

## INABILITY TO ADAPT TO ENVIRONMENTAL CHANGES CAUSES THE DECLINING PERFORMANCE OF INDONESIA'S TEXTILE INDUSTRY

Volume: 4  
Number: 1  
Page: 1-9

<sup>1</sup>Rima RACHMAWATI, <sup>2</sup>Evi OCTAVIA

<sup>1,2</sup>Faculty of Economics and Business, Widyatama University, Indonesia

Corresponding author: Rima RACHMAWATI

Email: [rima.rachmawati@widyatama.ac.id](mailto:rima.rachmawati@widyatama.ac.id)

### Article History:

Received: 2022-10-25

Revised: 2022-12-11

Accepted: 2023-01-15

### Abstract:

The ability of managers in the face of environmental uncertainty is the main key to achieving competitive advantage. The decline in the performance of the Indonesian textile industry is due to the low quality of management accounting. This quantitative research aims to prove that the ability to deal with environmental uncertainties affects the quality of management accounting as well as its impact on the quality of information. The method used in this research is Explanatory verification research to find out what and how far the factors that affect the quality of management accounting information. This study involved textile companies registered with the Indonesian Textile Association, a total population of 85 companies with sampling methods using power analysis at a significance level of 5% with statistical power. Data analysis using Structural Equation Modeling-Partial Least Square includes measurement and structural models. The results of this study prove that the variability of management accounting information systems is built by the variability of environmental uncertainties. While the variability in the quality of management accounting information is formed by the variability of management accounting systems. Following up on the findings of this study, the ability to deal with environmental uncertainties is the main key to optimizing management accounting systems in generating management accounting information.

**Keywords:** Environmental Uncertainty; Management Accounting Systems; Information Quality; Industry Textile.

Cite this as: RACHMAWATI, R<sup>1</sup>., OCTAVIA, E<sup>2</sup>. (2022) "Inability to Adapt to Environmental Changes Causes the Declining Performance of Indonesia's Textile Industry." *International Journal of Environmental, Sustainability, and Social Sciences*, 4 (1), 1-9.



## INTRODUCTION

Unfortunately, the fate of the textile industry in Indonesia due to the impact of the Corona pandemic resulted in job cuts of at least 2.1 million over the past year. (Kartiwa, n.d.). Though this industry is beneficial to the Indonesian economy because this industry can employ 3.73 million Indonesians and also become the land of state income from exports. Not only external factors, but the decline in the performance of the textile industry is also due to internal factors. Managers' inability to deal with environmental uncertainty is the cause of declining productivity. (Pedroso, Gomes, & Yasin, 2020), In addition, the inability to integrate units in the organization is the cause of the management accounting system not running and its impact on the output of inaccurate information. (Gericke, Klesse, Winter, & Wortmann, 2010).

Some studies that examine management accounting systems, such as findings (Giannetti, Cinquini, Miolo Vitali, & Mitchell, 2021), That the management accounting system can change due to the results of the process. Management accounting systems can directly affect a manager's performance. (Pedroso et al., 2020). (Garasyim, Bondarenko, Klym, Karpenko, & Bondarchuk,

2020), An essential component of management accounting reporting is reliable and timely spending. Some of these researchers explain management accounting systems in their output aspects while this study views management accounting systems in their characteristic aspects. The purpose of assessing the characteristics of the management accounting system in this study wants to know what kind of characteristics are needed by the industry to maintain its competitiveness.

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 so that the information is of quality, which means it is worth using as a basis for decision making. Quality information is born from quality information systems, namely, integration, accessibility, formalization, and enrichment of media (Heidmann, Schäffer, & Strahringer, 2008). The results of this study have this goal to evaluate/determine/provide recommendations, especially in the textile industry that the quality of management accounting systems must be maintained to create quality information, namely scope, timeliness, accuracy, format and relevancy. (Heidmann et al., 2008).

