JRAK
Jurnal Riset Akuntansi Kontemporer

THE INFLUENCE OF MANAGEMENT ASSURANCE AND ACCOUNTING INFORMATION SYSTEMS ON MANAGERIAL PERFORMANCE

https://journal.unpas.ac.id/index.php/jrak/index

Yana Rochdiana Hadiyat ✉[1], **Regina Jansen Arsjah**[2]
[1,2]Doctoral Program in Economics with a Concentration in Accounting, Universitas Trisakti, Indonesia
Corresponding Author: yanarochdianahadiyat@gmail.com ✉[1]
Jl. Kyai Tapa No.1, Tomang, Grogol Petamburan District, DKI Jakarta, Indonesia

Article Info

History of Article
Received: 28/5/2024
Revised: 5/8/2024
Accepted: 18/9/2024
Available Online: 30/10/2024

Jurnal Riset Akuntansi Kontemporer
Volume 16, No. 2, October 2024,
Page 257-264
ISSN 2088-5091 (Print)
ISSN 2597-6826 (Online)

https://doi.org/10.23969/jrak.v16i2.14386

Keywords: organizational commitment; management accounting; integration; digital skills; managerial performance

Abstract
Managerial performance can be an added value in increasing achievements in management. The research aims at determining empirical evidence of the influence of organizational commitment, and management accounting information system characteristics on managerial performance which was moderated by the success of implementing the accounting information system. The type of data used was primary data and the population was collected from West Java BUMN employees. This research found that Digital Skills and Aggregated had a high influence on Managerial Performance. The research implied that the implementation of government accounting standards and good-quality financial reports could increase the accountability of government agency performance.

INTRODUCTION

In an organization, managerial performance is important in overall management, therefore good managerial performance can be a measure of management's success in achieving its goals. Managerial performance can be an added value in increasing achievement in management. To further maximize managerial performance results, control is needed. Control is carried out by a leader called a manager. A good manager is a manager who understands the concept of managerial performance can apply it well and can be held accountable for it.

Factors that can influence managerial performance are management accounting information system planning, which is part of the control system that needs attention so that it can make a positive contribution in supporting the success of management's internal control. In the current era of globalization and Industrial Revolution 4.0, information is much needed for a management organization. Information is the result of data processing that provides meaning and benefits. Information has great potential value because information makes a direct contribution to various actions that will be used for planning, controlling and making management decisions.

Companies today tend to use computer-based information systems because they make performance management easier. In the field of accounting, the use of computer-based accounting information processing systems is widely offered to provide convenience for users and produce information that is reliable, relevant and verifiable. Even though the use of computer-based information systems has significant cost constraints, companies still use them.

With the existence of a computer-based information system, companies would get benefits because they could maximize their performance from computer-based information technology. Following the benefits obtained from computer-based information technology, managerial performance could be further improved because managers received information that was reliable, relevant, timely, complete, easy to understand and tested for decision-making. Information technology (IT) had become a necessity and necessity for organizations in running their business. In principle, IT had become an enabler for organizations in achieving goals (Abdillah & Hartono, 2015).

The development of IT could change how an organization ran its business, therefore planning must be carried out to ensure that the presence of IT could improve service, efficiency and profitability. (Laudon & Laudon, 2016). Accounting was a business language used by every organization as a language of communication in running a business, which was an information system (Susanto & Sudrajat, 2019).

Accounting had changed due to technological developments into an information system that provided reports to its users regarding economic activities and company conditions. (Warren et al., 2015). International Data Corporation research (IDC, 2009) stated that the estimated growth in information technology spending in Indonesia is around 7.9% per year until 2013. IT spending included procurement of hardware, software and IT services. The increase in IT spending was due to the benefits of IT in supporting business processes becoming increasingly evident in line with increasingly increasing and dynamic business competition.

A good information system was a system that could produce performance and benefits for its users (Abdillah & Hartono, 2015). For a company, an accounting information system (AIS) was built with the main aim of processing accounting data originating from various sources into accounting information needed by various users to reduce risk when making decisions. (Meiryani et al., 2019) .

