Strategic Management Accounting Effectiveness and Firm Value: An Empirical Evidence from Thai Listed Firms

Prasit Rungruang

A Thesis Submitted in Partial Fulfillment of Requirements for

degree of Doctor of Philosophy in Accounting

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ABSTRACT

This research integrates the key dimensions of strategic management accounting effectiveness in a new model. The primary objective of this research is to examine the effects of strategic management accounting effectiveness on firm value. Moreover, the effects of strategic management accounting effectiveness on operational efficiency and the advantages of management are investigated. Finally, this research tests the effects of top management involvement, enterprise resource planning efficiency, interdepartmental communications, and market dynamics on strategic management accounting effectiveness.

In this research, the main contribution is that strategic management accounting effectiveness has an important role to improve operational performance in Thai-listed companies. It can fulfill the gap of management literature by introducing strategic management accounting effectiveness under the diffusion of the dynamic capability theory and contingency theory, and suggest the appropriate dimension to enhance the value of the firm. Thai-listed companies were selected as the sample. A questionnaire is used as an instrument for data collection and the accounting manager/accounting director is the key informant. Data were collected from a sample of 118 firms. The effective response rate was approximately 22.31%. The Ordinary Least Squares (OLS) regression analysis is the method for testing the hypotheses.

The results of this research indicate that resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management have a significant positive effect on operational efficiency, advantages of management, and firm value. Furthermore, operational efficiency and the advantages of management positively relate to firm value. Eventually, top management involvement, enterprise resource planning efficiency, interdepartmental communications and market dynamics have a positive effect on four dimensions of strategic management accounting effectiveness.

In summary, this research concentrates on dimensions of strategic management accounting effectiveness that provide a significant expansion on previous knowledge and the relevant strategic management accounting literature. It also gives the directions and suggestions for the firms to identify and justify key components of strategic management accounting effectiveness that may help them to be successful in the long term. This research reveals both future research direction and limitations. Future research needs to re-investigate and may apply additional research methods in the future such as in-depth interviews and case studies.

Keyword : strategic management accounting effectiveness, operational efficiency, advantages of management, firm value

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INTRODUCTION

Overview

In today's business environment of increased global competition, new markets, increasing regulation and changing demographics, successful companies must develop a multifaceted strategic management accounting competence. Contingency literature underlines the need for organizations to ensure appropriate strategic approach that allows them to effectively adapt their internal and external environmental factors to enable them to compete favorably in the marketplace. Many studies argued that financial accounting is inadequate for the contemporary business environment requirements. For example, Kamilah, 2017; Ojra, 2014, stated that financial accounting is slow to present information, and they is very expensive to operate. Financial accounting has been dependent on redundant assumptions dealing with the manufacturing process and fails to respond to the changing competitive and manufacturing environment (Tan & Jusoh, 2012). Financial accounting measures and records business transactions and provides financial statements that are based on generally accepted accounting principles, as well as, relevant accounting standards. It mainly concentrates on external reporting. Financial accounting prepares such reports as income statements (or the profit and loss account), balanced sheets (or statements of assets and liabilities), cash flow statements and changes in equity (Hoque, 2011). This has resulted in a situation where financial accounting is considered no longer relevant to the changing environment and is counter-productive to good management decision-making (Otley, 2001). Different from strategic management accounting, conventional financial accounting only refers to systems of product costing and quantitative systems of planning and control such as resource allocation, cost-volume-profit analysis, budgetary control and standard costing.

Today's businesses operate in a dynamic, complex environment. They are affected by sociological, economic, technological and political factors, internal competition, and increasingly bargaining power of suppliers and customers. These forces have radically altered the business environment. Businesses are turning to strategic management accounting in order to survive in this changing business environment (Vandina, 2016). Strategic management accounting is a method by which companies can demonstrate more value creation, operational efficiency, advantages of management and increase their chance of survival (Sulanjaku & Shingjergji, 2015). Strategic management accounting fills the gaps by promoting and supporting mechanisms of implementing total quality management and its improvement. This is why the area of strategic management accounting is of interest for researchers and managers alike.

Strategic management accounting effectiveness is business benefits derived from the use of strategic management accounting. Successful strategic management accounting effectiveness improves overall organizational profitability (Soobaroyen & Poorundersing, 2008). Strategic management accounting supports operational efficiency, advantages of management and improves firm value that results in a better resource allocation excellence (Abdullah & Said, 2015). Strategic management accounting is of great significance to cost-benefit quality (Farouk & Mclellan, 2013). Strategic management accounting does not consider costs as an output; instead, it considers costs as inputs which have to be managed in the process of production, and includes planning, cost control quality, management and reduction of costs. Managerial accounting information one of the most important effect of strategic management accounting, which aims to provide reliable, complete, accessible, and understandable information in a timely manner (Al-Mamary, Shamsuddin & Aziati, 2014). The above information represents the information base for decision-making of internal and external users (management, investors, creditors and other stakeholders). Mastering strategic management is a key in the strategic accounting management process (Kamal & Lukman, 2017). Therefore, strategic management accounting effectiveness consists of four proposed dimensions including resource allocation excellence, managerial information reliability, cost-benefit quality, and mastering strategic management. The most important managerial instruments are strategic management accounting (Kamal & Lukman, 2017), and strategic management accounting which are considered as critical factors to increase revenue for the success of large firms (Albelda, 2011). Thus, the effectiveness of strategic management accounting therefore is to align the organizational strategies and goals. This requires the organization to monitor and evaluate its operations with those of its competitors and to pay much greater attention to satisfying customer needs. To do this, strategic management accounting provides a range of internal and external information for decision-making.

In a Thailand context, strategic management accounting practices have not been widely adopted as compared to Australia and Europe. A study by Sulaiman, Ahmad & Alwi (2004) concluded that many firms still use financial accounting techniques due to lack of expertise, awareness, and support from top management. Oboh & Ajibolade (2017) assert that the most common challenge faced the companies is the resistance to decide and adopt new practices by both middle-level managers and subordinates. Unam & Akinola (2015) conclude that an extensive use of strategic management accounting information would result in better performance. This study examines the effectiveness and adequacy of strategic management accounting in a developing country-Thailand context.

The dynamic capability theory sets out to explain sustainable competitive advantage. The dynamic capabilities are the skills of a firm to restructure its resources and routines considered as the main capabilities. In addition, the dynamic capabilities theory, in this research, is operated to explain the relationship between strategic management accounting effectiveness on antecedents and consequences. Therefore, strategic management accounting supports operational efficiency, advantages of management and firm value (Kitenga & Thuo, 2014). Thus, in this research, the examination of the positive relationships among the each dimension of strategic management accounting effectiveness and (1) operational efficiency, (2) advantages of management, and (3) firm value is required.

Apart from this, the contingency theory is used to explain a match between two or more factors, and is a concept that has an impact on organizational outcomes

(Cadez & Guilding, 2012). Moreover, it is optimum management or an organization that depends on the various internal and external constraints (Nimtrakoon, 2009). Hence, this study explains antecedents of strategic management accounting effectiveness. Therefore, the contingency perspective leads to internal and external factors which may affect each dimension of strategic management accounting effectiveness. Thus, in this research, there is required the examination of the positive relationships among the anticipated antecedents variables which include: (1) top management involvement, (2) enterprise resource planning efficiency, (3) interdepartmental communications, and (4) market dynamics, and each dimension of strategic management accounting effectiveness.

Based on the literature reviewed, there is little empirical researches on strategic management accounting effectiveness integrating theory to describe the complete phenomena. Thus, the dynamic capability theory and the contingency theory are employed to explain the phenomena in this research. Especially, the dynamic capability theory is used to describe strategic management accounting effectiveness and its consequences. Furthermore, the contingency theory explains the moderating effect of the relationships between strategic management accounting effectiveness and its consequences. This research generates a significant study of the literature on strategic management accounting effectiveness. First, this research expands the theoretical contributions to previous knowledge and the literature of strategic management accounting. Second, this research proposes four dimensions of strategic management accounting effectiveness: namely, resource allocation excellence, managerial information reliability, cost-benefit quality, and mastering strategic management. Third, the two theories of dynamic capability and contingency are explained to support the relationships of conceptual models in this research. Finally, the consequences of strategic management accounting effectiveness are offered by this research in different ways. Moreover, this research tests the mentioned relationships.

This study investigates firms listed on the Stock Exchange of Thailand (SET) because the literature has recognized this country’s high level of experience in strategic management accounting effectiveness and it is an important contributor to

Thailand's economy. Strategic management accounting effectiveness orientation is an important strategy of the firm that can be use in time of economic crisis. Thus, Artley, Ellison & Kennedy (2001) indicated that business success as is a result of strategic management accounting effectiveness. Therefore, this group of large firms are still interesting for further studying on other aspects of strategic management accounting effectiveness. The main question in the study is: "How does strategic management accounting effectiveness influence firm value?" This study expects that contributions of this research would include both theoretical and managerial contributions. The theoretical contribution relates to conceptualizing strategic management accounting effectiveness as a multi-dimension, which is an integrated dimension. The main contributions of this research are to examine the extent to which strategic management accounting effectiveness is currently used by the companies in Thailand as well as for their benefits to firms on the stock exchange of Thailand., It also explore the relationships among key constructs including strategic management accounting effectiveness and firm value. Furthermore, this research presents the logical link between the conceptual framework by the dynamic capability and contingency theories. Finally, the results of this research may contribute to managerial practices that concentrate on strategic management accounting effectiveness to build a sustainable competitive advantage, as well as to support and enhance the performance of businesses in Thailand.

This research used a questionnaire to collect the data and an ordinary least squares (OLS) regression analysis was also implemented. This research provides both theoretical and managerial contributions for theoretical contribution. In addition, a number of managerial contributions could directly give integrated dimensions to almost managers who apply the concept of strategic management accounting effectiveness for improving their business performance, particularly in current unstable situations.

Purposes of the Research

The key objective of this research is to examine the relationship between strategic management accounting effectiveness which are four dimensions (including resource allocation excellence, managerial information reliability, cost-benefit quality, mastering strategic management) and firm value. In addition, the specific research objectives are as follows:

1. To investigate the effects of the four dimensions of strategic management accounting effectiveness (resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management) on operational efficiency, advantages of management and firm value.

2. To investigate the relationships between operational efficiency and advantages of management on firm value.

3. To study the relationships among top management involvement, enterprise resource planning efficiency, interdepartmental communications, market dynamics, and each dimension of strategic management accounting effectiveness.

Research Questions

A key research question of this research is how strategic management accounting effectiveness (which is comprised of four dimensions including resource allocation excellence, managerial information reliability, cost-benefit quality, mastering strategic management) has an influence on firm value. Also, specific research questions are presented as follows:

1. How do the four dimensions of strategic management accounting effectiveness have an influence on operational efficiency, advantages of management and firm value?

2. How do operational efficiency and advantages of management affect firm value?

3. How do top management involvement, enterprise resource planning efficiency, interdepartmental communications, and market dynamics have an influence on strategic management accounting effectiveness?

Scope of the Research

This research concentrates on strategic management accounting effectiveness in the context of Thai-listed firms. In general, the concept of strategic management accounting superficially looks like the principle of management accounting practice. However, this research emphasizes on the ways that lead to strategic management accounting effectiveness of Thai-listed firms. Therefore, the concept of strategic management accounting effectiveness is integrated as a result of several sources and is encompassed by four dimensions: 1) resource allocation excellence, 2) managerial information reliability, 3) cost-benefit quality, 4) and mastering strategic management. Each is discussed in the next chapter. For an overview, this research is separated into three major parts. The first part investigates the effects of strategic management accounting effectiveness as a whole and each dimension on its consequences. In addition, this dissertation explores the mediation role of operational efficiency and the advantages of management on the relationship between strategic management accounting effectiveness and firm value. The second concentrates on the antecedents of strategic management accounting effectiveness.

Firstly, the objective of this research is to examine the relationship among strategic management accounting effectiveness and operational efficiency, advantages of management and firm value. Accounting has always been an information system designed to collate, analyze, and disseminate knowledge in a way that is useful to various decision-makers. In this research, strategic management accounting effectiveness is defined as a process of identifying, choosing and analyzing accounting data about activities of an organization and the changing external environment within which it operates for assessing strategic initiatives of the organization. These are comprised safe operation, reliability, product or service quality, efficiency, management of change and environmental uncertainty (Ojha, 2015).

This research draws from a base of the dynamic capability theory, and contingency theory. This research proposes theory interaction to explain the relationship of each variable that concentrates on examination and to answer the research questions and objectives. Moreover, this research focuses on the effects of strategic management accounting effectiveness on firm value in the context of Thai-listed firms. Additionally, data collection employs questionnaires as the main research instrument. The Ordinary Least Squares (OLS) regression analyses are processed to test all postulated hypotheses.

Furthermore, strategic management accounting effectiveness comprises four dimensions; namely, resource allocation excellence, managerial information reliability, cost-benefit quality, and mastering strategic management. Firstly, resource allocation excellence refers to the ability of a firm to analyze, allocate, and utilize resources efficiently in each activity and the use of resources to maximize benefits to achieve a firm's goals which included people, technology, machinery, equipment, location, time, and money (Wudhikarn, 2016). Secondly, managerial information reliability refers to the quality of the content of strategic management accounting information which is accuracy, validity, reliability, timeliness, relevance and completeness in order to make for consistent operations and efficiently adhere to the goals (Al-Mamary et al., 2014). Thirdly, cost-benefit quality is defined as a methodology that allows an organization to determine the extent to which the resources are used for preventing poor quality, appraising the quality of the organization's products or services, and analyzing the costs and benefit by using various techniques to compare the total expected cost of each option with its total expected benefits (Sherman, Siebers & Aickelin, 2016; Uckelmann, 2012). Lastly, mastering strategic management refers to the ability in strategy implementation to the execution the plans and strategies (which include evaluation and follow-up, improvement and development, the internal audit, Six Sigma, Balanced Scorecard and Theory of Constraints), so as to accomplish strategic objectives and best achieve their performance goals (Kamilah, 2017; Misankova & Kocisova, 2014).

Accordingly, the consequences of strategic management accounting effectiveness consist of operational efficiency, advantages of management and firm value. The definition of operational efficiency refers to the process of a firm's ability to deliver products and services in a timely manner to clients increase customer satisfaction and performance, improve, timeliness, and develop flexibility to achieve the operational target (Jane, Aosa, Zachary & Njihia, 2018; Ndolo, 2015). In addition, it respond to forces for change through operational capabilities that are accepted by both internal and external organizations (Rabinovich, Dresner & Evers, 2003). Advantage of management refer to the unique ability of a firm to manage strategies that are superior to competitors by using of techniques and management methods such as planning, directing, controlling and decision-making by executives for the performance of the organization (Konstantakopoulou & Tsionas, 2019; Li & Liu, 2018). In other words, it is something that a company does better than its competitors and measured by the management process. Firm value is measured by the ability of a firm as to the performance of actions that increase the worth of goods or services. It is usually split into two categories: financial (profitability, return on investment and return on equity) and non-financial (new customers, quality of after- sales services, acceptance from stakeholders) (Jane et al., 2018).

This research also investigates the antecedents of strategic management accounting effectiveness, and various antecedents factors that affect strategic management accounting effectiveness: top management involvement, enterprise resource planning efficiency, interdepartmental communications and market dynamics. Top management involvement means that top executives commit themselves to the effort, provide strong support by participating in strategic management accounting from its initiation to its end (these include push, budget, technique, skills training, and participation to achieve the organization's target (Tzempelikos, 2015). Enterprise resource planning efficiency refers to the collection of software that has been integrated into one package for an organization's business processes to support the operations, communications, data storage, integrated systems, processing, and access, to become more effective and efficient (Candra, 2014; Chofreh, Goni, & Klemeš, 2018). Interdepartmental communication refers to all formal and informal communication taking place internally at all levels of an organization to achieve organizational goals with good-quality operation. It includes items about problem-solving, flexibility, the communication climate, and communication among managers (Gondal, Shahbaz, & Shahbaz, 2012). Market dynamism simply can be defined as the perceived expectation about operation under pressure from change in the market and perceived uncertainty associated with competitive change, consumer trends, regulatory and legal issues, pricing trends, politics, risk management and increasing competition (Seo & Chae, 2016)

Ultimately, strategic management accounting effectiveness is an independent variable and it is the optimal management approach that supports improvements in the management and operation of firms. Therefore, strategic management accounting effectiveness is measured by resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management. Also, this dissertation especially focuses on the study of the role of strategic management accounting effectiveness in the content of Thai-listed firms. This research is hypothesized to be positively associated with operational efficiency and advantages of management. Within the relationships, firm value is the dependent variable of the research which is defined as an ability of a firm to operate and work towards achieving organizational purposes by integrating accounting information into its business strategies. It is measured by both financial and non-financial outcomes.

Organization of the Dissertation

This research is organized into the following five chapters: Chapter I provide an overview and motivation of the research, the usefulness of strategic management accounting effectiveness (SMAE), the purposes of the research, the research questions, the scope of the research, and the organization of the research. Then, Chapter II includes a review of previous research and the relevant literatures detailing all constructs in the conceptual framework, the definition of each construct, and the support for the theoretical framework to be applied in this research. Moreover, this chapter also presents the linkage of those constructs to formulate some related hypotheses for testing. Chapter III shows the research methods, including the sample selection and data collection procedure, the variable measurements of each construct, the development and verification of the survey instrument by testing reliability and validity, and the statistics and equations to test the hypotheses. Chapter IV presents the results of the statistical testing, demonstrates the empirical results, and then discusses it in full detail. Finally, Chapter V discusses the theoretical and managerial contributions, the limitations of the study, and suggestions for future research.

CHAPTER II

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

The previous chapter describes the overview of strategic management accounting effectiveness with the research objectives, research questions and scope of research. Consequently, this chapter emphasizes the constructs of a conceptual model and a review of the previous research and relevant literature. The core construct of the conceptual model in this research is the strategic management accounting effectiveness phenomenon. It provides empirical evidence regarding what factors allow firms to reconfigure and recombine resources and capabilities to create new value through strategic management accounting effectiveness. Hence, attempts to integrate many theoretical perspectives support how strategic management accounting effectiveness affects firm value. The core research is the strategic management accounting effectiveness that is identified by the dynamic capability theory and contingency theory. In an earlier overview of the literature, the role of the antecedents and the consequences of strategic management accounting effectiveness is drawn. The literature review is intended to provide an understanding of the founding fields on the proposed conceptual framework.

This chapter is organized into three sections. The first section introduces theories that back up the conceptual model of the research. The second provides a literature review and hypotheses development which is used to formalize the theoretical arguments on the relationships among the constructs of the conceptual model. The final section presents the summary of hypotheses relationships and their descriptions.

Theoretical Foundation

The theoretical foundation is the foundation from which all knowledge is constructed for a research study. It serves as the structure and support for the rationale of the study, the problem statement, the purpose, the significance, and the research questions. The theoretical foundation provides a grounding base, or an anchor, for the literature review, and most importantly, the methods and analysis. In addition, Kitenga & Thuo (2014) highlighted the necessity of identifying one's theoretical framework for a dissertation study.

However, in this research, only two theories were used to explain the relationship linkage of the conceptual model. The two main theories promoting this research are the dynamic capability theory and the contingency theory. To clearly understand the relationships among all constructs, both the dynamic capability theory and contingency theory are applied to explain the relationships between the antecedents and consequences of strategic management accounting effectiveness, each of which is detailed in the following.

Dynamic Capability Theory

The dynamic capability theory was initially introduced by David Teece and Gary Pisano in 1994. The dynamic capability theory literature attempts to identify and explain the process taking place in the firm when new sustainable competitive advantages are being developed (Alsos, Borch, Ljunggren & Madsen, 2008). The concept seeks to provide a coherent framework which can both integrate existing conceptual and empirical knowledge on sustainable competitive advantage (Kitenga & Thuo, 2014). The perspective of the dynamic capabilities has become dominant in strategic management accounting effectiveness and strategic management of organizations (Vargas-Hernández & Muratalla-Bautista, 2017). There is no agreement on what it has to be understood as dynamic capability. The dynamic capabilities are the skills of a firm to restructure its resources and routines considered as the main capabilities. Long-term competitive success is based on superior capabilities in things like research and development, operation, or marketing. Moreover, Teece, Pisano & Shuen (1997) defined the concept of dynamic capabilities as the ability of a firm to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments. Dynamic resources help a firm adapt its resource mix and thereby maintain the sustainability of the firm's competitive advantage, which otherwise might be quickly eroded. This "resource-based strategy" was grounded on the ideas of the "Resource-Based View" which attempted to explain that the source of competitive advantage lies within a company's ability to manage internal resources

(Das & Teng, 2000). The argument is that because some resources can be specific to firms and are not easily imitated, firms differ in terms of their resource base. This inimitability is essentially what leads to competitive advantage.

The dynamic capability theory sets out to explain how sustainable competitive advantage is achieved. Teece et al. (1997) argue that successful companies in the global marketplace are able to demonstrate timely responsiveness to market dynamics and speedy product innovation. Additionally, successful companies are able to effectively coordinate and redeploy internal and external competence (Teece et al., 1997). The dynamic capability theory sets out to explain how sustainable competitive advantage is achieved. Teece et al. (1997) argue that successful companies in the global marketplace are able to demonstrate timely responsiveness to market dynamics and speedy product innovation. The ability to achieve sustainable competitive advantage in this context is referred to as the dynamic capability theory. Teece et al. (1997) define the term "dynamic" as "the capacity to renew competences so as to achieve congruence with the changing business environment; this is relevant in situations where time-to-market is critical and the nature of competition is difficult to determine". Capabilities are referred to as "the key role of strategic management accounting practices in appropriately adapting, integrating and reconfiguring, internal and external organizational skills, resources, and functional competences to match the requirements of a changing environment" (Teece, 2016).