This research wants to prove that the concept of a quality management accounting system will produce quality information. The information will be used by management to make decisions so that environmental uncertainties can be faced. The impact of this research is not only developing science but also can solve problems in the textile industry, especially in Indonesia. This research results in a quality development model of management accounting systems. Researchers recommend developing management accounting system models with variable influences other than the environment, such as information technology, organizational structure, and others.

## METHODS

Research objects use environmental uncertainties, management accounting systems, and quality management accounting information. Explanatory verification research is to determine what and how far the factors affect the quality of management accounting information. Data is collected between times. Operationalization of research variables as follows; Variable independent is the level of change and complexity of the corporate environment that can influence managers to predict the likelihood of future events thus affecting the activities of management accounting systems. A management accounting system (variable Y) is a subsystem device that will process data with characteristics of integration, flexibility, accessibility, formalization, and enrichment of media. Quality management accounting information (variable Z) is the output of a management accounting system that managers use to perform their functions with scope characteristics, timely, accuracy, format and relevance.

This research analysis unit is a textile company registered with the Indonesian Textile Association with observations on accounting units at the middle manager level. Textile company research population (API version) with simple random sampling with minimum sample size using the concept of power analysis with a significance of 5% as much as 85 samples sample (Hair, Hult, Ringle, & Sarstedt, 2021). Data analysis using Structural Equation Modeling-Partial Least Square includes measurement and structural models.

## RESULTS AND DISCUSSION

Questionnaire data filled out by 85 respondents was taken from textile companies registered with the Indonesian Textile Association (API) in 2014; the data was processed with smart PLS 3.0 application with structural equation modeling-partial least square (PLS-SEM) analysis technique, namely data processed and calculated with levels, (1) evaluation of outer models and (2) evaluation

of inner models. Evaluation of outer models by measuring the validity and reliability of the model for which the evaluation results have qualified.

Evaluation of the inner model (structural model) among others; R-square values, bootstrapping results, hypothesis test results.

a. R-square value

The R-Square value is used to assess how much influence exogenous latent variable values have on endogenous variables. Based on the data output results using SmartPLS 3.0 Professional software, the R-Square value is generated as follows.

**Tabel 1. R-Square**

	<i>R-Square</i>
Quality Of Management Accounting Information (Y2)	0.539
Quality of Management Accounting Information Systems (Y1)	0.345

The results of this calculation measure the Quality Criteria of the dimensions of complexity levels and changes in exogenous variables, which can be stated that the quality of the criteria in indicators from the dimensions of exogenous variables can affect the indicators attached to the dimensions of integration, flexibility, accessibility, formalization, and media richness by 34,5%. In the scope dimension, the timeliness, accuracy, formatting, and relevancy of endogenous variables can be affected by variable X with indicators attached to the dimensions of complexity and change levels. The effect of X on Y2 is worth 0.539 or can be rounded to 0.54 (54%).

Next, the R-Square value for endogenous variables is done as an assessment of goodness of fit that can be known through the value of Q2. The value of Q2 has the same meaning as the coefficient determination (R-Square) in the regression analysis. The model is said to be getting fit with data if the goodness of fit value is good. To measure the value of the fit, an estimated Q2 value can be calculated as follows (Hair, Hult, Ringle, & Sarstedt, 2021):

$$Q^2 = 1 - (1 - R_1^2) (1 - R_2^2)$$

$$Q^2 = 1 - (1 - 0,345) \times (1 - 0,54)$$

$$Q^2 = 1 - (0,655 \times 0,46)$$

$$Q^2 = 1 - 0,3031$$

$$= 0,6969$$

$$= 0,70$$

Based on the estimate results, it has been known that the value of Q2 of 0.6969 rounded to 0.70 (70%) or with other interpretations that the amount of diversity of research data can be explained by the structural model processed. Through these results, the structural model in the study was declared to have fulfilled an excellent good fit.

b. Bootstrapping Result

This calculation aims to test and minimize the problem of abnormal data from the results of the study. This expansion is done by observing the relationship between constructs or structural variable models. The test results can be seen as follows:

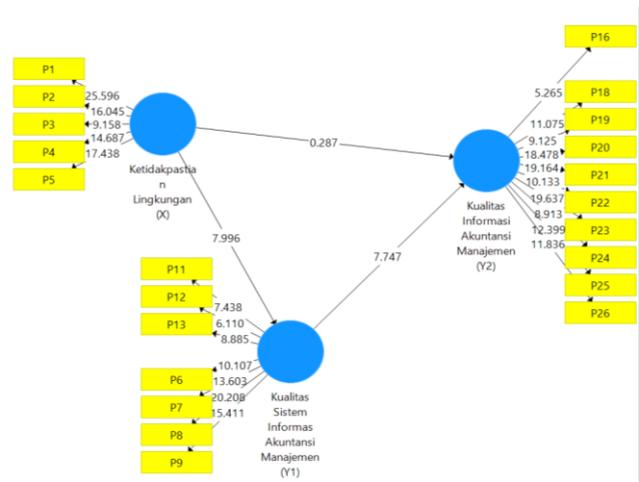


Figure 1. Bootstrapping

From the design of the structural model (inner model), the early exogenous and endogenous latent variables had 26 manifest variables (indicators). After the recount twice, there were only 22 variables left. Some of these variables; P1, P2, P3, P4, and P5 of variable X; P6, P7, P8, P9, P10, P11, P12, and P13 of variable Y1; as well as P16, P18, P19, P20, P21, P22, P23, P24, P25, and P26 of the Y2 variable which is then calculated by bootstrapping analysis such as the picture above. The 22 variables assess that the indicator on the bootstrapping image of the Most Powerful Environmental Uncertainty (X) influence is the P1 of the complexity level dimension. P1 is able to influence several indicators of both endogenous variables (Y1 and Y2) of 25,596.

While the most strongly influenced by Environmental Uncertainty (X) is the P7 indicator (format dimension) of the Management Accounting Information System Quality variable (Y1) with an influence value of 20,208. In other evaluations, the influence of the Environmental Uncertainty variable (X) on the Management Accounting Information Quality (Y2) variable, mainly on the P23 indicator (integration dimension) has an effect of 19,637. In another description, it can be stated that the P1 of the most exogenous variables affects the indicators P17 and P23 with a relatively thin difference of influence, which is 0.959.

c. Hypothesis Test Result

**T-Statistics Test Result.** Test the significance value of the predictive model in structural model testing can be seen in the t-statistical values listed in the path coefficient table on the bootstrapping of smart PLS applications. The coherency of the path describes the magnitude of the evaluation value of the significance of the structural model that can be reviewed through the t-statistic table of exogenous variables to endogenous variables as follows:

Tabel 2. T-Statistic

	Original Sample	T-Statistics	P Values
Environmental uncertainty (X) → quality of management accounting information (Y <sub>2</sub> )	-0.036	0.287	0.774
Environmental uncertainty (X) → quality of management accounting information systems (Y <sub>1</sub> )	0.587	7.996	0.000
Management Accounting Information System Quality (Y <sub>1</sub> ) → Quality of Management Accounting Information (Y <sub>2</sub> )	0.754	7.747	0.000

Before hypothesis testing was conducted, it was known that the T-table critical value for trust levels reached 95% ( $\alpha$  by 5%) and the following degrees of freedom (df) was 83%. Based on the output results, the t-statistical value on  $H_1$  is declared insignificant with an evaluation value of 0.287 or less than the standard value (1.96), this is also supported by the evidence of p values of 0.774 or greater than the standard value (0.05) which means the direct effect X is not significant to  $Y_2$ . The calculation statement above shows that environmental uncertainty has no significant effect on the quality of management accounting information.

The discussion indirectly also proves that  $H_1$  based on the original sample value has a negative relationship with a minus evaluation value of -0.036. In the second part of the hypothesis ( $H_2$ ), the significance value in t-statistics shows good significance with a value of 7,996 and a p-value of 0.000 and has a positive relationship based on the original sample value (0.587). Environmental uncertainty (X) has a positive and significant effect on the quality of management accounting information systems ( $Y_1$ ).

