification:

E00, O11, Q56

Corresponding Author:

Iwan Koerniawan
(iwank5758@gmail.com)

Received: 20-12-2023

Revised: 25-01-2024

Accepted: 12-02-2024

Published: 20-02-2024



1. Introduction

Information systems and technology have become critical components for the success of businesses and organizations. Its existence can help increase the efficiency and effectiveness of business processes, managerial decision-making, and work-group collaboration to strengthen its competitive position in a rapidly changing market (Rainer & Prince, 2022). Information systems are an essential medium for companies that aim to facilitate information delivery. Information systems are necessary to produce helpful information for companies, especially leaders who will later make decisions. Information is produced through an information system, and if it involves a computer, it is called a computer-based information system or Computer-based Information system (CBIS).

Developments in information technology have also resulted in changes to accounting systems, internal control systems, and auditing. Changes (actualization) in the field of accounting systems must be carried out in an integrated manner with the entire information system in a computer-based accounting information system (Gondodiyoto, 2007). Combining accounting information systems with information technology is the primary tool in managing and controlling company finances, a computer-based accounting application. Technological advances have opened up opportunities to generate and utilize accounting information strategically. Computer-based accounting information systems broadly influence business processes and company transactions. A computer-based accounting information system will help leaders obtain accounting information about financial reports and supporting reports,

which helps predict business activities, know the number of funds that will be used, and manage cash (Turban et al., 2001). However, the current dilemma is whether all information systems the company implements can achieve success and whether the company can know that the information system has been implemented or successfully implemented.

Choosing a computer-based AIS that suits your needs is challenging for companies, including Small and Medium Enterprises (SMEs). Computer-based AIS, which is the computer application used in this case, should be in accordance with needs. The hope is that it will produce more effective and efficient information. The contents of the computer application features used are an essential element in data processing to produce accounting information, especially financial reports and supporting reports. If running an application takes longer to master, it can affect company performance. On the other hand, if AIS is used well and is easy to use, then this may impact the company's performance for the better. For small businesses, in this case, SMEs with limited human resources, ease of use is essential.

One of the theories used to analyze the user acceptance of information technology is the Technology Acceptance Model (TAM) developed by Davis (1989), where ease of use and perceived usefulness are essential factors in adopting information technology. In its development, the TAM model has been widely used by many researchers and has undergone many modifications, such as that carried out by Yin and Lin (2022), who examined perceived ease of use and perceived usefulness influencing satisfaction, ultimately leading users to continue using information technology in the form of mobile banking. Research by Aulawi et al. (2020) examined the influence of perceived ease of use on perceived usefulness, as well as perceived ease of use and perceived usefulness, which influence attitudes towards the use and, ultimately, use of information technology. Other research from Zaidi et al. (2017) found that information technology user satisfaction is influenced by the ease of use directly and is influenced by the ease of use through perceived usefulness. The research of Fedorko et al. (2018) examined the influence of perceived information quality on usability, which influences users' attitudes toward using it.

The dilemma for SMEs is understanding accounting information where most SMEs still need to record them well; that is, they need to be organized and systematic. This causes financial problems that hamper the development of SMEs. Additionally, according to Bass and Schrooten (2006), most SME managers need to provide accounting information related to the business's conditions, so producing accounting information is expensive. Accounting information is the basis for decision-making in managing small businesses (Kelara & Emi, 2020). The AIS end user is the person who is the end user of the AIS used-also supported by Bass and Schrooten (2006) regarding the use of financial reports that comply with accounting standards as a source of information used for decision making, including for credit applications. SME performance has slightly different dimensions from companies in general. Performance indicators (key performance indicators or KPIs) for Small and Medium Enterprises (SMEs) can vary depending on the type of business, objectives, and strategies implemented. KPI is a quantitative measurement of organizational performance evaluation with several perspectives and is a reference for achieving organizational targets (Parmenter, 2015). KPI is a portrait that quantitatively identifies the performance of implementing an organization's strategic vision, producing a concrete database. Its implementation in an organization must meet three primary rules: the involvement of all elements of the organization, in line with consensus, and the inability to apply universal solutions to all problems.

The phenomenon of utilizing information technology through accounting information system applications in SMEs needs to be studied about ease of use of information technology, quality of information, and satisfaction of end users of accounting information who have a direct interest in AIS output, namely financial reports and supporting reports used for decision making, which can later influence the performance of SMEs. This phenomenon needs to be studied more deeply because the research models commonly used in this research only include the modified TAM model but do not address its effect on performance.

