THE USEFULNESS OF MANAGEMENT ACCOUNTING INFORMATION SYSTEM CHARACTERISTICS ACCORDING TO THE PERCEPTION OF USERS

Veronica Christina[1*], Sunardi Sembiring Brahmana[2]

[1,2]Sekolah Pasca Sarjana Universitas Widyatama

veronica.christina@widyatama.ac.id[1], sunardi.brahmana@widyatama.ac.id[2]

ABSTRAK

Penelitian ini bertujuan untuk mendeskripsikan manfaat karakteristik informasi akuntansi manajemen pada beberapa jenis perusahaan di kota Bandung menurut persepsi karyawan di perusahaan tersebut. Sistem informasi akuntansi manajemen merupakan salah satu jenis akuntansi yang sering diabaikan di berbagai perusahaan. Manajemen suatu perusahaan tentunya memerlukan informasi yang relevan dan akurat saat mengambil keputusan, informasi tersebut disediakan oleh sistem informasi akuntansi manajemen. Hasil penelitian menunjukkan bahwa manajer mempersepsikan karakteristik informasi akuntansi manajemen dalam bentuk ruang lingkup, ketepatan waktu dan agregasi lebih dari berguna, sedangkan karakteristik integrasi dianggap sangat berguna.

Kata Kunci : System InFormasi Akuntansi Manajemen, Ruang Lingkup, Ketepatan Waktu, Agregasi dan Integrasi

ABSTRACT

This research aims to describe the benefits of the characteristics of management accounting information in several types of companies in the city of Bandung according to the perceptions of employees in these companies. Management accounting information systems are a type of accounting that is often ignored in various companies. The management of a company certainly requires relevant and accurate information when making decisions, this information is provided by the management accounting information system. The research results show that managers perceive the characteristics of management accounting information in the form of scope, timeliness and aggregation as more than useful, while the characteristics of integration considered very useful.

Keywords: Management Accounting Information System, Scope, Timelines, Aggregation, and Integration

INTRODUCTION

MAIS is an indispensable element of managing an organization. MAIS provides information about the actual financial and non-financial situation of an organization. Management uses this information to set goals, make decisions in conducting business activities, identify business problems, control the organization and develop the organization's strategic plan. Various management accounting books confirm that management accounting is very useful for management in achieving success. For example, his book (Hansen et al., 2009); (Blocher et al., 2019); (Atkinson et al., 2012). However, in reality, based on interviews conducted with several accounting employees from various companies in 2022, it was found that companies operating in the mining, textile, finance, hospital and medicine sectors were still very minimal in implementing management

accounting information systems.

Relevant and accurate information is needed by a manager in carrying out their responsibilities, namely planning, organizing, implementing activities and controlling. A very valuable resource today is the availability of information throughout the organization and is a reliable driver of performance (Evans, 2007). MAIS as a provider of accounting information for management by recording, measuring and assessing the realization of internal operations is very useful in implementing management functions.

MAIS can be applied to all types of organizations. Many studies on management accounting have been conducted in various industrial fields including the banking Industry Christina & Brahmana, (2021), hospital services (Hammad et al., 2013), medium and large manufacturing industries (Hariyati et al.,

2019), food and beverage industry (Abdel - Kader & Luther, 2008). New concepts such as the method of calculating production costs based on activity and known as activity - based costing, then developed into activity - based management, a quality approach called total quality management and strategic cost management and many more have been developed in management accounting to suit with the changes taking place in the business. However, several research studies have found that many companies do not incorporate new techniques and tools developed by theorists into their accounting systems (Hansen et al., 2003; Maina Waweru et al., 2004). Literature analysis also shows that the theoretical models produced by researchers in this field are not used in accounting practices in the business world to solve most cases (Al-Omiri & Drury, 2007).

