

# EFFECT OF INFORMATION LITERACY AND TOLERANCE OF AMBIGUITY ON MANAGERIAL PERFORMANCE OF SMEs

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## Abstract

The managerial performance of the company needs to be improved. Expertise in accessing and evaluating information effectively performed by a manager and the ability to identify, collect, select and analyze accounting data that will assist management in making strategic decisions and for assessing organizational effectiveness. This study aims to investigate the effect of Information Literacy, Tolerance of Ambiguity, Strategic Management Accounting and Managerial Performance. Respondents in this study were fifty-two SME owners or managers in Banten province. The study data analysis used Partial Least Square (PLS) software. The study results found that Information Literacy variable had a positive effect on Strategic Management Accounting, Tolerance of Ambiguity had a positive effect on Managerial Performance, Strategic Management Accounting had a positive effect on Managerial Performance, Information Literacy variable had a positive effect on Managerial Performance.

**Keywords:** Information Literacy, Tolerance of Ambiguity, Strategic Management Accounting

## Introduction

Managerial performance improvement can be obtained through improving the decision making process. In the decision making process, managers utilize information and their interpretation skills to make effective decisions (Zenita *et al.*, 2015).

Strategic management accounting is the process of identifying, collecting, selecting and analyzing accounting data, assisting management in making strategic decisions and assessing organizational effectiveness. Ah Lay and Jusoh (2011) found that the use of strategic management accounting improved the correlation between strategy and organizational performance.

Information literacy is an expertise in accessing and evaluating information effectively to solve problems and make decisions (Verzosa, 2009). Zenita (2012)

found that information literacy and strategic management accounting had a positive effect on managerial performance. The managerial performance of the company needs to be improved. Expertise in accessing and evaluating information effectively performed by a manager and the ability to identify, collect, select and analyze accounting data that will assist management in making strategic decisions and for assessing organizational effectiveness.

Tolerance of ambiguity is the ability to relate to unstructured and unpredictable things (Sumarsono, 2010). Today's business environment is in a state of uncertainty, due to many competitors, complex consumer behavior, constant technological innovation and increasingly rapid globalization. Since there are such environmental conditions, the behavior of a leader in dealing with uncertainty situations is the main key to the success of an organization (Armenakis and Bedeian, 1999).

## **Literature Review**

### **Information Literacy**

Information literacy is the ability to access, evaluate and use information from a variety of sources (Doyle, 1992). People who have information literacy will demonstrate an awareness of how they collect, use, organize, synthesize, and create information and data ethically and have the information expertise to do it effectively.

The essence of information literacy is a set of skills needed to search, explore analyze, and utilize information. Information literacy is defined as a skill in accessing and evaluating information effectively to solve problems and make decisions. Someone who has this expertise understands how to learn. They really know how to manage, evaluate, sort out and use information in accordance with applicable ethics (Verzosa, 2017).

### **Tolerance of Ambiguity**

Tolerance of Ambiguity (TOA) is defined as the ability of an individual to respond positively to an ambiguous situation or as a reaction to trigger doubts, complexity, uncertainty of various interpretations.

People who have low TOA level can experience stress, react prematurely, and avoid encouraging ambiguity. But people with high tolerance of ambiguity are able to feel an ambiguous situation as something that is desirable, challenging, interesting and accepts all forms of complexity or incompatibility.

Tolerance of ambiguity is a factor highly needed by entrepreneurs. It is important for entrepreneurs to make complex decisions quickly despite limited information. Meanwhile according to Sumarsono (2010) tolerance of ambiguity is the ability to relate unstructured and unpredictable things that.

### **Strategic Management Accounting**

Management Accounting is the application of appropriate techniques and concepts in processing economic data to assist management in planning for rational economic goals and in making rational decisions. Strategic management accounting provides financial and non-financial analysis related to markets and competitors that can be implemented in developing strategy implementation and business uncertainty. The

benefits of strategic management accounting information allow managers to produce effective and competitive decisions.

Strategic management accounting is useful for managers to deal with uncertainty in the business environment through comparison of analysis of relevant information for external and internal data. Information provided by strategic management accounting include analysis of competitor information, competition position, strategy and performance costs (Sari *et al.*, 2006).

### **Information Literacy and Strategic Management Accounting**

An uncertain business environment may lead a manager to make an adjustment to maintain the continuity of his business. A manager needs to adjust to various changes in the business environment as quickly as possible and therefore he needs relevant and broad information for decision making. Strategic management accounting provides long-term information and external information (Lord, 1996).