Zollo & Winter (2002) define dynamic capability as a pattern of collective activity through which the organization systematically generates and modifies its operating routines in pursuit of improved effectiveness. Pavlou & Sawy (2011) defined dynamic capabilities as those capabilities that help units extend, modify, and reconfigure their existing strategic management accounting effectiveness into new ones that better match the changing environment. In addition, Eisenhardt & Martin (2000) state that dynamic capabilities, while are often described in a vague manner, actually consist of identifiable and specific routines. They explained that dynamic capabilities involve the organizational processes by which resources are utilized to create growth and adaptation within changing environments and permit the renewal and reconfiguration of a firm's resources. Teece (2016) refined this definition of dynamic capabilities to "the ability to sense and then seize new opportunities, and to reconfigure and protect knowledge assets, competencies, and complementary assets with the aim of achieving a sustained competitive advantage." Dynamic capabilities enable firms to renew their competences to meet changing market requirements, and include the processes to integrate, learn, and reconfigure internal and external organizational skills and resources (Teece et al., 1997); or (1) to sense and shape opportunities, (2) the identified requirements should be compared with the extant knowledge of dynamic capabilities, and (3) to maintain competitiveness through enhancing, combining, protecting, and reconfiguring their intangible and tangible assets (Teece, 2016). Likewise, Zollo & Winter (2002) suggested that dynamic capability is a learned and stable pattern of collective activity, through which organizations systematically generate and modify their operating routines to enhance their effectiveness.

In this research, dynamic capability is applied to explain why firms must learn to adapt, integrate, change and develop their resources and competencies continuously in order to generate firm value. Consequently, this research addresses theoretically how strategic management accounting effectiveness is contingent upon the contingency variables of operational efficiency, advantages of management and firm value.

Contingency theory

The contingency theory explains that there is no best way to organize a corporation, to lead a firm, or to make decisions, so that an organization which is effective in some situations may not be successful in others. In essence, the optimal action is contingent or dependent on the internal and external situation (Fiedler, 1964). Originally, the contingency theory was a framework of organizational control based on factors which may have occurred but could not be controlled (Soobaroyen & Poorundersing, 2008). Management accounting practices lend support to managers, management goals and the organization's objectives (Turner, Way, Hodari, & Witteman, 2017). Likewise, the best way to manage any firm depends on the nature of the environment to which the firms must relate. Thus, an organization that is effective in some situations may not be successful in others, depending on the internal and external situations (Oboh & Ajibolade, 2017).

In the contingency theory, organizational structure and system represent an environmental function of a company-specific factor (Hoque, 2011). This is exactly why the integrated instruments for strategic management accounting effectiveness in organizations needs to consider contingency factors. The contingency approach argued that organizational effectiveness builds upon correspondence between the organization and its environment. According Novianty (2015), no organizational design is universally applicable that represents the basic concept in contingency theory. The theoretical framework used is based on both the contingency theory of strategic management accounting effectiveness which sees the organizations strategy, aims and internal and external situations that impact on strategic management and consequently on the nature and quality of operational efficiency; and the view of strategic management accounting effectiveness as a package which specifies the different constituents of strategic management.

The contingency theory of strategic management accounting has been around for quite a while and is based on the premise that there are no universally appropriate strategic management instruments for all organizations in all circumstances (Sherine & McLellan, 2013). This means that efficient organizational strategic management and strategic management accounting will vary with organizational contextual factors such as strategy, technology and environment (Stefanou & Athanasaki, 2012). An alternative representation, which runs in terms of an analytical cross-tabulation of authors' contributions to the subject is provided in Maksoud (2011). Assurance of competitive advantage is based on decision-making processes of managers by using strategic management accounting. Strategic management accounting effectiveness is a set of techniques implemented by corporate management to design value-creating information related to operational efficiency, and advantages of management; and then constantly aligning them with strategy in a highly uncertain business environment.

Under the contingency view, it has been proposed that strategic management accounting effectiveness should be designed specifically to suit the business strategy of the firm (Tan & Jusoh, 2012). The recent work of Thitiyapramote (2015), finds some support for the notion that organizations adapt their strategic management accounting effectiveness design to the operational efficiency, advantages of management and firm value requirements of their contextual situation. Meanwhile, the findings of Simon & Chris (2008) support contingency theory's tenet of no universally appropriate strategic management accounting, with factors such as firm size and strategy having a significant bearing on the successful application of strategic management (Blumentritt, 2006).

In this research, the contingency theory is applied to explain the antecedent of strategic management accounting effectiveness (top management involvement, enterprise resource planning efficiency, interdepartmental communications, and market dynamics). In addition, it is suggested that the antecedent of strategic management accounting effectiveness implementation depends on its ability to learn from changes in external circumstances and internal factors (Sunarni, 2013).

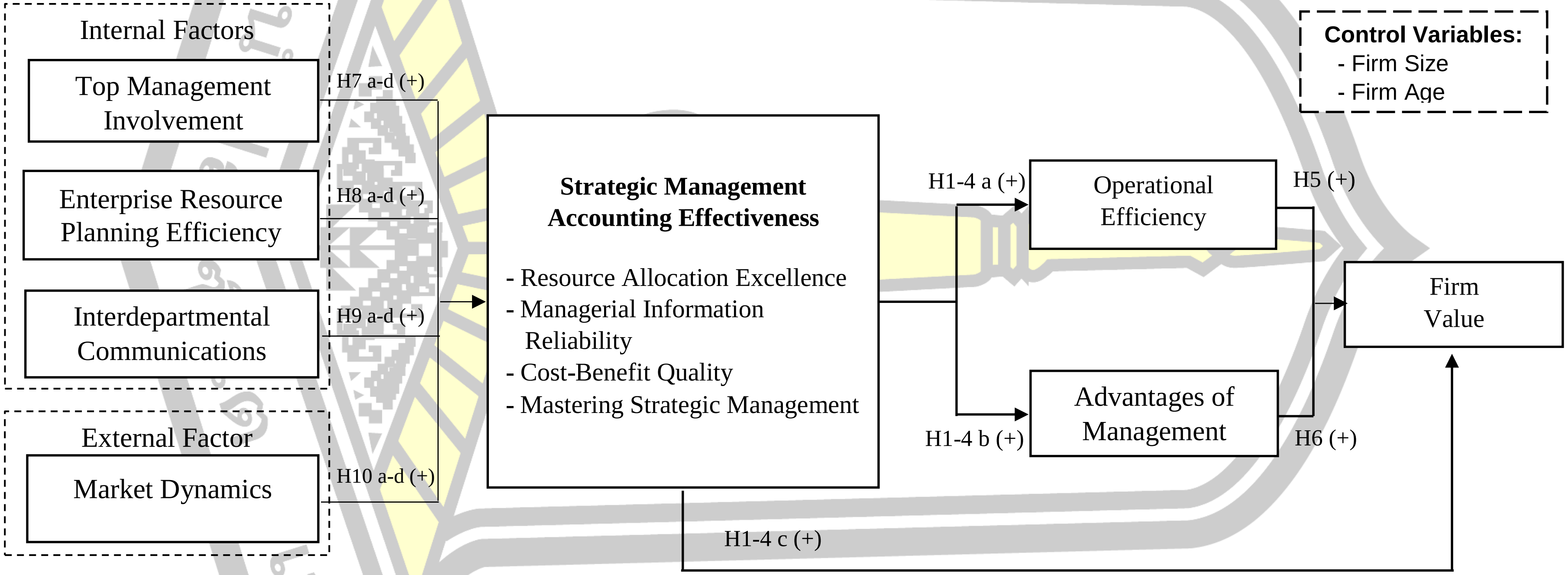
In summary, the two theories describe the phenomena in this research, namely, the dynamic capability theory and the contingency theory. Moreover, these theories exhibit the relationships of strategic management accounting effectiveness, its antecedents and consequences, which are shown in Figure 1 as in the following. The next section mentions the literature reviews and hypotheses development to be discussedbelow.

Relevant Literature Review and Research Hypotheses Development

This section reviews the literature that is relevant to the conceptual framework, and the linkage of the relationship among antecedents and consequences of strategic management accounting effectiveness. In order to comprehend all relationships, the literature review is divided into three sections.

Firstly, this research has approached the test of the main effect of strategic management accounting effectiveness on firm value. In the study, strategic management accounting effectiveness comprises four dimensions: resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management. These relationship dimensions have positive effects on the consequences. The consequences are three constructs: operational efficiency, advantages of management and firm value. Secondly, the antecedents of strategic management accounting effectiveness are composed of top management involvement, enterprise resource planning efficiency, interdepartmental communications and market dynamics. These factors are investigated to find whether there is a positive relationship with four dimensions of strategic management accounting effectiveness. The full conceptual model is illustrated in Figure 1 as follows.

Figure 1: Conceptual model of the Relationships between Strategic Management Accounting Effectiveness and Firm Value: An Empirical Evidence from Thai-Listed Firms



Strategic Management Accounting Effectiveness

Currently, the data reflected in the financial statements and managers' experiences are not sufficient to help firms to realize value creation and success (Rostami, 2015). Present firm value has to face new challenges with a wide variety of business environments that differ from past administration. Due to factors or impacts on organizations, both directly and indirectly in various fields, the company must find ways, means, and new management techniques to improve operational efficiency and firm value. The traditional accounting concept has changed by the introduction of strategic thinking based on different field of management. Then, strategic management accounting has been proposed as a means for generating operational efficiency, advantages of management and firm value (Ahmad & Zabri, 2016; Alexandre, Pires, Maria & Lúcia, 2015). Successful strategic management accounting effectiveness improve overall organizational profitability (Amara & Benelifa, 2017; Chaikambang, 2016). The optimum measure in evaluating the effectiveness of management accounting practices adopted by a business is performance (Farouk, Sherine & Mclellan, 2013). Business strategy must be supported by appropriate organizational factors such as effective manufacturing processes, proper organizational design, and relevant management accounting practices (Kaneko, 2017). In the research definitions, strategic management accounting effectiveness is the ability of a firm to use strategic management accounting techniques to achieve the organization's objectives in four dimensions (including resource allocation excellence, managerial information reliability, cost-benefit quality, and mastering strategic management).

Most textbooks of management accounting define the discipline in terms of its decision-making role. It is generally stated that since strategic management accounting effectiveness involve using information for better resource allocation excellence, managerial information reliability, cost-benefit quality, and mastering strategic management; therefore, management accounting is very important for effective and successful management at all levels (Shar, Malik & Shaukat, 2011). The role of strategic management accounting function might also be affected by the implementation of the modern financials and resource allocation excellence that provide managerial information reliability and operational efficiency (Rostami, 2015). It is a suitable way for employees to carry out routine activities more effectively, to quickly handle a large data base, and report in a faster and more flexible way. Strategic management accounting is a philosophy of improving operational efficiency and advantages of management; strategic management accounting is not only cost management but also revenue management. Therefore, its objective is seeking to improve productivity, maximize profit, and improve customer satisfaction. This philosophy plays a vital role in determining the future of the company because it promotes the idea of continually finding ways to help organizations make the right decisions to maximize customer value at lower cost (Ojha, 2015). Also, strategic management accounting provides financial reports to whole users and stakeholders (Rostami, 2015).

The Chartered Institute of Management Accountants gives a definition of strategic management accounting as follows: It is a form of management accounting in which emphasis is placed on information which relates to factors external to the firm, as well as nonfinancial information and internally-generated information. Strategic management accounting can create significant value to the organization's success by providing more related information needed (Cinquini & Tenucci, 2007). Besides that, strategic management accounting could enrich the profitability and efficiency of the organization. In line with the management accounting evolution value creation stage, organizations are expected to use management accounting information as strategic tools achieving the value creation goal (Amara & Benelifa, 2017). Essentially, the evolution in management accounting particularly aims to ensure the continuous value creation by the business, as an important business strategy that fit well with the contemporary business environment and demand. The literature suggests that strategic management accounting should incorporate strategic product costing and performance measurement, analyses of the firm's product markets and competitive market forces, and the assessment of organizational strategies over extended periods of time (Nasieku & Githinji, 2016). Meanwhile, Unam & Akinola (2015) sees strategic management accounting as going beyond collecting data on businesses and their competitors, to considering the benefits that products offer to customers, and how these benefits contribute to building and sustaining competitive advantage. One school of thoughts argues that there is a positive relationship in that strategic management accounting effectiveness is considered as a critical factors to increase revenue for the firm value (Kumar & Shafali, 2011).

Many authors have stressed that the strategic importance of strategic management accounting effectiveness has drastically increased in the recent years due to intense competition. According to Kouser, Awan, Gule & Shahzad (2011) customers in highly competitive markets expect that each generation of products presents improvements. These improvements may include: improved quality, operational efficiency, advantages of management and firm value. Any of these improvements alone or any combination thereof urge a firm to manage its costs to stay profitable.

Therefore, from a literature review, strategic management accounting effectiveness focuses on four dimensions which are resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management. The summary of definitions of strategic management accounting are as shown in Table 1. It indicates that although in recent years research themes about strategic management accounting effectiveness have been expanded, most of those scholars concentrated specifically on empirical and conceptual papers.

The conclusion of key literature reviews on strategic management accounting is as shown in Table 2. It also indicates that although in recent years, research themes about strategic management accounting effectiveness have been expanded; most of those scholars are empirical and conceptual papers. Generally, previous literature emphasized that most importantly strategic management accounting effectiveness is an effective instrument for the improvement of competence in creating wealth for shareholders, market competitive capability, cost reduction and the objective of firm value.

Table 1 The summary of definitions of strategic management accounting

Author (s)	Definitions of strategic management accounting
Cinquini & Tenucci (2007)	Strategic management accounting as a generic approach to accounting for strategic positioning, defined by an attempt to integrating insights from management accounting and marketing management within a strategic management framework.
Oboh & Ajibolade (2017)	Strategic management accounting is often defined as the use of financial and non-financial accounting information to support strategic decision-making
Samy (2012)	Strategic management accounting is a development in the accounting literature that acts as a framework for the various strategic elements in the discipline of management accounting.
Simmonds (1981)	Strategic management accounting is used to develop and monitor the strategy of the business which is a form of the provision and analysis of management accounting data related to the business and its rivals.
Novianty (2015)	Strategic management accounting played a key role in strategic description, strategic announcing, strategic implement and strategic control.
Oboh & Ajibolade (2017)	Strategic management accounting provides management accounting information for competitive strategy, firm development, market changes, corporate strategic program, strategic implementation and strategic control, and combination of strategic management and management accounting.

Table 1 The summary of definitions of strategic management accounting (Continued)

Author (s)	Definitions of strategic management accounting
Fowzia (2011)	Strategic management accounting saying that it is a form of management accounting in which emphasis is placed on information which relates to factors external to the firm, as well as nonfinancial information and internally generated information.
Dashtbayaz, Mohammadi & Mohammadi (2014)	The process of identifying, Collecting, selecting and analyzing accounting data to help assess the effectiveness of the management team for strategic and organizational decisions.
Nasieku & Githinji (2016)	Strategic management accounting entails taking a strategic orientation to generation, interpretation and analysis of management accounting information, and competitors' activities provides the key dimension for comparison.
Juras (2014)	Strategic management accounting can broadly be defined as being the use of management accounting systems in supporting strategic decision-making.
Ma & Tayles (2009)	The body of management accounting concerned with strategically orientated information for decision-making and control.
Banker & Johnston (2014)	Strategic management accounting is that aspect of management accounting in which emphasis is placed on information, which relates to external factors to the firm, as well as non-financial information, and internally generated information.
Unam & Akinola (2015)	Strategic management accounting is identified as a generic approach to accounting for strategic positioning, defined by an attempt to integrate insights from management accounting and marketing management within a strategic management framework.

Table 2 Summary of Key Literature Reviews on Strategic Management Accounting and Supporting Literature

Authors	Title	Conclusion
Abdullah & Said (2015)	Enhancing the Governance of Government Linked Companies via Strategic Management Accounting Practices and Value Creation	Successful of strategic management accounting practices as mediating to alliance management capability and value creation will helps the company to achieve the competitive advantage and leads to create value of the company.
Carlssonwall, Kraus & Lind (2014)	Strategic management accounting in business-to-business networks	In a context of complex interdependencies in business-to-business networks, our study demonstrates that network strategic management accounting primarily concerns information on the unique connections to close customers and suppliers, and third-party effects.
Holloway (2006)	Strategic Management Accounting and Managerial Decision-Making reconceptualised: towards a collaboratively oriented theory of organizational decision enhancement (ODE)	Organizational decision enhancement theory is argued to be widely applicable in the decision-making process utilized by organizations (private, public and non-profit). Effectiveness and not efficiency (falsely perceived as timely) should be the aim of well-constructed decision outcomes. The adaptability and self-organizing capability of the workforce requires an inclusive, not exclusive, decision-making methodology to unlock and realise the full future potential of the organization.

Table 2 Summary of Key Literature Reviews on Strategic Management Accounting and Supporting Literature (Continued)

Authors	Title	Conclusion
Shah, Malik & Malik (2011)	Strategic Management Accounting – A Messiah For Management Accounting?	Since there is a strong relationship between organizational performance and a formal strategic plan. Strategic management accounting can play an important role in filling the gap between accounting and strategic management.
Arithi & Muthuri (2001)	Application of Strategic Management Accounting By Large Manufacturing Companies in Nairobi.	The findings from this study revealed that principally, large manufacturing companies based in Nairobi have adopted strategic management accounting techniques. The factors influencing manufacturing companies to adopt strategic management accounting techniques were observed to be mainly due to the need of assessing business environment and the competitor's performance.
Oboh & Ajibolade (2017)	Strategic management accounting and decision-making: A survey of the Nigerian Banks	Strategic management accounting as a concept was introduced as an alternative technique of management accounting to measure up with today's competitive and business environment. Consequent to its findings, the study concludes that strategic management accounting differs in its approach to the practice of management accounting and has been adopted by banks in Nigeria as a principle of operation and not as a concept.

Table 2 Summary of Key Literature Reviews on Strategic Management Accounting and Supporting Literature (Continued)

Authors	Title	Conclusion
Vandina (2016)	Strategic Management Accounting in the Organization's Cash Flows Control	The important direction of this type of accounting is strategic management accounting of cash flows of a company. It is strategic management accounting of cash flows that makes it possible to correctly set information base to monitor financial flows of a company which responds the tends of market economy and allows to make optimal management decisions.
Inghirami & Scribani (2016)	Towards Strategic Management Accounting: The Nespoli Group Case	The strategic management accounting system homogenizes the data, the process to create reports and reports themselves. Moreover, the system acts as communication media within the Group, and it replaces all other means of communication. The strategic management accounting system allows constant monitoring of the performance of the Group and the individual Legal Entities, thus assessing the effectiveness of the implemented strategies.

Table 2 Summary of Key Literature Reviews on Strategic Management Accounting and Supporting Literature (Continued)

Authors	Title	Conclusion
Olusegun (2016)	Management Perceptions of the Role of Strategic Management Accounting Techniques in Decision making: A Survey of Nigerian Petroleum Marketing Firms	The acceptance of strategic management accounting Techniques as means of strategic decision-making has become very important at least for the survival of firms in highly competitive industries where information is acted on a swift as possible.
Sani (2011)	Strategic Management Accounting: Implementation and Control	Strategic management accounting practices exist in different forms within companies seeking to use both financial and non-financial information as well as external market-based information. It is also subject to wider contextual influences including industry-specific effects. Apart from cost and benefit analysis, understanding organizational context from a long-term spectrum is the key to the implementation of an effective strategic management accounting system.

Table 2 Summary of Key Literature Reviews on Strategic Management Accounting and Supporting Literature (Continued)

Authors	Title	Conclusion
Cescon, Costantini, & Grassetti (2016)	Strategic Perspectivein Management Accounting: Field-Based Evidence	In fact, through a different analysis, they found loose coupling between strategic management accounting technique typologies and business strategies and found that "the same strategic management accounting technique is able to support different strategic approaches". In addition, with strategic management accounting techniques and practices companies collect competitor information in order to compare a given company with its rivals to support strategic processes.
Dmitrovic-Saponja & Suljovic (2017)	Strategic management accounting in the Republic of Serbia	In this article, it was clear that companies that use at least one of the techniques of strategic management accounting receive on much higher level of relevant and timely information compared to companies that do not use these techniques.

Table 2 Summary of Key Literature Reviews on Strategic Management Accounting and Supporting Literature (Continued)

Authors	Title	Conclusion
Novianty (2015)	Strategic Management Accounting: Challenges in Accounting Practices	The role of management accounting is to provide relevant information for the manager in conduction his function in planning and controlling the organization. Changes in business environment demand changes within the system of management accounting as well. These days, business environment has demanded innovations and relevant management accounting practices which are necessary for the company. Management accounting is demanded to be able to provide relevant information in determining strategic decisions which are named strategic management accounting.
Novianty (2015)	The effectiveness of Key Account Management practices	The results show that effectiveness measures explain much of the perceived performance of a key strategic account management program. The biggest single measure of key strategic account management effectiveness that influences overall perception of the program's performance is shared investment, perhaps because this rep-resents a substantive and visible commitment by both sides. Customer retention is also important in perceived performance; the loss of a key account from a program would be a highly visible indicator of low performance.