Atkinson et al., (2012) says that relevant and accurate information, financial and non-financial, is required by managers and employees of companies to make decisions, distribute resources, monitor and evaluate and be used as a basis for awarding, provided by MAIS. Given this, companies should pay more attention to the implementation of MAIS in their companies. Several studies have found that the MAIS causes variations in values on company performance and manager performance, for example research conducted by (Dahlan, 2022); and (Kasravi, 2017). Research conducted by (Braim, 2020) shows that the MAIS has an advantageous effect in the decision-making process which will ultimately improve performance.

Management accounting is described as having characteristics that can be used to show the usefulness of its information which includes scope, timeliness, aggregation and integration (Chenhall & Morris, 1986). This study uses these characteristics to measure the usefulness of MAI from the perspective of its users. Considering the importance of the usefulness of management accounting information, it is necessary to conduct research to describe the usability conditions of MAIS characteristics according to user perceptions.

LITERATURE REVIEW
User perceptions regarding the usefulness of each characteristic of MAI will be a driving force for implementing management accounting information systems. MAI is the basis for managers to perform management functions. If managers understand the functions and uses of

the characteristics of MAI, of course they will not ignore the application of MAIS.

This research uses the theory of organizational behavior in terms of individual differences which was developed by the interactional psychology approach (Endler and Magnuson, 1976 in Christina & Brahmana, 2021) which says that to understand behavior, you must first understand something about the person and the situation, which interact with each other. In this research, we only use something about people, namely their perceptions regarding the benefits of each characteristic of SIAM, which will then influence behavior, namely the application of SIAM in organizations.

The accounting information system has two sub - systems, namely financial accounting information whose output is in the form of financial reports, which are mandatory; and a MAIS whose output is in the form of accounting information to assist management in carrying out management functions. Environmental changes that take place quickly and continuously, increasing competition and the need for information for decision making in managing companies have led to the need for in-depth attention to management accounting concepts.

MAIS as a decision - making facility can improve manager performance. This system functions to track the efficiency of internal processes and related activities, as well as the effectiveness of the company in a competitive environment (Pedroso et al., 2020). Therefore, a study of the usefulness of each information characteristic will greatly assist management in obtaining relevant information in achieving organizational goals. The management accountant responsible for developing and implementing the MAIS in a company must have expertise in decision making, planning, coordinating and controlling. Management Accountants work closely with managers to prepare information so that the company is successful in formulating and implementing its strategy (Hansen et al., 2009).

Large and small companies in all types of industries, of course, need a MAIS. The level of company requirement for MAIS varies depending on the business processes and the nature of the company's strategy. Companies that use a cost leadership strategy need information about value - added and non – value - added costs, while companies with a differentiation strategy will emphasize information on the development stage. This is in line with the statement of Hansen and

Mowen (Hansen et al., 2009) that the level of dependence of companies on management accounting is on the nature of the objects being financed and the reason management wants to know the costs or in general depends on the nature of the strategy.

Changes that occur in the business world have led to increased market competition, the development of production technology that uses computers, flexible management models and changes in customer behavior not only make the need for MAIS increase but also require a better quality and more sophisticated MAIS (Ajibolade, 2013). Chenhall and Morris (1986) have developed the useful characteristics of MAI for its users which include scope, timeliness, integration and aggregation. The scope characteristics indicate that management accounting information must include both internal and external, financial and non - financial, current and future information. Timeliness characteristics indicate accuracy in terms of report frequency and report speed. Characteristics that are aggregative indicate aggregate in terms of time, function area, analysis model and decision - making model. Integrative characteristics indicate that information on target accuracy of activities and their interrelationships within sub - units, reports of interactions between sub - units.

The concept of the characteristics of MAI has been developed for quite a long time and the development of the business world has been extraordinary, but the author views the characteristics of MAI developed by (Chenhall & Morris, 1986) as still relevant today. This can be seen from the many studies that have been carried out to date, for example research conducted by (Dahlan, 2022); (Dobroszek et al., 2019); and (Pedroso et al., 2020). Based on the description above, a descriptive hypothesis can be formulated that the characteristics of MAI are perceived as very useful.

