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The Study of Factors Influence Organizational Performance: Evidences from Companies in the Lower Northern Region of Thailand

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Abstract

A dynamic business environment is focused on corporate profit and performance. Consequently, managers need strategically relevant information to formulate and implement business strategies in order to achieve business growth and survive in the uncertain environment of the economy. The purpose of this study is to examine the interaction effects of environmental uncertainty and strategic management accounting on organizational performance. The configurations are derived from a sample of 166 medium and large firms in the Lower Northern Region of Thailand. A quantitative method is used for data collection through a survey design approach using a questionnaire. Contingency theory are employed in this study. The results indicate that a fit between environmental uncertainty and strategic management accounting has a positive direct relationship with organizational performance. Moreover, a higher level of environmental uncertainty will improve organizational performance. While previous studies have not addressed the interactive linkage much, this study provides evidence on how key factors can interact to promote organizational performance.

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Strategic management accounting
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1. Introduction

Business environment has rapidly changed and increasingly sophisticated. Organizations have to adapt innovation tools that approach to quality management, cost efficiency, eco-efficiency, and strategic decision making (Bisbe & Malagueño, 2012; Soheilirad & Sofian, 2016). Managers develop strategic management accounting techniques (SMA) and shift the focus from operational information to a more strategic orientation to facilitate decision making and improve organizational performance (Agbejule, 2005; Fleming, Chow, & Chen, 2009). Guilding, Cravens, and Tayles (2000) identified criteria of SMA techniques as particular accounting techniques in a strategic aspect. The techniques illustrate the environmental perspective and long-term future-oriented time frame of organizations. Prior studies suggest that the SMA techniques have been widely adopted by organizations in several developed countries such as United Kingdom, the United States, and Sweden (Ax & Greve, 2017; Pavlatos & Kostakis, 2015). Unlike developing countries, the status of SMA technique adoption and the impacts of contingent factors are inconclusive (Rashid, Ali, & Hossain, 2021). Thailand is one of the developing countries (Lim, 1997) dominated by agricultural sectors and new industrial economy. Thai managers primarily used and relied on information from traditional management accounting techniques. Managers demanded more stringent financial reporting and disclosure requirements. Although the

information from the innovative management accounting techniques, such as strategic management accounting, provides more relevant data for management decision making. The information from SMA also helps managers to make optimal decisions, especially in time of crisis, and improve organizational performance (Cadez & Guilding, 2008; Chongruksut & Brooks, 2005). There is little evidence to examine the interaction effects of SMA information usage and environmental uncertainty on organizational performance in developing countries such as Thailand. The purpose of this study is to examine moderating effects of strategic management accounting information on environmental uncertainty and organizational performance using a sample of organizations in the lower northern region of Thailand. This study seeks to contribute to the existing knowledge on the different variations between SMA information usage, environmental uncertainty, and organizational performance.

2. Theoretical Framework and Hypothesis Development

The concept of strategic management accounting was first published in a "Management Accounting" magazine. Simmonds (1981) defined that SMA includes the provision of competitor data analysis in development and monitoring of corporate strategy. The empirical evidences on the extent of adoption and/or perceived benefits from SMA techniques and the impact of SMA adoptions on organizational performance in several countries (Cadez & Guilding, 2007; Guilding et al., 2000). SMA information plays an important role for decision makers to facilitate organizational performance. However, the uncertainty of the business environment can lead to fluctuations in organizational performance (Fleming et al., 2009).

Cadez and Guilding (2012) investigated the relationships between SMA and organizational performance in the largest Slovenian manufacturing companies. The results revealed that organizational performance is promoted when accountants are highly involved in the use of SMA information, which is in line with developments in the modern business environment. The SMA information is a key to value maximization (managerial performance) because the quality of decision is determined by the quality of information available to the decision maker (Agbejule, 2005). The intensity of market competition and high environmental uncertainty are pressures for accountants to add value to the strategic decision making process. Therefore, accountant will develop a greater appreciation for justifiability of expenditure of resources by using SMA information. Cadez and Guilding (2008) applied a structured equation model to examine the mediating effect of the use of SMA and the accountant's involvement in the strategic decision-making process on firm performance. They pointed out that SMA techniques are not necessarily related to organizational performance but that organizational performance is a product of an appropriate match between environmental uncertainty and SMA usage. A case study by Ma and Tayles (2009) showed a prolonged series of increasing use of strategic management information for strategic decision making. For example, management accounting reports shifted from rolling forecasts and decision tools to management issues and attention to future performance improvement rather than routing reporting. This occurred after the introduction of SMA. In addition, SMA offered very appealing solutions to increase accountability for external competitive pressures that place strong demands on the efficient conduct of commercial activities.