Table 2 Summary of Key Literature Reviews on Strategic Management Accounting and Supporting Literature (Continued)

Authors	Title	Conclusion
Cinquini & Tenucci (2007)	Is the adoption of Strategic Management Accounting techniques really “strategy-driven”? Evidence from a survey	The findings reveal that strategic management accounting techniques appear to be extensively used. Attribute costing, customer accounting, strategic pricing and competitive position monitoring represent the most widely used strategic management accounting techniques. Four features of the pattern of strategic management accounting practice emerge clearly from the factor analysis: competitor, long run, process and customer orientation.
Noordin, Zainuddin, Fuad & Mail (2014)	Strategic Management Accounting: State-of-the-Art	The finding of the current research shows that organization operating in today’s competitive market widely used strategic management accounting information elements which the current research has conceptualized as consisting of information analysis on competitor, customer, and product-related. Thus, the current finding may imply that the manufacturing companies have used strategic management accounting information to adapt the needs of the competitive market.

Table 2: Summary of Key Literature Reviews on Strategic Management Accounting and Supporting Literature (Continued)

Authors	**Title**	**Conclusion**
Fowzia (2011)	Strategic Management Accounting Techniques: Relationship with Business Strategy and Strategic Effectiveness of Manufacturing Organizations in Bangladesh	Strategic management accounting practices in organization recognize the problem that management is facing in future courses of action focusing customer, market, decision and activity etc. The current strategic management accounting practices in industries are taking new shapes commensurate with the market competitiveness and applying variety of techniques that accumulates strategic and financial information for decision-making.
Cadez & Guilding (2012)	Strategy, strategic management accounting and performance: a configurational analysis	Only limited support is provided for the configurational proposition that internally consistent strategy and strategic management accounting system configurations are associated with higher performance. Found that in organizations pursuing similar strategic priorities, performance tends to be higher where management accounting practices are congruent with strategy.

Table 2 Summary of Key Literature Reviews on Strategic Management Accounting and Supporting Literature (Continued)

Authors	Title	Conclusion
Dashtbayaz, Mohammadi & Mohammadi (2014)	Strategic Management Accounting.	Strategic management accounting can be defined as "the process of identifying, collecting, selecting and analyzing accounting data for Assist the management team in strategic decision-making and organizational effectiveness assessment must be defined.
Rostami (2015)	Effectiveness of Strategic and Operational Management Accounting Techniques	Managers can select some useful tools to use and monitor weekly or monthly to improve organization's level. According to results of research population, focus on competitor analysis can help organization to keep itself in industry. Actually, when organization's managers compare and analyze some output with others, they can improve organization plan and route.

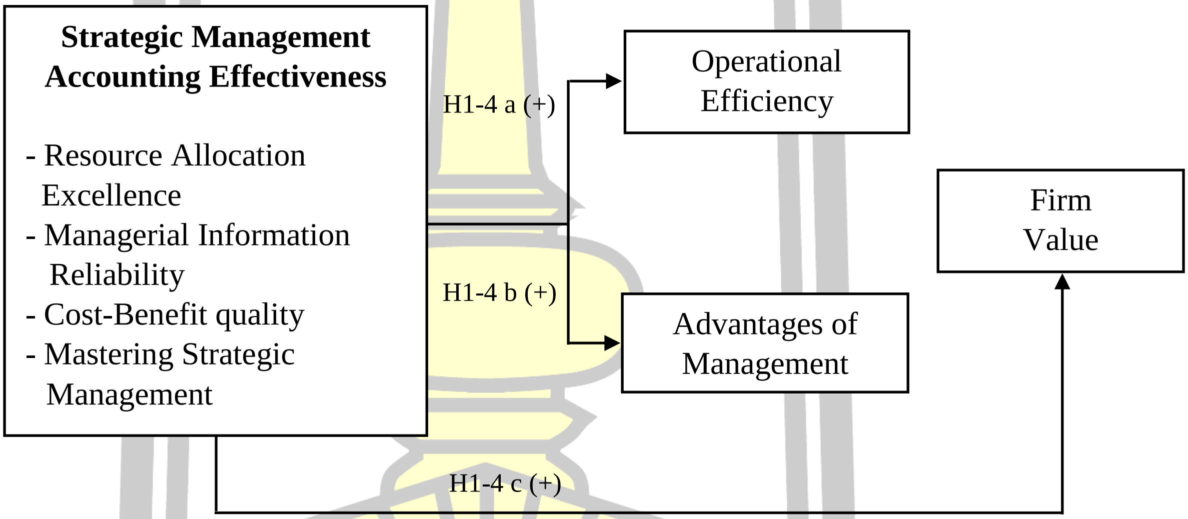
Table 2 Summary of Key Literature Reviews on Strategic Management Accounting and Supporting Literature (Continued)

Authors	Title	Conclusion
Gnawali (2017)	Management Accounting Systems and Organizational Performance of Nepalese Commercial Banks	The purpose of this research was to identify the relationships between management accounting system, and organizational performance. Based on the findings, it is concluded that the model adopted is generally applicable in Nepalese context. Positive relationship of management accounting system to organizational performance. Management accounting system is a significant predictor of organizational performance.
Turner, Way, Hodari & Witteman (2017)	Hotel property performance: The role of strategic management accounting	The central finding of this current study is that hotel property strategic management accounting use mediates the relationship between hotel property market orientation business strategy use and hotel property financial performance. Moreover, consistent with contingency theory the findings indicate that the hotel property's management control systems need to be tailored to support the hotel property's business strategy in order to enhance the hotel property's competitiveness and performance.

The Effects of Each Dimension of Strategic Management Accounting Effectiveness on Its Consequences

This section investigates the effects of four key dimensions of strategic management accounting effectiveness (resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management), on its consequences which consisting of operational efficiency and advantages of management as shown in Figure 2.

Figure 2 Effects of Strategic Management Accounting Effectiveness on Its Consequences



Resource Allocation Excellence

Every form of economic activity necessitates an active involvement of various resources: material, financial and human. The contemporary competitive business approach has changed from a monotonic emphasis on resource allocation excellence (Lerro & Schiuma, 2013). Resource allocation excellence refers to the allocation of various resources toward minimizing the resources in economizing, including the use of shared resources efficiently and the use of resources for maximizing benefits (Balkin & Markman, 2001). Resource allocation excellence is now empirically identified as another critical strategic management accounting concern as it could deliver sustainable competitive advantages and operational efficiency (Wudhikarn, 2016). Also, apart from assisting in planning, strategic management accounting tools provides control mechanism that promote resource utilization at the optimum level (Olusegun, 2016). With integrated resource allocation, all resource values are considered when planning and decision-making processes that coordinate resource use so that the long-term sustainable benefits are optimized and conflicts among users are minimized. Consistently, Myhr & Spekman (2002) suggested that the higher integrated resource allocation is, the more likely that it will gain greater efficiency in planning and forecasting. Resource allocation excellence includes both tangible and intangible assets, knowledge, skills and experience, know-how, technology, and opportunities between the inter-functional and inter-organizational factors for supporting the work of business processes to achieve corporate target costing (Li et al., 2018). In this research, resource allocation excellence refers to the ability to analyze, allocate, and utilize resources efficiently in each activity and the use of resources for maximizing benefits to achieve the firm's goals that include people, technology, machinery, equipment, location, time, and money (Wudhikarn, 2016).

Resource allocation excellence must be able to identify methods for improving business performance through strategic management accounting effectiveness (C. H. Lee, Wu, & Tseng, 2018). Likewise, each department with collaboration in resource allocation excellence affects increases in quality and productivity; and as a result, reduces overall costs that are the outcome of strategic management accounting effectiveness (Myhr & Spekman, 2002). For example, Kotabe, Srinivasan & Aulakh (2002) suggest that high resource allocation excellence intensity can improve a firm's operational efficiency, either in product or process. Resource allocation excellence is the diligent deployment of resources in operational efficiency on their skill set and in a timely manner. Resource allocation excellence should be designed to promote equality, quality and operational efficiency (Gao & Campbell, 2006). Consequently, it reflects that resource allocation excellence is a key success factor for competitive advantage and then becomes increasingly important for operational efficiency (Donnell & Jeong, 2000).

In general, most executives embrace intuition as a decision method for further allocating limited resources, although this approach has been identified as a troubling tool (Hussain & Waheed, 2019). Resource allocation excellence may not be able to describe the optimal method of employing resources to gain a competitive advantage under environmental uncertainty (Desarbo, Benedetto, Song, & Sinha, 2005). However, resource allocation excellence is a key success factor for advantages of management and then becomes increasingly important for the firm's value (Donnell & Jeong, 2000). Consistent with previous research, resource allocation excellence is now empirically identified as another critical strategic management accounting concern as it could deliver a sustainable advantage of management (Wudhikarn, 2016). Among these diverse managerial methods, resource allocation excellence is a distinguished strategic management accounting effectiveness that expansively concentrates on the management of both tangible and intangible assets, which are indispensable to advantages of management (Brauer & Schmidt, 2008).

Also, the higher resource allocation excellence is, the more likely that it will have greater strategic management accounting implementation. A number of empirical results have proven this positive relationship between resource allocation excellence intensity and firm value (K. Ahmad & Zabri, 2016). This is consistent with prior studies which suggest that the accuracy of the allocation of resources is one of the challenges of firm value (Alidrisi, 2010). Therefore, the most important thing for firms is to make efficient use of those different advantages such as resource allocation excellence of the firm that will enhance the value of the firm (Fu, 2007). Drawing upon the resource-based view, this study argues that resource allocation excellence also plays a pivotal role in determining firm value (Homin Chen & Hsu, 2010).

Also, a strategic management accounting technique that can comprehensively consider both financial and non-financial factors is critically required; and one highly recognized and applied method is resource allocation excellence (Ring, Tigert, & Serpkenci, 2002). Resource allocation excellence is a managerial accounting tool that transfers a strategic plan to a practical approach by applying measurement and assessment tools for operational efficiency and advantages of management (Kunst, Avila, Pignaton, Bampi, & Rochol, 2018). Firms can analyze exact resource requirements, allocating adequate necessary resources, and use resources efficiently (Kunst et al., 2018). Therefore, resource allocation excellence has been broadly identified as a critical management method (Hussain & Waheed, 2019).

In summary, based on the literature reviewed above, resource allocation excellence has the potential possibility to provide greater operational efficiency, advantages of management and firm value. Hence, the hypotheses are proposed as follows:

Hypothesis 1a: Resource allocation excellence will positively relate to operational efficiency.

Hypothesis 1b: Resource allocation excellence will positively relate to advantages of management.

Hypothesis 1c: Resource allocation excellence will positively relate to firm value.

Managerial Information Reliability

A great number of organizations could not operate properly and successfully without the implementation of management accounting information. Ganyam & Ivungu (2019), as an organizational actor, is responsible for decision-making at operational efficiency and advantages of management, on how to use limited resources under his control. He needs information to enable the output and foresight of action alternatives (Socea, 2012). Management accounting information is one of the most important effects of strategic management accounting, which aims to provide reliable, complete, accessible, and understandable information in a timely manner for sustainable competitive advantage such as operational efficiency and advantages of management. Managerial information reliability makes it possible for organizations to get the right information to the right people at the right time in the right form by enhancing the relationships between people and organizations. In the study of Al-Mamary et al., 2014, managerial information accounting plays a key role in the life of organizations; it provides the appropriate information at the right time as needed and the accuracy to support strategic management activities (e.g. operational efficiency and advantages of management). The companies that are paying attention to information on events are increasing their sustainable competitive advantage and extensions of strategic management accounting (Teru, 2017). In this research, managerial information reliability refers to the quality of the content of strategic management accounting information which is accuracy, validity, reliability, timeliness, relevance and completeness to make the operations to be consistent and efficiently adhere to its goals (Al-Mamary et al., 2014).

Business value creation depends on quality information, and that means the information includes correct interpretation. Currently, management accounting information reliability is more advanced about information technology (Thitiyapramote, 2015). According to Adebayo (2007) it is explained that the existence of management information reliability is needed to improve and enhance decision-making on issues affecting human and material resources. Also, Hwang et al. (2008), supported that managerial information reliability had a strong and direct effect on operational efficiency. Moreover, Halawi, Mccarthy & Aronson (2008), supported that there is a positive relationship between managerial information reliability and manager satisfaction. Firms which strategically apply managerial information reliability can decrease delivery time and cost and enhance quality, followed by high operational efficiency (Wook & Narasimhan, 2002). In addition, the positive relationship between managerial information reliability and operational efficiency is the basis of a causal link in the interaction between internal and external managerial information reliability and operational efficiency and gaps in operational efficiency among the stages of strategic application of managerial information reliability (Benitez, Chen, Teo & Ajamieh, 2018; Kim, Mannino & Nieschwietz, 2009; Sundram, Bahrin, Munir & Zolait, 2018).

On the scale of importance, the performance of accounting information systems is prioritized highly and this is mainly led by increased competition and revolution of the business environment at various levels, especially on the level of decision-making, since such systems are adopted in such a way that is designed for aiding in decision-making and enhancing an organization’s competitive status. Managerial accounting information provides managers with a broad range of information about multiple dimensions of the firm’s operations, thus supporting advantages of management and firm value (Trivellas & Santouridis, 2013). In addition, Argyropoulou (2013), supported that managerial information reliability and quality has a positive influence on advantages of management. Consistent with previous research, it is explained that the existence of managerial information reliability is needed to improve and enhance the advantages of management on issues affecting human and material resources (Adebayo, 2007).

Prior researches has shown that managerial information reliability adoption did increase operations efficiency and firm value, especially in large firms (Saira, Zariyawati, & Annuar, 2010). Managerial information reliability in administration primarily guarantees the solidity of data and firm value (Dmour, 2018). For instance, Mansour, Salamat & Masadeh (2017) concluded that the relationship between the managerial information reliability and firm value is significant and positive. Significant effort has also been made to understand the relationship between the quality of managerial information and firm value. However, this heavy reliance of today's businesses on the use of information technology makes the reliability of their managerial information very critical.

Thus, managerial information reliability will have a positive influence operational efficiency, the advantages of management and firm value. These ideas lead to posit the following hypotheses.

Hypothesis 2a: Managerial information reliability will positively relate to operational efficiency.

Hypothesis 2b: Managerial information reliability will positively relate to advantages of management.

Hypothesis 2c: Managerial information reliability will positively relate to firm value.

Cost-Benefit Quality

Businesses are interested in the trade-off between the cost of risk mitigation and the expected losses of disruptions (Kleindorfer & Saad, 2005). All risks in any project investment can be expressed by the ranges of uncertainty of costs and benefits as well as on the probabilities on affecting events (Hubbard, 2010). For example, in public decision-making regarding infrastructure investments, cost-benefit quality is frequently used to systematically compare costs and benefits of various projects. Such analyses are based on forecasts of likely future scenarios, with and without the project in question. These forecasts are obviously subject to uncertainties, and so are the valuations of costs and benefits of the respective projects. Such fundamental uncertainties have led many researchers and policy makers to question the usefulness of cost-benefit quality as a basis for operational efficiency and advantages of management (Mcfadden & Porter, 2011). An executive selects the investments estimated to yield the highest total benefit subject to a budget constraint (Jie & Zhang, 2006). Cost-benefit quality has proven itself as a useful tool to support this type of operational efficiency and advantages of management. As such, a major advantage of cost-benefit quality lies in forcing people to explicitly and systematically consider the various factors which should influence strategic choice. In this research, cost-benefit quality is defined as a methodology that allows an organization to determine the extent to which its resources are used for activities that prevent poor quality, that appraise the quality of the organization's products or services, and analyze costs and benefit by using various techniques for comparing the total expected cost of each option with its total expected benefits (Sherman et al., 2016; Uckelmann, 2012).

Cost-benefit data is significantly important for planning, commanding, and controlling. Executives must pay attention to cost-benefit data of a product or service, whether it is in self-production or trading (Ditkaew, 2018). It is also related to efficiently controlling costs and expenses to gain the largest business profit. Cost is a resource with value measured by the monetary unit paid for materials, products, and services. Many studies have investigated cost-benefit quality awareness that is related to operational efficiency. Empirical studies by (Schiffauerova & Thomson, 2006; Jie & Zhang, 2006) state that management of cost-benefit quality improves the operational efficiency. Any serious attempt to improve quality must take into account the cost-benefit quality associated with operational efficiency, since nowadays it does not suffice to meet customer requirements, and it must be done at the lowest possible cost as well. Using modern cost-benefit quality allows assessing the operational efficiency (Gimzauskiene & Valanciene, 2009).

Cost-benefit quality is an examination of all necessary costs related to the production of an output, which independently assesses who bears the costs. These costs are then weighted against the expected benefits resulting from the materialization of the output. Tools frequently used by business to support cost-benefit quality are those such as: net present value (NPV), internal rate of return (IRR), payback period (PBP), profitability index (PI), and breakeven point (BEP). The most cost-effective option is identified as that with the lowest present value to meet the same level of the objective. Cost-benefit quality should provide favorable conditions for making rational decisions and choosing the optimal variants of advantages of management (Modhiya & Desai, 2016). In addition, cost-benefit quality, as part of a company management support system, assists managerial tasks at operational efficiency, advantages of management and the strategic level (Banker & Johnston, 2014).

A business objective is the starting point for any business organization to thrive and it provides direction for action. It is also a way of measuring the effectiveness or otherwise of the actions taken by the management of the organization. In today's time of rapid technological change, tough global and domestic competition, cost management is central to firm value (such as profitability and competitiveness) (Dang & Tran, 2019). Any serious attempt to improve quality must take into account the cost-benefit analysis associated with achieving quality since the objective of continuous improvement programs is not only to meet customer requirements, but also to do it at the lowest cost (Schiffauerova & Thomson, 2006). Cost-benefit quality reports provide relevant information to enhance flexibility and contribute to firm value (Sherman et al., 2016). Consistently, Maksoud (2011) advocate that using cost-benefit quality information has no significant direct impact on plant performance because cost allocation information may not be a sufficient statistic for manufacturing. Jie & Zhang (2006) said that people prefer to invest in a highly profitable business. Therefore, in the long run only profit maximizes survival in the business environment. Ahmad & Zabri (2016) concluded that a company with an adequate cost-benefit structure possesses the chance of attaining its higher profit target and firm value. Concerned with the relationships between cost management practices and an enterprise's firm value, Farooq, Kirchain, Novoa & Araujo (2017) examined the nature of the relationship between cost management and profitability.

The study therefore concluded that the relationship between cost-benefit quality and firm value is statistically significant.

Based on the earlier discussion, cost benefit quality will have a positive influence on operational efficiency, advantages of management and firm value. Hence, the hypotheses are proposed as follows:

Hypothesis 3a: Cost-Benefit quality will positively relate to operational efficiency.

Hypothesis 3b: Cost-Benefit quality will positively relate to advantages of management.

Hypothesis 3c: Cost-Benefit quality will positively relate to firm value.

Mastering Strategic Management

Implementing strategies successfully is vital for any organization, whether public or private. Without implementation, even the most superior strategy is useless (Aaltonen & Ikavalko, 2002). Mastering strategic management refers to the process that turns strategies and plans into actions in order to accomplish strategic objectives and goals. This continuous process begins by assessing the business and industries in which the organization is involved as well as its competitors. After which, the organization establishes objectives to meet all the present and future goals, and then formulates the best course of action for accomplishing those objectives. Mastering strategic management is the process that turns strategy management and plans into actions in order to accomplish strategic objectives and firm value (Karuhanga, 2015). Tools frequently used by business to support mastering strategic management are those such as the Theory of Constraints (TOC), and Lean and Six Sigma. Mastering strategic management is a term used to describe the activities within a workplace or organization to manage the activities associated with the delivery of a strategic plan. Mastering strategic management is a key ingredient of operational efficiency and sustainable competitive advantage. Once an organization creates a strategy to meet its goals, implementation is the next step for sustainable competitive advantage. In this research, mastering strategy management refers to the ability in strategy implementation as to the execution of the plans and strategies (which include evaluation and follow-up, improvement and development, internal audit, Six Sigma, Balanced Scorecard and Theory of Constraints), so as to accomplish strategic objectives and best achieve their performance goals (Kamilah, 2017; Misankova & Kocisova, 2014).

Although strategic management accounting implementation is often perceived to be more beneficial for large organizations due to the nature of their complex operations (Kamilah, 2017), similarly, any organization intending to remain highly competitive in this increasingly competitive era should focus on effective implementation of its performance management system (Artley et al., 2001). Measuring and monitoring performance without evaluating the extent to which performance management practices are being implemented creates a gap in the performance management process (Karuhanga, 2015). In addition, Shields (1998) found a positive association between mastering strategic management and operational efficiency. Mastering strategic management of the company can measure how the business units create value for current and future customers as well as how to change the quality of systems, procedures and human resources to improve future operational efficiency (Misankova & Kocisova, 2014).

Also, Bolo (2011) examined the association between mastering strategic management and advantages of management using a cross-sectional sample of Kenya manufacturing companies. The results indicated that there is significant association between extensive mastering strategic management use with higher quality level and cycle time. In contrast, however, the understanding of the board’s role in strategy implementation has remained fairly vague (Hendry & Kiel, 2004). In addition, due to CEOs’ bounded rationality and tendency to be influenced by past experiences, boards with a high level of expertise are well-suited to assist executives in analyzing why there are shortcomings in mastering strategic management occurrences (Rizan, Balfas, & Purwohedi, 2019).

Mastering strategic management has become an important part of companies in today´s dynamic and competitive environment (Misankova & Kocisova, 2014). In this respect, mastering strategic management is the process of translating the strategic formulation into positive actions by establishing programs, determining advantages of management, and firm value (Pournasir, 2014). Also, to this, mastering strategic management is a key in the strategic accounting management process, as it is the last step in the strategic management process and it comes after the strategy has been formulated (Rizan et al., 2019).

Thus, mastering strategic management has a positive influence on operational efficiency, advantages of management and firm value. Hence, the hypotheses are proposed as follows:

Hypothesis4a: Mastering strategic management will positively relate to operational efficiency.