METODHOLOGY

This research was conducted on three different companies, namely a banking company, a textile company and a medical company. This research is quantitative descriptive research which aims to describe the characteristics of the research variables. This research uses descriptive statistics to create this depiction as X for everage and interval line {(max score - min score)/level} formula. The research population is managers at all levels in each company who use accounting information. The population element in banking companies consists of 80 managers. The population element in the textile company consists of 100 middle level managers. The population element in the medical company is 140 middle level managers. Puposive sampling was used to determine the sample with criteria that returned questionnaires were considered as a sample. A total of 80 people were obtained from textile companies, 104 people from medical companies and 80 people from banking companies, a total sample of 264 people. The instrument used in this research was developed by Chenhall and Moris (1986) consisting of nineteen questions used to measure the usefulness of management accounting system information characteristics
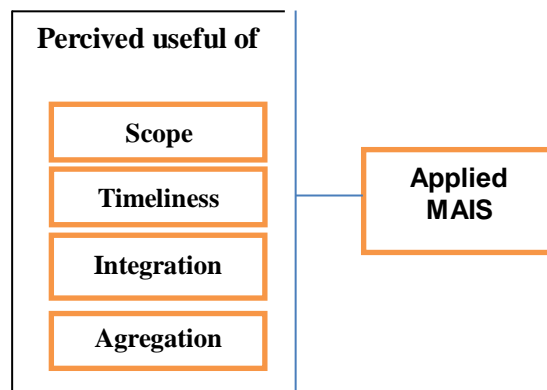
The following is the research frame work

Figure 1. Frame work

RESULT

All question items on the questionnaire show valid and reliable judging from the results of tests carried out using the Pearson's product moment test approach for validity and Cronbach's Alpha for reliability. The results of data processing are described using an interval line based on the respondent's answers by subtracting the maximum score from the minimum score from the respondent's answer and then dividing it by the level $\{(5 -1)/5\} = 0.8$. The continuum line of the respondent's answer is used to interpret the meaning of the score of the respondent's answer, shown in the following figure

1	1,8	2,6	3,4	4,2	5

Figure 2. continuum

Table 1. Classification of the Average Score of Respondents' Answers

Average Score Range	Characteristics of Management accounting information
1 – 1,79	Totally useless
1,8 – 2,59	Rather useful
2,6 – 3,39	useful
3,4 – 4,19	More useful
4,2 – 5	Very useful

A summary of the results of respondents' answers from the three companies is shown in the following table. Letter A is a company engaged in the medical sector, B is a company engaged in the textile sector and C is a banking company

Table 2
Description of Managers' Perceptions Regarding the Management Accounting System

No	Sope Statement	A	B	C	$\bar{X}$
1	Information related to events that may occur in the future, for example new regulations (if past data is most needed, choose number 1 on the scale)	4.69	3.99	3.41	403
2	Information relating to the likelihood of an event occurring in the future (for example: estimated probability)	4.41	4.09	3.48	3.99
3	Non-economic information, such as consumer tastes, employee attitudes, work relations, attitudes of government and consumer institutions, threats of competitors, etc	4.39	4.09	3.78	4.09
4	Information about the company's external factors, for example economic conditions, population growth, technological, conditions, population growth, technological developments etc	6.14	4.06	3.86	4.18
5a	Information relating to production and non-financial nature (output level, machine utilization, employee attendance and others)	3.34	4.15	3.77	4.06
5b	Information relating to production and non-financial nature (output level, machine utilization, employee attendance and others)	3.34	4.15	3.77	4.06
	Average	4.64	4.50	3.65	3.92

The scope dimension in company A obtained an average answer score of 4.46 which means that the MAI characteristics related to scope were perceived as very useful by managers of medical companies. Managers at company B engaged in textiles perceive the scope dimension to be very useful, while managers at banking companies perceive the scope characteristics to be more useful

