



## Research Article

# The Role of Management Accounting in the Decision Making of the Indonesian Textile Industry

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### ABSTRACT

Quality management accounting information is needed for decision making. Quality management accounting information is produced from a quality management accounting system, namely a system that can be integrated between one unit and another. In fact, the management accounting system in the textile industry is still not able to be integrated. This quantitative study aims to prove that the quality of the management accounting system affects the quality of information. This study involved textile companies registered with the Indonesian Textile Association, a total population of 150 companies with a sampling method using power analysis at a significance level of 5% with a statistical power of 0.8 to produce a minimum R<sup>2</sup> of 0.25 to get a sample size of 70 companies. Primary data is processed using the SEM-PLS approach. The results of this study prove that the management accounting system influences the quality of information. Following up on the findings of this study, the management accounting system must be managed optimally by using information technology that is relevant to needs.

### INTRODUCTION

Indonesia's economic growth in the first quarter of 2020 recorded a slowdown of 2.97 percent due to the Covid-19 pandemic, and the textile industry was one of the industries that was hit the hardest by several problems such as declining global and domestic market demand, an abundance of imported products in the domestic market, and the problem of poor financial performance. Even though this industry has an important role for the sustainability of the national economy with an export contribution of 10.52 percent. Another important role is that the textile industry is an industry that can absorb as much as 20 percent of the total workforce in the processing industry (Sirait and Syafrifri, 2020).

a company's performance, and management skills in the face of environmental uncertainty are key to strengthening that performance. The quality of decision-making is determined based on accurate information while accurate information is generated from the appropriate information system. Therefore, the quality of information systems becomes a key factor to produce information that may be used in decision-making depending on the problems faced.

Management accounting information systems will follow management's needs in response to the uncertainty of environmental changes (Pauline, 2006a). The results of the study of (Strumickas and Valanciene, 2010) stated that environmental changes can affect the development of management accounting informa-

Management plays a leading role in strengthening





tion systems. (Chenhall and Morris, 1985), on the other hand, stated that environmental uncertainty affects the design of management accounting systems and provides benefits with the acquisition of timely information. (Duncan, 1972) environmental uncertainty focuses on a lack of information about environmental factors and how the environment itself will affect the success and failure of company goals. Management accounting systems affect the quality of management accounting information (Nelson, Todd and Wixom, 2005). The management accounting system is a series of procedures that are collected, processed into information, and then shared with users within the company (Hall, 2013). Many do not understand that management accounting systems are concerned with creating information used by internal parties, using inputs and processes used to achieve management goals.

The function of management is to make decisions, which are based on scientific studies not instinct alone. This scientific study is in the form of information, and information is of quality means that it is worth using as a basis for decision making. Quality information is born from quality information systems, which are information systems that can integrate between parts, are flexible, have accessibility, are formalize, and have many facilities (Heidmann, 2008a). This research is to evaluate and provide recommendations to the textile industry regarding the importance of using information technology-based management accounting systems, so that the information generated is accurate and worthy for decision making.

This research was conducted in the textile industry analysis unit, using verificative and explanatory

research methods. The research objective is to prove that the quality of the management accounting system influences the quality of management accounting information. The results of this study are also expected to get model findings from the success of a management accounting system in the textile industry. Recommendations given to decision makers to use relevant information based on need do not use feeling alone.

### **Theoretical Framework**

An organization is an open system, it interacts with different dimensions of the organizational environment in a variety of different ways. Three basic perspectives can be used to describe the influence of the environment on the organization, namely; a) environmental change and complexity, b) competitive forces and c) environmental upheaval (Griffin and Pustay, 2007).

Environmental uncertainty arises when managers don't have enough information about environmental factors, and they have difficulty predicting their impact on the organization. Uncertainty has been described as a result of complexity and dynamic in the environment. Environmental complexity is the number of environmental components that influence an organization's decision-making. A dynamic environment is a rate at which these components change (Moorhead and Griffin, 2012).