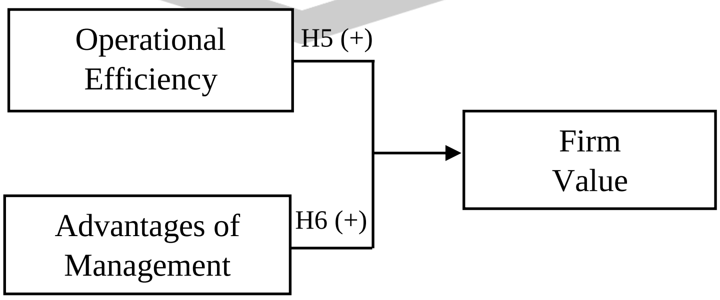
Hypothesis4b: Mastering strategic management will positively relate to advantages of management.

Hypothesis4c: Mastering strategic management will positively relate to firm value.

Consequences of Strategic Management Accounting Effectiveness

This section considers the effects on consequences of strategic management accounting effectiveness including operational efficiency and advantages of management on firm value. It is assumed that there are positive relationships among all of them as depicted in Figure 3.

Figure 3 The Effects Operational Efficiency and Advantages of Management on Firm Value



Operational Efficiency

In the competitive market place, operational efficiency refers to the process of firms delivering products and services to clients in a cost-effective manner without compromising on quality enabling the firm to increase revenue and improve firm value (Blackstone, 2010). Organizational performance stimulation has always been a priority in private as well as in public sectors, since it is directly associated with the value of the entity (Bartuseviciene & Sakalyte, 2013). Organizations are constantly striving for better results, influence and sustainable competitive advantage. However, most organizations are struggling to get it right. Key amongst aspects of business efficiency is the operational factor, which is an aspect of organizational structure that strives for improvements in key operational performance metrics. Firms must seek continuous improvement in the objects that define their areas of operation to maintain sustainable competitive advantage in their environment (Ifeanyichukwu, 2010). Operation is that important phase in total business when the goods and services are prepared while looking into the customer's choice of interest. Any improvement made at this stage has an effect on both the internal and external aspects of the business. However, according to Ojha (2015), an organization can reduce the cost, produce more (increase internal efficiency), satisfy, and attract the customer (external efficiency). In this research, operational efficiency refers to the process of firms in delivering products and services to clients that include timely delivery, increased performance, customer satisfaction, improvement, development, and flexibility to achieve the operational target (Jane et al., 2018; Ndolo, 2015).

Operational efficiency therefore focuses on the identification of several strategies and techniques to deliver products and services to clients in a cost effective and timely manner without compromising on quality, thus improving firm performance (Kuosmanen & Johnson, 2010). Operational efficiency is doing things well to provide competitive advantage. These are: safe operations, reliability, product or service quality, efficiency, management of change, and the environment (Ojha, 2015). Operational efficiency plays a crucial role in large firms in which a number of sections function semi-autonomously (Soklevski, 2014). Consistent with (Baik, Chae, Choi & Farber, 2013), operational efficiency is the state of any business organization in which the organization achieves through the development of operations and technology in the product, service development, and distribution. The organization reaches this level through the inception of continuous improvement methodologies for its every value-added activity, for the satisfaction of customers (Ojha, 2015). An organization can sustain itself only if it becomes effective, which means it can produce results. For giving best results, there is required an efficiency in internal organizational processes of production and its delivery to the customer with a high score of satisfaction. Often this internal production process is understood as operational efficiency. Customer satisfaction is determined by how an organization processes, produces, and delivers to the customers. Any strategies formulated are materialized through the operational process. So many scholars and companies have started to believe that the operational aspects of the organizational plan is the most challenging aspect to handle (Shehadeh, Maqableh, Al-zoubi, Akhorshaideh, & Al-shami, 2016)

Efficiency not only blesses a firm with quality production but also in cost savings. One of the most important goals of company management is to maximize its effectiveness current and future financials, and business performance as they affect market price per share and shareholder wealth (Ojha, 2015). Due to the extreme changes in the business environment, enterprises are facing severe competition, which is one reason why good business performance is crucial to a successful business (Goel & Ramanathan, 2014). Operational efficiency is crucial to oversee all processes of firms, since all other functions need information from operations in order to perform their tasks. An organization’s operating efficiency is linked with organizational efficiency and effectiveness (Baik et al., 2013). Increasing operational efficiency directly affects the firm value. Any aspect of operational efficiency business types is crucial and must be earned by management for the consideration of healthy firm value (Sufian, 2007). The evaluation has been performed between operational efficiency and firm value from the year 1976 to the year 2008. The findings of the study suggest that efficiency changes are positively related to future return and the firms which improve their efficiency show high profitability changes in current and future areas (Baik et al., 2013). The results show that in highly competitive banks, the operating efficiency is positively and significantly affected by their asset quality, capital adequacy, credit risk and liquidity (Amer, Moustaf, & Eldomiaty, 2011).

According to Lu, Betts & Croom (2011), operational efficiency is one element of business efficiency; along with other elements such as strategic fit, capability to adapt, unique voice and firm value creation. Operational efficiency is by no means a new notion; Toyota has led in turning operational efficiency into a strategic weapon, and firms snow strive to reach operational efficiency as a tool to protect their customers and at the same time acquire new customers. To achieve this aim, there is a pressure to maintain a high level of integration between their strategy, action programs, practice, and value creation (Fok-yew, Ahmad & Baharin, 2013). The operations function is key in both manufacturing and service firms. The difference in service firms compared to manufacturing is that they are characterized by intangible output, higher customer contact, shorter response time, non-inventoried product, and a labor intensive nature (Krajewski, Ritzman & Malhotra, 2012). In addition, consistent with Sheahadeh, Maqableh & zoubi (2016), there is a particular focus on the efficiency and effectiveness of operations, which has a great impact on how operations can support the firm's strategic goals and firm value. Also, efficiency is developed according to modern sustainability movements, and refers to a significant increase in performance across various aspects including operations and firm value (Edgeman & Eskildsen, 2014). In addition, responding to the forces of change through the operations is accepted by both internal and external organizations (Boterdaele & Luijster, 2014). Thus, firms attempting to meet their objectives need to pay attention to their operational efficiency, as this is a driver of business performance excellence (Baik et al., 2013).

The theoretical linkage and literature reviews are drawn by the relationships between operational efficiency and its consequences that include positive firm value. To summarize, the hypothesis is proposed as follows:

H5: Operational efficiency will positively relate to firm value.

Advantages of Management

The combination of global trends and a highly competitive business environment has led to the increased importance of creating and maintaining an advantage of management in the industrial sector (Casanueva, Gallego & Revilla, 2015). To cope with the dynamic environment and changing customer needs, hospitality organizations must be able to identify and exploit both their internal and external capital and to strengthen their capabilities (Paek, Schuckert, Terry & Lee, 2015). The advantage of management can be assessed by analyzing the sources of the advantage such as the firm's internal factors and resources (Li et al., 2018) or by measuring the outcome of advantage management efforts through firm value (e.g. profitability). In practice, the sustainability of a firm's advantage of management, can be measured by superior long-term performance. Advantages of management are those factors that a firm needs to have in order to perform in business (Ejovwokeoghene, Yewande, Oluseye, & Joseph, 2018). Advantages of management is a base for a good strategy, and a good one creates competitive advantage. In business, an advantage of management is the attribute that allows an organization to outperform its competitors such as in areas of planning, directing, controlling and decision-making. In this research, advantage of management refers to the unique ability of a firm to manage strategies that are superior to competitors by use of techniques and management methods such as in planning, directing, controlling and decision-making by executives for the performance of the organization. In other words, it is something that a company does better than its competitors, and is measured by the management process (Konstantakopoulou & Tsionas, 2019; Y. Q. Li & Liu, 2018).

Firm value will be improved by advantages of management through profit growth, sales growth and customer growth. In addition, due to the increasing importance of creating and sustaining an advantage of management, prior hospitality studies have focused on empirical examinations of the effects of organizational management capabilities (Payambarpour & Hooi, 2015). Considerably less literature has addressed intellectual capital as the process by which advantage of management is achieved (H. Ahmad & Mahmood, 2015). Strategic management accounting effectiveness has key roles to play throughout the advantages of management process. According to the results (S.Devi, 2017), advantages of management has a positive effect on firm value. The role of the accountant in business may have been to provide management information to support decision-making, planning, controlling, and directing. However, the role of the management accountant is relevant throughout the process of advantages of management. Strategic management accounting is a modern accounting approach that helps companies provide cost information, helps management make effective decisions, and contributes to and development of strategies to achieve the advantages of management within the institution in the short and long terms (Almasan, 2014). In addition, Kuyea & Sulaimonb (2011) study the relationship between employee involvement in managing and firm value in the manufacturing sector in Nigeria. The results of the study indicate a statistically significant relationship between employee involvement in managing and firm value.

The theoretical linkage and literature reviews are drawn by the positive relationships between advantages of management and its consequences which include firm value. To summarize, the hypothesis is proposed as follows:

H6: Advantages of management will positively relate to firm value.

Firm Value

In this research, firm value is measured by the ability of firm to perform actions that increase the worth of goods or services. It is usually split into two categories: financial (profitability, return on investment and return of equity) and non-financial (new customers, quality of after-sales services, acceptance from stakeholders) (Jane et al., 2018). At present, the views about the value of the firm have been very important in environmental and business goal changes that focus on creating value for the organization in order to survive and be sustained. Many business operators now focus on the value of firm both in the context of creating better value for customers purchasing its products and services, as well as for shareholders in the business who want to see their stake appreciate in value. Firm value is the primary aim of any business entity. The creation of use value is a necessity for firms to sustain. Without it, firms would have no added value whatsoever and there would be no reason for them to exist (Kraaijenbrink & Spender, 2014). Moreover, Mizik & Jacobson (2003) argue that firms must achieve a healthy balance between value creation and value appropriation to achieve a sustainable competitive advantage and acceptance by stakeholders. When broadly defined, value is increasingly being recognized as a better management goal than strict strategic management accounting effectiveness measures of performance, many of which tend to place costcutting that produces short-term results ahead of investments that enhance long-term competitiveness and growth (Abdullah & Said, 2015; Gregorio, 2013).

Basically, the strategic management accounting paradigm intends to establish that the business focuses on long-term value, which is a vital business strategy that augurs well with the current business environment and demand (Abdullah & Said, 2015). Firm value occurs by mixing firm resources in alternative ways with the goal of leveraging potential productivity (Moran & Goshal, 1999). One of the major goals of any business entity is profitability. According to Jane et al. (2018), profit is the most critical purpose of any business enterprise; they assert that profits can be increased by reducing operational inefficiencies and by using raw materials with greater efficacy. Creating value for customers helps sell products and services, while creating value for shareholders, in the form of increases in stock price, insures the future availability of investment capital to fund operations. In addition, Ramli, Sulaiman & Mitchell (2013) stated that customers play a leading role in value initiatives, which leads to products laden with immense value. From a financial perspective, value is said to be created when a business earns revenue (or a return on investment) that exceeds expenses (or the cost of capital). According to Soobaroyen & Poorundersing (2008), the link between these intangible assets and value is corporate strategy. It is important to note that investments made to enhance intangible assets (such as employee training, and brand building, and firm reputation) usually provide indirect rather than direct benefits. In this way, focusing on value forces an organization to adopt a long-term perspective and align all of its resources toward future goals.

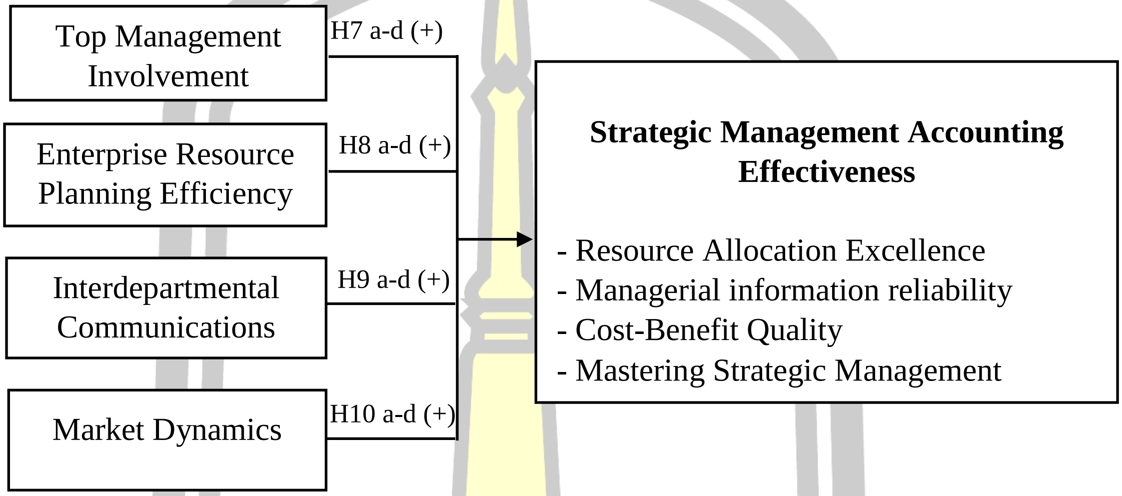
According to Abdullah & Said (2015), firm value is more important and it is an endless process. It started with operations of business models, prioritized sections for more detailed investigation and discovered opportunities for development. This process followed by implementing the changes needed to maximize the company achievement as well establish the measurement and revision. Further, this process will be continued which allows management to oversee changes in the operations, allocations, and strategic management accounting to sustain competitive advantage which include creating satisfaction for customers and stakeholders (Abdullah & Said, 2015). Past financial performance is no longer a good indicator of the future. An ideal performance measure reflects a manager’s contribution to firm value, including both static externalities across business units and dynamic effects of current actions on long-run value (Abdullah & Said, 2015). Studies by Anderson, Christ, Dekker & Sedatole (2015), concluded that alliances that have value at their management controls will understand both economic and behavioral aspects of inter-organizational exchange, coordination and communication between partners. Therefore, it is crucial for strategic management accounting-linked companies to understand the importance of value in order to achieve competitive advantage and maintain sustainable economic growth. Therefore, the creation of exchange value is also a necessity for firm survival (Kraaijenbrink&Spender,2014).

Antecedents of Strategic Management Accounting Effectiveness

Since this research needs to identify factors that affect strategic management accounting effectiveness, it uses the contingency theory framework. A contingency theory is an organizational theory that claims that there is no best way to organize a corporation, to lead a company, or to make decisions (Gichaaga, 2014). Instead, the optimal course of action is contingent (dependent) upon the internal and external situation. Hence, it will be applied to explain antecedents of strategic management accounting effectiveness. Therefore, the contingency perspective leads to internal and external factors which may affect each dimension of strategic management accounting effectiveness.

This section explains the influences of four antecedents (top management involvement, enterprise resource planning efficiency, interdepartmental communications and market dynamics) on four dimensions of strategic management accounting effectiveness which contain resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management as shown in Figure 4.

Figure 4 Effects of Top Management Involvement, Enterprise Resource Planning Efficiency, Interdepartmental Communications, and Market Dynamics on Strategic Management Accounting Effectiveness



Top Management Involvement

The first antecedents of strategic management accounting effectiveness are top management involvement which refers to the practice of management to encourage and motivate employees to recognize and understand the pathway in an organizational mechanism for strategic management accounting effectiveness and organizational goal achievement (Raymond & Poon, 2013). The key role of top management involvement in organizational development success in general has been highlighted by many (Hyvari, 2016). Many researchers have characterized top management involvement as a central human resource that is essential to the success of the strategic management accounting effectiveness effort as it can ensure the adequacy of instruments allocated to the strategic management accounting effectiveness study (Boonstra, 2013; Hyvari, 2016; Tzempelikos, 2015). Management accounting practices requires a commitment from the top management of the company, the involvement of its workers at all levels, and the establishment of a self-perpetuating system of improvement that will help improve value-added activities and decrease non-value added activities (Albelda, 2011). Prior research has indicated that top management involvement is a key factor affecting strategic management accounting effectiveness (Hyvari, 2016; Zwikael, 2008). Also, Tzempelikos (2015) found that organizational factors, such as top management involvement, significantly affected strategic management accounting effectiveness. As well, Anand (2004) found that top management involvement has a significant influence on techniques of management accounting practices. However, one key role of top management is participation in decision-making (Dias, Pereira, & Pereira, 2017). Therefore, effective strategic management accounting implementation requires top management involvement (Zupancic, 2008). In this research, top management involvement means that top executives commit themselves to the effort, provide strong support, and participate in strategic management accounting from its initiation to its end to include push, budget, development, technique, skills training, and participation to achieve the organization’s target (Tzempelikos, 2015).

One of the most important research questions is how top management influences the firm value and survival of an organization. Evidence from a large sampling indicates that top management involvement can influence management strategy in several distinct subfields including strategic management accounting (Hyvari, 2016). In general, the management accounting practices literature indicates that top management involvement is regarded as the most significant critical performance factor for strategic management accounting effectiveness performance and is not just one of the factors (Masquefa, 2008). Similarly, the strategic management literature suggests that top management involvement has a critical role to play in all of phases of management accounting practices (Ahmed, 2017). Top management involvement is necessary to secure funding, and provide strategic direction in addition to supporting the strategic management accounting effectiveness effort and its implementation to ensure the realization of objectives. Top management involvement can reduce organizational problems and influence, and can encourage organizational involvement, which can minimize resistance and lead to the acceptance of the implementation of a plan’s specifications (Tzempelikos, 2015). Top management involvement of management accounting practices has been shown to be positively related to its success and is essential because of the instruments’ importance and the strategic nature of management accounting practices (Dong, Neufeld, & Higgins, 2009). Additionally, prior researches indicates that top management involvement is a key factor affecting management accounting practices (Ahmed, 2017).

Thus, top management involvement may be an antecedent of strategic management accounting effectiveness. This research expects that top management involvement may have a positive relationship among resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management. Hence, the research relationships are hypothesized as shown below:

Hypothesis 7a: Top management involvement will positively relate to resource allocation excellence.

Hypothesis 7b: Top management involvement will positively relate to managerial information reliability.

Hypothesis 7c: Top management involvement will positively relate to cost-benefit quality.

Hypothesis 7d: Top management involvement will positively relate to mastering strategic management.

Enterprise Resource Planning Efficiency

For large and complex organizations like the manufacturing sector, it is difficult for executives and managers to effectively and timely manage their operations, especially at a time when internal or external environments are quickly changing (Madanhire & Mbohwa, 2016). Enterprise resource planning efficiency enable organizations to integrate business processes and functions, and they can supply managers with real-time information. Enterprise resource planning efficiency is already considered a ‘classic’ imperative within the big companies, being a very important condition for maintaining their sustainable competitive advantage. Enterprise resource planning systems efficiency is, in fact, operational information technology systems that enable management to have sufficient data on hand for analysis purposes (Yahia, 2010). Enterprise resource planning efficiency is a set of business applications or modules which link various business units of an organization such as financial, accounting, manufacturing, inventory management cost control, accounts payable and accounts receivable into a tightly integrated single system with a common platform for flow of information across the entire organization (Costa, Ferreira, Bento & Aparicio, 2016). It also increases efficiency and improves quality, productivity and profitability. One of the most important topics in the area of information systems and accounting are the enterprise resource planning systems. The enterprise resource planning system is implemented as a strategic solution to deal with fast-changing environments and heightened regulations, to solve the fragmentation of information, to elevate organization's strategic management accounting efficiency, and to improve decision-making processes by providing timely and accurate information to decision makers (Tijani & Ogundeji, 2014). Enterprise resource planning efficiency rapidly became the standard enhancing operational efficiency with the integration of business processes throughout all organization (Tijani & Ogundeji, 2014). Consequently, enterprise resource planning efficiency is considered to provide management a means to respond more efficiently to changes in the business environment (Tijani & Ogundeji, 2014). In this research, enterprise resource planning efficiency refers to a collection of software that has been integrated into one package for an organization's business processes to support the operations, communications, data storage, integrated systems, processing, and access, to become more effective and efficient (Candra, 2014; Chofreh et al., 2018).

Enterprise resource planning efficiency has emerged as possibly the most important and challenging development in the corporate use of information technology. Enterprise resource planning efficiency is the most preferable in decision-making processes within management. This is because enterprise resource planning efficiency is responsible for forwarding information gathered by necessary management levels as soon as possible when encountering a situation or problem (Galani, Gravas & Stavropoulos, 2010). Nevertheless, the focus of the relevant literature has been on enterprise resource planning systems in general, and there is limited published scientific evidence on the enterprise resource planning implementation processes and their effects on strategic management accounting effectiveness in particular (Madanhire & Mbohwa, 2016). In addition, Tijani & Ogundeji (2014) found that there were no fundamental changes after the enterprise resource planning implementation, nor in the nature of management accounting information; but there were changes in the role of management accountants such as the elimination of routine jobs, line managers with accounting knowledge, more forward-looking information, and a wider role for the management accountants. Nonetheless, the study provides evidence that enterprise resource planning efficiency reduces the time needed for the execution of routine tasks and, thus, leaves accountants additional time to conduct more useful information analysis.

This conclusion is in line with that of Nemati (2013) who concluded that enterprise resource planning efficiency may not support resource allocation excellence. In addition, this is consistent with Syida, Suhaimi & Nawawi (2016) who state that enterprise resource planning efficiency can allow information to be easily accessed, but can pose the risk of fraud and unauthorized transactions. Also, the enterprise resource planning efficiency may change accountants' roles, but the strategic management accounting techniques do not change. However, such a system has not brought any changes to the informal control system because the culture of respecting others exists whether the resource planning efficiency is implemented or not (Soewarno & Isnalita, 2018). However, several issues still need to be resolved as the process of implementing a resource planning efficiency is not an easy task and requires excellent resource allocation (Syida et al., 2016). In addition, Mercader, (2006), demonstrated that enterprise resource planning efficiency cannot be achieved without a process, rules and habits where sharing and collaboration play key roles. Similarly, each enterprise resource planning package uses a business model as an underlying framework and these models can differ in terms of how they operate (Costa, Ferreira, Bento & Aparicio, 2016). Understanding and being able to communicate this new process blueprint and how it differs from the old way of working is a huge challenge for managers going through enterprise resource planning implementation. Also, there is a wealth of managerial information that is reliably important for decision-making, which lies outside the traditional enterprise resource planning efficiency boundaries (Stefanou, 2001).