No	Timeliness Characteristics Statement	A	B	C	D
6	The requested information immediately comes as requested	4.83	3.03	3.49	3.79
7	Information is submitted to you automatically after it is received into the information system or immediately after	4.61	3.99	3.63	4.08

No	Statement	A	B	C	Avr
	processing is completed				
8	Reports made can be systematic or routine, for example daily reports and weekly reports	4.08	3.97	3.94	3.99
9	Relevant information is obtained in a timely manner at the time the event occurred	4.83	3.86	3.54	4.08
	average	4.83	3.71	3.65	4.06

Managers in medical companies (A) perceive that the timeliness characteristics of MAI are very useful, while managers in textile and banking companies perceive that the timeliness characteristics of MAI are more useful

No	Aggregation Characteristics Statement	A	B	C	Avr
10	Information is provided on various functional area sections within your organization. For example: marketing, production, sales costs and so on.	4.76	4.06	3.60	4.14
11	Information on the impact of events at a certain time is always available. For example monthly, quarterly, trending, etc.	4.76	4.17	3.94	4.29
12	Information provided to show the impact of the incident on different functions. For example the production.	4.64	4.18	3.31	4.04
13	Information on the impact of the activties of various functions in the overview report. For example: expense, profit and revenue reports for:	4.65	4.405	3.79	4.16
	a. your particular section				
	b. Company as a whole	4.65	4.02	3.70	4.12
14	Information in a form that allows you to do what - if analysis	4.64	3.88	3.36	3.95
15	Information in an appropriate format to include in a decision model such as a. Discounted cash flow analysis	4.43	3.85	3.56	3.95
	b. Incremental or marginal analysis	4.43	3.85	3.56	3.95
	c. Inventory analysis	4.43	3.85	3.56	3.95
	d. credit policy analysis	4.43	3.85	3.56	3.95
16	Costs are separated into fixed and variable costs	4.73	3.85	3.69	4.09
	average	4.59	3.38	3.57	4.05

The characteristics of aggregation of MAI are perceived as very useful by managers in medical companies. The managers of textile and banking companies perceive that aggregation of MAI is included in the more useful category.

No	Integration Characteristics Statement	A	B	C	Avr
17	Information on the effect of your decisions throughout the department, and the effect of other people's decisions in the unit that is your responsibility	4.64	4.12	3.78	4.18
18	Precise targets for all sections in your department.	4.65	4.38	3.80	4.27
19	information relating to the department's performance as a result of your decisions	4.71	4.22	4.09	4.34
	Average	4.66	4.24	3.89	4.26

The integration dimension according to

company managers in the medical sector and textile companies is perceived as very useful. Managers of banking companies perceive that management accounting information with integration characteristics is perceived as more useful

Table 3. Summary of the MAIS Characteristic Average Answer Scores

MAIS Characteristics	Average	Description
Scope	3.92	More useful
Timelines	4.06	More useful
Aggregation	4.05	More useful
Integration	4.26	Very useful
Total average	4.07	More useful

Table 3 shows that in general the three dimensions of management accounting information namely scope, timelines and aggregation are perceived as more useful while the aggregation dimension is perceived as very useful, while the dimension that gets the lowest score is the scope dimension

DISCUSSION

The study found that managers of company engaged in several different business fields perceive that the scope of MAI is more than useful for managers in carrying out management functions. The information provided by a MAIS can be narrow or broad in scope, past or future, financial or non-financial (Hammad et al., 2013; Soobaroyen & Poorundersing, 2008). Information with a narrower scope is usually associated with internal information known as the traditional management accounting system, while a broader scope is related to external information which can be in the form of economic or non-economic information, Chenhall & Morris (1989); Sharma et al., (2006). Considering that the scope of MAI is wide and varied, of course this is very useful for carrying out the duties of managers, therefore managers should pay more attention to developing the scope of management accounting information.