Information literacy is a skill possessed by a manager in identifying, evaluating, utilizing and interpreting information effectively. By having information literacy skills, a manager will be able to identify the information they need efficiently, as well as to sort information correctly. Information literacy can also make it easier for managers to evaluate information they obtain (Doyle, 2010).

Previous study conducted by Zenita *et al.* (2015) showed that information literacy had a positive and significant effect on strategic management accounting. With the previously evaluated information, managers can identify broad coverage of strategic management accounting information relating to the environment and business challenges. Information literacy helps managers to identify, evaluate, utilize and interpret strategic management accounting information effectively.

H1: there is an effect of information literacy on strategic management accounting.

### **Tolerance of Ambiguity and Managerial Performance**

Tolerance of ambiguity is the ability of individuals to respond positively to ambiguous situations or as a reaction to trigger doubts, complexity, uncertainty, various interpretations. Empirical studies found that there was a positive effect of tolerance of ambiguity on productivity (Kleanthis *et.al*, 2012). Managers with different personality traits in terms of tolerance of ambiguity will have different needs for MAS information. Managers with low level of tolerance of ambiguity will have low self-confidence in making decisions so that they will prefer to use existing MAS information (Chong, 2004).

H2: there is an effect of tolerance of ambiguity on managerial performance.

### **Strategic Management Accounting and Managerial Performance**

The shift in the dynamics of the business environment increases the information needs of managers. According to Lord (1996), in the face of uncertainty, managers needed external and market-oriented information, focused on competitors, the future and long-term information for decision making. Strategic management accounting provides managers with broader perspectives about markets and competitors and therefore will produce decision strategies that improve performance of managers.

Strategic management accounting provides advantages and more value in providing information as a reference in the decision making process. Previous study conducted by Zenita *et al.* (2015) found that strategic management accounting had a positive effect on managerial performance. Decisions based on strategic management accounting information will be more anticipatory in the face of changes in the dynamics of the business environment.

H3: there is an effect of strategic management accounting on managerial performance.

### Information Literacy and Managerial Performance

Skills in using information are important abilities possessed by managers as information users and decision makers. Information literacy skills will enable managers to identify information needs, identify information sources, evaluate information, organize, and integrate information effectively, thus managers will be able to make effective decisions.

With information literacy skills, managers can determine what information is needed and where to get information, focus on the future and it can be in the form of financial and non-financial information. When managers have good skills in information literacy, they can determine and find the source of information they need even if that is external information outside the company. Information literacy skills direct managers to easily find and use the information they need. The right and quick decisions made by managers will help managers to hold their managerial roles and managerial performance can be improved. Thus, information literacy can influence managerial performance.

H4: there is an effect of information literacy on managerial performance

### Research Method

Respondents in this study were fifty-two SME managers and owners in Banten Province. The samples in this study were managers and SME owners in Banten Province. This study used PLS (Partial Least Square). Data analysis conducted in this study came from respondents' answers to the questionnaire on indicators of variables. Each statement had 5 alternative answers ranged from strongly disagree (STS) which was given a score of 1 to strongly agree (SS) which was given a score of 5.

### Results and Discussion

Test for the inner model or structural model was conducted to observe the correlation between constructs, significance and R-square values of the study model. The structural model was evaluated using R-square for the dependent construct (Ghozali, 2012). The limit for rejecting and accepting the proposed hypothesis was  $\pm 1.96$  wherein if the t-statistic had higher value than t-table (1.96) then the hypothesis was accepted, conversely if the t-statistic had lower value than t-table (1.96) then the hypothesis was rejected.

**Tabel 1**  
**Result For Inner Weights**

	<i>Original Sample (O)</i>	<i>Sample Mean (M)</i>	<i>Standard Deviation</i>	<i>T-Statistic</i>	<i>Hypotesis</i>
Tolerance of ambiguity →Managerial Performance	0,264	0,311	0,083	3,186	Supported
Information Literacy → MAS	0,458	0,504	0,090	5,075	Supported
MAS →MP	0,313	0,283	0,090	3,484	Supported
Information Literacy →MP	0,235	0,245	0,117	1,999	Supported

### Test and Discussion of Hypothesis 1 (Effect of Information Literacy on Strategic Management Accounting)

Based on data that have been processed by the authors, the calculation results in table 4.19 showed that there was a significant positive effect of Information Literacy

on Strategic Management Accounting which was shown by an original sample value of 0.458 and a t-statistic value of 5.075 that was higher than t-table of 1.96, this meant that H1 was accepted.