Thus, enterprise resource planning efficiency may be an antecedent of strategic management accounting effectiveness. This research expects that enterprise resource planning efficiency may have a positive relationship among resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management. Hence, the research relationships are hypothesized as shown below:

Hypothesis 8a: Enterprise resource planning efficiency will positively relate to resource allocation excellence.

Hypothesis 8b: Enterprise resource planning efficiency will positively relate to managerial information reliability.

Hypothesis 8c: Enterprise resource planning efficiency will positively relate to cost-benefit quality.

Hypothesis 8d: Enterprise resource planning efficiency will positively relate to mastering strategic management.

Interdepartmental Communications

Communication is one of the organizational functions that helps a company to stay efficient and productive. One of the more important forms of organizational communication is inter-departmental communication, as noted by the Institute for Public Relations. The importance of communication between different departments in an organization becomes most evident when that communication breaks down. Implementing policies to strengthen inter-departmental communication help to underscore its importance and maintain an efficient flow of information. The current study addresses the importance of human resource management (such as strategic management accounting) and implication of its widely-used practices (Gondal et al., 2012). Interdepartmental communication deals with the communication that is needed among the different departments of the organization in order to facilitate its efficiency. Interdepartmental communication is the process through which various departments send and receive messages between themselves. For the communication to be effective, one department must send a clear and comprehensive message to another department, and the message must be clearly and completely understood. Also, interdepartmental communication deals with the communication that is needed between the different departments of the organization in order to facilitate the efficiency of the organization. It includes items about problem solving, teamwork, and communication among managers (Varona, 1996). Several mid to large-sized organizations are comprised of different departments, in order to keep the different operations separated and handled by experts in each particular area. However, in order for a business to be successful, organizations need to implement and maintain effective interdepartmental communication. One of the major reasons today that organizations fail is due to the lack of internal coherence and proper communication systems among various departments. Interdepartmental communication breakdowns can have a severe impact on the efficiency of an organization and increase the stress level among employees, ultimately resulting in poor performance (Gondal et al., 2012). Interdepartmental communication will be effective when it is supported by good infrastructural facilities. In order to thrive, businesses need to ensure its various departments work well together. According to a study conducted by the Asian Economic and Social Society, effective interdepartmental communication is "the lifeblood of a successful organization." It strengthens the organization's vision, connects employees to the business, advances process improvement, facilitates change and drives business results (Rajala, 2011). In this research, interdepartmental communication refers to all formal and informal communication taking place internally at all levels of an organization to achieve organizational goals with good quality operations. It includes items about problem-solving, flexibility, communications climate, and communication among managers (Gondal et al., 2012).

Interdepartmental communications is an organization process that provides contact and information exchange between departments organization and an organization's environment for the purpose of the operation of an organization and the accomplishment of the organization's objective (Gondal et al., 2012). These researches also state that "all formal and informal communication take place internally at all levels of an organization." Interdepartmental communication among different functions of the departments allows the organizations to attain the set organizational goals and firm value (Yahia Zare Mehrjerdi, 2010). Businesses without an effective and proper communication system would stumble, if they have no proper directions or guidelines to follow. Increased interdepartmental communication and reduction of political barriers reduce current risks to management and increase the likelihood of their strategic management accounting effectiveness.

On the other hand, ineffective interdepartmental communications might lead to many negative workplace outcomes such as anxiety, workplace frustration, little conviction, managerial information reliability, cost-benefit quality and mastering strategic management (Gondal et al., 2012; Spitzer & Swidler, 2003; Zhang & Agarwal., 2009). Moreover, the literature shows that extreme anxiety and pressure resulting from the contemporary world, result in enhanced harmful interdepartmental communications such as: condemnation, shouting, autocracy, and clashing (Gondal et al., 2012). In addition, this is consistent with Mothiba & Cur, (2008) who studied interdepartmental communication between health professionals in a hospital. Their problems resulted from the lack of proper reports given about patient care, so that the next health professional could provide relevant patient care informed by the report given. This is consistent with prior studies which suggest that interdepartmental communications have no relationship with cost-benefit quality (Cuijpers, Guenter, & Hussinger, 2011). The cause may be due to information overload from multi-dimensional interdepartmental communications (Cuijpers et al., 2011). Therefore, a well-designed and effective communication system is essential for adapting organizational and strategic management accounting effectiveness, and also for sharing the necessary information inside and outside of the organization.

Thus, interdepartmental communication may be an antecedent of strategic management accounting effectiveness. This research expects that interdepartmental communication may have a positive relationship among resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management. Hence, the research relationships are hypothesized as shown below:

Hypothesis 9a: Interdepartmental communications will positively relate to resource allocation excellence.

Hypothesis 9b: Interdepartmental communications will positively relate to managerial information reliability.

Hypothesis 9c: Interdepartmental communications will positively relate to cost-benefit quality.

Hypothesis 9d: Interdepartmental communications will positively relate to mastering strategic management.

Market Dynamics

The essential factors of describing market dynamics are rapid changes in technologies, changes in market structure, the instability of market demand, intense fluctuations in supply of materials, and the probability of market shocks (Liao, Lin & Lin, 2016). Market dynamism is fundamentally characterized as volatility and uncertainty. Thus, firms usually suffered from these external uncertainties caused by a highly dynamic market environment, which makes it more difficult to predict a future market situation, plan and organize their resources, and respond with their own strategic management and related processes (Bloch, 2012). In addition, firms are required to improve and modify their products and services with strategic management accounting continuously to meet customers' needs in high market dynamics. Contrary to highly dynamic market, less dynamic markets are characterized by infrequent changes which market players' can usually anticipate or regular changes that occur along roughly predictable and linear paths (Seo & Chae, 2016). In this research, market dynamism simply can be defined as the perceived expectation about operation under pressure from change in the market and perceived uncertainty associated with competitive change, consumer trends, regulatory and legal issues, pricing trends, politics, risk management and increasing competition (Seo & Chae, 2016).

Market dynamics consider how price patterns result from ongoing shifts in supply and demand for specific products. Strategic management accounting effectiveness offers a performance measurement and management system that enables managers to control their organizations strategically and deal with environmental uncertainties effectively. Highly strategic management accounting effectiveness and a competitive environment can, for instance, stimulate the adoption of management accounting practices. Management accounting practices that fit a company's environment and help the organization align its business processes with its environment are more likely to be adopted (Bloch, 2012; Seo & Chae, 2016). Based on the management accounting practices information they can take timely action. Also, Dias et al. (2017) argue that a firm's ability in management accounting practices with internally generated funds, can mitigate this risk, and is an important determinant of its success in the market dynamics.

The effect of market dynamics on strategic management accounting practices activities in an emerging economy are necessary in order to understand the motivation behind management decisions concerning strategic management accounting effectiveness in those economies (Lee, Byun & Park, 2018). Theoretically, market competition forces managers to optimize their decisions and maximize firm value. Previous studies argue that market dynamics can result in better company performance and reduce agency problems (Liao et al., 2016). The result shows that higher levels of market dynamism made the positive linkage between them stronger (Liao et al., 2016). Also, Seo & Chae (2016) argues that the market dynamics degree promotes a company to improve practices capability, particularly in the large firm. Accordingly, market dynamics, which a manager considers in competitive strategy, will affect the firm's strategic management accounting effectiveness (Dias et al., 2017).

However, operating under market dynamics requires a decision by the Company's management. Consistent with Sajtos, Storbacka, Nenonen & Kjellberg (2014), it was found that a change in market dynamics does not affect the ability of resource allocation excellence. Market dynamism is fundamentally characterized by volatility and unpredictability (Seo & Chae, 2016). So, if a decision is an important time to recognize the contributions of employees in this situation may not be interested (Bloch, 2012). This complies with (Seo & Chae, 2016) who found that the uncertainty of the market dynamics does not support the implementation of resource allocation excellence. In addition, the essential factors of describing market dynamism are rapid changes in technologies, changes in market structure, the instability of market demand, intense fluctuations in supply of materials, and the probability of market shocks (Hamilton, 2011). As the level of market dynamism is relatively high, firms are facing unpredictable environments characterized by rapid technological changes, intense fluctuations in customer demand, and the instability of market structure which may not directly affect managerial information reliability (Dias et al., 2017). In the context of high dynamic market, firms are required to scan emergent customer preferences, expand the boundary of managerial information reliability and develop adaptive quick responses so that they can deal with the customers' needs properly, as well as cope with turbulent market situations to remain competitive

(Donkor et al., 2018). Thus, firms usually suffered from these external uncertainties caused by a highly dynamic market environment, which makes them more difficult to predict future market situations, plan and organize their resources, and respond with market dynamics and mastering strategic management. Likewise, competitive change environment includes competitive change, consumer trends, regulatory and legal issues, pricing trends, politics, risk management and increasing competition and distribution (Dias et al., 2017).

Thus, market dynamics may be antecedents of strategic management accounting effectiveness. This research expects that market dynamics may have a positive relationship among resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management. Hence, the research relationships are hypothesized as shown below:

Hypothesis 10a: Market dynamics will positively relate to resource allocation excellence.

Hypothesis 10b: Market dynamics will positively relate to managerial information reliability.

Hypothesis 10c: Market dynamics will positively relate to cost-benefit quality.

Hypothesis 10d: Market dynamics will positively relate to mastering strategic management.

Summary

In this chapter, the conceptual model of strategic management accounting efficiency and the firm value is supported by two principal theories including the dynamic capability theory and the contingency theory. Moreover, this chapter presents the relevant literature review and the hypotheses to explain the overall relationships of constructs in the conceptual model. This research has also offered a set of 38 testable hypotheses. These relationships are classified into four groups: the first group is relevant to the linkages among strategic management accounting and its consequences, consisting of operational efficiency and advantages of management. In addition, the second group holds the relationships among two consequences of strategic management accounting and firm value. The third group shows the influence of four antecedents on each of the four dimensions of strategic management accounting, including management involvement, enterprise resource planning efficiency, interdepartmental communications and market dynamics. All hypotheses are presented in table 3.

The next chapter presents the research methods, including the sample selection and data collection techniques, the variable measurements of each construct, the methods, the statistics, the instrument development and the equations to test the hypotheses, and the summary of definitions and operational variables.

Table 3 Summary of Hypothesized Relationships

Hypotheses	**Description of Hypothesized Relationships**
H1a	Resource allocation excellence will positively relate to operational efficiency.
H1b	Resource allocation excellence will positively relate to advantages of management.
H1c	Resource allocation excellence will positively relate to firm value.
H2a	Managerial information reliability will positively relate to operational efficiency.
H2b	Managerial information reliability will positively relate to advantages of management.
H2c	Managerial information reliability will positively relate to firm value.
H3a	Cost-benefit quality will positively relate to operational efficiency.
H3b	Cost-benefit quality will positively relate to advantages of management.
H3c	Cost-benefit quality will positively relate to firm value.
H4a	Mastering strategic management will positively relate to operational efficiency.

Table 3 Summary of Hypothesized Relationships (Continued)

Hypotheses	Description of Hypothesized Relationships
H4b	Mastering strategic management will positively relate to advantages of management.
H4c	Mastering strategic management will positively relate to firm value.
H5	Operational efficiency will positively relate to firm value.
H6	Advantages of management will positively relate to firm value.
H7a	Top management involvement will positively relate to resource allocation excellence.
H7b	Top management involvement will positively relate to managerial information reliability.
H7c	Top management involvement will positively relate to cost-benefit quality.
H7d	Top management involvement will positively relate to mastering strategic management.
H8 a	Enterprise resource planning efficiency will positively relate to resource allocation excellence.
H8 b	Enterprise resource planning efficiency will positively relate to managerial information reliability.
H8 c	Enterprise resource planning efficiency will positively relate to cost-benefit quality.
H8 d	Enterprise resource planning efficiency will positively relate to mastering strategic management.
H9 a	Interdepartmental communications will positively relate to resource allocation excellence.
H9 b	Interdepartmental communications will positively relate to managerial information reliability.
H9 c	Interdepartmental communications will positively relate to cost-benefit quality.

Table 3 Summary of Hypothesized Relationships (Continued)

Hypotheses	**Description of Hypothesized Relationships**
H9 d	Interdepartmental communications will positively relate to mastering strategic management.
H10 a	Market dynamics will positively relate to resource allocation excellence.
H10 b	Market dynamics will positively relate to managerial information reliability.
H10 c	Market dynamics will positively relate to cost-benefit quality.
H10 d	Market dynamics will positively relate to mastering strategic management.

CHAPTER III

RESEARCH METHOD

The previous chapter explains how to intensely understand strategic management accounting effectiveness with the theoretical foundation, literature reviews, conceptual framework, and hypotheses development. This chapter presents the research methods. It is divided into four sections. Firstly, the sample selection and data collection procedures, including population and sample, data collection, and a test of non-response bias are detailed. Secondly, the variable measurements are developed. Thirdly, this chapter also elaborates the statistical methods for verifying the research instrument, including a test of validity and reliability, statistical analysis, and regression equations are detailed. The previous chapter explains how to intensely understand strategic management accounting effectiveness with theoretical foundation, literature reviews, conceptual framework, and hypotheses development. This chapter presents the research methods. It is divided into four sections. Firstly, the sample selection and data collection procedures, including population and sample, data collection, and a test of non-response bias are detailed. Secondly, the variable measurements are developed. Thirdly, this chapter also elaborates the statistical methods for verifying the research instrument, including a test of validity and reliability, the statistical analysis, and regression equations are detailed. Finally, the table of the summary of the definitions and the operational variables of the constructs is illustrated.

Sample Selection and Data Collection Procedure

Population and Sample

The population and sample of this research was Thai-listed firms in the Stock Exchange of Thailand (SET). The target population is Thai-listed companies that are currently operating. In other words, all possible cases in the population were selected as the sample. Based on the Stock Exchange of Thailand (SET) database on

December 31, 2018, there were 538 listed firms, and all of these included all non-financial firms, excluding financial and services sectors. Financial sector firms include insurance companies, commercial banks, mutual funds and other miscellaneous financial firms which were excluded from the focus of research because the structure and the accounting practices for these firms are so distinct (Hellstrom, 2006). Services sector firms include commerce, health care services, media and publishing, professional services, tourism and leisure, and transportation and logistics, all of which were discarded from the survey due to their inappropriateness. It is claimed that primary and extraction businesses are unlikely to have developed strategic management accounting effectiveness (Nimtrakoon, 2009); thus, these companies are less relevant to the research. Hence, the sample contains those companies with potential uses for strategic management accounting effectiveness which are more appropriate to this research. The interpretation and the generalization of the research findings from this survey should therefore apply to only those companies in SET.

This study investigates firms listed on the Stock Exchange of Thailand (SET) because the literature has recognized this country's high level of experience in strategic management accounting effectiveness and is an important contributor to Thailand's economy. It has been demonstrated by previous research that size has an influence on the adoption of sophisticated strategic management accounting effectiveness; particularly, the larger firms tend to implement those practices more than smaller firms (Drury, 2004; Shehadeh et al., 2016; Abdullah & Said, 2015). Also, the cost production a large proportion. In addition, consistent with Cescon et al., 2016). There is evidence that from a strategic perspective in management accounting, many large companies integrate costs as a basis for competitive advantage into strategies using a variety of strategic management accounting analysis techniques. Therefore, firms often look closely at the production that must maximize output for a given set of scarce inputs or minimize the cost of producing a given output. In addition, this group of countries is still interesting for further studying on other aspect of strategic management accounting effectiveness. Moreover, free trade area with other countries and environmental uncertainty affect this business. Especially, The Asian Financial Crisis in 1997-98 produced the worst economic slump in Thailand since World War II. Significantly, in light of the fact that many firms confronted the problem of the inability to produce continuously, many of Thailand's biggest corporations went bankrupt. Thus, an executive seeks a suitable management approach for operations such as strategic accounting information to support decision-making in business, particularly, in the area of strategic management accounting.

The key informant approach enables researchers to give attention to information about firms. Key informants must give real information to identify and truly understand the current existing business. Thus, the appropriate key informant of this research is the accounting executive of each listed firm. There are three reasons for choosing an accounting executive. First, the accounting executive is considered most likely to understand cost accounting and is assumed to be the key person responsible for implementation of cost. Second, accounting executives are found to be supporting a variety of departments including the production, marketing and sales departments, and closely work with accounting departments with the overall objectives of being able to add value to the business. Finally, the accounting executive is to report, coordinate, and deal directly with the CEO in management on meters such as strategic policy, planning and controlling the activities of a firm. Therefore, this research selected 538 Thai-listed firms in the Stock Exchange of Thailand (SET) as the population and sample. Moreover, the key participants were accounting executives, accounting directors or accounting managers of each Thai-listed firm in the Stock Exchange of Thailand (SET).

Data Collection

A questionnaire was used for data collection because the questionnaire is an appropriate instrument and widely-used method for large-scale data collection in behavioral accounting of which a representative sample can be collected from the chosen population in a variety of locations at a low cost (Kwok & Sharp, 1998). The reasons to use this tool are because a mail survey enables one to reach a greater number of firms at a lower cost, puts less pressure on the potential informant for an immediate response, and gives respondents a greater feeling of autonomy (Snyder & Elliard, 2012). For collecting data, firstly, the questionnaires are mailed to the respondent who is an accounting manager, an accounting director, or an accounting and finance director of each listed firm to provide the perceptions about strategic management accounting effectiveness and its consequences. Then, the completed questionnaires were directly sent back to the researcher by the prepaid return envelopes for ensuring confidentiality. Each package of the instrument consisted of a cover letter containing an explanation of the research, a questionnaire, and a pre-paid postage envelope. Besides, to reduce possible desirability bias, the researcher promises that all individual responses will be kept completely confidential and no information would be revealed or shared with any outside party without an informant's written permission.

The questionnaire was sent by post to the accounting director of each Thai-listed firm. The plan was to collect the data within eight weeks. In the first stage, the questionnaire was answered and returned to the researcher in the first four weeks. After four weeks, in order to increase the response rate, a follow-up postcard was sent to firms which had not yet replied, reminding them to complete the questionnaire and asking them to cooperate in answering it. Then, the completed questionnaires were sent back to the researcher by the prepared return envelopes for ensuring confidentiality. Each package of the instrument consisted of a cover letter containing an explanation of the research, a questionnaire, and a postage-prepaid return envelope.

In this research, the questionnaire consists of seven parts. Part one asks personal information such as gender, age, marital status, education level, working experience, income and position. Part two is about general information of the Thai-listed firm such as industrial category, period of tune in business, length of time registered in The Stock Exchange of Thailand, authorized capital of the firm, total assets of the firm and number of employees. Part three is related to evaluating strategic management accounting effectiveness, including resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management. Part four deals with the consequences of strategic management accounting effectiveness, including operational efficiency, advantage of management and firm value. Part five is about the antecedents of strategic management accounting effectiveness, including top management involvement, enterprise resource planning efficiency and interdepartmental communication. Part six is about the business environment of the firm which is market dynamics. Finally, an open-ended question for accounting manager's suggestions and opinions is included in part seven. This questionnaire in English is found in Appendix G, while the Thai version is in Appendix H.

The questionnaires were directly mailed to 538 accounting executives (e.g. accounting director, accounting manager). There were 529 successfully processed questionnaires and 9 questionnaires were undeliverable because some of these organizations had moved to unknown locations. Seventy questionnaires were returned in first four weeks, and 54 more responses in next four weeks. So, the total received questionnaires were 124 responses. However, six were dropped because they were incomplete from the last four weeks, leaving the final sample consisting of 118, which were completed and usable questionnaires. Then, this research calculated the response rate for regression analysis which was approximately 22.31 percent. The effective response rate was approximately 20%, which is considered acceptable (Aaker, Kumar, & Day, 2001). Thus, 118 firms are an acceptable sample size for testing multiple regression analysis. The details of questionnaire mailing are shown in Table 4.

Table 4 Details of Questionnaire Mailing

Details	**Numbers**
Questionnaires Mailed	538
Returned Questionnaires	9
Successful Questionnaires Mailed	529
Received Questionnaires	124
Incomplete Questionnaires	6
Complete and Usable Questionnaire	118
Response rate (118 / 529) x 100	22.31%

Test of Non-Response Bias

The non-response bias is always a problem in survey research. If key informants' responses differ significantly from those who do not, the sample may not be generalized to the population. The test of non-response bias is a way to protect possible response bias problems between respondents and non-respondents. In addition, non-response bias testing ensures that the non-response bias in mail surveys was not debatable. The non-response bias testing procedure is evaluated by comparing early-group and late-completed groups of returned questionnaires, whereas the late responses represent non-respondents (Armstrong & Overton, 1977). The respondents were divided in two groups: early and late respondents (Oppenheim, 1966). Thus, to protect against possible response bias problems between respondents and non-respondents, a non-response bias test was done to confirm that the respondents were not different. A non-response bias was conducted using a t-test comparison of the demographics between early and late respondents. Any survey should be aware of non-response bias; therefore, the responses from the first group mailing are used to compare with those received from the second group mailing on the basis the firm characteristics. If there is no statistically significant difference between the early and late respondents, it shows that the non-response bias does not pose a major problem (Nwachukwu, Vitell, Gilbert & Barnes, 1997). After verification, and finding no problems of non-response bias, this research is able to analyze the statistical results for hypotheses testing.