Literature Review

Technology Acceptance Model (TAM)

The development of information technology has changed the way humans work and what they do. In applying information technology in daily work, each individual has different perceptions. Technology acceptance models have included user attitudes at work and what is done. Long-term predictions regarding user acceptance of technology can be made by measuring affective responses to using new technology. In the TAM model, the level of acceptance of IT use is determined by four constructs: perceived ease of use, perceived usefulness, attitude to use (actual system use), and interest in use (intention to use). The following model aims to find out what influences the acceptance interest of accounting information system users toward employees whose work is related to accounting information systems.

The term information system is often used without the word computer-based, even though computers are an essential part. According to Kadir and Triwahyuni (2013), what is meant by an information system is a computer-based information system. Software applications are computer-based information systems. AIS is part of the management information system, and the subsystems contained in the accounting information system are sales order processing, inventory processing, general ledger, accounts receivable, accounts payable, and payroll (Kadir & Triwahyuni, 2013). Based on the previous description, in this research, what is meant by AIS is a computer-based AIS that requires an application that can be applied to a computer, namely accounting software. AIS is used to simplify accounting records. This recording produces information that results more quickly and accurately than when done manually.

Information Quality

Information is obtained by utilizing information systems and information technology. Information technology is an enabler that enables the realization of information systems and can support users' needs for information. Information quality is the quality where the information consistently meets the needs of all parties who need the information. The definition of information quality, according to several researchers, including DeLone and McLean (1992), states that information quality is a desired characteristic of information system output. The information quality indicator lies in the system output. The quality of the output from the information system in the form of online information relating to its value, benefits, relevance, and urgency. According to Dewi and Dwirandra (2013), information quality is the characteristics of information that meet users' needs when needed. Information quality is easy to use and can present information to users, from understanding the format to understanding an effective information system.

The definition of top management support, according to Cash et al. (1988), is the extent to which top management understands the importance of information system functions and is personally involved in information system activities. Top management support is one part that causes the success or success of information systems and information system projects that are being implemented in the organization (Young & Jordan, 2008). Likewise, Jogiyanto (2007) stated that top management support is a variable that causes success and is not part of success or success, so the top management support variable is an independent variable.

Top management is the first level in an organization. Top management is responsible for and influences overall management decisions in the organization. There are several definitions of top management support, including Kim and Lee (2014), who define top management support as leadership support regarding information systems, desire, and knowledge of information systems. Dewi and Dwirandra (2013) define top management support as top management that supports organizational activities that impact, direct, and maintain the behavior of organizational members. Top management support is a significant factor because it can strongly influence employees, especially in terms of changes or updates to information systems that are carried out, as well as the socialization of information system development, because it determines the value of funds and information systems. Development projects originate from top management (Doll & Torkzadeh, 1985).

The development of SMEs is often hampered by obstacles that include (1) poor quality of human resources, (2) low quality of products, (3) limited access to capital, (4) limited marketing

and networks, and (5) lack of human resources—innovation and technology (Budiarto & Fitriyanto, 2019). One way to overcome this problem is to measure SME performance. One way to measure SME performance is with Key Performance Indicators (KPIs). KPI is a quantitative measure of evaluating organizational performance that has various perspectives and is a reference for achieving organizational targets (Parmenter, 2015).

2. Methods

The research location is in Semarang City. The population of this research is Semarang City SMEs, which have an SME management/accounting analysis unit that has used the SIA application for at least one year. This quantitative research uses an explanatory research approach guided by a questionnaire that tests the relationship and influence between research variables. The sample in this research was 132 SME managers.

3. Results and Discussion

3.1. Research Hypothesis Testing Results

Table 1. Summary of Hypothesis Testing Results

No	Hypothesis	Analysis Results	Conclusion
1	Ease of IT use significantly affects end-user satisfaction with accounting information.	<ul style="list-style-type: none"> ▪ P Value 1 tail = 0.014 ▪ CR = 2.456 ▪ Path Coef = 0.209 	Accepted
2	Information quality significantly affects the satisfaction of end users of accounting information.	<ul style="list-style-type: none"> ▪ P value one tail = *** ▪ CR = 5.038 ▪ Path Coef = 0.404 	Accepted
3	Top management support significantly affects the satisfaction of end users of accounting information.	<ul style="list-style-type: none"> ▪ P value one tail = *** ▪ CR = 3.415 ▪ Path Coef = 0.303 	Accepted