In the third hypothesis ( $H_3$ ) itself, the quality of management accounting information system to the quality of management accounting information also has a positive and significant effect. The confirmation is described through a positive original sample value of 0.754, and a significant t-statistics evaluation value of 7.747, as well as a p-value of 0.000 or, can be described through the following table:

**Table 3. Hypothesis**

Hypothesis	Construct	Decision
1	Environmental Uncertainty (X) has no positive and insignificant effect on the Quality of Management Accounting Information ( $Y_2$ )	Hypothesis Rejected
2	Environmental Uncertainty (X) has a positive and significant effect on the Quality of Management Accounting Information Systems ( $Y_1$ )	Accepted Hypothesis
3	Management Accounting Information System Quality ( $Y_1$ ) has a positive and significant effect on the Quality of Management Accounting Information ( $Y_2$ )	Accepted Hypothesis

**Specific Indirect Effects values on the Inner Model.** The step of evaluating structural models can be done by evaluating or paying attention to the value of the significance of relationships between variable constructs. This can be viewed from the coefficient path in the inner model that describes the strength of relationships between variables. The direction in the path must correspond to the hypothesized theory, and its significance can be evaluated on the t-statistics present in the resampling output. Thus, the critical value can be seen in the table of specific indirect effects in the inner model:

**Table 4. Specific Indirect Effects Table**

	Original Sample	T Statistics	P Values
Environmental uncertainty (X) $\rightarrow$ quality of management accounting information system ( $Y_1$ ) $\rightarrow$ quality of management accounting information ( $Y_2$ )	0.443	5.033	0.000

The evaluation output in the specific indirect effect table indicates that the direction in path X to  $Y_2$  through  $Y_1$  is positive with the original sample value of 5,033 ( $<1.96$ ). Also, the relationship

X to Y2 through variable Y1 is expressed significantly with a t-statistics value of 5.033 and p values of 0.000 (<0.05). Therefore, this statement illustrates that Environmental Uncertainty has a positive and significant relationship to the Quality of Management Accounting Information through quality intervening variables.

## CONCLUSIONS

Based on the phenomenon and the results of the study concluded that the inability of management in the face of environmental uncertainties affects the quality of management accounting information systems. Furthermore, management accounting information systems affect the quality of management accounting information. The variability in the ability to deal with environmental uncertainties formed the quality variability of the management accounting system by 53.9%. The value indicates that if management accounting wants to be improved in quality, it must be able to improve its ability to deal with environmental uncertainty both the level of complexity of the environment and the level of change. The results of this study also concluded that the quality of management accounting information is influenced by the quality of management accounting systems. The variability of management accounting quality formed the variability of management accounting information quality by 34.5%. This means that quality management accounting information is also generated from quality management accounting information systems. The implication of the results of this study is that we become aware that the ability to deal with environmental changes is the main key to forming a quality management accounting system, therefore only from a quality management accounting system that management accounting information generated. Likewise, it is essential to realize that quality information will help management carry out its decision-making function.

## REFERENCE

- A. Hammad, S., Jusoh, R., & Ghozali, I. (2013). Decentralization, perceived environmental uncertainty, managerial performance and management accounting system information in Egyptian hospitals. *International Journal of Accounting and Information Management*, 21(4), 314-330. <https://doi.org/10.1108/IJAIM-02-2012-0005>
- Agbejule, A., & Burrowes, A. (2007). Perceived environmental uncertainty, supply chain purchasing strategy, and use of MAS information. *Managerial Auditing Journal*, 22(9), 913-927. <https://doi.org/10.1108/02686900710829417>
- Ah Lay, T., & Jusoh, R. (2017). Organizational Capabilities, Strategic Management Accounting and Firm Performance. *Jurnal Akuntansi Dan Keuangan Indonesia*, 14(2), 222-246. <https://doi.org/10.21002/jaki.2017.12>
- Chong, V. K., Chong, K. M., Chong, V. K., Chong, K. M., Huynh, Q. L., & Vinh, T. (2010). Management Accounting Systems, Perceived Environmental Uncertainty and Companies' Performance in. *International Journal of Academic Research*, 2(1), 195-201.
- Drobyazko, S., Shapovalova, A., Bielova, O., Nazarenko, O., & Yunatskyi, M. (2019). Evaluation of effectiveness of responsibility centers in the management accounting system. *Academy of Accounting and Financial Studies Journal*, 23(6), 1-6. Retrieved from <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85081907900&partnerID=40&md5=ffedcae11af8ef541726cdf8d835fea0>