Accounting as an information system was developed using IT to produce better performance and value for the organization, so appropriate measurements were needed to measure the success of the accounting information system (AIS). (Abdillah & Hartono, 2015). One form of change in the implementation of SIA was the existence of enterprise resource planning (ERP) solutions that provided AIS applications for key business functions within an organization (Meiryani et al., 2019; Susanto & Sudrajat, 2019).

ERP was an information system model that allowed companies to automate and integrate various main business processes, one of which was AIS. There were still problems regarding the success rate of implementing AIS which was incorporated into ERP. A survey conducted in America in 2012 (Krigsman, 2012) showed that 57% of ERP system implementations take longer than expected and 54% exceed the predetermined budget. In addition, 32% of executives and 39% of workers were dissatisfied with the implementation of ERP systems.

The research explained that the implementation of SLiMS had not been completely successful because it was found that several features in SLiMS were not following the needs of librarians, therefore there was a need to improve and develop the system to suit the system needs at STMIK AMIKOM Purwokerto. (Nur Firdausy et al., 2022).

This research indicated that the characteristics of the management accounting system had a positive effect on managerial performance, decentralization did not affect managerial performance, while the relationship between the characteristics of the management accounting system (SAM) and decentralization did not affect managerial performance. Managerial performance stated by (Solechan & Setiawati, 2009), (Wilkin & Chenhall, 2020) found empirical evidence regarding the characteristics of useful information according to managerial perception, consisting of four dimensions (aspects), namely Wide Coverage, Timeliness, Aggregated And Integrated. Digital Skills dimensions consisted of six aspects: Information and digital literacy, digital content creation, problem-solving, data strategy and planning, data analysis, and data visualization.

According to Choe (1996), The successful implementation of an accounting information system in a company was not easy to achieve and often caused problems because it was influenced by many factors, including (1) user involvement; (2) leadership support; (3) User training and education; (4) Workgroup factors in the organization; and (5) other organizational factors such as organizational size, task characteristics, etc.

According to Ramiller & Swanson (1997), apart from organizational factors such as task complexity, organizational size, leadership factors, etc., individual factors such as motivation, satisfaction, and usefulness for users determined the success of implementing an accounting information system. According to Kaye et al., (1990), the successful implementation of an accounting information system was a crucial matter in a company, because it was determined by situational factors and the conditions in which the accounting information system

was implemented among other things which are closely related to (1) company environmental factors; (2) Contents of That accounting information systems used, such as tasks, structure, technology and people; and (3) The process of implementing an accounting information system.

Then Lee & Kim (1992) said that organizational commitment influenced the success of implementing accounting information systems through efforts to formalize the development of accounting information systems in companies. By formalizing the development of accounting information systems, the weaknesses of user experience and personal learning could be overcome.

Research on the characteristics of management accounting system information which was associated with moderating variables and managerial performance has been widely carried out, but there are many differences in the various research results found. The research was carried out by ((Chenhall et al., 1994; Wilkin & Chenhall, 2020); (Gul, 1991); (Mia, 1993); (Wilkin & Chenhall, 2020)) to examine the influence of contextual variables on management accounting system design and managerial performance. (Solechan & Setiawati, 2009) Stated that the relationship between management accounting system characteristics and decentralization did not affect managerial performance. Juristisia (2011) in her research found that the characteristics of management accounting information influenced managerial performance (Pedroso et al., 2020).