Managers perceive that MAI with timeliness characteristics is included in the very useful category. These characteristics are reflected in the speed or accuracy in responding to requests for information by users (Chun Cheong Fong & Quaddus, 2010; Hammad et al., 2013). Management accounting information is available in a timely manner reporting current events that are indispensable for decision making as well as

feedback. Management will certainly be greatly assisted by the availability of timely accounting information. Therefore it is necessary to pay attention to the knowledge and abilities of employees who provide information.

The aggregation dimension is perceived as more useful by managers. This dimension can be seen from information that is systemized based on functional areas and time periods, or information formats that are consistent with formal decision models. Department managers can obtain information about other departments with information aggregation (Chun Cheong Fong & Quaddus, 2010) this can be used by department managers to coordinate which will result in synergies between departments.

Information integration is seen as very useful by managers. Integrated information is related to cross-functional data, reporting intra -sub-unit interactions and this helps department managers see the impact of their decisions on other departments (Hammad et al., 2013; Soobaroyen & Poorundersing, 2008). Research conducted by (Sari & Noviana, 2022) found that the information characteristics of Mas did not affect performance because managers were doubtful about the usefulness of the information characteristics of MAS.

CONCLUSION

The results of the study show that managers perceive the dimensions of scope, timeline, and aggregation of MAI as more useful. The MAI integration dimension was perceived by managers in the very useful category. This means that only one MAI characteristic, namely integration, is in accordance with the descriptive hypothesis, while the other three characteristics are almost in accordance

The findings of this research can be used as a basis for providing the following suggestions. Company managers should pay more attention to the implementation of MAIS. It is better if this system is managed separately from the financial accounting information system section, so that if at any time the manager needs accounting information to support its functions, it can be immediately available, both internal and external, narrow or broad, financial and non-financial. This is in line with the statement by (Pedroso et al., 2020) that management accounting information increases organizational efficiency and effectiveness. Integrating various aspects of

management accounting information systems is very necessary considering the impact on various aspects of the organization. MAS also provides information for performance evaluation, including financial measures and non-financial measures such as customer satisfaction and product quality. Managers also need to pay attention to the involvement of information users when developing management accounting information systems to avoid rejection from users. These things need to be considered because based on research, MAS has been found to be able to influence performance (Dahlan 2018; Dobrozek et.all 2019; Braim 2020).

REFERENCE:

Abdel-Kader, M., & Luther, R. (2008). The Impact of Firm Characteristics On Management Accounting Practices: A UK-based empirical analysis. British Accounting Review, 40(1), 2–27. https://doi.org/10.1016/j.bar.2007.11.003

Ajibolade, S. O. (2013). Management Accounting Systems Design and Company Performance In Nigerian Manufacturing Companies: A Contingency Theory Perspective. British Journal of Arts and Social Sciences, 14(Noll), 228–244. http://www.bjournal.co.uk/BJASS.aspx

Al-Omiri, M., & Drury, C. (2007). A Survey of Factors Influencing The Choice Of Product Costing Systems In UK Organizations. Management Accounting Research, 18(4), 399–424. https://doi.org/10.1016/j.mar.2007.02.002

Atkinson, A. a, Kaplan, R. S., & Young, S. M. (2012). Management Information for Decision-Making and Strategy Execution.

Braim, S. J. (2020). Decision-Making Process the Role of Management Accounting in the Decision-Making Process. Master Thesis. NICOSIA.