Opinion (Sawyer, McGee and Peterson, 2003) can be interpreted environmental uncertainty as the level of variability in the environment, the level of en-



environmental complexity, and the level of importance of the sector for the achievement of organizational goals (strategic interests).

Furthermore, (Wheelen and David J, 2010) stated that environmental uncertainty is the level of complexity and the level of external environmental change that occurs and is experienced by an organization. Complexity itself is spelled out as the heterogeneity of the environment or various components of the environment. An organization is required to inventory the primary environment and the secondary environment, and a good manager is a manager who can accommodate the demands of the environment (Griffin and Pustay, 2007).

Commitment of various resources within the organization is needed for management to plan, operationalize and update information systems (Gaidienė and Skyrius, 2006). In the organization's development, it is necessary to use information systems that can integrate one part with other parts (Griffin and Pustay, 2007).

The environment around the company is always changing. As a result of these changes are needed adjustments to the company's management accounting (Hoque, 2013). As stated by (Heidmann, 2008b) a management accounting system consists of the planning, budgeting, and forecasting processes required in reviewing information (Strumickas and Valanciene, 2010) explained that the quality of management accounting information systems is affected by conditions of environmental uncertainty. (Coombs, Hobbs and Jenkins, 2005) also stated that environmental un-

certainty factors trigger the design of management information systems. Management accounting systems are developed following changes in the corporate environment (Pauline, 2006b). (Zimmerman, 2016) claimed that changes in the company's external environment are the cause of the redesign of the management accounting system. While (Merchant and Van der Stede, 2017) believed that changes in the environment and complexity of corporate environmental problems become the most common effect in designing management accounting systems.

(Hansen, Mowen and Guan, 2007) Management accounting systems focus on how to generate the output of management accounting information for the benefit of internal users. (Ryan, Todd and Wixon, 2005) provide a statement that management accounting information is affected by the management accounting system (Stair and Reynolds, 2020). Management accounting information systems influence management accounting information. Furthermore (Hall, 2012) a collection of formal procedures ranging from data collection, processed data, then produce information that will be distributed called an information system.

Management accounting systems provide all types of management information to support management's role in directing the entire activities of an organization (Wilton and Platt, 2016). (Mia and Winata, 2008) believed that management accounting information systems is a major component of organizational and control systems, and is imperative in meeting managers' information needs.



The quality of management accounting information is determined by the quality or lack of quality of the information system (Mia and Winata, 2008). Accounting information systems should produce management accounting information to assist managers in carrying out their duties. (Hardika, Putra and Halimrachmat, 2019) discovered the characteristics of management accounting systems in accounting information systems and their impact on managerial performance. The study results (Quang-Huy, 2020) Accounting information is generated from the process of an accounting information system, and the information is used for decision making to support the improvement of management performance.

The company's performance can be improved through the use of management accounting systems (Al-Mawali, 2013). The ability to deal with high environmental uncertainty will be able to have an impact on the management accounting system, and subsequently have an impact on performance (Agbejule, 2005). Management accounting systems are believed to be able to reduce the risk of environmental uncertainty, and in the end, be able to improve managerial performance (Irwandi, Ghozali and Pamungkas, 2020).

Management accounting systems assist companies in improving information quality and improving the quality of control and reducing risk (Abu Afifa and Saleh, 2021). When the information provided is inaccurate it will incur economic costs that affect the decision-making process (Leitner, 2014). Another The same study in the textile industry revealed that management accounting systems can optimize costs

in the industry due to proper supplier information (Milojević, Krstić and Ćurčić, 2021). The design and development of management accounting systems are made based on the needs in the face of environmental changes due to an environment full of uncertainty (Novianty, 2019). An information system used to perform management accounting data processes is an innovative way (Jermias and Armitage, 1994).