Efendi, D., & Kusuma, E. A. (2021). The Role of the Management Accounting System and Decision-Making Style on Managerial performance. *Jurnal Keuangan Dan Perbankan*, 25(1), 144-161. <https://doi.org/10.26905/jkdp.v25i1.5330>

Egorova, S., Bogdanovich, I., Kistaeva, N., & Iudanova, L. (2020). Management Accounting As a Tool For Organization Of Information On Innovations. *Proceedings of the 2nd International Scientific Conference on Innovations in Digital Economy: SPBPU IDE-2020*. <https://doi.org/10.1145/3444465.3444467>

Fitriati, A., & Mulyani, S. (2015). Factors That Affect Accounting Information System Sucess and its Implication on Accounting Information Quality (not useful). *Asian Journal of Information Technology*, 14(5), 154-161. <https://doi.org/10.3923/ajit.2015.154.161>

Gamayuni, R. R. (2019). The effect of management accounting information system application on information quality and its implication on good government governance. *International Journal of Scientific and Technology Research*, 8(8), 1247-1254.

Garasyim, P., Bondarenko, O., Klym, N., Karpenko, Y., & Bondarchuk, L. (2020). Strategic management accounting of business processes of the service sector enterprises. *Academy of Accounting and Financial Studies Journal*, 24(2). Retrieved from <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85088933686&partnerID=40&md5=93ea70fdc8567b59f5feac74fa4ee496>

Gericke, A., Klesse, M., Winter, R., & Wortmann, F. (2010). Success Factors of Application Integration: An Exploratory Analysis. *Communications of the Association for Information Systems*, 27(May 2014). <https://doi.org/10.17705/1CAIS.02737>

Ghasemi, R., Habibi, H. R., Ghasemlo, M., & Karami, M. (2019). The effectiveness of management accounting systems: evidence from financial organizations in Iran. *Journal of Accounting in Emerging Economies*, 9(2), 182-207. <https://doi.org/10.1108/JAEE-02-2017-0013>

Giannetti, R., Cinquini, L., Miolo Vitali, P., & Mitchell, F. (2021). Management accounting change as a learning process: a longitudinal analysis. *Qualitative Research in Accounting & Management*, 18(4/5), 484-515. <https://doi.org/10.1108/QRAM-01-2017-0003>

Gordon, L. A., & Miller, D. (1976). A contingency framework for the design of accounting information systems. *Accounting, Organizations and Society*, 1(1), 59-69. [https://doi.org/10.1016/0361-3682\(76\)90007-6](https://doi.org/10.1016/0361-3682(76)90007-6)

Griffin, R. W. (2016). *Management*. Boston: Cengage Learning.

Hair, J., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM)*. USA: SAGE Publications. <https://doi.org/10.1007/978-3-030-80519-7>

Hall, J. A. (2013). *Introduction to Accounting Information Systems*. South-Western: Cengage Learning.