Source: Data Processed (2023)

3.2. The Influence of Information Technology Quality on SME Performance

The research results show that ease of use significantly affects SME performance; the more manageable the application, the higher the SME performance will be. Based on the analysis results in this research, overall, the ease of use of the SIA application is good; the dominant thing is that it is clear, easy to understand, and easy to control. This research aligns with several previous research results, such as research results (Siagian et al., 2022), which show that ease of use dramatically influences the system's success in shaping good SME performance. Na et al. (2022), their research also shows that SME performance is first shaped by the system's acceptance by users, where the system's ease of use determines this. Research results Hantono et al. (2023) also show that the convenience of their IT system greatly influences SMEs' performance. Other research that is also in line with this research is the results of research Al-Ateeq et al. (2022), Al-Gasawneh et al. (2022), Meileny & Wijaksana (2020), which also found the ease of use of the system as a determining factor in SME performance.

The results of this research indicate that information quality has a significant effect on SME performance. The higher the quality of information, the higher the performance of SMEs. The results of this research show that overall, the quality of information is good. Relevant indicators and transaction security, where there are no duplicate numbers in document numbering, are more expected by users. Good quality information will satisfy users, which will ultimately improve performance (Romawati et al., 2022). In this research, top management support was proven to affect SME performance significantly. The higher the support from top management, the better the SME performance (Putra et al., 2023). Top management support is from SME managers/owners for purchasing and sales transaction processing activities using AIS. If SME

managers, as determinants of SIA implementation, support the provision of funds for developing SIA facilities or capacity, this will undoubtedly improve SME performance (Supriadi et al., 2022).

This research results align with several previous studies conducted by Jankelová & Joniaková (2021). In this research, it was stated that management support for the accounting information system dramatically determines the performance of SMEs using the accounting system. Research results Siregar et al. (2022) also show that the higher the top management support, the better the performance of SMEs that use the system. Other research results are also in line with the results of this research (Striteska & Zapletal, 2020); in this research, it is stated that the performance of SMEs using AIS is influenced by management support in using AIS. System. Bubenik et al., (2022), Itang et al. (2022), Maswadeh & Al Zumot (2021), Petr et al. (2021), Truant et al. (2021), their research also shows The result is that the better management support in using the accounting system, the more it will support the creation of good SME performance.

3.3. The Influence of End User Satisfaction on SME Performance Information

This research shows that end-user satisfaction with information significantly affects SME performance. End users of information are satisfied with the accounting information produced by looking at the content, accuracy, display format, and timeliness of obtaining financial reports. The most crucial satisfaction felt by end users is accuracy and timeliness. Reports that are always up to date and on time, without delay, satisfy users, which can affect performance. The more satisfied end users of accounting information are, the higher the performance of SMEs; conversely, poor end-user satisfaction with accounting information can reduce SME performance. The results of this study align with several previous studies conducted by Alfiani et al. (2022), which state that user satisfaction will influence individual performance, which ultimately has an impact on organizational performance. In line with this, research by Ameen et al. (2020) also shows that user satisfaction has a positive effect on employee performance, which will impact company performance.

4. Conclusion

The main findings in this research reveal that ease of use of the AIS application, quality of information, and top management support significantly affect SME performance through satisfaction of end-user information. This shows that for SMEs (end users of information), ease of use of SIA applications is essential and makes end users satisfied. The quality of information and support from SME managers/owners also influences the satisfaction of information end users. The role of end-user satisfaction with information as an intervening variable for success in mediation. Because if the user is satisfied, then this has the benefit of improving its performance. Because it can help in making decisions correctly and quickly.

References

- Al-Ateeq, B., Sawan, N., Al-Hajaya, K., Altarawneh, M., & Al-Makhadmeh, A. (2022). Big Data Analytics In Auditing And The Consequences For Audit Quality: A Study Using The Technology Acceptance Model (TAM). *Corporate Governance and Organizational Behavior Review*, 6(1), 64-78. <https://doi.org/10.22495/cgobrv6i1p5>
- Alfiani, L., Septiawan, B., & Suratman, S. S. (2022). Faktor-Faktor Yang Mempengaruhi Kepuasan Pengguna Dan Implikasinya Terhadap Kinerja Pengguna Sistem Informasi Akuntansi. *Jurnal Akademi Akuntansi*, 5(1), 47-61. <https://doi.org/10.22219/jaa.v5i1.17962>
- Al-Gasawneh, J. A., Al Khoja, B., Al-Qeed, M. A., Nusairat, N. M., Hammouri, Q., & Anuar, M. M. (2022). Mobile-customer relationship management and its effect on post-purchase behavior: The moderating of perceived ease of use and perceived usefulness. *International Journal of Data and Network Science*, 6(2), 439-448. <https://doi.org/10.5267/j.ijdns.2021.12.010>