Chenhall, R. H., & Morris, D. (1986). The Impact of Structure, Environment, and Interdependence on the Perceived Usefulness of Management Accounting Systems. Source: The Accounting Review, 61(1), 16–35. http://www.jstor.org/stable/247520%5Cn http://www.jstor.org/page/info/about/policies/terms.jsp

Christina, V., & Brahmana, S. S. (2021). Role Conflict Weaken The Influence Of Management Accounting Information Systems On Managerial Performance. Review of International Geographical Education Online, 11(5), 4991–4997. https://doi.org/10.48047/rigeo.11.05.374

Chun Cheong Fong, S., & Quaddus, M. (2010). Intranet use in Hong Kong public hospitals. International Journal of Accounting & Information Management, 18(2), 156–181. https://doi.org/10.1108/18347641011048138

Dahlan, M. (2018). The Effect of Management Accounting Systems on Company Performance, External Environmental Uncertainty as a Moderating Variable. Indonesian Journal of Business, Accounting and Management, 1(01), 55–66. https://doi.org/10.36406/ijbam.v1i1.540

Dobroszek, J., Zarzycka, E., Almasan, A., & Circa, C. (2019). Managers' Perception Of The Management Accounting Information System In Transition Countries. Economic Research-Ekonomska Istrazivanj 32(1), 2798–2817. https://doi.org/10.1080/1331677X.2019.1655466

Edward J. Blocher, Stout, D. E., Juras, P. E., & Smith, S. D. (2019). Cost Management: A Strategic Emphasis. In Angewandte Chemie International Edition, 6(11), 951–952. (Issue Mi).

Evans, J. R. (2007). Impacts of Information Management on Business Performance. Benchmarking, 14(4), 517–533. https://doi.org/10.1108/14635770710761906

Hammad, S.A., Jusoh, R. and Ghozali, I. (2013), "Decentralization, perceived environmental uncertainty, managerial performance and management accounting system information in Egyptian hospitals", International Journal of Accounting and Information Management, Vol. 21 No. 4, pp. 314-330, doi: 10.1108/IJAIM-02-2012-0005

Hansen, D. R., Mowen, M. M., & Guan, L. (2009). Cost Management: Accounting and Control. In Cengage Learning.

Hansen, S. C., Otley, D. T., & Van der Stede, W. A. (2003). Practice Developments in

Budgeting: An Overview and Research Perspective. Journal of Management Accounting Research, 15(1), 95–116. https://doi.org/10.2308/jmar.2003.15.1.95

Hariyati, Tjahjadi, B., & Soewarno, N. (2019). The mediating effect of intellectual capital, management accounting information systems, internal process performance, and customer performance. International Journal of Productivity and Performance Management, 68(7), 1250–1271. https://doi.org/10.1108/IJPPM-02-2018-0049

Kasravi A. (2017). The Effect Of Management Accounting, Financial Performance And Organizational Performance In Tafresh University. Journal of Internet Banking and Commerce, 22(3). http://www.icommercecentral.com

Maina Waweru, N., Hoque, Z., & Uliana, E. (2004). Management accounting change in South Africa: Case studies from retail services. In Accounting, Auditing & Accountability Journal (Vol. 17, Issue 5). https://doi.org/10.1108/09513570410567773

Pedroso, E., Gomes, C. F., & Yasin, M. M. (2020). Management accounting systems: an organizational competitive performance perspective. Benchmarking, 27(6), 1843–1874. https://doi.org/10.1108/BIJ-12-2019-0547

Sari, I. P., & Noviana, M. (2022). The Effect Of Characteristics Of Management Accounting System Information (Broadscope, Timeliness, Aggregation, And Integration) And Decentralization Of Managerial Performance. Journal of Applied Managemet (JAM), 20(4).

Sharma, R., Jones, S., & Ratnatunga, J. (2006). The relationships among broad scope MAS, managerial control, performance, and job relevant information: A concomitant analysis. Review of Accounting and Finance, 5(3), 228–250. https://doi.org/10.1108/14757700610686435

Soobaroyen, T., & Poorundersing, B. (2008). The effectiveness of management accounting systems: Evidence from functional managers in a developing country. In Managerial Auditing Journal (Vol. 23, Issue 2). https://doi.org/10.1108/02686900810839866