In contrast, previous evidences showed that neither the environmental uncertainty factor nor the use of SMA information had a positive impact on organizational performance. Yongvanich and Guthrie (2009) investigated the relationship between SMA and organizational performance in organizations listed in the Stock Exchange of Thailand and found that there is no relationship between them. Organizational performance can be favoured by various factors (Ax & Greve, 2017). Bisbe and Malagueño (2012) study investigated how SMA influences organizational performance through the shaping of strategies in medium and large Spanish organizations. The results indicated that SMA and organizational performance have a negative association when environmental dynamics are low, but not when environmental dynamics are high.

Therefore, we expect a pattern of mediation such that:

H_0: There is no interaction effect between environmental uncertainty and strategic management accounting information on organizational performance.

H_1: There is an interaction effect between environmental uncertainty and strategic management accounting information on organizational performance.

3. Data and Research Design

In this study, the questionnaire survey used by Hyvönen (2007); Köseoglu, Topaloglu, Parnell, and Lester (2013); Maiga, Nilsson, and Jacobs (2014) is used for data collection. The item-objective congruence was used to assess content validity. The items of the questionnaire were adapted independently from the recommendations of the experts, three academics and three directors. A pilot questionnaire was distributed to thirty companies that were excluded from the target sample. The population consisted of 402 medium and large companies based on the database of the Department of Business Development in Thailand. The sample companies were randomly selected from the following industries: technology, resources, finance, manufacturing, food and beverage, service and construction. The questionnaires were pre-coded to identify non-respondents for later pairing and follow-up purposes. The objectives of the study was described on cover letter section. The returned and completed questionnaires were 166, giving a final response rate of 41.29%.

The response rates of less than 25 percent are generally accepted in accounting research (Smith, 2003; Smith, Abdullah, & Abdul Razak, 2008). The returned questionnaires were tested for non-response bias using t-tests to compare the mean scores of the first and last ten responses. There was no statistically significant differences between the early and late groups, confirming the assumption of non-response bias. Demographic data are presented in Table 1.

Table-1. Demographic data.

	Number	%
Position at work		
Chief Financial Officer	27	16.26
Accounting Manager	106	63.86
Accounting Supervisor	33	19.88
Years of working above position		
Less than 5 years	66	39.76
6-10 years	72	43.37
More than 10 years	28	16.87
Educational background		
Doctoral degree	3	1.81
Master degree	23	13.85
Bachelor degree	140	84.34
Industry category		
Technology	21	12.65
Services	61	36.75
Industrials	18	10.84
Property and construction	16	9.64
Ago and agriculture industries	32	19.28
Consumer Products	2	1.20
Resources and others	16	9.64

3.1. Variable Measurement

The variables used to test the hypotheses are environmental uncertainty, strategic management accounting and organizational performance. Factor analysis is used to determine selected items of the questions for measuring each group of the variables. A type of psychometric response scale, five-point Likert Scale, was employed. The respondents are asked to indicate level of agreement to a questionnaire item from one (strongly disagree) to five (strongly agree). The sources of scales and a reliability analysis using Cronbach's Alpha coefficients are presented in Table 2.

Descriptive statistics of environmental uncertainty (mean=3.421, S.D.= 0.849), organizational performance (mean=3.199, S.D.= 0.633), and SMA information usage (mean=2.913, S.D.= 0.941).

Table-2. Variables, sources of questionnaire items, and Cronbach's Alpha values.

Variables	Sources of questionnaire items	Number of items	Cronbach's Alpha value
Environmental uncertainty	Agbejule (2005) Adebayo and Ashley (2007)	8	0.934
Strategic management accounting (strategic decision-making)	Cadez and Guilding (2008)	16	0.976
Financial performance of organizations	Agbejule (2005); Soheilirad and Sofian (2016)	4	0.880

4. Results and Discussions

This study aims to investigate relationships between environmental uncertainty (EU), strategic management accounting (SMA) and organizational performance (OP). Pearson correlations matrix for those variables is shown in Table 3. The results of the correlation analysis indicate that environmental uncertainty has significant positive correlations with performance of organizations.