A total of 118 received questionnaires were divided into two groups according to early and late responses. Of the completed questionnaires that were received after the initial posting, 70 responses are considered as early responses (the first group) and those which were received after the second reminder were 48 responses, and were considered as late responses (the second group). Both groups were tested using a t-test to compare the differences between the two groups by using the demographics of the firm such as the amount of capital, total assets of the firm, the period of time in business, and the number of employees.

The results of non-response biased testing are shown in Appendix D. In this research, all 118 received questionnaires are split into two equal groups. The early respondents are the first and the late respondents are the second. Then, the first 70 responses are used to compare with the last 48 received from the second group mailing in terms of their demographic information of the firm such as the period of time in operating business ($t = -0.171$, $p > 0.05$), total assets of the firm ($t = 0.415$, $p > 0.05$), number of employees ($t = -0.343$, $p > 0.05$), and the average revenue of the firm per year (t = 1.239, $p > 0.05$). These results provide the evidence that there were no statistically significant differences between the two groups at a 95% confidence level. It can be confidently mentioned that non-response bias is not a serious problem in this research (Armstrong & Overton, 1977). The results of the non-response bias test are presented in Appendix D.

Measurements

In this research, the measurement development procedure involves the multiple item development for measuring each construct in the conceptual model. These constructs are transformed to the operational variables for precise measuring. To measure each construct in the conceptual model, all variables gained from the survey are measured by a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). This is to provide a wider range of content of the conceptual definition and improvement of reliability (Neuman, 2006). Therefore, all constructs in this research are abstractions that cannot be directly measured or observed and should be measured by multiple items (Churchill, 1979). To measure each construct in the conceptual model, all variables are gained from the survey. The variable measurements of this research are developed by the definitions and the relevant literature that provides the definition of each construct, the operational variables, and scale source. Thus, the variable measurements of the dependent variable, independent variables, antecedents' variables, mediating variables, moderating variables, and control variables of this research are elaborated as follows.

Dependent Variable

Firm value. Firm value is measured by the ability of a firm to perform actions that increase the worth of goods or services. It is usually split into two categories: financial (profitability, return on investment and return on equity) and non-financial (new customers, quality of after sales services, acceptance from stakeholders) (Jane et al., 2018).

Independent Variables

The first variable is a core construct of this research; that is, strategic management accounting effectiveness, which includes four dimensions: resource allocation excellence, managerial information reliability, cost-benefit quality, and mastering strategy management. These attributes reflect the characteristics of strategic management accounting effectiveness. The measure of each attribute depends on its definition as detailed below.

Resource allocation excellence. Resource allocation excellence refers to the ability of firm to analyze, allocate, and utilize resources efficiently in each activity and the use of resources to maximize benefits to achieve a firm's goals that include people, technology, machinery, equipment, location, time, and money (Wudhikarn, 2016).

Managerial information reliability. Managerial information reliability refers to the quality of the content of strategic management accounting information which is accuracy, validity, reliability, timeliness, relevance and completeness in order to make the operations to be consistent and efficiently adhere to the goals (Al-Mamary et al., 2014).

Cost-Benefit Quality. Cost-benefit quality is defined as a methodology that allows an organization to determine the extent to which the resources are used for preventing poor quality, appraising the quality of the organization's products or services, and analyzing cost and benefit by using various techniques to compare the total expected cost of each option with its total expected benefits (Sherman et al., 2016; Uckelmann, 2012).

Mastering strategy management. Mastering strategy management refers to the ability in strategy implementation as to the execution of the plans and strategies (which include evaluation and follow-up, improvement and development, internal audit, Six Sigma, Balanced Scorecard and theory of constraints), so as to accomplish strategic objectives and best achieve their performance goals (Misankova & Kocisova, 2014).

Mediating Variables

The mediating variable of this research is strategic management accounting effectiveness, namely, operational efficiency and advantages of management. The measure of each dimension conforms to its definition to be discussed as follows.

Operational Efficiency. Operational efficiency refers to the process of a firm's timely delivery of products and services to clients to increase customer satisfaction and performance, improvement, timely, development and flexibility to achieve the operational target (Jane et al., 2018; Ndolo, 2015).

Advantages of Management. Advantage of management refers to the unique ability of a firm to manage strategies that are superior to competitors by use of techniques and management methods such as planning, directing, controlling and decision-making by executives for the performance of an organization. In other words, it's something that a company does better than its competitors and which are measured by the management process (Konstantakopoulou & Tsionas, 2019; Li & Liu, 2018).

Antecedents Variables

For this research, the internal and external factors were treated as the antecedents of strategic management accounting effectiveness. These variables were measured by using three internal factors including top management involvement, enterprise resource planning efficiency, and interdepartmental communications. In addition, one factor of the external factor was market dynamics.

Top management involvement. Top management involvement means that top executives commit themselves to the effort, provide strong support, and participate in strategic management accounting from its initiation to its end including push, budget, development, technique, skills training, and participation to achieve the organization's target (Tzempelikos, 2015).

Enterprise resource planning efficiency. Enterprise resource planning efficiency refers to the collection of software that has been integrated into one package for an organization's business processes to support the operations, communications, data storage, an integrated system, processing, and access, in order to become more effective and efficient (Candra, 2014; Chofreh et al., 2018).

Interdepartmental communication. Interdepartmental communication refers to all formal and informal communication taking place internally at all levels of an organization to achieve organizational goals with good quality operations. It includes items about problem-solving, flexibility, communication climate, and communication among managers (Gondal et al., 2012).

Market dynamism. Market dynamism simply can be defined as the perceived expectation about operation under pressure from change in the market and perceived uncertainty associated with competitive change, consumer trends, regulatory and legal issues, pricing trends, politics, risk management and increasing competition. (Seo & Chae, 2016).

<u>Control Variables</u>

Some variables may affect the dependent variables in this conceptual model. Therefore, the inclusion of the control variable reduces spurious relationships. Based on the strategic management accounting effectiveness literature, two variables are needed to be controlled: firm age and firm size. In this research, two control variables are included to account for firm characteristics that may influence the hypothesized relationships, which are firm age and firm size. Firm value may be influenced by firm age and firm size because it may be able to achieve superior performance.

In the present study, the variables of firm size and firm age are included as a control variable in the model of the hypothesis because they may affect firm value. The operational definition and method of calculating these variables are as follows.

Firm Size. Firm size is defined as the total assets of the firm (Kouser et al., 2011). Firm size is also measured by the total assets of the firm (Kisavi & Suleiman, 2015). Firm size is a determinant of organizational success and explains the value of firm value (Kouser et al., 2011). How large a firm is can be a determinant of performance: large firms can benefit from economies of scale; or on the opposite side they can suffer from problems of coordination. Prior research has indicated that firm size is an important variable affecting changes designed to improve firm value (Rahman & Mohamed, 2006). In this research, firm size is chosen as a control variable which is defined as the total assets of the firm invested. It is a dummy variable in which 0 is a firm with total assets less than or equal to 100 million baht, and 1 is a firm that has total assets equal to or more than 100 million baht.

Firm age. Firm age is a proxy of the firm's experience measured by the number of years a firm has been in operation. Previous research has indicated that firms with long-time operations are more experienced in operations with strategic management accounting effectiveness. Coad, Holm, Krafft & Quatraro (2018) claims that the economically most meaningful measure of firm age is the number of years since listing. Firm age operating more than can improve productivity and increase profitability. It can continue to reduce debt ratio and make for higher equity ratio (Coad et al., 2018). In detail, firm age shows that the business has progressed to word performance and survival in areas such as new investments, learning, and developing (Pervan, Pervan, & Ćurak, 2017). With regards to the firm age, the interest in this variable began to grow in parallel with the studies that included firm age as an explanatory factor in investigations of determinants of firm performance (i.e. business success and firm value) (Rahman & Mohamed, 2006). In this research, firm age becomes a control variable because in an environment of uncertainty and where complexity increases, it may increase managerial opportunism and reduce risk. In this research, firm age was represented by a dummy variable of which 0 meant the firm had been in business less than or equal to 15 years, and 1 meant the firm had the period of time in operation of more than 15 years.

Methods

In this research, all constructs in the conceptual model are newly-developed, including being adapted from the relevant literature, and mailed questionnaire surveys were used to collect data. To examine the appropriateness of the questionnaire, this research used validity and reliability for evaluating the characteristics of an excellent instrument. Firstly, the questionnaires were double-checked by a specialist and experienced scholars. Later, the rationale of the pre-test was checked for a clear and accurate understanding of the questionnaire before using real data collection. The statistical techniques include factor analysis, variance inflation factor, correlation analysis, and hierarchical regression analysis. After the pre-test, the questionnaire was modified and adjusted to most complete status to ensure its effectiveness before mailing to the respondents.

Validity and Reliability

Validity refers to the degree to which instruments measure the constructs they are intended to measure (Hair, Black, Babin & Anderson, 2014). Validity basically means "measure what is intended to be measured". Even if a test is reliable, it may not provide a valid measure. In this research, confirmatory factor analysis (CFA) is used to determine the construct validity of the survey item. Also, if a test is valid, it is almost always reliable. In this research, the content and construct validity of the questionnaire is thoroughly examined.

Content validity is defined as "the degree to which items in an instrument reflect the content universe to which the instrument will be generalized" (Hair, Black, Babin, & Anderson, 2014). In addition, validity is the scale containing items which are adequate to measure what it is intended to measure (Nunnally & Bernstein, 1994). Content validity relies on the subjective interpretation of the appropriateness of the items in the construct under study; the former is from the point of the researcher gleaning knowledge from the literature, and the latter is from professional academics. In general, content validity involves evaluation of a new survey instrument in order to ensure that it includes all the items that are essential and eliminates undesirable items to a particular construct domain. The judgmental approach to establish content validity involves literature reviews and then follow-ups with the evaluation by expert judges or panels. In this research, five professionals in academic research were requested to review and suggest necessary recommendations to review the instrument in order to ensure that all constructs are sufficient to cover the contents of the variables. Based on their feedback, some questions were adjusted or deleted accordingly to attain a good measurement.

Construct validity refers to whether or not an item that measures the construct is appropriate or has validity as a measurement research instrument. It is used to test whether items chosen for a particular construct are valid. Construct validity is evaluated by testing the convergent validity and discriminant validity. It is measured empirically by the correlation between theoretically defined sets of variables. This research tests the validity of the instrument to confirm that a measure or set of measures accurately represents the concept of study. Confirmatory factor analysis (CFA) was used to the test the construct validity of the modified scale from the existing literature. Factor loading that is used to evaluate validity should be greater than 0.40 (Nunnally and Bernstein, 1994). Table 5 shows the factor loadings of the multi-item measurement. The construct validity is loaded on a single factor and the range of factor loading is between 0.490 and 0.945. These scales are greater than 0.4, which indicate construct validity acceptance (see also Appendix E).

Reliability is the extent to which the measurements of the particular test are repeatable (Nunnally & Bernstein, 1994). Testing for reliability is important as it refers to the consistency across the parts of a measuring instrument (Hair, Black, Babin, & Anderson, 2014). The more consistent the results that are given by repeated measurements, the higher the reliability of the measurement procedure (Hair et al., 2014). The most commonly used internal consistency measure is the Cronbach alpha coefficient. It is viewed as the most appropriate measure of reliability when making use of Likert scales (Nunnally & Bernstein, 1994). This research proposed to test the validity and the reliability of a questionnaire (using 30 questionnaires which are first returned by mail) because good qualities assure the internal consistency of the construct by Cronbach's alpha which should be greater than 0.70 (Hair et al., 2014). As shown in Table 5, the result of all reliability in both Cronbach's alpha coefficients were between 0.751 and 0.956 which exceeds the acceptable cut off score. It can be concluded that the internal consistency of the entire scale exists in this research (see also Appendix E).

Moreover, item-total correlation is the approach that assesses the consistency between multi-item measurements in the same construct, where its high value points out a more reliable scale (Hair et al., 2014). Generally, the scale of item-total correlation should exceed 0.30 to indicate acceptance of item reliability (Nunnally & Bernstein, 1994). As shown in Table 5, the item-total correlations were scaled from 0.447 to 0.929 in that all scales exceed 0.30; this result demonstrates that the item reliability is acceptable (see also Appendix E).

Table 5 Results of Validity Testing and Reliability Testing

Variables	**Factor Loadings**	**Item total correlation**	**Reliability (Cronbach's Alpha)**
Resource Allocation Excellence (RAE)	0.679-0.809	0.488-0.686	0.790
Managerial Information Reliability (MIR)	0.736-0.931	0.800-0.929	0.956
Cost-Benefit Quality (CBQ)	0.624-0.808	0.447-0.720	0.773
Mastering Strategic Management (MSM)	0.490-0.784	0.592-0.795	0.857
Operational Efficiency (OPE)	0.520-0.871	0.565-0.839	0.896
Advantages of Management (AOM)	0.831-0.857	0.777-0.850	0.920
Firm Value (FIV)	0.780-0.945	0.678-0.895	0.916
Top Management Involvement (TOI)	0.601-0.743	0.675-0.803	0.894
Enterprise Resource Planning Efficiency (ERP)	0.593-0.855	0.647-0.773	0.868
Interdepartmental Communications (INC)	0.583-0.774	0.564-0.777	0.877
Market Dynamics (MAD)	0.511-0.777	0.481-0.567	0.751

Statistical Techniques

In this research, before hypotheses testing, all of the raw data were checked, encoded, and recorded in a data file. Then, the basic assumption of regression analysis and data examined was tested. This process involves checking the outlier, normality, autocorrelation, and linearity. The statistical techniques include factor analysis, variance inflation factor, correlation analysis, and regression analysis; each of which is fully discussed below.

Factor analysis is a data reduction approach from a large to small number of variables and its summarizes data to design correlations among variables (Hair et al., 2014). To avoid higher correlation between independent variables, the factor scores were considered by OLS regression using factor analysis. However, the factor loading illustrated that a strong relationship existed between an item and its construct. The higher the factor loading was, the greater items represented their key construct. The recommended factor loading was promoted from Nunnally & Bernstein (1994) that was equal to, or more than 0.40, which was the criteria condition in this research.

Variance inflation factors (VIF's) is an approach for the detection of high correlations between multiple independents in the regression equation model that is known as the multicollinearity problem. In order to check multicollinearity, the VIF score could indicate them. Accordingly, considering this problem, the VIF value should be less than 10 to be assumed that the mutlicollinearity problem is not concerned (Hair et al., 2014). Results showed that the VIFs for all variables were between 1.002 and 1.707 which were less than 10, as recommended by (Hair et al. (2014).

Correlation analysis is used to test the correlation among all variables for a preliminary analysis. Pearson correlation analysis is used to examine the relationships among the independent variables, and the relationship between an independent variable and the dependent variable. This research uses correlation analysis to test the correlations among all variables because of the concern about the multicollinearity problem. This problem occurs when any single independent variable is highly correlated with other independent variables, and it will show when the inter correlation between explanatory variables exceeds 0.8 (Hair et al., 2014). That is a variable that can be explained by the other variables in the analysis. Consequently, factor analysis is used to group highly correlated variables together and the factor scores of all variables are prepared to avoid the multicollinearity problem. Thus, they are evaluated by regression analysis.

Regression analysis. The Ordinary Least Squares (OLS) regression analysis is used to test all hypotheses following the conceptual model. The regression equation is a linear combination of the independent variables that best explains and predicts the dependent variable (Aulakh, Rotate & Teegen, 2010). Therefore, OLS regression is appropriate for examining the relationships between the dependent variables and independent variables, because both dependent and independent variables in this research are categorical and interval data (Hair et al., 2014). Thus, all hypotheses are transformed into nineteen equations. Each equation consists of the main variables related to the hypothesis testing as described in the previous chapter. Moreover, two control variables, firm age and firm size, are included in all of those equations for hypothesis testing. The detail of each equation is presented as the following.

The investigation of the relationships among four dimensions composed of strategic management accounting effectiveness and operational efficiency is presented in Equation 1:

Equation 1: $OPE = \alpha_{01}+\beta_1 RAE+\beta_2 MIR+\beta_3 CBQ+\beta_4 MSM+\beta_5 FIS+\beta_6 FIA+\varepsilon$

To explore the relationships between the four dimensions of strategic management accounting effectiveness and advantages of management, Equation 2 is presented as follows:

Equation 2: $AOM = \alpha_{02}+\beta_{07} RAE+\beta_{08} MIR+\beta_{09} CBQ+\beta_{10} MSM+\beta_{11} FIS+\beta_{12} FIA+\varepsilon$

The investigation of the relationships among the four dimensions composed of strategic management accounting effectiveness and firm value is presented in Equation 3:

Equation 3: $FIV = \alpha_{03}+ \beta_{13} RAE+\beta_{14} MIR+\beta_{15} CBQ+\beta_{16} MSM+\beta_{17} FIS+\beta_{18} FIA+\varepsilon$

The investigation of the impacts of operational efficiency, advantages of management and firm value is presented in Equation 4:

Equation 4: $FIV = \alpha_{04}+\beta_{19}OPE+\beta_{20}AOM+\beta_{21}FIS+\beta_{22}FIA+\varepsilon$

To examine the influence of the four antecedents (which are to top management involvement, enterprise resource planning efficiency, interdepartmental communications, and market dynamics) and the four dimensions of strategic management accounting effectiveness, Equation 5 to 8 are presented as follows:

Equation 5: $RAE = \alpha_{05}+\beta_{23}TMI+\beta_{24}ERP+\beta_{25}INC+\beta_{26}MAD+\beta_{27}FIS+\beta_{28}FIA+\varepsilon$

Equation 6: $MIR = \alpha_{06}+ \beta_{29}TMI+\beta_{30}ERP+\beta_{31}INC+\beta_{32}MAD+\beta_{33}FIS+\beta_{34}FIA+\varepsilon$

Equation 7: $CBQ = \alpha_{07}+ \beta_{35}TMI+\beta_{36}ERP+\beta_{37}INC+\beta_{38}MAD+\beta_{39}FIS+\beta_{40}FIA+\varepsilon$

Equation 8: $MSM = A_{8}+ \beta_{41}TMI+\beta_{42}ERP+\beta_{43}INC+\beta_{44}MAD+\beta_{45}FIS+\beta_{46}FIA+\varepsilon$

Where;

RAE	= Resource Allocation Excellence
MIR	= Managerial Information Reliability
CBQ	= Cost-Benefit Quality
MSM	= Mastering Strategic Management
OPE	= Operational Efficiency
AOM	= Advantages of Management
FIV	= Firm Value
TMI	= Top Management Involvement
ERP	= Enterprise Resource Planning Efficiency
INC	= Interdepartmental Communications
MAD	= Market Dynamics
FIA	= Firm age
FIS	= Firm size
ε	= Error term
α	= Constant
β	= Coefficient

Summary

This chapter summarizes the research methods used to examine the collected data and tests the relationships among the constructs based on the conceptual model to answer the research questions. This chapter details the sample selection, the data collection process, the test of non-response bias, the measured variables, the verification tool of validity and reliability tests, and the statistical analyses. The population of this research was 538 Thai-listed firms of the database drawn from the Stock Exchange of Thailand (SET) on its website: www.set.or.th as of 31 December, 2018. The key informant was the accounting director or accounting manager of each firm, who is considered properly represented. This research used a questionnaire for data collection. Ordinary Least Squares regression analysis was operated to test the postulated hypotheses. Moreover, this chapter has also proposed a set of ten equations for testable hypotheses. Finally, Table 6 concludes the operational definition of each construct, the keywords and the scale sources.