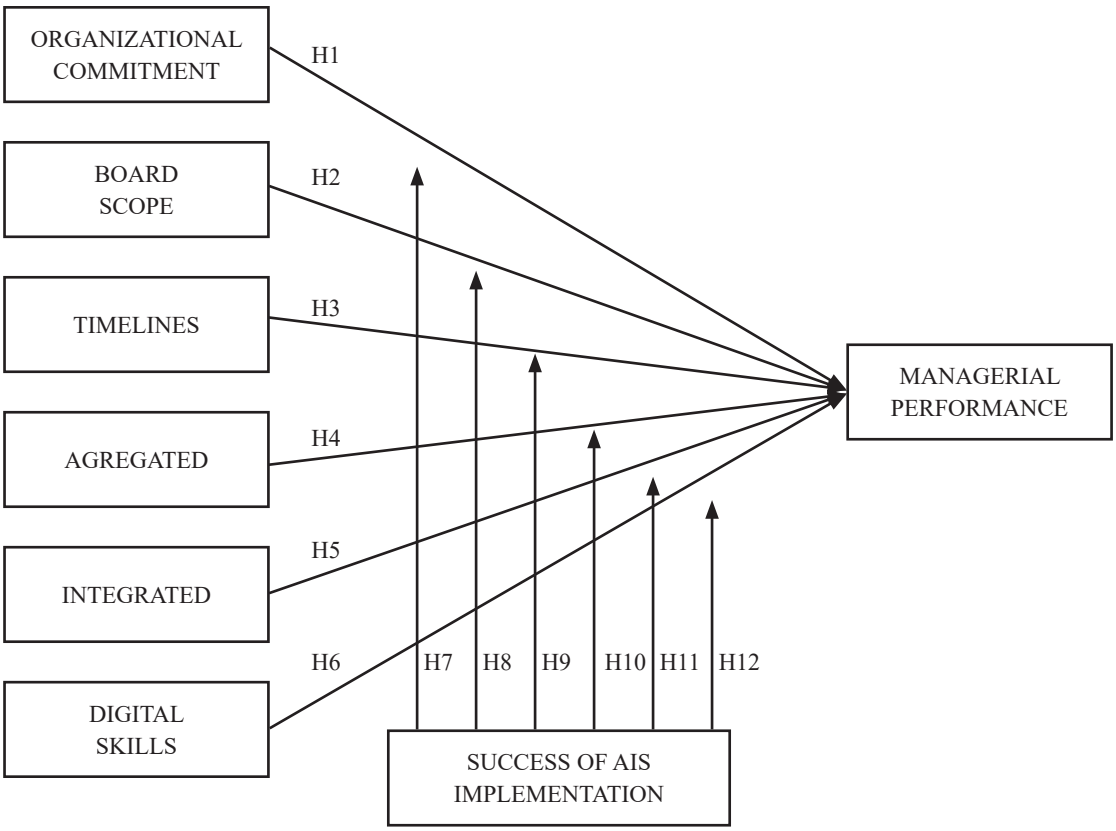

Figure 1. Research Framework

METHODS

The types of research used were verification research and explanatory research because this research aims at verifying and explaining the causal relationship between various variables through hypothesis testing (Sekaran & Bougie, 2016). In terms of data collection, this research can be called survey research or basic research. Survey research was a method of collecting primary data obtained directly from the source, in the form of distributing questionnaires taken from a sample in a population. Meanwhile, grounded research was research that was based on existing theories, from these theories a research model was developed to be tested empirically Ismayani (2019).

For each variable and dimension, a questionnaire was prepared to obtain further information about each variable using a Likert interval scale. Each question consisted of six answer choices, starting from very negative answer choices to very positive answer choices.