- Ameen, A., Al-Ali, D., Isaac, O., & Mohammed, F. (2020). Examining relationship between service quality, user satisfaction, and performance impact in the context of smart government in UAE. *International Journal of Electrical and Computer Engineering (IJECE)*, 10(6), 6026-6033.
- Aulawi, H., Mulyani, A., Kurniadi, D., & Septiana, Y. (2020). Technology Acceptance Model for Online Transportation. *International Journal of Advanced Trends in Computer Science and Engineering*, 9, 31-50. <https://doi.org/10.30534/ijatcse/2020/06912020>
- Baas, T., & Schrooten, M. (2006). Relationship Banking and SMEs: A Theoretical Analysis. *Small Business Economics*, 27(2/3), 127–137. <http://www.jstor.org/stable/40229493>
- Bubenik, P., Capek, J., Rakyta, M., Binasova, V., & Staffenova, K. (2022). Impact of strategy change on business process management. *Sustainability*, 14(17), 11112. <https://doi.org/10.3390/su141711112>
- Cash, J. I., McFarlan, F. W., McKenny, J. L., & Applegate, L. M. (1988). Corporate Management Information Systems: Text and Cases.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 319-340.
- DeLone & McLean. (1992). Information System Success : The Quest for Dependent Variabel. *Journal Information System Reserach*, 3, 60-95.
- Dewi & Dwirandra. (2013). Pengaruh Dukungan Manajemen Puncak, Kualitas Sistem, Kualitas Informasi, Pengguna Aktual dan Kepuasan Pengguna terhadap Implementasi Sistem Informasi Keuangan Daerah di Kota Makasar. *E-Jurnal Akuntansi Universitas Udayana*. 196-214.
- Doll, W. J., & Torkzadeh, G. (1991). The measurement of end-user computing satisfaction: theoretical and methodological issues. *MIS quarterly*, 5-10.
- Fedorko, I., Bacik, R., & Gavurova, B. (2018). Technology Acceptance Model in E-Commerce Segment. *Management & Marketing Challenges for The Knowledge Society*, 13(4), 1242-1256.
- Gondodiyoto, S. (2007). *Audit Sistem Informasi: Pendekatan Cobit*, Edisi Revisi. Mitra Wacana Media.
- Hantono, H., Tjong, W., & Jony, J. (2023). Pengaruh Technology Acceptance Model Terhadap Intention To Use Dengan Kinerja Sebagai Variabel Moderasi Dalam Menggunakan Sistem Informasi Akuntansi. *Owner: Riset dan Jurnal Akuntansi*, 7(2), 1815-1830. <https://doi.org/10.33395/owner.v7i2.1583>
- Itang, I., Sufyati, H., Suganda, A., Shafenti, S., & Fahlevi, M. (2022). Supply chain management, supply chain flexibility and firm performance: An empirical investigation of agriculture companies in Indonesia. *Uncertain Supply Chain Management*, 10(1), 155-160. <https://doi.org/10.5267/j.uscm.2021.10.001>
- Jankelová, N., & Joniaková, Z. (2021). How to increase production performance of Slovak agricultural companies: The key task of supporting innovative work behavior and information sharing. *Agricultural Economics (Czech Republic)*, 67(1), 11-20. <https://doi.org/10.17221/319/2020-AGRICECON>
- Jogiyanto, H. M. (2007). *Model Kesuksesan Sistem Teknologi Informasi*. Penerbit Andi.
- Kadir, A., & Triwahyuni, T. C. (2013). *Pengantar Teknologi Informasi edisi revisi*. Andi.
- Kelara, B. N., & Emi, S. (2020). Peran Informasi Akuntansi Dalam Meningkatkan Pertumbuhan Kinerja Usaha Mikro, Kecil, Dan Menengah (Doctoral dissertation, Universitas Bina Darma).
- Kim, Y., & Lee, H. S. (2014). Quality, perceived usefulness, user satisfaction, and intention to use: An empirical study of ubiquitous personal robot service. *Asian Social Science*, 10(11), 1.
- Maswadeh, S., & Zumot, R. (2021). The effect of total quality management on the financial performance by moderating organizational culture. *Accounting*, 7(2), 441-450. <https://doi.org/10.5267/j.ac.2020.11.007>
- Meileny, F., & Wijaksana, T. I. (2020). Pengaruh Persepsi Manfaat, Persepsi Kemudahan, Fitur Layanan Dan Kepercayaan Terhadap Tingkat Kepuasan Pelanggan Linkaja Di Indonesia. *Jurnal Ecodemica*, 4(2), 201-202. <https://doi.org/10.31294/jeco.v4i2.7934>