Table 6 Operational Definitions and Keywords of Constructs

Constructs	Operational Definitions	Keywords	Scale Sources
	Dependent Variables		
Firm Value (FIV)	Ability of firm to perform actions that increase the worth of goods or services. It is usually split into two categories: financial (profitability, return on investment and return on equity) and non-financial (new customers, firm reputation, quality of after sales services, acceptance from stakeholders).	- ability to produce profitability - return as expected - acceptance by stakeholders - quality of after sales services that is more outstanding than its competitors - increase new customers	Jane et al., 2018

Table 6 Operational Definitions and Keywords of Constructs (continued)

Constructs	Operational Definitions	Keywords	Scale Sources
Independent Variables of Strategic Management Accounting Effectiveness			
Resource Allocation Excellence (RAE)	Ability of firm to analyze, allocate, and utilize resources efficiently in each activity and the use of resources to maximize benefits to achieve a firm's goals that include people, technology, machinery, equipment, location, time, and money.	- evaluating the value of personnel - the use of information technology appropriately - asset management plan using as information for maximize asset utilization worth the investment - the use of resources that are appropriate	Wudhikarn, 2016

Table 6 Operational Definitions and Keywords of Constructs (continued)

Constructs	Operational Definitions	Keywords	Scale Sources
Independent Variables of Strategic Management Accounting Effectiveness			
Managerial Information Reliability (MIR)	Quality of the content of strategic management accounting information that is accuracy, validity, reliability, timeliness, relevance and completeness in order to make the operations to be consistent and efficiently adhere to the goals.	- accurate financial information - financial information validity - reliability development of financial information - timely / quick financial information retrieval - financial information is related to make decisions	Al-Mamary et al., 2014

Table 6 Operational Definitions and Keywords of Constructs (continued)

Constructs	Operational Definitions	Keywords	Scale Sources
Independent Variables of Value Chain Costing			
Cost-Benefit Quality (CBQ)	Methodology that allows an organization to determine the extent to which the resources are used for preventing poor quality, appraising the quality of the organization's products or services, and analyzing cost and benefit by using various techniques to compare the total expected cost of each option with its total expected benefits.	- comparing benefits and costs of the project - benefits assessments over the cost of resources required for investment - spending money depending on the budget received efficiently. - investment risk analysis by using management accounting information - the uses various techniques (such as break-even point, NPV, IRR) so that the investment in the project receives the expected return.	Sherman et al., 2016; Uckelmann, 2012

Table 6 Operational Definitions and Keywords of Constructs (continued)

Constructs	Operational Definitions	Keywords	Scale Sources
Independent Variables of Value Chain Costing			
Mastering Strategic Management (MSM)	The ability in strategy implementation as to the execution of the plans and strategies (which include evaluation and follow-up, improvement and development, internal audit, Six Sigma, Balanced Scorecard and theory of constraints), so as to accomplish strategic objectives and best achieve their performance goals.	- evaluate and follow-up of work continuously - improve and develop for measuring performance - good internal control system - the use of Theory of Constraints in order to effectively solve problems of slow operations. - using the Six Sigma strategy can help reduce the amount of waste	Ahmed, 2017

Table 6 Operational Definitions and Keywords of Constructs (continued)

Constructs	Operational Definitions	Keywords	Scale Sources
		Mediating Variables	
Operational Efficiency (OPE)	The process of firm's timely delivery of products and services to clients to increase customer satisfaction and performance, improvement, timely, development and flexibility to achieve the operational target.	- produce products or services that meet standards timely - develop potential and operational capability - delivering quality products or services to increase customer satisfaction - continuous improvement and development - operational flexibility	Jane et al., 2018; Kyule, 2015

Table 6 Operational Definitions and Keywords of Constructs (continued)

Constructs	Operational Definitions	Keywords	Scale Sources
Mediating Variables			
Advantages of Management (AOM)	The unique ability of a firm to manage strategies that are superior to competitors by using of techniques and management methods such as planning, directing, controlling and decision-making by executives for the performance of an organization. In other words, it's something that a company does better than its competitors are measured by the management process.	- the production plan and services by using strategies creating diversity or differences from competitors - mechanism for monitoring and following up the management plan continuously - control management continuously - comparisons between the firm performance and competitors' - decision-making on various issues	Konstantakopoulou & Tsionas, 2019; Li & Liu, 2018

Table 6 Operational Definitions and Keywords of Constructs (continued)

Constructs	Operational Definitions	Keywords	Scale Sources
Antecedents Variables			
Top Management Involvement (TMI)	Top management involvement means that top executives commit themselves to the effort, provide strong support, and participations in strategic management accounting from its initiation to its end including push, budget, development, technique, skills training, and participation to achieve the organization's target.	- support resources - push on the development of strategic management accounting system - applying new techniques and new methods of strategic management accounting - creating experience for the employees - employees participate in policy	Tzempelikos, 2015

Table 6 Operational Definitions and Keywords of Constructs (continued)

Constructs	Operational Definitions	Keywords	Scale Sources
Antecedents Variables			
Enterprise Resource Planning Efficiency (ERP)	Collection of software that has been integrated into one package for an organization’s business processes to support the operations, communications, data storage, an integrated system, processing, and access, in order to become more effective and efficient.	- can access information for decisions making quickly and timely - enterprise resource planning systems can be linked together - integration through enterprise resource planning systems that are available in various events - efficient database storage system - application of enterprise resource planning systems	Candra, 2014; Chofreh et al., 2018

Table 6 Operational Definitions and Keywords of Constructs (continued)

Constructs	Operational Definitions	Keywords	Scale Sources
Antecedents Variables			
Interdepartmental communication (INC)	All formal and informal communication taking place internally at all levels of an organization to achieve organizational goals with good quality operations. It includes items about problem-solving, flexibility, communication climate, and communication among managers.	- creating an atmosphere of interdepartmental communication - solving the problems of interdepartmental communication - interdepartmental communication on a clear hierarchy - interdepartmental communication with the flexibility - using technology or new techniques in interdepartmental communication	Gondal et al., 2012

Table 6 Definitions and Operational Variables of Constructs (continued)

Constructs	**Operational Definitions**	**Keywords**	**Scale Sources**
		Antecedents Variables	
Market Dynamics (MAD)	The perceived expectation about operation under pressure from changes in the market and perceived uncertainty associated with competitive change, consumer trends, regulatory and legal issues, pricing trends, politics, risk management and increasing competition.	- follows politics and government policies related to business operations - risk management both external and internal - finding cheap sources of raw materials and replacement products - improve and develop their strategies so that they can respond to the needs of customers continuously - monitor the operations of competitors, both new and old strategies to create competitive superiority continues	Seo & Chae, 2016

Table 6 Definitions and Operational Variables of Constructs (continued)

Constructs	Definitions	Operational Variables	Scale Sources
Control variables			
Firm Size (FS)	A determinant of the organizational success and explains the value of firm value.	Dummy variable 0 = a firm has total assets less than or equal to 100 million baht, 1 = a firm has total assets more than 100 million baht.	-
Firm Age (FA)	The firm's experience measured by the number of years a firm has been in operation.	Dummy variable 0 = below and equal 15 years, 1 = higher than 15 years.	-

CHAPTER IV

RESULT

The previous chapter describes research methods which engaged the sample selection, data collection procedure, measurements, measure validation, and statistical techniques. This chapter presents the results of hypothesis testing. Firstly, it presents the respondent characteristics and descriptive statistics to increase the understanding of the sample characteristics. Secondly, the hypotheses testing and results are detailed. Finally, the summary of all hypotheses testing is included in Table 19.

Respondent Characteristics and Descriptive Statistics

Respondent Characteristics

In this research, 538 Thai-Listed firms are the unit of analysis, and the accounting manager or accounting director of each firm is the key informant. The respondent characteristics are described by the demographic characteristics including gender, age, education level, work experience in their firm, average income per month, and present position. Moreover, the main characteristics of the Thai-Listed firms also include industrial category, the period of time in operating the business, total assets of the firm, number of employees and total revenue of the firm.

The results of demographic characteristics of 118 key participants show that 80.51 percent of participants are female and 19.49 percent are male. The span of age of participants is more than 45 years old (34.75 percent). Most participants have obtained a bachelor’s degree or lower. The most of the participants have working experience in the company of more than 15 years (61.02 percent). Moreover, the average monthly income of respondents is 100,000 - 150,000 baht (32.21 percent). Finally, the majority of the work positions of the key participants are accounting manager (57.63 percent). For more details see also Appendix B.

Firm Characteristics

The findings of 118 Thai-Listed firm demographic characteristics are presented in Appendix B. Most of the industrial categories of the firm respondents are industrials (43.22 percent), property & construction (29.66 percent) and consumer products (11.86 percent). The length of time in the business of the firms' respondents is more than 15 years (86.44 percent). The total assets of the firms responding are mostly less than 10 million baht (54.24%) and the most of firms have a total of employees less than 500 (44.06 percent). Finally, the average revenue of firm per year of most sampled firms is less than 10 million baht (62.71 percent) (see Table C1 in Appendix C).

Correlation Analysis

This research employs a bivariate correlation analysis of Pearson Correlation on all variables for two purposes. The first purpose is to explore the relationships among variables. Another purpose is to verify multicollinearity problems. A multicollinearity problem exists when the inter-correlation between independent variables exceeds 0.80 (Hair et al., 2014). In this research, the bivariate correlation procedure is subject to a two-tailed test of statistical significance at two levels, namely $p < 0.05$ and $p < 0.01$. Therefore, the correlation matrix can prove the correlation between the two variables and verify the multicollinearity problems by the intercorrelations among the independent variables. The results of the correlation analysis of all variables are shown in Table 7.

The result of the Pearson Correlation Coefficient of four dimensions of strategic management accounting effectiveness (resource allocation excellence, managerial information reliability, cost-benefit quality, and mastering strategic management) are between $r = 0.354$ and 0.599, $p < 0.01$. The Pearson correlation coefficient of four antecedents of strategic management accounting effectiveness (top management involvement, enterprise resource planning efficiency, interdepartmental communications, and market dynamics) are between 0.293 and 0.507, $p < 0.01$. The results indicate that none of the correlations exceed 0.80. Thus, a multicollinearity problem is of no concern.

In the areas of correlation among independent variables and dependent variables, it is found that there was a significant and positive relationship as follows.

Dimensions of strategic management accounting effectiveness and its consequences (operational efficiency, advantages of management and firm value) have a significant and positive relationship ($r = 0.327 – 0.640$, $p < 0.01$). Finally, the correlations among four antecedents and four dimensions of strategic management accounting effectiveness have significant and positive relationship ($r = 0.207 – 0.599$, $p < 0.01$).

Table 7 Descriptive Statistics and Correlation Matrix

Variables	RAE	MIR	CBQ	MSM	OPE	AOM	FIV	TMI	ERP	INC	MAD	FIS	FIA
Mean	3.864	4.491	4.216	4.08	4.169	4.139	3.983	4.203	4.088	4.080	4.122	-	-
S.D.	0.537	0.566	0.478	0.518	0.515	0.587	0.605	0.519	0.579	0.514	0.514	-	-
RAE	1.000												
MIR	.354**	1.000											
CBQ	.414**	.599**	1.000										
MSM	.354**	.395**	.524**	1.000									
OPE	.438**	.473**	.474**	.452**	1.000								
AOM	.432**	.492**	.477**	.418**	.640**	1.000							
FIV	.327**	.498**	.426**	.378**	.584**	.397**	1.000						
TMI	.382**	.478**	.320**	.422**	.540**	.528**	.459**	1.000					
ERP	.437**	.373**	.400**	.559**	.414**	.490**	.467**	.507**	1.000				
INC	.426**	.303**	.207*	.264**	.343**	.407**	.340**	.394**	.456**	1.000			
MAD	.277**	.414**	.491**	.339**	.420**	.508**	.452**	.489**	.293**	.487**	1.000		
FIS	-.008	.082	-.054	.062	.010	-.032	.030	.012	.018	-.034	-.122	1.000	
FIA	.233*	.089	.190*	.087	.078	.042	.082	.033	-.053	.071	.095	.314**	1.000

** Correlation is significant at the 0.01 level (2-tailed), * Correlation is significant at the 0.05 level (2-tailed)

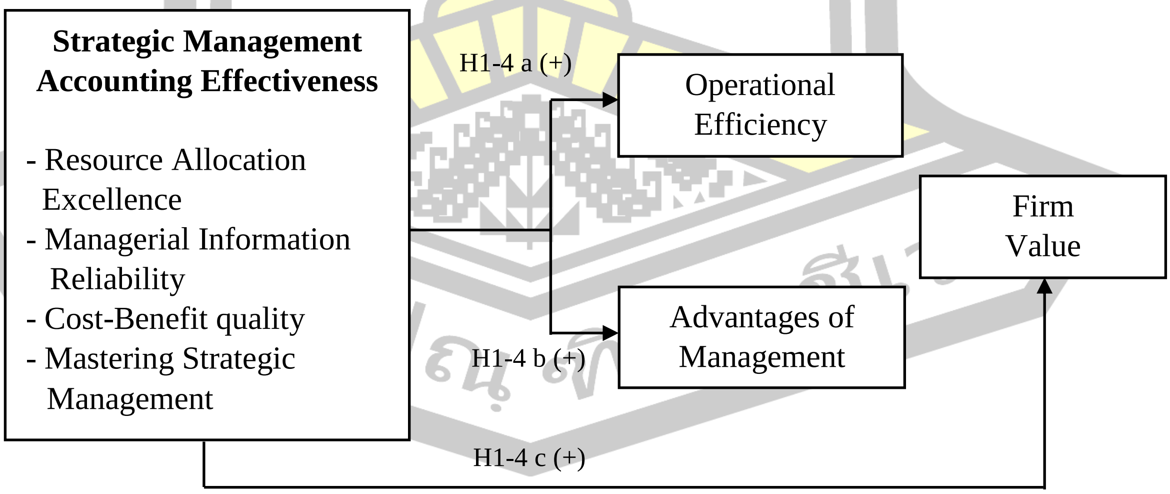
Hypothesis Testing and Results

Multiple regressions by Ordinary Least Squares (OLS) regression were utilized to verify the hypotheses. The regression equation generated was a linear combination of the independent variables that best explained and predicted the dependent variable (Aulakh et al., 2010). Therefore, OLS was an appropriate method for examining the hypothesized relationships. In this research, all hypotheses were transformed into 10 equations. Furthermore, there were two dummy variables: firm size and firm age which were consistent with the data collection included in those equations for testing.

<u>The Relationship among Each Dimension of Strategic Management Accounting Effectiveness and Its Consequences.</u>

Figure 5 illustrates the effect of strategic management accounting effectiveness on its consequences as proposed in Hypotheses 1-4(a) to Hypotheses 1-4(c). Each hypothesis is proposed in a positive relationship. These hypotheses are transformed into the regression equation in Equation 1, 2, and 3.

Figure 5 The Relationships Between Each Dimension of Strategic Management Accounting Effectiveness, and Its Consequences.



This research proposes that the three dimensions of strategic management accounting effectiveness have positive relationships on operational efficiency, advantages of management, and firm value. These hypotheses are transformed into the regression equation in Equations 1-3 which are presented in Chapter 3. Moreover, the correlation among each dimension of strategic management accounting effectiveness and its consequences were demonstrated in Table 8.

Table 8 presents the correlation coefficients among each dimension of the strategic management accounting effectiveness and its consequences: operational efficiency, advantages of management, and firm value. For the first dimension of strategic management accounting effectiveness, the results indicate that resource allocation excellence is significantly and positively correlated with operational efficiency ($r = 0.438$, $p < .01$), advantages of management ($r = 0.432$, $p < .01$), and firm value ($r = 0.327$, $p < .01$). For the second dimension of strategic management accounting effectiveness, managerial information reliability is significantly and positively correlated with operational efficiency ($r = 0.473$, $p < .01$), advantages of management ($r = 0.492$, $p < .01$), and firm value ($r = 0.498$, $p < .01$). For the third dimension of strategic management accounting effectiveness, cost-benefit quality is significantly and positively correlated with operational efficiency ($r = 0.474$, $p < .01$), advantages of management ($r = 0.477$, $p < .01$), and firm value ($r = 0.426$, $p < .01$). Finally, the fourth dimension of strategic management accounting effectiveness, mastering strategic management is significantly and positively correlated with operational efficiency ($r = 0.452$, $p < .01$), advantages of management ($r = 0.418$, $p < .01$), and firm value ($r = 0.378$, $p < .01$). For the correlation coefficients among four dimensions of strategic management accounting effectiveness which are independent variables, the results from Table 8 also show that all correlations are less than 0.80. Additionally, table 9 - 11 point out the maximum values of variance inflation factors (VIFs) (Equation 1-3) is 1.189, which is below the cutoff value of 10 (Hair et al., 2014). Consequently, overall, the multicollinearity problems are not a concern for this analysis.

Table 8 Descriptive Statistics and Correlation Matrix of Each Dimension of Strategic Management Accounting Effectiveness and Its Consequences.

Variables	RAE	MIR	CBQ	MSM	OPE	AOM	FIV	FIS	FIA
Mean	3.864	4.491	4.216	4.08	4.169	4.139	3.983	-	-
Standard Deviation	0.537	0.566	0.478	0.518	0.515	0.587	0.605	-	-
Resource Allocation Excellence (RAE)	1.000								
Managerial Information Reliability (MIR)	.354**	1.000							
Cost-Benefit Quality (CBQ)	.414**	.599**	1.000						
Mastering Strategic Management (MSM)	.354**	.395**	.524**	1.000					
Operational Efficiency (OPE)	.438**	.473**	.474**	.452**	1.000				
Advantages of Management (AOM)	.432**	.492**	.477**	.418**	.640**	1.000			
Firm Value (FIV)	.327**	.498**	.426**	.378**	.584**	.397**	1.000		
Firm age	-.008	.082	-.054	.062	.010	-.032	.030	1.000	
Firm size	.233*	.089	.190*	.087	.078	.042	.082	.314**	1.000

** Correlation is significant at the 0.01 level (2-tailed), * Correlation is significant at the 0.05 level (2-tailed)

Table 9 Results of Regression Analysis for the Effects of Strategic Management Accounting Effectiveness on Operational Efficiency

Equation 1 Independent Variables	**Dependent Variables: operational efficiency**				
	Unstandardized Coefficients		Standardized Coefficients	t-stat	p-value
	B	Std. Error	Beta		
(Constant)	.076	.194		.395	.694
Resource Allocation Excellence (H1a)	.196	.073	.197	2.677	.009**
Managerial Information Reliability (H2a)	.376	.071	.377	5.264	.000**
Cost-Benefit Quality (H3a)	.152	.071	.152	2.128	.036*
Mastering Strategic Management (H4a)	.492	.073	.487	6.777	.000**
Firm age	-.080	.219	-.028	-.366	.715
Firm size	.024	.155	.012	.155	.877
Adjusted R^2	**0.408**				
Prob.	**0.000**				
F-test	**14.326**				
Maximum VIF	**1.181**				

** p<0.01, * p<0.05

Table 10 Results of Regression Analysis for the Effects of Strategic Management Accounting Effectiveness on Advantages of Management

Equation 2 **Independent Variables**	**Dependent Variables: Advantages of Management**				
	Unstandardized Coefficients		Standardized Coefficients	t-stat	p-value
	B	Std. Error	Beta		
(Constant)	.143	.194		.737	.463
Resource Allocation Excellence (H1b)	.358	.075	.381	4.790	.000**
Managerial Information Reliability (H2b)	.168	.072	.182	2.345	.021*
Cost-Benefit Quality (H3b)	.319	.072	.341	4.415	.000**
Mastering Strategic Management (H4b)	.206	.074	.217	2.789	.006**
Firm age	-.100	.220	-.037	-.456	.649
Firm size	-.011	.156	-.006	-.068	.946
Adjusted R^2	**0.316**				
Prob.	**0.000**				
F-test	**9.841**				
Maximum VIF	**1.189**				

** p<0.01, * p<0.05

Table 11 Results of Regression Analysis for the Effects of Strategic Management Accounting Effectiveness on Firm Value

Equation 3 Independent Variables	**Dependent Variables: Firm Value**				
	Unstandardized Coefficients		Standardized Coefficients	t-stat	p-value
	B	Std. Error	Beta		
(Constant)	.015	.209		.073	.942
Resource Allocation Excellence (H1c)	.238	.079	.238	3.010	.003**
Managerial Information Reliability (H2c)	.266	.077	.266	3.453	.001**
Cost-Benefit Quality (H3c)	.306	.077	.306	3.977	.000**
Mastering Strategic Management (H4c)	.329	.077	.329	4.248	.000**
Firm age	-.093	.237	-.032	-.394	.694
Firm size	.143	.167	.071	.853	.396
Adjusted R^2	**0.310**				
Prob.	**0.000**				
F-test	**9.751**				
Maximum VIF	**1.187**				

** p<0.01, * p<0.05

The results of the OLS regression analysis of the effects of each dimension of strategic management accounting effectiveness on its consequences are shown in table 9-11. Firstly, the result indicates that resource allocation excellence (the first dimension) positively influences all three outcomes: operational efficiency (β_1 = 0.197, $p < .01$), advantages of management (β_{07} = 0.381, $p < .01$), and firm value (β_{13} = 0.238, $p < .01$). A positive relationship between resource allocation excellence and its consequences indicated that resource allocation excellence enables organization to gain greater operational efficiency, advantages of management, and firm value.

Consistent with prior research, resource allocation excellence is essential to the operation, and the level of resources indicate the ability of the company to grow, leading to advantage of management and firm value (Chen & Hsu, 2010). It means resource management proficiency is a key for firms planning its use and that have applied adequate and appropriate resources for maximum benefit in operational efficiency, as well as achieving the objectives set out (Cánovas, Taha, Lloret, &

Tomás, 2018; Klingebiel & Rammer, 2017; Kunst et al., 2018). Resource allocation excellence is the diligent deployment of resources onto operational efficiency on their skill set and timelines. In addition, Kotabe et al., (2002) suggest that high resource allocation excellence intensity can improve a firm's operational efficiency, either in product or process.

The findings indicate that resource allocation excellence is generally the key factor for implementation in an advantage of management. Consistent with previous research, resource allocation excellence is now empirically identified as another critical strategic management accounting concern as it could deliver sustainable advantage of management (Wudhikarn, 2016). Resource allocation excellence is a key success factor for advantages of management and then becomes increasingly important for the firm's value (Donnell & Jeong, 2000).

Resource allocation excellence may not be able to describe the optimal method of employing resources to gain a competitive advantage under environmental uncertainty (Desarbo et al., 2005). This is consistent with prior studies which suggest that the accuracy of the allocation of resources is one of the challenges of firm value creation (Alidrisi, 2010). Likewise, each department with collaboration in resource allocation excellence affects increases in quality and productivity; and as a result, reduces overall costs that are the outcome of strategic management accounting effectiveness (Myhr & Spekman, 2002). Therefore, the most important thing for firms is to make efficient use of those different advantages such as resource allocation excellence of the firm that will enhance the value of the firm (Fu, 2007). **Thus, Hypotheses 1a, 1b, and 1c are supported.**

Secondly, it is found that managerial information reliability (the second dimension) also shows significant and positive effects on all three outcomes: operational efficiency ($\beta_2 = 0.377$, $p < .01$), advantages of management ($\beta_{08} = 0.182$, $p < .05$), and firm value ($\beta_{14} = 0.266$, $p < .01$). The finding demonstrates that the higher managerial information reliability helps the firm to gain greater operational efficiency, advantages of management, and firm value.

Hwang et al. (2008), supported that managerial information reliability had a strong, direct effect on operational efficiency and firm value. Firms which strategically apply managerial information reliability can decrease delivery time and cost and enhance quality, followed by high operational efficiency (Wook & Narasimhan, 2002). In addition, the positive relationship between managerial information reliability and operational efficiency is the basis of a causal link between the interaction between internal and external managerial information reliability and operational efficiency and gaps in operational efficiency among the stages of strategic application of managerial information reliability (Rao, Guo, & Chen, 2015; Sundram et al., 2018).