Hardika, A., Putra, I. G. S., & Halimrachmat, R. A. (2019). Characteristics of management accounting systems, implementation of accounting information systems and managerial performance. *International Journal of Advanced Science and Technology*, 28(6), 1-7. Retrieved from <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85080117351&partnerID=40&md5=b8b53c77e6b7f0e259331f27098a7c46>

Heidmann, M., Schäffer, U., & Strahringer, S. (2008). Exploring the role of management accounting systems in strategic sensemaking. *Information Systems Management*, 25(3), 244-257. <https://doi.org/10.1080/10580530802151194>

- Kartiwa, J. (n.d.). Industri Tekstil RI saat Pandemi: Sudah Jatuh Tertimpa Tangga. Katadata.Co.Id. Retrieved from <https://katadata.co.id/yurasyahrul/indepth/5ea7d4e5648ed/industri-tekstil-ri-saat-pandemi-sudah-jatuh-tertimpa-tangga>
- Maryanova, S., Petrovska, S., Lysenko, A., Kravchenko, M., & Metil, T. (2019). Organization of management accounting on the basis of the process approach automation. *Academy of Accounting and Financial Studies Journal*, 23(Special Issue 2). Retrieved from <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85071696968&partnerID=40&md5=dd490dcbdbe10b65c1130718024140b3>
- Matiukha, M., & Rovnyagin, A. (2020). Managerial Accounting As an Element of Information Resources Management of an Enterprise. *EUREKA: Social and Humanities*, 1(1), 3-9. <https://doi.org/10.21303/2504-5571.2020.001045>
- Mia, L., & Winata, L. (2008). Manufacturing Strategy, Broad Scope MAS Information and Information and Communication Technology. *The British Accounting Review*, 40(2), 182-192. <https://doi.org/https://doi.org/10.1016/j.bar.2008.02.003>
- Miller, K. D. (1993). Industry and Country Effects on Managers' Perceptions of Environmental Uncertainties. *Journal of International Business Studies*, 24(4), 693-714. Retrieved from <https://doi.org/10.1057/palgrave.jibs.8490251>
- Moorhead, G., & Griffin, R. W. (2012). *Organizational Behavior*. South-Western: Cengage Learning.
- Nelson, R. R., Todd, P. A., & 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), 199-235. <https://doi.org/10.1080/07421222.2005.11045823>
- 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), 1-10.
- Pedroso, E., Gomes, C. F., & Yasin, M. M. (2020). Management accounting systems: an organizational competitive performance perspective. *Benchmarking: An International Journal*, 27(6), 1843-1874. <https://doi.org/10.1108/BIJ-12-2019-0547>
- Prihastiwi, D. A., & Sholihin, M. (2018). Factors Affecting The Use of Management Accounting Practices in Small and Medium Enterprises: Evidence from Indonesia. *Jurnal Dinamika Akuntansi*, 10(2), 158-176. <https://doi.org/10.15294/jda.v10i2.17307>
- Rachmawati, R. (2019). Relationship between accounting information systems implementation and corporate governance of rural banks in Indonesia. *Diponegoro International Journal of Business*, 2(1), 10-17. <https://doi.org/10.14710/dijb.2.1.2019.10-17>
- Ritonga, K. (2010). Determining the Moderating Effect of Perceived Environmental Uncertainty Management Accounting Information Systems Relationship in Indonesia Manufacturing Companies. *Indonesian Management & Accounting Research*, 9(1), 27-43. <https://doi.org/10.25105/imar.v9i1.1286>
- Schulz, A. K. D., Wu, A., & Chow, C. W. (2010). Environmental uncertainty, comprehensive performance measurement systems, performance-based compensation, and organizational performance. *Asia-Pacific Journal of Accounting and Economics*, 17(1), 17-39. <https://doi.org/10.1080/16081625.2010.9720850>
- Strumickas, M., & Valanciene, L. (2010). Development of Modern Management accounting system. *Engineering Economics*, 21(4), 377-386. <https://doi.org/10.5755/j01.ee.21.4.11710>

- Susanto, A., & Meiryani. (2019). How quality of management accounting information systems is influenced by environmental complexity? *International Journal of Innovation, Creativity and Change*, 5(2), 909-922.
- Ugalde, F., & Naranjo-gil, D. (2020). Management Accounting Systems, Top Management Teams, and Sustainable Knowledge Acquisition: Effects on Performance. *Sustainability (Switzerland)*, 1-14.