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### The Influence of Environment and Organization toward Decision Making Style Analysis by Using Management Accounting System as Moderating Variable

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**Abstract:** This research is aimed to analyze the influence of environment and organization toward decision making style by using management accounting system as the moderating variable. This research intentionally uses contingency theory and quantitative approach. Data collection technique was done by spreading out questionnaire. Respondents of this respective research consist of managers at manufacturing firm in the area of Gresik, Surabaya, and Sidoarjo, East Java. The result of this research supports the previous research, proving that (1) environment significantly influences the organization; (2) environment significantly influences the management accounting system; (3) organization significantly influences management accounting system; and (4) management accounting system significantly influences decision making style.

**Keywords:** environment, organization, management accounting system, decision making style.

#### INTRODUCTION

One of instruments used by management to help prepare the readiness in facing business competition is management accounting system, which is the facility of supporting function that results in relevant and real time information regarding the planning, controlling, and making decision as well as evaluating performance (Gordon and Miller, 1976). The information produced will give opportunity for management or decision makers to implement strategies and conduct operational activities that are needed to achieve the overall organizational goals.

The conformity of Management Accounting System information with the needs of decision makers will increase the quality of the decisions made and will apparently escalate business unit performance. Mia and Chenhall (1994) stated that the use of MAS helps companies to implement their plans and to respond

toward competition. Besides, according to Chenhall and Morris (1996), characteristics of beneficial or useful information that are produced based on managerial perspective in making decisions, are broad in scope, real time, aggregated, and integrated.

Characteristics of the available information will be effective when they are appropriate with the needs of the users of the information. This is in line with the contingency approach which emphasizes that the level of decentralization and information's characteristics of management accounting system may differ in every situation. Contingency approach is needed to evaluate conditional factors that cause the management accounting system more effective. Several factors, such as, company's external environment, company's organization structure, technology, and the company's size have been identified as the moderating influences and management accounting system (Merchant, 1981).

**Distinctions of this research** are: (1) Establishment of *accounting information system* that is influenced by environment's uncertainty and organization's variables that will lead to produce a certain style for managers in making decisions to improve business unit performance; (2) Subjects of this respective research would be taken from the level of manager in State-Owned Banks in the area of East Java Province; (3) Implementation of *usefulness decision theory*.

**Contributions of this research** are: (1) For scientific purpose, this research is expected for being able to support the consistency of contingency theory; (2) Contributing to *management accounting system* researches; (3) For Banking Management, this research is hoped to contribute and give insight for managers of Conventional State-Owned Banks in the area of East Java Province in selecting decision making style regarding the accounting information system design that will lead to the accuracy in making decision for a better implementation of their strategies.

## LITERATURE REVIEW

### Contingency Theory

Contingency theory explains the reason of why management accounting system changes the company operations in different settings (Burns dan Stalker, 1961; Lawrence and Lorsch, 1967). Contingency theory is a theory of behavioral accounting which claims that there is no something universal, since anything depends on the context in designing a certain organization (Otley, 1980). According to Emmanuel, Otley and Merchant (1990, p.57), contingency theory in accounting management is based on a premise which states that there is no certain accuracy in universal term of accounting system which can be used for all organizations in all situation. Simons (1987) identified this relationship as a precondition to theoretically develop the design of MAS. There are many researches that already applied this contingency theory to analyze and design the special controlling system of management accounting system which is related to contextual variables such as environment's uncertainty (Gordon dan Narayanan, 1984), technology complexity (Chenhall dan Morris, 1986), business strategy (Chong dan Chong, 1997), *perceived Environmental Uncertainty* (PEU) (Gul dan Chia 1994).

### Management Accounting System

Atkinson *et al.* (1997) stated that accounting management produces useful information to help managers make better decisions. The provision of decent information improves understanding of problems and

reduces uncertainty due to discrepancy between information needed and the available one to make decisions. MAS serves as a formal system which is intentionally designed to provide information in order to facilitate decision making and to evaluate managerial activities (Chenhall, 2003).

MAS is adopted to give information which is then used to help managers achieve their organizations' goals (Mia dan Chenhall, 1994; Haldma dan Latts, 2002). MAS will be useful for managers if it could work up the authenticity and quality of information needed (Baines and Lang-field-Smith, 2003).