Table-3. Pearson correlations among environmental uncertainty, strategic management accounting, and performance of organizations.

Variables	Organizational performance	Environmental uncertainty	Strategic management accounting
Organizational performance	1	0.296**	0.220
Environmental uncertainty	0.296**	1	0.487
Strategic management accounting	0.220	0.487	1

Note: **. Correlation is significant at the 0.01 level (2-tailed).

A hypothesis is tested using the equation: $Y_i = b_0+b_1EU_i+b_2SMA_i+b_3(EU_i \times SMA_i)+e_i$,
where
Y_i is organizational performance of the ith organization.
EU_i is level of perceived environmental uncertainty of the ith organization.
SMA_i is level of perceived benefit from strategic management accounting information of the ith organization.
$EU_i \times SMA_i$ is the interaction term.
e_i is the error term.

Table-4. results of two-way regression for performance of organizations.

	Unstandardized regression coefficient	t-value	p-value
constant	0.054	2.218	0.113
EU	0.770	37.744	0.000
SMA	-0.285	-12.897	0.001
EUxSMA	-0.570	-14.711	0.001
Adjusted R^2	0.996		
F	504.585		
P	0.000		
N	166		

Table 4 presents hypothesis tests. The model shows an adjusted R-square of 99.6%, b_1 is positive and significant (t=37.744, p=0.000), whereas, b_2 and b_3 are negative and significant (t=-12.897, p=0.001 and t=-14.711, p=0.001, respectively). There are three main findings in this study. First, the results show that there is a positive significant relationship between environmental uncertainty and organizational performance. In line with Agbejule (2005) study, the higher the level of environmental uncertainty, the more positive is the impact on financial performance. An increase in environmental uncertainty leads to demand for the use of innovative tools and SMA information to support decision making. Second, the results show that strategic management accounting information has a negative impact on financial performance. Earlier evidence also suggested that SMA information processing capacity is adequate to manager's needs, the resulting decisions will be flawed or late, leading to suboptimal performance (Gupta, 1987). Although Thai managers working in large manufacturing organizations prefer to use SMA information for decision making, lack of employee skills/training/consultants, and no significant problems with conventional management accounting techniques are the main obstacles and limitations for improving organizational performance (Suranatthakul, Dokmaithong, Intanon, Phetruen, & Sumkaew, 2020). Pavlatos and Kostakis (2015) argued that organizations implement and use SMA tools that can be more effective in tracking competitors' operations, their costs, customers, and their performance. SMA tools are able to provide organizations with better information related to competitors, customers and profitability per industry group and consequently improve organizational performance. Finally, the results also show that the relationships between environmental uncertainty and strategic management accounting information have a negative significant impact on organizational performance. The study of Lillis (2002) reported that SMA tools focus on customer responsiveness and involve with adaptation strategies than quality. When the intensity of business environmental uncertainty is high, managers would anticipate and measure the impact of quality on performance to a greater extent than customer responsiveness. Managers found that these measures were difficult to use and did not enhance organizational performance. The results are contrary to the view of Soheilirad and Sofian (2016) who found that environmental uncertainty has an influence on organizational performance and is a driver of sustainable competitive advantage. Information from SMA, which concentrate upon the consumer value generated relative to competitors, helps in monitoring organizational performance in the business environment using an overall strategic plan. Consequently, managers operating in uncertain environments need to be alert to any changes in their environment. They will request effective SMA information for decision making and therefore try to improve organizational profitability (Agbejule, 2005).

5. Conclusions and Limitations

This study aims to examine the mediating role of strategic management accounting information in relation to organizational performance. The findings support the study of Lillis (2002) SMA information does not help in enhancing organizational performance during uncertainty of business environment. The results are in consist with those of Agbejule (2005) and Soheilirad and Sofian (2016). There is not much research on the interaction effect of SMA information and environmental uncertainty on organizational performance of organizations in the Lower Northern Region of Thailand. The question of whether SMA information has an impact on organizational performance under business environmental uncertainty was investigated. This study is limited to a sample of medium and large organizations located in one part of a country's region. Future research should therefore examine other samples, such as small-size of organizations or organizations located in other parts of a region. More precisely, a specific view of the SMA categories could be explored in another study.

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