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Impact of Organization Changes on Management Accounting Practices and Firm Performance in Thailand

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Abstract

The purpose of this study is to examine the impact of organizational changes on management accounting practices and firm performance in Thailand. The quantitative research method was used in this research. The empirical research samples are 420 companies listed on the Stock Exchange of Thailand that have changed during 2014–2021, excluding all the firms in financial institution sectors, fund sectors, rehab sectors, and estate sectors. The results were analyzed by multiple regression analysis.

The research findings suggest that implementing organizational changes is related to the adoption of technologically advancement and organizational strategies, which have a significant beneficial effect on the adoption of new management accounting practices. Conversely, the research found that the competitive environment had a little positive influence on management accounting methods. Nevertheless, changes in management accounting systems have a significant and positive effect on performance.

Keywords: organization changes, management accounting change, management accounting practice

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1. Introduction

The use of accounting information to make decisions in various areas of executive management is considered to be a very important part of management. This information affects strategic determination or decision-making, planning and controlling the use of resources to be efficient and productive will result in better operations for the organization. The practices of bringing accounting information into decisions are many. They are collected in the management accounting system (MAS) and will be developed to meet the needs of executive management and the ever-changing business environment. In the past, it has been evident from the application of new management accounting tools to replace the traditional ones that focus only on costing and allocation of actual expenses, such as absorption costing, just-in-time (JIT), activity-based costing (ABC) total quality management (TQM), activity-based management (ABM), and reengineering, which have changed management accounting practices. [1]

Factors that influence management accounting changes in an organization are derived from internal factors, such as technology, production, practices, and strategy, and external factors, such as the business environment and competitive environment, which refer to the contingency theory. With today's technology, disruption has changed activities in the business cycle, requiring the use of information systems in processing to support the processes of data analysis. It can be assumed that the business world has become a digital world with many new innovations and

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constant changes, such as cloud computing, data science applications, and blockchain. These technologies, which are considered new tools with a lot of potential for massive data gathering, have an impact on managerial decisions that need to be quick and timely, or a more timely manner. However, even though big data is a source of data that makes analytics efficient, it is also full of inaccurate, useless, and unreliable data. Therefore, an executive accountant who has expertise in understanding business language is essential to playing a role in filtering, distinguishing, and interpreting those raw data, and presenting them to executives for use in decision-making. [2]

Accordingly, in management accounting, the goal is not only to control budgets, calculate costs, and analyze data for decision-making in projects, but also to manage the potential risks arising from data sources. For this reason, it is a question to lead research into whether these rapid changes in the enterprise affect changes in practices or tools in management accounting.

The latest research in this area in developing countries is seen in the studies by [3] and [4] in Indonesia. However, even though Thailand is one of the developing countries, there are country-specific differences such as legal systems, taxes, financial resources, politics, economics, and other incentives. It also varies greatly from developed countries, such as market size, data access, production factors, human contributions, various underlying structures, volatility in markets and finance, as well as good corporate regulation [5]. For this research study in Thailand, the Thaijo database found that [6] studied the causal relationship between strategic management accounting practices, intellectual capital development, and firm success.

These factors are, therefore, the motivation for research in this regard to lead to a better understanding and acceptance of changes in management accounting systems in organizations. In the case that traditional management accounting systems cannot be brought to decision-making, they may be reapplied or revised, or management accounting systems from developed countries may be adopted to be more consistent with decision-making. In addition, this research will complement the management accounting literature. The results of which will help regulators such as the Federation of Accounting Professions find ways to develop a system for the use of management accounting in making effective decisions. Therefore, this issue was studied of all companies listed on the Stock Exchange of Thailand because these organizations are large organizations with investment resources such as modern technology, manpower, etc.

2. Objectives

To investigate the impact of organizational change on the change in management accounting systems and performance of listed companies on the Stock Exchange of Thailand.