### **MATERIALS AND METHODS**

The research wants to prove the influence of management accounting systems in creating quality information and that management will use the information for decision making. Variable operationalization is determined based on variable independent environmental uncertainty and two dependent variables.

The quality of management accounting information systems referred to in this study is an information system used to process inputs and produce management accounting information. This consists of dimensions of integration, flexibility, accessibility, formalization, and media richness. Quality management accounting information is the information used by managers in carrying out their inherent functions of scope, timeliness, accuracy, format, relevancy attributes. The research analysis unit is the textile companies registered with the Indonesian Textile Association. A total population of 150 companies with sampling methods using power analysis at a significance level of 5% with a statistical power of 0.8 to produce R<sup>2</sup> of at least 0.25, gets a sample size of 70 companies (Hair et al., 2014). The Partial Least Square (PLS) Structural Equation Modeling (SEM) model is used to analyze the primary data. SEM-PLS models include outer models and



inner models, with second-order design models.

RESULTS AND DISCUSSION

Questionnaire data filled out by 70 respondents from textile companies registered with the Indonesian Textile Association was processed using Smart PLS 3.0, with the following stages:

Evaluation of outer models

This evaluation assesses the measurement of the validity and reliability of the model consisting of (1) a validity test, (2) a convergent validity test. Some indicators that do not meet the standard (have a loading factor of < 0.5) will be eliminated. And the final result after eliminating each loading factor from the latent variable is described as follows:

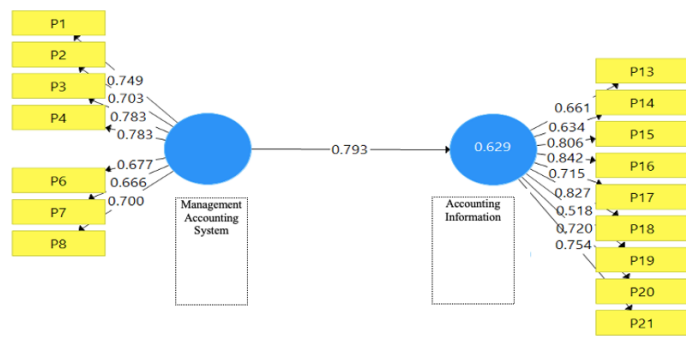


Figure 1. Path Analysis

Furthermore, reliability tests using AVE values obtained show that exogenous indicators (quality of management accounting information systems, AVE=0.528) and endogenous indicators (AVE quality of management accounting information = 0.525) have AVE values above 0.5. Table 1 shows that composite reliability has Cronbach's alpha of greater than 0.7, which mean that the instrument used is very good and can be accounted for its inconsistency.

Table 1. Cronbach's Alpha Value

Table with 2 columns: Variable Name, Cronbach's Alpha. Rows include Quality of Management Accounting Information (0.885) and Quality of Management Accounting Information Systems (0.850).

Source: Intention to Invest in Environmentally Friendly Shares in Malaysia (Huey Ming, 2016)

Evaluation of the inner model

a. R-square value

The R-square value is used to calculate how much influence the quality variable of a management accounting information system has on the quality of information. Test results with Smart-PLS software 3.0 show that R-square information quality value are formed by the quality of management accounting system of 0.63. This means that the quality of management accounting systems with dimensions of integration, flexibility, accessibility, formalization, and media richness is expressed to be able to affect indicator timelines, accuracy, format, and relevancy of endogenous variables by 63%, while the remaining 37% is influenced by other factors.

b. Coefficient path value

The path coefficient value measures the relationship of the quality of a management accounting information system with the quality of information whether it is on a positive or negative path. After being tested the path coefficient relationship value is greater than 0 which is 0.793 or a positive value. This means that any change in the variable quality of the management accounting system will cause changes to the quality of management accounting information.

c. Bootstrapping

The design of structural models, latent variable





exogenous quality management accounting systems originally had nine variable manifests. After being calculated by bootstrapping analysis into seven variable manifests, with the following image:

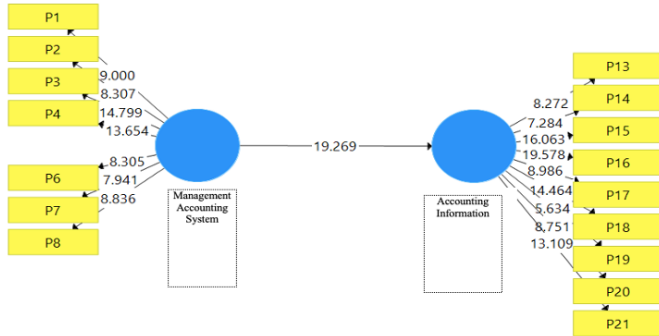


Figure 2. Bootstrapping Results

The seventh variable that most strongly affects the quality of the management accounting system is P3 at 14.799. This means that adapting to the various needs of users from the flexibility dimension is the initiator that most importantly affects the Quality of Management Accounting Information (η). While the most strongly influenced by the Quality of Management Accounting Information System (ξ) is P16 (the extent to which management accounting information is free from misstatements) with a value of 19.578 from the accuracy dimension. In another sense, it can be stated that the P3 of the exogenous variable most influences the P16 indicator of the endogenous variable.

d. Hypothesis Test

The prediction model significance value test in structural model testing can be seen in the t-statistical values listed in the path coefficient table in the Bootstrapping Smart PLS application. The coherency of the path describes the statisti-

cal value of exogenous variables to endogenous variables in Smart PLS outputs as follows:

Table 2. t-Statistic Result

	Original Sample	T-Statistic	P Values
Quality of Management Information Systems (ξ) -> Quality Of Management Accounting Information (η)	0.793	19.269	0.000

Source: Processed Data

The t-statistics value of 19.26 (> 1.96) The above calculation statement proves that the quality of management accounting information systems has a significant effect on the quality of management accounting information by 19.269. The discussion indirectly proves that Ha (Alternative Hypothesis) is accepted because it states the quality of management accounting information system has a positive effect on the quality of management accounting information based on the original sample value of 0.793 which can be described as follows.

CONCLUSION AND RECOMMENDATIONS

Variations in the quality of management accounting systems with indicators — integration, flexibility, accessibility, formalization, and media richness — can build information quality by 63%. This value proves that there is a concept of a management accounting system that has been applied in the textile industry in Indonesia. The number of indicators that make up the variation in accounting information is 63%, while the remaining 37% is influenced by other factors. Any change in the quality of the management accounting system will cause changes in the quality of management accounting information in Indonesian textile companies.

Variations in the quality of the accounting system itself are predominantly formed by indicator flexibili-





lity, meaning that accounting information systems used by textile companies must accommodate the needs of users. While the variation in the quality of information is more strongly built by the ability of the system in producing accounting information that is free from misstatements. This research proves that in the textile industry, the quality of information systems affects creating quality information, which information will be used by management for decision making.

During the research conducted, the textile industry experienced a decrease in performance. One of the reasons is because the information used when making decisions does not have quality. The implications of this research in addition to the development of science, as well as solving problems that occur in the textile industry, are that it is important that management uses information for decision making and can abandon the habit of using instinct in every decision.