Table 1. Operational and Definition of Variables

Variable	Dimensions	Indicator
Organizational Commitment (X_1)	Affective Commitment	1. A sense of belonging 2. A sense of emotional connection
Reference:		3. The personal meaning of the organization
(Luthans, 2008; Meyer & Allen, 1991)	Sustainability Commitment	1. Consider continuing to work. 2. Awareness to remain in the organization 3. Disadvantages of leaving the organization
	Normative Commitment	1. Attachment to the organization 2. Loyalty to the organization
wide coverage (X_2)	Count	1. Information relating to future planning or events
Reference:		2. Information about possible future events
Chenhall and Morris (1986)		3. Non-economic information such as consumer satisfaction, employee attitudes, competitive threats and others 4. Information about external factors such as economic conditions, customer growth, technological developments, etc
	Time horizon	1. Information relating to possible future events. 2. Measure the likelihood of future events 3. working relationship, attitude 4. government agencies and consumers, competitive threats)
Timeline (X_3)	Time Interval	1. Information required 2. Information provided
Reference:		3. Reports are often provided systematically and regularly,
Chenhall and Morris (1986)		4. The time delay between an event occurring and the delivery of relevant information 5. The requested information will arrive soon
Digital Skills (X_5)	Information and digital literacy,	1. Can search for data, 2. Searching for digital data information.
Reference:	digital content creation,	1. Organize digital data as needed.
Chenhall and Morris (1986)		2. Save digital data as needed. 3. Retrieve digital data as needed. 4. Evaluate critically
	The solution to a problem	1. Credibility and reliability of data, information and digital content sources
	Data strategy and planning	1. Get convenience in presenting data
	Data analysis	1. digital information for data analysis purposes.
	Data visualization.	1. Can create content in various formats 2. Can edit and improve existing content
Managerial performance (Y)	Managerial Skills	1. Determine goals, policies and activities. 2. Collect and prepare
Reference:		3. exchange information with
Mulyadi and Setyawan (2001)		4. Evaluate and assess work plans, financial performance reports 5. Interesting performance data
	Mission, Vision, Core Values,	1. Guide leaders and develop them 2. Retain the workforce in your department.
	Core Beliefs And	1. Make purchases, sales or enter into contracts for goods/services
	Value Adding Roles	1. Promote your company's general goals
Successful Implementation of Accounting Information Systems (Y)	User Satisfaction	1. Appearance 2. Terminology and 3. Learning System Information
Reference:		4. System capabilities
Ismail (2009); Mollanazari & Abdolkarimi (2012); Iivari (2005);	System Usage	1. Frequency of use 2. References in daily tasks
Choe (1996) Gelderman (1998); Chin dkk. (1988) Abernethy & Stoelwinder (1991) Chenhall & Langfield-Smith (1998) Mia & Clarke (1999); Ghasemi dkk. (2015)	Achievement of company targets	1. Target achievement is related to productivity 2. Achieving targets is related to costs 3. Achievement of quality-related targets 4. Achievement of targets related to delivery 5. Target achievement related to total assets

The type of data used in this research was primary data. It was data obtained directly from respondents, in the form of their responses to several research questions. The data collection technique for obtaining primary data was carried out through surveys by compiling a list of questions (questionnaire), namely a structured list of questions and statements addressed to respondents. Questionnaires were distributed to the entire research population in various ways, namely: using postal services (mail survey), visiting respondents directly, via contact person, and courier. The target population in this research was BUMN leaders and staff in limited liability companies in West Java. The population frame in this research was 50 companies.

In this research, sampling was carried out based on certain criteria. This method was known as deliberate sampling with criteria in the form of certain considerations (assessment sampling). The selection of the population of legal entity companies was based on the consideration that many state-owned companies had implemented good company management systems, making it easier to retrieve data intended for accounting managers, namely components that were directly related to the accounting information system.

This research used samples to estimate population parameters with a confidence level of 95 % so the error tolerance level is 5 %. The population in this research was all top managers And middle managers, as well as staff at a state-owned company in West Java. Based on the Slovin formula, the sample size was 44.44 44 companies and data analysis techniques.

RESULTS

This research used a quantitative approach, where SEM-PLS was used to determine the relationship between variables. The indicators used for each variable in this research must be valid and reliable. To find out the validity and reliability of each variable can be seen in Table 2 below. Descriptive statistics were used to determine the mean, variance and standard deviation in this research. This included six independent variables, one dependent variable, and one moderating variable. The independent variables in this research were Organizational Commitment (KO), Board Scope (BS), Timelines (TL), Aggregated (AG), Integrated (IG), and Digital Skills (DS). The dependent variable in this research was Managerial Performance. The moderating variable was the success of implementing AIS. The results of descriptive statistics for research variables with 72 respondents were processed using Smart PLS, as follows:

Table 2. Composite Reliability Test Results and Cronbach's Alpha

	Cronbach's Alpha	Composite Reliability	AVE
Aggregated	0,971	0,974	0,757
Board Scope	0,95	0,957	0,713
Digital Skill	0,976	0,978	0,736
Integrated	0,909	0,93	0,689
Managerial performance	0,926	0,94	0,661
Organizational Commitment	0,94	0,946	0,515
Accounting Information Systems	0,948	0,954	0,554
Timelines	0,919	0,935	0,672

As presented in Table 2, the Average Variance Extracted (AVE) value for all constructs was greater than 0.5. The construct with the lowest AVE value was " Organizational Commitment with a value of 0.515 as presented in Table 2. In addition, it showed the Composite Reliability (CR) value for all constructs which was above 0.7, meaning the estimation model met the discriminant validity criteria. The lowest Composite Reliability value was " Integrated" with a value of 0.930. It should be noted that the recommended value for Cronbach's alpha, as suggested by Bagozzi & Yi (2012) and Fornell and Larcker (1981), was above 0.7. The Cronbach's alpha value for all constructs was above 0.7, with the lowest value being 0.909.