3. Conceptual Framework

This research study may be described as a conceptual framework for further research in the following manners:

4. Literature Review & Hypothesis

4.1 Contingency Theory

This research will use the contingency theory to explain the relationship between changing organizations and changing management accounting practices. This concept of management approach was developed by Fred Edward Fiedler in 1964 [7], which would consider the most appropriate corporate management model for each situation in the context of a different environment without any standardized model but taking performance and productivity into account. Therefore, the situation that an organization faces can be considered a major variable that affects its nature. For management accounting practices, [8] pointed out that development should design an accounting information system correctly and specifically suited to the entity, taking into account the coherence of both internal and external factors as well.

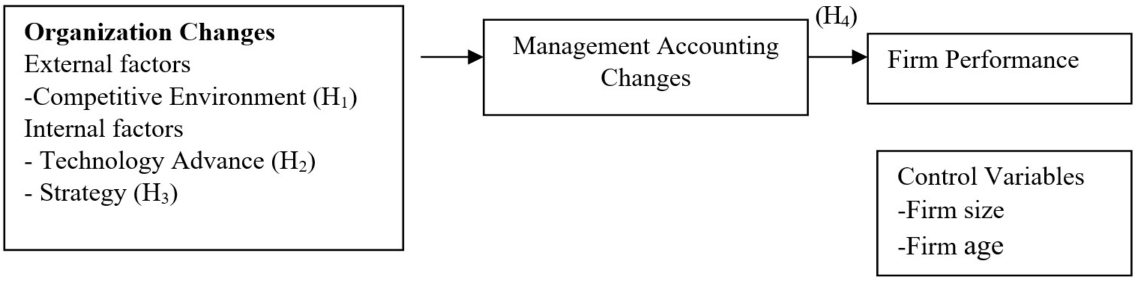

Figure 1: Conceptual Framework

4.2 Management Accounting Change

Managerial accounting practices come from the expansion and size of the larger economic structure, resulting in organizations requiring the information needed to assist in economic decisions by using modern accounting tools [9]. Thus, the change of management accounting is the study of problems concerning nature and role of the management accounting system in helping executives make decisions facing problems arising from different internal and external factors. The practice of management accounting has been seriously questioned since the late 1980s, whether the process of changing management accounting is consistent with the change of the enterprise to the new environment [10]. Therefore, change in management accounting is the study of problems concerning the nature and role of the management accounting system in order to assist management decision-making when faced with problems that come from different internal and external factors. The practice of management accounts has been seriously questioned since the late 1980s, as has whether the process of changing management accounts is in line with the organization's new environmental needs. This was widely discussed by researchers and scholars, and in the 1970s, organizations introduced new management accounting techniques such as activity-based costing (ABC), activity-based management (ABM), balanced scorecard (BSC), and lean accounting. [11].

4.3 Organization Change

Organizational structure changes are one way to help an organization survive in a rapidly changing business environment. This results in greater complexity in the structure of the organization and requires good planning, as it can eventually lead to bankruptcy [12]. In particular, the efficiency of control and direct systems and the management accounting practice system are important tools that have an impact on organizational change. Past research studies have found that large organizations are complex and that there is a relationship between strategies managed by distributed management systems and organizational administrative structures that are effectively managed and related to management accounting systems. For small organizations, it is associated with the control of individuals by console-dated management, which lacks Independence. Therefore, when an organization encounters high uncertainty, distributed management requires more complex information from management accounting than usual to be used in decision-making. This reduces uncertainties and improves the quality of decision-making [4],[13].

4.4 The Relationship of Organizational Change to Management Account Change

The factors that will lead to the change of the organization according to the Contingency Theory will be based on both internal and external factors.

External factors, which include the competitive environment, have been discussed. If there is increasing uncertainty, it requires executives to use the management model of accounting information to make more decisions. This research suggests that an adequacy between the environment and the system of an enterprise is necessary to change for the management accounting system. And to support the need for new management information, according to the research of [14]. This leads to the assumption that:

Hypothesis 1: An organization facing uncertainty in a highly competitive environment will change its accounting management practices.