#### REFERENCES

- Abu Afifa, M. M. and Saleh, I. (2021) 'Management accounting systems effectiveness, perceived environmental uncertainty and enterprise risk management: evidence from Jordan', *Journal of Accounting and Organizational Change*. Department of Accounting, Faculty of Business, Al-Zaytoonah University of Jordan, Amman, Jordan: Emerald Group Holdings Ltd., 17(5), pp. 704–727. doi: 10.1108/JAOC-10-2020-0165.
- Agbejule, A. (2005) 'The relationship between management accounting systems and perceived environmental uncertainty on managerial performance: A research note', *Accounting and Business Research*. Vaasa Polytechnic, Finland: Wolters Kluwer (UK) Ltd., 35(4), pp. 295–305. doi: 10.1080/00014788.2005.9729996.
- Al-Mawali, H. (2013) 'Performance consequences of management accounting system information usage in Jordan', *Business and Economic Horizons*. Department of Accounting, Faculty of Economic and Administrative Sciences, The Hashemite University, Jordan: Prague Development Center, 9(1), pp. 22–31. doi: 10.15208/beh.2013.3.
- Chenhall, R. H. and Morris, D. (1985) *The Impact of Structure, Environment and Interdependence on the Perceived Usefulness of Management Accounting Systems*. Bundoora.
- Coombs, H., Hobbs, D. and Jenkins, E. (2005) *Management accounting: Principles and applications*, *Management Accounting: Principles and Applications*. London: SAGE Publications Ltd. doi: 10.4135/9781446219232.
- Duncan, R. B. (1972) 'Characteristics of Organizational Environments and Perceived Environmental Uncertainty', *Administrative Science Quarterly*, 17(3), pp. 313–327. doi: <https://doi.org/10.2307/2392145>.
- Gaidienė, Z. and Skyrius, R. (2006) 'The Usefulness of Management Accounting Information: Users' Attitudes', *Ekonomika*, 74, pp. 21–37. doi: 10.15388/ekon.2006.17568.
- Griffin, R. W. and Pustay, M. W. (2007) *A Managerial Perspective*. Pearson/Prentice Hall.
- Hair, J. et al. (2014) *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. California: SAGE. doi: 10.1007/978-3-319-71691-6.
- Hall, J. (2013) *Introduction to Accounting Information Systems*. South-Western: Cengage Learning.
- Hall, J. A. (2012) *Introduction to Accounting Information*. England: Cengage South-Western.
- Hansen, D., Mowen, M. and Guan, L. (2007) *Cost Management: Accounting and Control*. England: Cengage Learning.
- Hardika, A., Putra, I. G. S. and Halimrachmat, R. A. (2019) 'Characteristics of management accounting systems, implementation of accounting information systems and managerial performance', *International Journal of Advanced Science and Technology*. Universitas Widyatama, Indonesia: Science and Engineering Research Support Society, 28(6), pp. 1–7. Available at: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85080117351&partnerID=40&md5=b8b53c77e6b7f0e259331f27098a7c46>.
- Heidmann, M. (2008a) 'Exploring the Role of Management Accounting Systems in Strategic Sensemaking', *Information Systems Management*, 25(3), pp. 244–257. doi: <https://doi.org/10.1080/10580530802151194>.
- Heidmann, M. (2008b) *The Role of Management Accounting Systems in Strategic Sensemaking*. German: Deutscher Universiti\_Verlag.
- Hoque, Z. (2013) *Strategic Management Accounting: Concept, process and issues*. United Kingdom: Great Britain.
- Irwandi, S. A., Ghozali, I. and Pamungkas, I. D. (2020) 'Can environment uncertainty risk and environment of management accounting system affect managerial performance?', *Quality - Access to Success*. STIE, Perbanas Surabaya, Indonesia: SRAC - Romanian Society for Quality, 21(177), pp. 31–37. Available at: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85090891371&partnerID=40&md5=3c999ebb2bf428dbddfdbf9d168735ef>.
- Jermias, J. and Armitage, H. (1994) 'Management Accounting in Indonesia: Analysis of periodically excited systems with clearances', *The International Journal Accounting and Business Research*, 8(1), pp. 36–57.
- Leitner, S. (2014) 'A simulation analysis of interactions among intended biases in costing systems and their effects on the accuracy of decision-influencing information', *Central European Journal of Operations Research*. Department of Controlling and Strategic Management, Alpen-Adria-Universitaet Klagenfurt, Universitaetsstrasse 65-67, Klagenfurt, 9020, Austria, 22(1), pp. 113–138. doi: 10.1007/s10100-012-0275-2.
- Merchant, K. A. and Van der Stede, W. A. (2017) *Management Control Systems*. England: Pearson.
- Mia, L. and Winata, L. (2008) 'Manufacturing Strategy, Broad Scope MAS Information and Information and Communication Technology', *The British Accounting Review*, 40(2), pp. 182–192. doi: <https://doi.org/10.1016/j.bar.2008.03.001>.