Meanwhile, the influence provided by independent variables such as (X_1) Organizational Commitment, (X_2) Scope of the Board, (X_3) Timeline, (X_4) Aggregated, (X_5) Integrated, (X_6) Digital Skills, on Managerial performance (Y) can be seen from the following R Square table:

Table 3. R Square Test Results

	Managerial performance (AND)
R-Square	0,817
Adjusted R-Square	0,776

As discussed previously in the SmartPLS analysis, the R-square value for Managerial performance was at 0.776, indicating significant strength in the relationship. These results showed that 77.6% of Managerial performance could be attributed to the combined impact of Organizational Commitment, Organizational Commitment, Boardscope, Timelines, Aggregate, Integrated, and Digital Skills, while the remaining 22.4% was influenced by other factors.

Table 4. Structural Model Calculation Results

	Original Sample (O)	Statistik T (|O/STDEV|)	P -value	Results
Combined → Managerial performance	0,306	1.833	0,067	Rejected
Board Scope → Managerial performance	-0,069	0,521	0,602	Rejected
Digital Skills → Managerial performance	0,459	2.025	0,043	Accepted
Integrated → Managerial performance	0,068	0,356	0,722	Rejected
Organizational Commitment → Managerial performance	0,063	0,549	0,583	Rejected
AIS → Managerial performance	0,186	0,828	0,408	Rejected
AIS → Aggregate → Managerial performance	0,019	0,095	0,925	Rejected
AIS → Board Scope → Managerial performance	0,057	0,287	0,774	Rejected
AIS → Digital Skills → Managerial performance	-0,056	0,284	0,777	Rejected
AIS → Integrated → Managerial performance	-0,287	1.333	0,183	Rejected
AIS → Organizational Commitment → Managerial Performance	-0,014	0,085	0,933	Rejected
AIS → TimeLines → Managerial performance	0,363	1.381	0,168	Rejected
Timeline → Managerial performance	-0,010	0,049	0,961	Rejected

Based on the output of the Hypothesis Test results in Table 4, showed that organizational commitment did not affect managerial performance. Boardscope did not have a significant effect on Managerial Performance as did Time Lines on Managerial Performance. Aggregate and Managerial Performance had a significant effect on Managerial Performance. Organizational commitment did not affect Managerial Performance, on the other hand, Digital Skills had a positive effect on Managerial performance. The successful implementation of an accounting information system is not able to strengthen the influence of organizational commitment on managerial performance. The successful implementation of an accounting information system did not strengthen the influence of Board Scope on managerial performance.

The successful implementation of an accounting information system did not strengthen the influence of Timelines on managerial performance. The successful implementation of an accounting information system was not able to strengthen the aggregate influence on managerial performance. Moreover, the successful implementation of an accounting information system could not strengthen the integrated influence on managerial performance. The same trend occurred with the successful implementation of an accounting information system to the integrated relationship with managerial performance.