Internal factors include changes in advanced manufacturing technology and changes in organizational strategy. In the review of literature found in the research of [16], they also discussed new technologies in production practices and the structure of production costs, such as computers integrated with production and just-in-time (JIT). Because quick machines and computer systems have taken their place in factories, inventories are not available and direct labor costs are the main concern. Traditional cost control systems will not be able to help executives properly allocate resources and related costs, which will be linked to the planning of the organization's strategy. In line with the research of [17] and [18], this leads to the assumption that:

Hypothesis 2: Organizations that use advanced manufacturing technology will change management accounting practices.

Hypothesis 3: Organizations with strategic changes will result in changes in management accounting practices.

4.5 The Relationship of Management Account Change to Firm Performance

After conducting a literature analysis, it was determined that there is a connection between alterations in management accounting practices and performance. The research revealed that corporate transformation corresponds to modifications in management accounting practices. In order to enhance the decision-making process, managers must use information derived from management accounting, including planning, cost control, and the evaluation of choices that may not align with production and customer delivery timelines. This ultimately leads to improved operational outcomes. Based on the findings of [4] and [9] it may be inferred that:

Hypothesis 4: Management accounting practices with changes in conduct often enhance performance.

5. Methodology

5.1 Population and Sample

The population used in the study was accounting and/or financial executives of organizations listed on the Stock Exchange of Thailand, totaling 420 organizations (information as of 8 March 2022) [19], with the following exceptions: 1) Organizations that are not classified as eligible may be removed or already be removed. 2) Unregistered organizations, belonging to the financial institution sectors, fund sectors and rehabs sectors, and real estate sectors, because this type of business has different accounting practices from other types of organizations. The data collection was a questionnaire by the researcher. A total of 420 questionnaires were distributed and 102 questionnaires were returned, representing 24.16% compared to the number of respondents who responded at least 20%, which considered the samples suitable for analysis [20].

5.2 Variable Development and Measurement

The researcher developed a questionnaire for each variable included in the study, drawing on the literature review and using the methodology of [21]. The objective was to tackle two concerns: 1. Does organizational change influence the alteration of management accounting? 2. Does the alteration of management accounting have an impact on operational performance? To define the variable, Item 1 might proceed as follows:

Independent variable. This study determined the organization's change during the years 2014-2021 as measured by internal and external factors. Internal factors: There are four items that advanced technological changes measure. And organizational strategy changes have four items. External factors measured from competitive environmental changes. There are four items.

Dependent variables. This study determined management accounting practices, measured by 1) Changes in the way you think about costs, consisting of three items. 2) Changes in how to measure cost accumulation, consisting of three items. 3) Changes in the implementation of management accounting into planning and control, consisting of three items. 4) Changes in the implementation of management accounting in decision-making, consisting of two items. 5) Changes in the implementation of management accounting in investment, consisting of four items. 6) Changes in the implementation of management accounting to the operating, consisting of four items.

Item 2 specifies the variable's definition in the following manner: The independent variables include changes in management and accounting methods. The dependent variables consist of performance, which includes three financial performance questions and three non-financial performance ones.

Control variables. This research defines organizational size and organizational age as variables, with organizational size measured by the number of employees and organizational age measured by years of operation.

5.3 Reliability and validity

This research examines the accuracy, confidence, and classification power of the questions by examining them through experts and determining the reliability of each item using the item total correlation technique. For independent variables, organizational changes have discrimination (r) between 0.307 and 0.774, and the dependent variable, management accounting practices, has discrimination (r) between 0.402 and 0.750, and firm performances have discrimination (r) between (r) 0.432-8.023 with a confidence level greater than 0.70 being an acceptable value as a suitable quality tool. It can be used to collect data on samples [22]. For testing the reliability of the questionnaire using alpha coefficients according to the Cronbach method. The alpha coefficient is between 0.802 and 0.905, which is consistent with [23] stating that confidence tests exceeding 0.70 are considered acceptable for quality suitable for the sample.