A manager needs to adapt to the business world that full of competition, thus managers need relevant and broad information to be applied in decision making by using strategic management accounting since strategic management accounting provides information that focuses externally. By using this information managers can identify markets and competitors, predict the future to make effective decisions.

The results of this study are in line with previous study conducted by Zenita et al (2015) which showed that by the existence of evaluated information, managers could identify broad coverage of strategic management accounting information relating to the environment and business challenges. Information literacy helps managers to identify, evaluate, utilize and interpret strategic management accounting information effectively.

### **Test and Discussion of Hypothesis 2 (Effect of Tolerance of Ambiguity on Managerial Performance)**

Based on data that have been processed by the authors, the calculation results in table I showed that there was a significant positive effect of Tolerance of Ambiguity on Managerial Performance which was shown by an original sample value of 0.264 and a t-statistic value of 3.186 that was higher than t-table of 1.96, this meant that H2 was accepted.

Coordinating indicators on managerial performance variable showed the highest value, which meant that most managers of manufacturing companies in Tangerang could coordinate work results by exchanging information with people in other departments of the organization to link and adjust programs, and also inform other departments. Thus relations with other managers would be well integrated. Furthermore was the indicator of supervision, which meant that most managers of manufacturing companies in Tangerang supervised every work or task assigned to subordinates.

The results of this study are in line with the previous study conducted by Chong (1998) which related management accounting system and managerial performance to the moderating variable of tolerance to ambiguity. The results showed that tolerance of ambiguity and the use of management accounting system (MAS) information usage had an effect on managerial performance. Managers with different personality traits in terms of ambiguity tolerance will have different needs for MAS information. Managers with a low level of tolerance of ambiguity will have low self-confidence in making decisions so that they will prefer to use existing MAS information.

### **Test and Discussion of Hypothesis 3 (Effect of Strategic Management Accounting on Managerial Performance)**

Based on data that have been processed by the authors, the calculation results in table 4.19 showed that there was a significant positive effect of Strategic Management Accounting on Managerial Performance which was shown by an original sample value of 0.313 and a t-statistic value of 3.484 that was higher than t-table of 1.96, this meant that H3 was accepted.

Strategic management accounting had an effect on managerial performance. Strategic management accounting information gives ability to the managers in making decisions by providing a broad scope, long-term information and external information to survive in the uncertainty of business and the environment within the company.

The results of this study are in line with previous study conducted by Zenita *et al* (2015) which stated that decisions based on strategic management accounting information would be more anticipatory in the face of changes in the dynamics of the business environment. Just as effective decisions made based on strategic management accounting, organizations could face uncertainty and managerial performance would increase.

#### **Test and Discussion of Hypothesis 4 (Effects of Information Literacy on Managerial Performance)**

Based on data that have been processed by the authors, the calculation results in table I showed that there was a significant positive effect of Information Literacy on Managerial Performance which was shown by an original sample value of 0.235 and a t-statistic value of 1.999 that was higher than t-table of 1.96, this meant that H4 was accepted.

Skills in using information are important abilities to be possessed by managers as information users and decision makers. Information literacy skills will enable managers to identify information needs, identify information sources, evaluate, organize, and integrate information effectively, so that managers will be able to make effective decisions.

The results of this study are in line with previous studies conducted by Zenita *et al*. (2015) which stated that managers applied information literacy skills that enabled them to use information effectively, then the use of strategic management accounting information would improve the quality of decisions made by managers since they used more extensive and relevant information.

#### **Conclusions**

Based on the results of data collection and processing, the authors drew the following conclusions: Information literacy had a significant positive effect on strategic management accounting and the hypothesis could be accepted. Tolerance of ambiguity had a significant positive effect on managerial performance and the hypothesis could be accepted. Strategic management accounting had a significant positive effect on managerial performance and the hypothesis could be accepted. Information literacy had a significant positive effect on managerial performance and the hypothesis could be accepted.

The study results provided evidence that managerial performance and SME owners in Banten were influenced by the tolerance of ambiguity, information literacy and strategic management accounting with the following consequences: A manager can make a basis that needs to be considered for the parties related to SME management to improve managerial performance; an SME owner or manager can identify a wide range of strategic management accounting information related to the environment and business challenges with the evaluated information: a manager can make decisions based on strategic management accounting information that are more anticipatory in the face of changes in the dynamics of the business environment.

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