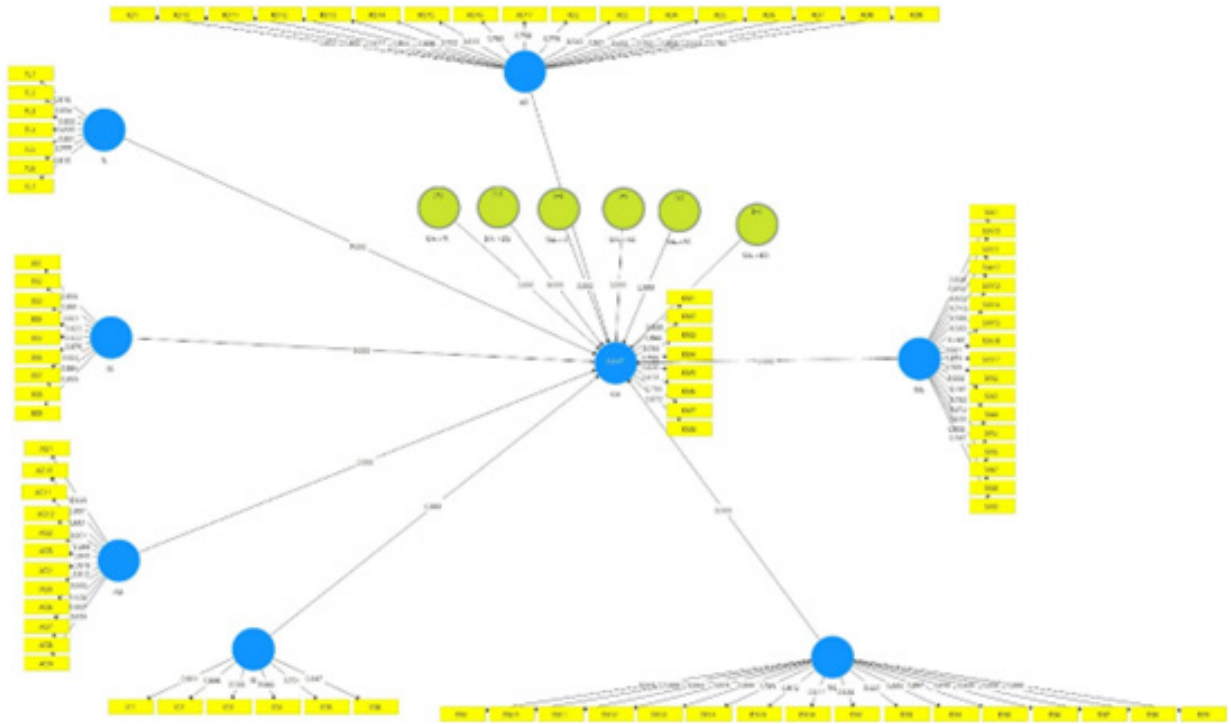

Figure 2. Bootstrapping output

DISCUSSION

Based on hypothesis testing, it was found that Organizational Commitment, Boardscope, Timeliness, Aggregation, Integration and Digital Skills had a positive but not significant effect on Managerial. Show. These results were not the same as the research results of (Solechan & Setiawati, 2009), (Darmansyaha & Fitrijanti, 2015), (Nguyen & Lugo-Ocando, 2016) (Respatiningsih, 2015), the results of the research stated that there was a relationship between the characteristics of the accounting system management and decentralization did not affect managerial performance. Juristisia (2011) in his research found that the characteristics of management accounting information influence managerial performance.

The positive influence of these variables on managerial performance might not be significant for several reasons: (1) Different research contexts might influence the results. For example, research in the public sector might have different results from research in the private sector, (2) The research methodology used could also influence the results. For example, a small sample size or inappropriate data analysis techniques could lead to insignificant results. (3) The interaction between these variables also needed to be considered. For example, organizational commitment could moderate the influence of broad scope on managerial performance but did not directly have a significant effect without being integrated with other factors.

The successful implementation of an accounting information system strengthened the influence of organizational commitment, integration and Digital Skills on Managerial Performance. It was rejected and not significant, the successful implementation of the accounting information system strengthened the influence of Boardscope, Aggregation, and Managerial Performance Timeline. It was acceptable and not significant. This research was not in line with research (Din & Habibullah, 2015), (Handayani & Hariyati, 2014), (Widodo et al., 2011), the characteristics of management accounting information had strengthened the relationship between budget participation and managerial performance. This finding was not supported by previous research.

Organizational commitment that was not strong could hinder the influence of SIAM on managerial performance. If organizational commitment was inadequate, then managers and staff might not participate actively in the decision-making and SIAM implementation processes, thereby reducing the effectiveness of the system. Integration that was not timely or comprehensive could reduce the influence of SIAM on managerial performance. If information was not well integrated, then managers could not make strategic decisions based on complete information. Insufficient digital skills could hinder the maximum use of SIAM. If managers did not have sufficient digital skills, then they could not optimize the use of the information provided by SIAM, thereby reducing its impact on managerial performance.