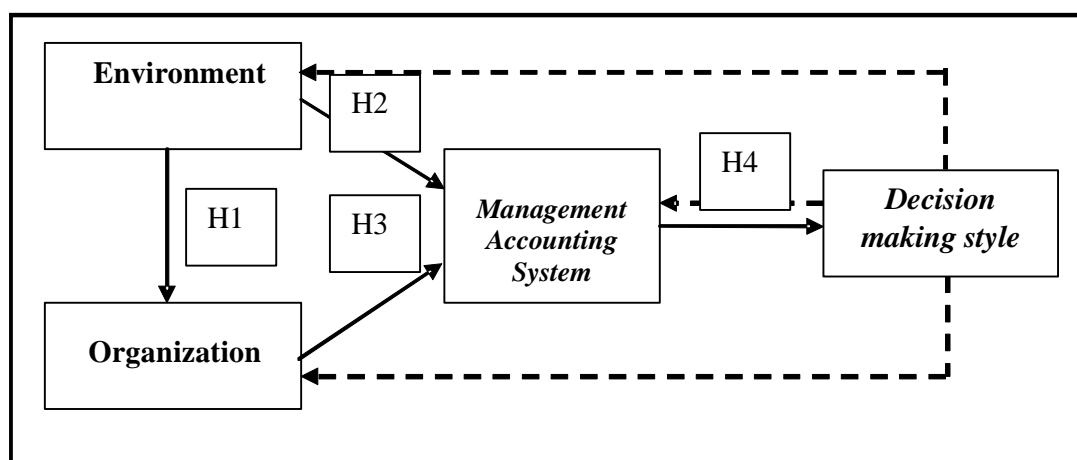
The information which is illustrated by MAS can be categorized into three parameters; namely focus, quantification, and time horizon (Gordon dan Miller, 1976; Gordon dan Narayanan, 1984; Chenhall dan Morris, 1986). The result of research conducted by Chenhall and Morris (1986), found an empirical evidence about the useful information characteristics of MAS such as *broad scope*, *timeliness*, *aggregation*, and *integration*. Agbejule (2005) tried to interact those four characteristics of MAS information with the *perceived environmental uncertainty* that influences managerial performances.

### Relationship of Management Accounting System, Perceived Environment Uncertainty, and Organization Performance

The primary function of information system is to support managerial decision making (Abernethy dan Bouwens, 2005). Efficiency of management accounting system depends of the organization factors (Chenhall, 2007).

A study that supports the relationship of *management accounting* and *performance* was done by Chenhall and Moers in 2007. The use of *broad scope information* has the positive relationship towards performance of organization with prospector type than defender type (Abernethy and Guthrie, 1994). Empirical evidence was also enclosed by Ittner *et al* (2003), that the use of *broad set information* is positively correlated with the stock returns.

*Perceived Environment Uncertainty* refers to the provided information in the organization, activities, and events that occurred in the environment of the respective organization (Daft, Sormunen dan Parks, 1988). Several researches indicated that PEU is needed but insufficient to conduct *scanning activity* (Pfeffer dan Salancik, 1978; Aaker, 1983).



Picture 1: Desain Research

Organization is an open system that receives various sources from external environment and regenerates output intended for environment (Otley dan Berry, 1980). Therefore, to be successful, an organization should be consistent in associating with environment (Otley, 1980). Consequently, the change in environment causes change within organization, mainly in the MAS practice (Shields, 1997)

## Research Methodology

This research utilizes quantitative approach. Respondents of this respective research consist of managers at manufacturing firm in the area of Gresik, Surabaya, and Sidoarjo, East Java. The researcher has conducted survey method as the data collection technique. Subsequently, *Partial Least Square* (PLS) is used to analyze the data.

## DATA ANALYSIS

### Validity Test and Reliability Test

Validity test is used to identify whether the questions within questionnaire can be understood by the potential respondents or not. The criteria to consider its validity of each question enclosed in this research is by using  $\alpha = 5\%$  and degree of freedom of  $(df) = n - 2 = 122 - 2 = 120$ , resulting in the r-table as amounted as 0.1779. Therefore, it can be concluded that overall indicators are valid. Reliability test is used to measure the dependability or reliability of questionnaire which had been completed by the respondents. The reliability can be seen from the consistent and stable answers given by the respondents. To better understand the reliability of the questionnaire, the researcher uses *alpha-cronbach* value. The questionnaire is said to be reliable whenever the value of *alpha-cronbach*  $> 0.6$ . The higher the value of *alpha-cronbach*, the more reliable the data from the respective questionnaire are.