- Na, S., Heo, S., Han, S., Shin, Y., & Roh, Y. (2022). Acceptance model of artificial intelligence (AI)-based technologies in construction firms: Applying the Technology Acceptance Model (TAM) in combination with the Technology–Organisation–Environment (TOE) framework. *Buildings*, 12(2), 90. <https://doi.org/10.3390/buildings12020090>
- Parmenter, D. (2015). *Key Performance Indicators: Developing, Implementing, and Using Winning KPIs, 3rd Ed.* John Wiley & Sons.
- Petr, S., Simona, Č., Hana, K., & Stanislava, D. (2021). Business Financial Performance In The Context Of Customer Satisfaction Management. *Quality - Access to Success*, 22(185), 124. <https://doi.org/10.47750/QAS/22.185.17>
- Putra, F. T., Kustiani, L., & Supriadi, B. (2023). Description of the Role of Government Employees' Competence and Performance. *Cross Current Int J Econ Manag Media Stud*, 5(4), 65-72.
- Rainer, R. K., & Prince, B. (2022). *Introduction to information systems: Supporting and transforming business.* John Wiley & Sons.
- Romawati, N., Supriadi, B., & Setyadi, M. S. (2022). Analysis of Transformational Leadership Style and Job Motivation on Employee Performance with Job Satisfaction as Intervening Variables in Ijen Suites Resort and Convention Hotel Malang. *East African Sch J Econ Bus Manag*, 5(8), 215-222.
- Siagian, H., Tarigan, Z., & Ubud, S. (2022). The effect of electronic word of mouth on online customer loyalty through perceived ease of use and information sharing. *International Journal of Data and Network Science*, 6(4), 1155-1168. <https://doi.org/10.5267/j.ijdns.2022.7.004>
- Siregar, A. N., Pratama, A., & Barus, M. D. B. (2022). An Influence of Personal Engineering, Top Management Support, Training and Education System Performance Accounting Information at the Company PT. Bank Mandiri Taspen Medan. *Rowter Journal*, 1(2), 105-114.
- Striteska, M. K., & Zapletal, D. (2020). The role of corporate culture in performance measurement and management systems. *International Journal of Financial Studies*, 8(4), 75. <https://doi.org/10.3390/ijfs8040075>
- Supriadi, B., Fauzi S, M., & Dinata, C. (2022). Economic Recovery through Social Dialogue Policy to Reduce the Impact of COVID-19. *East African Scholars Journal of Economics, Business and Management*, 5(7), 162-169.
- Truant, E., Broccardo, L., & Dana, L. P. (2021). Digitalisation boosts company performance: an overview of Italian listed companies. *Technological Forecasting and Social Change*, 173, 121173. <https://doi.org/10.1016/j.techfore.2021.121173>
- Turban, E., Rainer, R. K., & Potter, R. E. (2001). *Introduction to information technology.* John Wiley & Sons.
- Yin, L. X., & Lin, H. C. (2022). Predictors of customers' continuance intention of mobile banking from the perspective of the interactivity theory. *Economic research-Ekonomika istraživanja*, 35(1), 6820-6849. <https://doi.org/10.1080/1331677X.2022.2053782>.
- Young, R., & Jordan, E. (2008). Top management support: Mantra or necessity?. *International journal of project management*, 26(7), 713-725.
- Zaidi, S. K. R., Henderson, C. D., & Gupta, G. (2017). The moderating effect of culture on e-filing taxes: evidence from India. *Journal of Accounting in Emerging Economies*, 7(1), 134-152. <https://doi.org/10.1108/jaee-05-2015-0038>.