For this research, multiple correlation analysis and multiple regression analysis were used to test the relationship and impact between organizational change and management accounting practices and firm performance of companies listed on the Stock Exchange of Thailand. The equation model for statistical analysis was presented as follows:

$$Mas = \beta 0 + \beta_1 Com + \beta_2 Tec + \beta_3 Str + \beta_4 FS + \beta_5 FA + \varepsilon_1 \text{ .... Model 1}$$

$$FP = \beta 0 + \beta_1 Mas + \beta_2 FS + \beta_3 FA + \varepsilon_1 \text{ .... Model 2}$$

By β: the regression coefficient, ε_1: the forecast tolerance, MAS: Management Accounting System, FP: Firm Performance, Str: Organization Strategy, COM: Competitive environmental, Tec: technology advance, FS: Firm Size, and FA: Firm Age.

Table 1. Results of correlation coefficient analysis on organizational changes to change management accounting practices and firm performance

Variables	FP	Mas	Com	Tec	Str	FS	FA	VIFs
Mean	3.669	3.8261	4.0343	3.8824	4.0833	3.25	3.86	-
S.D.	.70476	.57344	2.16121	.81197	.79707	.930	.564	-
FP	1	.689**	.344**	.224*	.613**	-.248*	.117	
MAS		1	.491**	.468**	.780**	-.200*	.029	1.044
Com			1	.406**	.475**	-.137	.036	1.409
Tec				1	.417**	.125	-.046	1.401
Str					1	-.169	.092	1.474
Firm Size						1	.067	1.114
Firm Age							1	1.030

Statistical significance level ***p‹0.01, **p‹0.05, *p‹0.10

From Table 1, it was found that if all independent variables are highly interrelated, they could cause a multicollinearity problem. Therefore, an analysis of the relationship between the two variables showed that each association factor was between 0.029 and 0.780, which is less than 0.80. Additionally, it appeared that the VIFs of all variables were equal to 1,030 and 1.474, which was less than 10, indicating that the independent variable has a relationship at a level that does not cause a multicollinearity issue. [24]

6. Results of research and discussion

6.1 Basic Statistical Analysis Results

The sample group is comprised of a certain number of individuals, represented as both a numerical value and a percentage. Women account for 5.4%, while men account for 0.7%. The majority of the sample, about 3.1%, fall between the age range of 25 and 40 years, and 3% of them possess both undergraduate and master's degrees. In the field of accounting, the majority of the sample about 4.8% both bachelor's and master's degrees. 3.9% of the sample have been employed for over 10 years. Accountants make up 1.9% of the workforce inside the company. The assets of most firms exceed \$150 million, accounting for 3.6%. The majority of companies have been in operation for 11 to 15 years, accounting for 0.6%. Additionally, the company boasts a workforce of over 1,000 workers and employers, constituting 42%.

6.2 Descriptive Statistics Analysis Results

Table 2. Average amount of variables impacting organization change

Item	Min	Max	N	Mean	SD	Translate	Rating
Com	0.50	17.50	102	4.0343	2.16121	High	2
Tec	0.75	5.00	102	3.8824	0.81197	Medium	3
Str	2.25	5.00	102	4.0833	0.79707	high	1
Total				4.00	1.25675	high	

From Table 2, the average of the factors that influence the overall change in the organization is high (mean = 4.00, SD = 1.25675). The organization's strategy factor is at a high level with the highest average (mean = 4.0833, SD = 0.79707), followed by competitive environment (mean = 4.0343, SD = 2.16121).

Table 3. Average amount of variables impacting management accounting practices change

Item	Min	Max	N	Mean	SD	Translate	Rating
Determine Cost	0.00	5.00	102	3.6209	0.82058	Medium	6
Cost Accumulation	2.00	5.00	102	3.7124	0.72370	Medium	5
Planning and Control	2.67	5.00	102	4.0458	0.74762	High	2
Decision-Making	2.00	5.00	102	4.0758	0.85233	High	1
Investment Analysis	0.00	5.00	102	3.7770	0.91597	Medium	4
Measurement of Performance	2.25	5.00	102	3.8235	0.69527	Medium	3
Total				3.8424	0.79257	Medium	

From Table 3, the average of the factors that influence the overall change in management accounting is medium (mean = 3.8424, SD = 0.79257). The decision-making is at a high level with the highest average (mean = 4.0758, SD = 0.85233), followed by planning and control (mean = 4.0458, SD = 0.74762), measurement of performance (mean = 3.8235, SD = 0.69527). investment analysis (mean = 3.7770, SD = 0.91597) cost accumulation (mean = 3.7124, SD = 0.72370), and determine cost (mean = 3.6209, SD = 0.82058).