Today's increasing business competition required companies to utilize existing capabilities as fully as possible, to excel in the competition. The competitive advantage could be created by a company in one way, namely improving managerial performance (Gurendrawati et al., 2014). The more quality information obtained by management, the more this information was used as the basis for business management, the more management's ability to achieve business success will increase. This explained the influence of Information Characteristics on Managerial Performance as this statement was strengthened by research by Juniarti (Evelyne & Juniarti, 2003) which stated that decisions based on quality information would have an impact on improving managerial performance. (Evelyne & Juniarti, 2003) Concluded that there was a significant relationship between information characteristics (scope, aggregation, timeliness, and integration) and managerial performance. (Evelyne & Juniarti, 2003) Also concluded that using the same variables and indicators would show that there was an influence between information characteristics and managerial performance. This meant that the characteristics of SIAM information had an impact on managerial performance and the impact of the characteristics of SIAM information was very positive and could improve managerial performance (Evelyne & Juniarti, 2003), (Nur Firdausy et al., 2022), (Gurendrawati et al., 2014).

CONCLUSIONS

The findings showed that Digital Skills and Aggregated had a higher influence on Managerial Performance than the influence of Organizational Commitment, Boardscope, Timelines, and Integration on Managerial Performance. Furthermore, of the six variables that had a direct influence on Managerial Performance, namely Organizational Commitment, Boardscope, Timelines, Aggregate, Integration and Digital Skills, only Digital Skills were the most dominant variable in influencing the success of AIS implementation. Meanwhile, the least dominant variable was Timelines, with the smallest value. The contribution of organizational commitment, board scope, timeliness, aggregation, integration and digital skills to managerial performance could be positive but not always significant depending on the context and way of implementation. Further research, to fill the research gap, required further research that considered context and a more robust methodology. Moderating variables such as organizational commitment needed to be considered to understand the interactions between these variables. Digital skills had to be considered as a variable that influences managerial performance, especially in the current digital era.

REFERENCES

Abdillah, W., & Hartono, J. 2015. *Konsep dan Aplikasi PLS (Partial Least Square) untuk Penelitian Empiris.* Yogyakarta: Penerbit Andi.

Chenhall, B. E., Batley, G. E., Yassini, I., Depers, A. M., & Jones, B. G. 1994. Ash Distribution And Metal Contents Of Lake Illawarra Bottom Sediments. Aust.j.mar.freshwater Res., 45(6).

Choe, J. M. 1996. The Relationships Among Performance Of Accounting Information Systems, Influence Factors, And Evolution Level Of Information Systems. Journal of Management Information Systems, 12(4). https://doi.org/10.1080/07421222.1996.11518107

Darmansyaha, A., & Fitrijanti, T. 2015. The Influence of Managerial Style and Implementation of Computer-Based Accounting Information System (CBAIS) on Managerial Performance of Indonesian Sugar. Abstrak, 6(10).

Evelyne, E., & Juniarti, J. 2003. The Relationship Of Information Characteristics Produced By Management Accounting Information Systems On Managerial Performance In Manufacturing Companies In East Java. Journal of Accounting and Finance, 5(2).

Gul, F. A. 1991. The Effects of Management Accounting Systems and Environmental Uncertainty on Small Business Managers' Performance. Accounting and Business Research, 22(85). https://doi.org/10.1080/00014788.1991.9729418

Gurendrawati, E., Murdayanti, Y., & Putri, A. G. 2014. The Impact Of Information Technology, Management Accounting System Characteristics, and Locus Of Control To The Managerial Performance In The Telecommunication Service Companies. Rev. Integr. Bus. Econ. Res, 4(1).