org/10.1016/j.bar.2008.02.003.

- Milojević, I., Krstić, S. and Ćurčić, M. (2021) 'Optimisation of accounting model of inventory management in the textile industry', *Industria Textila*. University of Defence, Military Academy, Public Finance Department, Pavla Jurišića Šturma 33, Belgrade, 11000, Serbia: *Inst. Nat. Cercetare-Dezvoltare Text. Pielarie*, 72(2), pp. 198–202. doi: 10.35530/IT.072.02.1769.
- Dezvoltare Text. Pielarie, 72(2), pp. 198–202. doi: 10.35530/IT.072.02.1769.
- Moorhead, G. and Griffin, R. W. (2012) *Organizational Behavior*. South-Western: Cengage Learning.
- Nelson, R. R., Todd, P. A. and Wixom, B. H. (2005) 'Antecedents of Information and System Quality: An Empirical Examination Within the Context of Data Warehousing', *Journal of Management Information Systems*, 21(4), pp. 199–235.
- Novianty, I. (2019) 'The Quality of Management Accounting Information Systems from Users Ethics, Environment Uncertainty and Top Management (an Empirical case of Local Government in Indonesia)', *South East Asia Journal of Contemporary Business, Economics and Law*, 20(1), pp. 1–10.
- Pauline, W. (2006a) *Management Accounting*. Newyork: Prentice Hall.
- Quang-Huy, N. (2020) 'Effectiveness of management accounting system in public healthcare sector: An empirical investigation in Vietnam', *Asian Journal of Business and Accounting*. Industrial Management Department, Can Tho University of Technology, 256 Nguyen Van Cu Street, Ninh Kieu District, Can Tho City, Viet Nam: *University of Malaya*, 13(2), pp. 147–179. doi: 10.22452/ajba.vol13no2.6.
- Ryan, N., Todd, P. A. and Wixom, B. H. (2005) 'Antecedents of Information and System Quality: An Empirical Examination within the Context of Data Warehousing', *Journal of Management Information Systems*, 21(4), pp. 199–235.
- Sawyer, O. O., McGee, J. and Peterson, M. (2003) 'Perceived Uncertainty and Firm Performance in SMEs: The Role of Personal Networking Activities', *International Small Business Journal: Researching Entrepreneurship*, August 1. doi: <https://doi.org/10.1177/02662426030213002>.
- Sirait, R. A. and Syafri, R. A. (2020) 'Buletin APBN', *Pusat Kajian Anggaran*, pp. 8–11. Available at: [www.puskajiananggaran.dpr.go.id](http://www.puskajiananggaran.dpr.go.id).
- Stair, R. and Reynolds, G. (2020) *Principles of Information Systems*. England: Cengage Learning.
- Strumickas, M. and Valanciene, L. (2010) 'Development of Modern Management accounting system', *Engineering Economics*, 21(4), pp. 377–386. doi: 10.5755/j01.ee.21.4.11710.
- Wheelen, T. L. and David J (2010) *Concepts in Strategic Management and Business Policy: Achieving Sustainability*. New Jersey: Pearson Education.
- Wilton, R. W. and Platt, D. (2016) *Management Accounting: Creating Value in a Dynamic Business*. England: McGraw-Hill Education.
- Zimmerman, J. (2016) *Accounting for Decision Making and Control*. McGraw-Hill Education.