Table 4. Average amount of variables firm performance

Item	Min	Max	N	Mean	SD	Translate	Rating
Financial Performance	0.00	5.00	102	3.4444	1.06689	Medium	2
Non- Financial Performance	2.00	5.00	102	3.8924	0.69728	Medium	1
Total				**3.6684**	**0.8820**	**Medium**	

From Table 4, the average of variables firm performance is at a medium level (mean = 3.6684, SD = 0.8820). Non-financial performance is at a high level with the highest average (mean =3.8924, SD = 0.69728), followed by financial performance (mean = 3.4444, SD = 1.06689).

6.3 Multiple Regression Analysis Results

Table 5. Results of a multiple regression analysis on the impact of organizational change on changing management accounting practices (Model 1)

Organizational Change	Management Accounting Change		t	P-Value
	β	Std. Error		
Constant	1.629	0.331	4.917	0.000
Com	0.028	0.019	1.458	0.148
Tec	0.119	0.050	2.361	0.020
Str	0.465	0.053	8.844	0.000
FS	-0.060	0.039	-1.520	0.132

Organizational Change	Management Accounting Change		t	P-Value
	β	Std. Error		
FA	-0.021	0.062	-0.330	0.742

F=36.049 p=0.000 Adjust R^2=0.634 Statistical significance level *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 6. Results of a multiple regression analysis on the impact of management accounting practices on firm performance (Model 2)

Management Accounting Change	Firm Performance		t	P-Value
	β	Std. Error		
Constant	.345	.528	.653	.515
Mas	.813	.090	9.059	.000
FS	-.093	.055	-1.675	.097
FA	.134	.090	1.489	.140

F=32.547 p=0.000 Adjust R^2=0.484 Statistical significance level *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Table 5 shows the results of the multiple regression analysis testing the impact of organizational changes in management accounting practices of listed company on the Stock Exchange of Thailand. The results showed that the independent variables had a 63.40% ability to explain management accounting changes (Adjust R^2) and organizational changes from external factors measured by competition changes (COM) had a positive but insignificant impact on management accounting changes. Organizational changes from internal factors measured by technology advancement (Tec) had a significant positive impact on management accounting changes, ($\beta2$ =0.119, $p < 0.05$). Additionally, organizational strategy changes had a significant positive impact on management accounting, ($\beta3$=0.465, $p < 0.01$).

Table 6 shows the results of the multiple regression analysis testing the impact of management accounting changes on performance of listed company on the Stock Exchange of Thailand. The study revealed that the independent variable accounted for 48.4 percent of the variation in performance (adjusted R^2). It also shows that management accounting changes had a significant positive impact on performance. Hypothesis test results can be summarized, as shown in Table 8.

Table 8 Hypothesis test results

Item	Research hypotheses	Hypothesis test results
Hypothesis 1:	An organization facing uncertainty in a highly competitive environment will change its accounting management practices.	Non-support
Hypothesis 2:	Organizations that use advanced manufacturing technology will change management accounting practices.	Support
Hypothesis 3:	Organizations with strategic changes will result in changes in management accounting practices.	Support
Hypothesis 4:	Management accounting practice changes in conduct often enhance firm performance.	Support

7. Conclusions and discussion

Organizational change is crucial to changing management accounting practices because information from management accounts is what drives managers to make decisions to suit the situation. According to the Contingency Theory, management accounting practices must be developed to be tailored to the specifics of the organization, taking into account both external and internal factors. This research includes the use of advanced technology in production as well as changes in strategies within the organization. Studies and external factors include business competitiveness in the context of a registered organization in Thailand. The research shows that:

Internal factors influencing the technologically advanced shift (TEC) has a positive impact on significant changes in management accounting practices. It demonstrates that the technological shift of today plays an essential role in the practice of management accounting. This is due to the fact that business processes have shifted to the digital world and there is a greater interest in sustainability. As a consequence of this, businesses now have no choice but to search for methods to incorporate big data into their decision-making processes through the utilization of cutting-edge technology in the collection of insights, which then leads to immediate management decision-making and policymaking [25]. Managerial accounting includes making-decisions, specifically with budget control, cost computation, and analysis for decision-making in projects, as well as risk management [2]. As shown by the findings of a study conducted by [26], it has conducted research on the evolving function of management accounting in product development with a focus on the increasing importance of drawing information from digital systems. It has been discovered that new breakthroughs in the use and utilization of technology have contributed to the driving force behind improvements in management accounting. According to [27], during the course of an investigation into the role that managerial accounting plays in the process of enhancing the performance of a supply chain system owned by a logistics company, it was discovered that modifications of management accounting practices are dependent on the various logistics chain systems owned by the company.

Internal factors, changes in organizational strategy (Str) have a significant positive impact on changes in management accounting practices. It shows that organizations with challenges in organizational strategy are prone to significant management accounting changes. Changes to organizational strategy can be caused by a number of factors, e.g., changes in the business environment, changes in shareholders, etc. As a result, the organization's goals and missions will change, leading to organizational restructuring and appropriate strategy formulation, such as planning, controlling, costing, evaluation, and decision-making processes, different from traditional management accounting. This research is consistent with the research of [4]. The study of the impact of organizational change on organization performance caused by a change in managerial accounting practices in food industries shows that organizational changes have a positive effect on significant management accounting changes. Moreover, the research of [28], studying management control systems and strategic management of organization innovation, found that the various strategies of the organization adopted have an impact on cost management. [29] found that green intellectual capital has a positive correlation with both environmental management accounting. It shows the implementation of environmental management accounting as a mediator in relation to the organization's strategy for environmental action.

External factors of the competitive environment (Com) have a positive effect on altering management accounting practices, indicating that organizations with a high degree of competitiveness are more likely to change their management accounting practices. Managers who face increased market competition expect the information required for decision-making, particularly the information that originates from a variety of systems and channels before leading to significant decisions. Nonetheless, this research result is ambiguous. It may be due to other factors, such as the rise in competitiveness induced by coronavirus infection and related issues, which requires organizations to implement integrated enterprise strategies and may necessitate new adjustments. This is evident from the research of [30], which examined the impact of coronavirus infection on the competitiveness of Russian fertilizer companies. This is in accordance with [31] and [32], studying both the SME and manufacturing industries in Indonesia.

Modifications in management account- ting methods provide a significant and positive influence on performance. These findings demonstrate the important role that management accounts play in the use of information for managerial decision-making. Consequently, it is presumed that the practices of management accounting should align with the changes occurring inside the firm. Managers should evaluate enhancements of accounting adjustments, including strategic planning, cost management, efficient decision-making, and timely delivery of items to clients, based on the studies conducted by [4] and [9].

8. Suggestions for implementation

The management accounting practice information system is designed to predict project budgeting, control, and decision-making. This study discovered that technological advancements and strategic change factors have an effect on traditional management accounting practices. Consequently, participants should evaluate the following:

Managers who are responsible for the company's finances or accounting should consider upgrading or altering the management accounting system, e.g., implementing Block chain technology, and take into account the potential hazards associated with the marketing competitive environment, even though the impact on accounting practices is uncertain and may be a result of the coronavirus infection in the last two years, managers should closely monitor when the situation recovers. Lastly, the Federation of Accounting Professions may be required to consider launching a training course on how to make more executive judgments based on accounting facts.

9. Proposals for the next research

This study is a compilation of information on all companies listed on the Thai stock market. It does not recognize the results of research at the specific level of the business, as each business may require distinct accounting information. Therefore, future research should focus on samples that have a dramatic and swift impact on changes, such as logistics and technology businesses.

however, management accounting research can have a variety of perspectives, such as the impact of big data on management accounting decision-making or the impact of block chain technology on the evolution of administrative practices.

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