Handayani, S., & Hariyati, H. 2014. *Pengaruh Karakteristik Sistem Informasi Akuntansi Manajemen: Broad Scope, Timeliness, Aggregated, Dan Integrated Terhadap Kinerja Manajerial Umkm*. (Studi Pada Umkm Di Desa Wedoro, Kab. Sidoarjo). AKRUAL: Jurnal Akuntansi, 5(2). https://doi.org/10.26740/jaj.v5n2.p184-204

Kaye, J., Lowenstamm, J., & Vergnaud, J.-R. 1990. Constituent Structure And Government In Phonology. Phonology, 7(1). https://doi.org/10.1017/s0952675700001184

Krigsman, M. 2012. Worldwide cost of IT failure (revisited): $ 3 trillion. ZDNet.

Laudon, K. C., & Laudon, J. P. 2016. Essentials of Management Information Systems, 12th Edition. Pearson, 290.

Lee, J., & Kim, S. hoom. 1992. The Relationship Between Procedural Formalization in MIS Development and MIS Success. A Contingent Analysis. Information and Management, 22(2). https://doi.org/10.1016/0378-7206(92)90064-M

Meiryani, M., Susanto, A., 2019. The Issues Influencing Of Environmental Accounting Information Systems: An Empirical Investigation of SMEs in Indonesia. International Journal of …. https://search.proquest.com/openview/5918f8da164aea0f80a99078f815824b/1?pq-origsite=gscholar&cbl=816340

Mia, L. 1993. The Role Of Mas Information In Organisations: An Empirical Study. British Accounting Review, 25(3). https://doi.org/10.1006/bare.1993.1026

Nguyen, A., & Lugo-Ocando, J. 2016. The State Of Data And Statistics In Journalism And Journalism Education: Issues And Debates. Journalism. https://doi.org/10.1177/1464884915593234

Nur Firdausy, A., Bastian, E., & Fitriyani, F. 2022. Interaction of Environmental Uncertainty, Characteristics of Management Accounting Information Systems and Decentralization on Managerial Performance. Journal of Applied Business, Taxation and Economics Research, 2(2). https://doi.org/10.54408/jabter.v2i2.143

Pedroso, E., Gomes, C. F., & Yasin, M. M. 2020. Management Accounting Systems: An Organizational Competitive Performance Perspective. Benchmarking, 27(6). https://doi.org/10.1108/BIJ-12-2019-0547

Ramiller, N. C., & Swanson, B. (1997). IT Sensemaking and Internal Partnering: Field Notes on Barriers. https://doi.org/10.1007/978-0-387-35092-9_11

Respatiningsih, I. 2015. *Pengaruh Komitmen Organisasi, Motivasi, Kapabilitas Dan Kepuasan Kerja Terhadap Kinerja Pegawai (Studi Empirik Pada Inspektorat Kabupaten Pemalang).* In Serat Acitya-Jurnal Ilmiah UNTAG Semarang (Vol. 4, Issue 3).

Sekaran, U., & Bougie, R. 2016. Sekaran. Suparyanto Dan Rosad (2015, 5(3).

Solechan, A., & Setiawati, I. 2009. *Pengaruh Karakteristik Sistem Akuntansi Manajemen dan Desentralisasi sebagai Variabel Moderating Terhadap Kinerja Manajerial.* Fokus Ekonomi, 4(1).

Susanto, A., & Sudrajat, J. 2019. The Effect of Environmental Complexity on the Quality of Accounting Information Systems: Integration, Flexibility and Accessibility Dimensions. https://doi.org/10.1145/3337682.3337702

Warren, J. D., Moffitt, K. C., & Byrnes, P. 2015. How Big Data Will Change Accounting. Accounting Horizons, 29(2). https://doi.org/10.2308/acch-51069

Widodo, H., Windi, C., Ekonomi, F., & Muhammadiyah, U. 2011. *Pengaruh Desentralisasi Dan Karakteristik Informasi Sistem Akuntansi Manajemen Terhadap Kinerjamanajerial Pada PT (Persero) Pelabuhan Indonesia Iii Cabang Tanjung Perak.* Seminar Nasional Ilmu Ekonomi Terapan.

Wilkin, C. L., & Chenhall, R. H. 2020. Information Technology Governance: Reflections On The Past And Future Directions. Journal of Information Systems, 34(2). https://doi.org/10.2308/isys-52632