**Tabel 1**  
**Hypothesis Testing Result**

<i>Variable</i>	<i>Coefficient</i>	<i>T Statistics</i>	<i>P Values</i>	<i>Explanation</i>
Environment → Organization	0.757	13.886	0.000	Significant
Environment → Management Accounting System	0.294	2.513	0.012	Significant
Organization → Management Accounting System	0.371	3.158	0.002	Significant
Management Accounting System → Decision Making Style	0.582	10.658	0.000	Significant

### Hypothesis 1 Testing: Environment Influences Organization

The result of parameter estimation testing with structural model shows that the value of environment estimation toward organization is 0.757. The *P-value* that is exhibited is 0.000 (less than  $\alpha = 0.05$ ), meaning that path coefficient which measures environment influence towards organization is said to be significant. Therefore, Hypothesis 1 ( $H_1$ ) that states the environment significantly influences organization, is **accepted**.

### **Hypothesis 2 Testing: Environment Influences Management Accounting System**

The result of parameter estimation testing with structural model shows that the value of environment estimation toward *management accounting system* is 0.294. The P-value that is exhibited is 0.012 (less than  $\alpha = 0.05$ ), meaning that path coefficient which measures environment influence towards *management accounting system* is said to be significant. Therefore, Hypothesis 2 ( $H_2$ ) that states the environment significantly influences *management accounting system*, is **accepted**.

### **Hypothesis 3 Testing: Organization Influences Management Accounting System**

The result of parameter estimation testing with structural model shows that the value of organization estimation towards *management accounting system* is 0.371. The P-value that is exhibited is 0.002 (less than  $\alpha = 0.05$ ), meaning that path coefficient which measures organization influence towards *management accounting system* is said to be significant. Therefore, Hypothesis 3 ( $H_3$ ) that states the organization significantly influences *management accounting system*, is **accepted**.

### **Hypothesis 4 Testing: Management Accounting System Influences Decision Making Style**

The result of parameter estimation testing with structural model shows that the value of *management accounting system* estimation towards *decision making style* is 0.582. The P-value that is exhibited is 0.000 (less than  $\alpha = 0.05$ ), meaning that path coefficient which measures *management accounting system* influence towards *decision making style* is said to be significant. Therefore, Hypothesis 4 ( $H_4$ ) that states the *management accounting system* significantly influences *decision making style*, is **accepted**.

## **CONCLUSION**

Based on the analysis and discussion of Hypothesis (hypothesis 2 and 4), it can be concluded that both paths which form indirect influence of environment towards *decision making style* through *management accounting system*, are significant. So that, it can be said that environment does not directly influence the *decision making style* through *management accounting system*. By the same token, the analysis of hypothesis 3 and 4, result in the conclusion of indirect influence from both paths of organization towards *decision making style* through *management accounting system*, is said to be significant as well. Eventually, organization indirectly influences the *decision making style* through *management accounting system*.

Secara keseluruhan, kesimpulan yang didapatkan berdasarkan pengujian hipotesis yang telah dibahas sebelumnya yaitu (1) lingkungan berpengaruh secara langsung terhadap organisasi, (2) lingkungan berpengaruh tidak langsung terhadap *decision making style* melalui *management accounting system*, (3) organisasi berpengaruh tidak langsung terhadap *decision making style* melalui *management accounting system*.

Overall, the conclusion obtained from the hypothesis testing shows that (1) environment directly influences organization, (2) environment indirectly influences *decision making style* through *management accounting system*, (3) organization indirectly influences the *decision making style* through *management accounting system*.

### **Recommendation**

Some recommendations that can be given by the researchers are humbly explained as follows. The primary data collection through survey should be done effectively and efficiently in order to be able to obtain

appropriate sample size. For the managers of Conventional State-Owned Banks, a better and faster response should be performed to face environmental uncertainty, as well as the need of optimal commitment in implementing appropriate organizational structure to be able to conduct *management accounting system* well. By doing so, the researcher is confident to say that a better decision making will be achieved.

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