Consistent with previous research, it has been explained that the existence of management information reliability is needed to improve and enhance advantages of management on the issues affecting human and material resources (Adebayo, 2007). In his study, Karim (2011) suggested that managerial information reliability is indispensable in the area of planning as it can monitor by itself the instability in a system, verify a course of action and take action to keep the system in control. However, firms apply managerial information reliability from the internal viewpoint and it is disseminated to the inter-corporate viewpoint in competitive environment to sustainable advantage of management (Hee-Sung, 2019). In addition, Kunst et al. (2018) have ascertained that managerial information reliability has a positive effect on advantages of management overall benefits. Rao et al. (2015) have proved that managerial information reliability maturity has a positive effect on advantages of management.

Lu & Ramamurthy (2011) have verified that managerial information reliability capability has a positive effect on market capitalizing agility and operational adjusting agility. Aydiner, Tatoglu, Bayraktar & Zaim (2019) have ascertained that managerial information reliability has a positive effect on the business process that is outsourcing firm value. In addition, Hwang et al. (2008) supported that managerial information reliability had a strong direct effect on operational efficiency and firm value. Managerial information reliability is one of the most important effects of strategic management accounting, which aims to provide reliable, complete, accessible, and understandable information in a timely manner to sustain competitive advantage such as operational efficiency, advantages of management and firm value. **Thus, Hypotheses 2a, 2b, and 2c are supported.**

Thirdly, unlike the first two dimensions, cost-benefit quality (the third dimension) is significantly and positively related to some of its consequences: operational efficiency ($\beta_3 = 0.152$, $p < .05$), advantages of management ($\beta_{09} = 0.341$, $p < .01$), and firm value ($\beta_{15} = 0.306$, $p < .01$). These results show the evidence that firms which use more cost-benefit quality tend to accomplish the operational efficiency, advantages of management, and firm value. In this research, cost-benefit quality is defined as a methodology that allows an organization to determine the extent to which its resources are used for activities that prevent poor quality, that appraise the quality of the organization's products or services, and analyze cost and benefit by using various techniques to comparing the total expected cost of each option with its total expected benefits (Sherman et al., 2016; Uckelmann, 2012).

Many studies have investigated cost-benefit quality awareness that is related to operational efficiency. Empirical studies by Jie & Zhang (2006) state that management of cost-benefit quality improves the efficiency of the process that produces the product or service. Using modern cost and benefit quality allows assessing the efficiency of the operational (Gimzauskiene & Valanciene, 2009). Also, cost-benefit quality is one of the strategic management accounting effects required in order to achieve success in the operational efficiency, which is expected to have a significant positive impact on operational efficiency and advantages of management and firm value (Kohli & Jaworski, 1990).

Cost-benefit quality should provide favorable conditions for making rational decisions and choosing the optimal variants of operational efficiency and advantages of management (Modhiya & Desai, 2016). In addition, cost-benefit quality, as part of a company management support system, assists managerial tasks both at the operational efficiency, advantages of management and the strategic level (Banker & Johnston, 2014). If one firm performs its activities more efficiently than others, advantages of management arise and can be used strategically (Soewarno & Isnalita, 2018). Additionally, Schiffauerova & Thomson, (1979) indicates that superiority of cost-benefit quality tends to support operational and sustainable advantages of management.

Chaikambang (2016) pointed that building company value originated from information such as cost-benefit quality information. Hence, cost-benefit quality is composed of the key capabilities of firm value creation. On the other hand, cost-benefit quality-related strengths and weaknesses are most relevant to potential cost leaders. Their entire strategic orientation is based on achieving a better cost-benefit quality position than the competition. Additionally, Xie & Lam (2018) stressed that a good strategy is to quantify cost-benefit quality within the firm for revealing this valuable information specialization. Thus, cost-benefit quality has proven itself as a useful tool to support this type of operational efficiency, advantages of management and firm value. **Thus, Hypotheses 3a, 3b, and 3c are supported.**

Finally, this research reveals that mastering strategic management (the fourth dimension) is significantly and positively influential on operational efficiency (β_4 = 0.487, $p < .01$), advantages of management (β_{10} = 0.217, $p < .01$), and firm value (β_{16} = 0.329, $p < .01$). These results show the evidence that firms which use mastering strategic management tend to accomplish operational efficiency, advantages of management, and firm value. The results are important for the listed firms in mastering strategic management in order to predict the direction of advantages of management and operational excellence that lead to the value of the firm.

Consistent with previous research, Kihara, Bwisa & Kihoro (2016) found a positive association between the mastering strategic management and operational efficiency. Mastering strategy management is a term used to describe the activities within a workplace or organization to manage the activities associated with the delivery of a strategic plan to increase operational efficiency and firm value (Bolo, 2011). Mastering strategic management is thus a veritable tool in improving firms' competitiveness, performance level and structural development leading to operational efficiency (Makanga & Paul, 2017).

Also, Bolo (2011) examined the association between mastering strategic management and advantages of management using a cross-sectional sample of Kenya manufacturing companies. In other words, public sector mastering strategic management aims to improve public organizations' value in order to help them attain targets and sustainable advantages of management (Kihara, 2018). Mastering strategic management is about achieving advantages of management through being uniquely different in one's industry (Farzin, Kahreh, Hesan & Khalouei, 2014). Getz, Jones & Loewe (2009) stated that the application of mastering strategic management helps firms in exploiting and creating new and different opportunities for tomorrow. Brauer & Schmidt (2008) further puts it as “the art and science of formulating, implementing and evaluating cross-functional decisions that enable an organization to achieve its objectives and sustainable advantages of management”.

Mastering strategic management is the process that turns strategy management and plans into actions in order to accomplish strategic objectives and firm value (Karuhanga, 2015). In the private sector, mastering strategic management is often considered “as ways of defeating rivals in competitive markets” leading to firm value (Aaltonen & Ikavalko, 2002). Mastering strategic management have been observed to significantly relate to the sustainability and value of firms (Me, 2018).

In terms of mastering strategic management, it is crucial to the survival and development of organizations that wish to more effectively deal with change (Nyongesa, Makokha, & Namusonge, 2017). It is related to Kihara (2018) who argued that the firm which has mastering strategic management can increase the level of its operational excellence, and advantages of management. Thus, mastering strategic management has proven itself as a useful tool to support this type of operational efficiency, advantages of management and firm value. **Thus, Hypotheses 4a, 4b, and 4c are supported.**

For the control variables, firm age has no significant influence on operational efficiency, advantages of management and firm value (β_6 = -0.028, β_{12} = -0.037, β_{18} = -0.032; $p > 0.05$, respectively). It implies that longer period of time in operation does not influence operational efficiency, advantages of management and firm value. Likewise, firm size has no significant effect on operational efficiency, advantages of management and firm value. (β_5 = 0.012, β_{11} = -0.006, β_{17} = 0.071; $p > 0.05$, respectively). Therefore, the interpretation of the relationships between strategic management accounting effectiveness and consequence of strategic management accounting effectiveness does not affect the influence of these control variables.

The Relationships among Operational Efficiency, Advantages of Management, and Firm Value

As mentioned in Chapter 2, strategic management accounting effectiveness consequences consist of (1) operational efficiency, (2) advantages of management, (3) and firm value. This research proposes that operational efficiency, and advantages of management have an effect on firm value in a positive direction as proposed in Hypotheses 5, and 6. These hypotheses are transformed into the regression equation in Equation 4 as shown in Figure 6.

Figure 6 The Relationships Among Operational Efficiency, Advantages of Management, and Firm Value

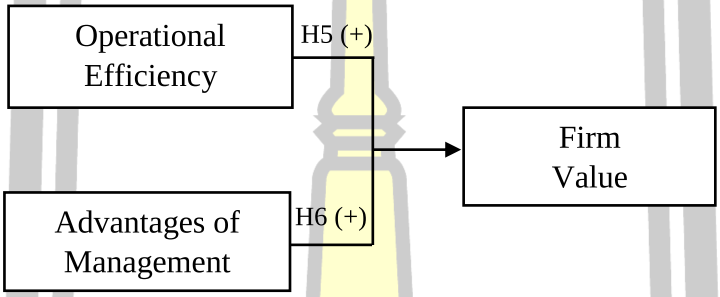


Table 12 Descriptive Statistics and Correlation Matrix of Operational Efficiency, Advantages of Management, and Firm Value

Variables	OPE	AOM	FIV	FIS	FIA
Mean	4.169	4.139	3.983	-	-
Standard Deviation	0.515	0.587	0.605	-	-
Operational Efficiency (OPE)	1.000				
Advantages of Management (AOM)	.640**	1.000			
Firm Value (FIV)	.584**	.397**	1.000		
Firm age (FIA)	.010	-.032	.030	1.000	
Firm size (FIS)	.078	.042	.082	.314**	1.000

** Correlation is significant at the 0.01 level (2-tailed), * Correlation is significant at the 0.05 level (2-tailed)

Table 12 shows the correlation coefficient between operational efficiency, advantages of management, and firm value. The results indicated that operational efficiency and advantages of management have a positive, significant correlation with firm value ($r = 0.584$, $p < .01$; $r = 0.397$, $p < .01$, respectively). Moreover, the results also indicate that operational efficiency has a positive, significant correlation with advantages of management ($r = 0.640$, $p < .01$). All of these correlation coefficients are less than 0.8. In addition, the maximum VIF values of Equation 4 shown in Table 13 is a maximum of 1.138, which is below the cutoff value of 10 (Hair et al., 2014). Consequently, overall, multicollinearity problems are not a concern for this analysis.

Table 13 Result of Regression Analysis for the Effects among Operational Efficiency, Advantages of Management, and Firm Value

Equation 4 Independent Variables	**Dependent Variables: Firm Value**				
	Unstandardized Coefficients		Standardized Coefficients	t-stat	p-value
	B	Std. Error	Beta		
(Constant)	-.059	.166		-.355	.724
Operational Efficiency (H5)	.612	.062	.645	9.834	.000**
Advantages of Management (H6)	.292	.063	.307	4.662	.000**
Firm age	.074	.189	.027	.392	.696
Firm size	.170	.134	.089	1.274	.205
Adjusted R^2	**0.522**				
Prob.	**0.000**				
F-test	**31.635**				
Maximum VIF	**1.138**				

** p<0.01, * p<0.05

For the hypothesis testing, the results of OLS regression analysis are identified in Table 13. It is found that operational efficiency has significant positive effects on firm value ($\beta_{19} = 0.645$, $p < .01$). The finding demonstrates that the higher operational efficiency helps the firm to gain greater firm value. Consistent with prior studies, operational goals are the short-term tactics design that can help an organization to achieve its long-term strategy leading to firm value (Abd, Aziz, & Fady, 2013). Operational efficiency not only blesses a firm with quality production but also with cost savings. One of the most important goals of company management is to maximize its effectiveness for its current and future financial position and firm value as they affect market price per share, shareholder wealth and firm value (Taolin, 2018). In addition, consistent with Sheahadeh, Maqableh, & Al-zoubi, (2016), there is a particular focus on the efficiency and effectiveness of operations, which has a great impact on how operations can support the firm's strategic goals and firm value. **Therefore, Hypotheses H5 is supported.**

In addition, the finding indicates that the relationship between advantages of management and firm value has shown a significant positive relationship (β_{20} = 0.307, $p < .01$). This conclusion is in line with that of Me (2018) which states that the adoption of advantages of management is indispensable in organizations. Thus, it should form part of their method of improving organizational performance to enable them to cope with the changes and challenges of the global economy. This means that the professional management should possess abilities to maintain a competitive level at present and into the future, and to achieve organizational goals with good quality operations. Further, advantages of management had a positive correlation with the result of the firm value (Tapera, 2016). According to Unam & Akinola (2015), advantages of management is the process whereby managers establish an organization's long-term direction, set specific performance objectives, development strategies to achieve these objectives in the light of all the relevant internal and external circumstances, and undertake to execute the chosen action plans causing firm value (Lee, Gunarathne, & Herold, 2017). **Therefore, Hypotheses H6 is supported.**

For the control variables, the results indicate that firm age has no statistically significant effects on operational efficiency and firm value (β_{22}= 0.027, $p > .05$). Moreover, firm size has no statistically significant effect on firm value (β_{21}= 0.089, $p > .05$). It implies that operational efficiency and advantages of management are not affected by the influence of firm size and firm age. Hence, any firm size and firm age have no significant different effect on operational efficiency and advantages of management.

The Relationships among the Antecedents, Each Dimension of Strategic Management Accounting Effectiveness.

Figure 7 illustrates the relationships among four antecedents that include: top management involvement, enterprise resource planning efficiency, interdepartmental communications, and market dynamics with four dimensions of strategic management accounting effectiveness as proposed in Hypotheses 7(a-d) to Hypotheses 10(a-d). The relationship of each hypothesis is proposed in a positive direction. These hypotheses are transformed into the regression equation in Equation 5-8.

Figure 7 The Relationships among the Antecedents, Each Dimension of Strategic Management Accounting Effectiveness

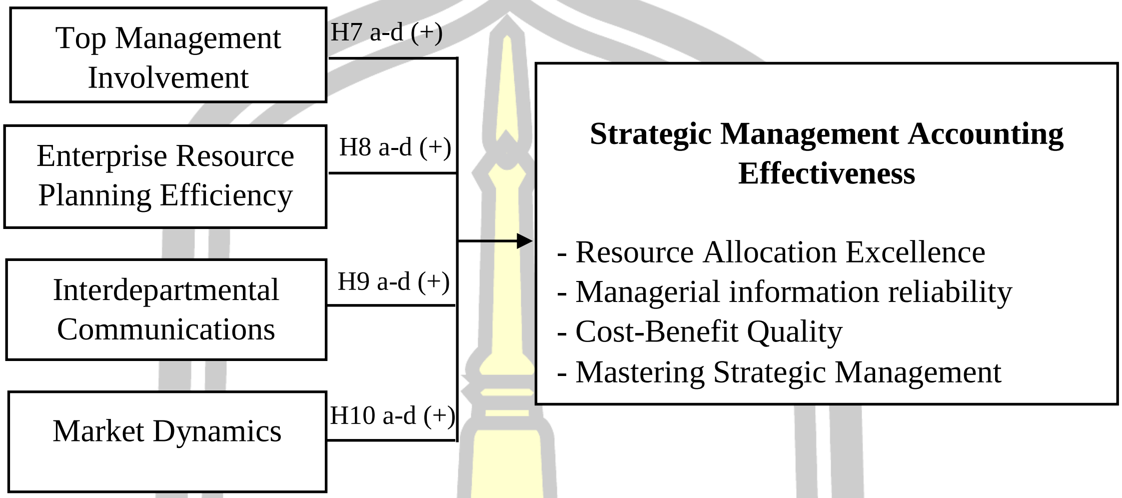


Table 14 shows the correlation coefficients among four antecedents and each dimension of the strategic management accounting effectiveness. The results indicate that all antecedents are positively correlated with all strategic management accounting effectiveness dimensions. For the first antecedent, top management involvement is significantly and positively correlated with resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management ($r = 0.382$, $p < .01$; $r = 0.478$, $p < .01$; $r = 0.320$, $p < .01$; $r = 0.422$, $p < .01$, respectively). Secondly, enterprise resource planning efficiency is significantly and positively correlated with resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management ($r = 0.437$, $p < .01$; $r = 0.373$, $p < .01$; $r = 0.400$, $p < .01$; $r = 0.559$, respectively). Thirdly, interdepartmental communications is significant to resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management ($r = 0.426$, $p < .01$; $r = 0.303$, $p < .01$; $r = 0.207$, $p < .05$; $r = 0.264$, $p < .01$, respectively). Finally, market dynamics is significantly and positively correlated with resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management ($r = 0.277$, $p < .01$; $r = 0.414$, $p < .01$; $r = 0.491$, $p < .01$; $r = 0.339$, $p < .01$, respectively).

Table 14 Descriptive Statistics and Correlation Matrix of Strategic Management Accounting Effectiveness and Its Antecedents

Variables	RAE	MIR	CBQ	MSM	TMI	ERP	INC	MAD	FIS	FIA
Mean	3.864	4.491	4.216	4.08	4.203	4.088	4.080	4.122	-	-
S.D.	0.537	0.566	0.478	0.518	0.519	0.579	0.514	0.514	-	-
RAE	1.000									
MIR	.354**	1.000								
CBQ	.414**	.599**	1.000							
MSM	.354**	.395**	.524**	1.000						
TMI	.382**	.478**	.320**	.422**	1.000					
ERP	.437**	.373**	.400**	.559**	.507**	1.000				
INC	.426**	.303**	.207*	.264**	.394**	.456**	1.000			
MAD	.277**	.414**	.491**	.339**	.489**	.293**	.487**	1.000		
FIS	-.008	.082	-.054	.062	.012	.018	-.034	-.122	1.000	
FIA	.233*	.089	.190*	.087	.033	-.053	.071	.095	.314**	1.000

** Correlation is significant at the 0.01 level (2-tailed), * Correlation is significant at the 0.05 level (2-tailed)

In the area of correlation coefficients among four antecedences of dynamic management accounting orientation, the results from Table 14 also show that all correlations are less than 0.80. Furthermore, the maximum VIF values of Equations 5 to 8 shown in Tables 15-18 is 1.140, which is below the cutoff value of 10 (Hair et al., 2014). Consequently, there are no significant multicollinearity problems appearing in this analysis.

Table 15 Result of Regression Analysis for the Effects of the Antecedent on Strategic Management Accounting Effectiveness (Resource Allocation Excellence)

Equation 5 Independent Variables	**Dependent Variables: Resource Allocation Excellence**				
	Unstandardized Coefficients		Standardized Coefficients	t-stat	p-value
	B	Std. Error	Beta		
(Constant)	-.145	.236		-.615	.540
Top Management Involvement (H7a)	.204	.086	.204	2.361	.020*
Enterprise Resource Planning Efficiency (H8a)	.134	.087	.134	1.541	.126
Interdepartmental Communications (H9a)	.245	.087	.245	2.832	.005**
Market Dynamics (H10a)	-.014	.087	-.014	-.166	.868
Firm age	-.085	.266	-.029	-.321	.749
Firm size	.478	.182	.239	2.620	.010**
Adjusted R^2	**0.128**				
Prob.	**0.00**				
F-test	**3.868**				
Maximum VIF	**1.122**				

** p<0.01, * p<0.05

Table 16 Result of Regression Analysis for the Effects of the Antecedent on Strategic Management Accounting Effectiveness (Resource Allocation Excellence)

Equation 6 Independent Variables	**Dependent Variables: Managerial Information Reliability**				
	Unstandardized Coefficients		Standardized Coefficients	t-stat	p-value
	B	Std. Error	Beta		
(Constant)	-.228	.220		-1.035	.303
Top Management Involvement (H7a)	.348	.081	.374	4.294	.000**
Enterprise Resource Planning Efficiency (H8a)	-.005	.082	-.005	-.060	.952
Interdepartmental Communications (H9a)	.102	.082	.109	1.252	.213
Market Dynamics (H10a)	.117	.082	.125	1.429	.156
Firm age	.372	.250	.138	1.487	.140
Firm size	-.067	.173	-.036	-.386	.700
Adjusted R^2	**0.136**				
Prob.	**0.00**				
F-test	**3.979**				
Maximum VIF	**1.128**				

** p<0.01, * p<0.05

Table 17 Result of Regression Analysis for the Effects of the Antecedent on Strategic Management Accounting Effectiveness (Cost-Benefit Quality)

Equation 7 Independent Variables	**Dependent Variables: Cost-Benefit Quality**				
	Unstandardized Coefficients		Standardized Coefficients	t-stat	p-value
	B	Std. Error	Beta		
(Constant)	.079	.222		.356	.722
Top Management Involvement (H7a)	.246	.087	.256	2.842	.005**
Enterprise Resource Planning Efficiency (H8a)	-.073	.083	-.079	-.882	.380
Interdepartmental Communications (H9a)	.027	.082	.030	.332	.740
Market Dynamics (H10a)	.231	.083	.250	2.779	.006**
Firm age	-.183	.253	-.069	-.722	.472
Firm size	.098	.176	.053	.556	.579
Adjusted R^2	**0.088**				
Prob.	**0.01**				
F-test	**2.834**				
Maximum VIF	**1.140**				

** p<0.01, * p<0.05

Table 18 Result of Regression Analysis for the Effects of the Antecedent on Strategic Management Accounting Effectiveness (Mastering Strategic Management)

Equation 8 Independent Variables	**Dependent Variables: Mastering Strategic Management**				
	Unstandardized Coefficients		Standardized Coefficients	t-stat	p-value
	B	Std. Error	Beta		
(Constant)	.023	.224		.104	.917
Top Management Involvement (H7a)	.240	.082	.261	2.914	.004**
Enterprise Resource Planning Efficiency (H8a)	.237	.081	.261	2.905	.004**
Interdepartmental Communications (H9a)	-.071	.082	-.078	-.865	.389
Market Dynamics (H10a)	.108	.082	.118	1.313	.192
Firm age	-.124	.254	-.046	-.490	.625
Firm size	.180	.173	.098	1.041	.300
Adjusted R^2	**0.112**				
Prob.	**0.00**				
F-test	**3.325**				
Maximum VIF	**1.119**				

** p<0.01, * p<0.05

There are significant relationships among the antecedents of strategic management accounting effectiveness (namely, top management involvement, enterprise resource planning efficiency, interdepartmental communications, and market dynamics) and four dimensions of strategic management accounting effectiveness.

The results of the OLS regression analysis are described in Tables 15-18 as follows. Firstly, the results also show that top management involvement (the first antecedent) has significant positive effects on all dimensions of strategic management accounting effectiveness: resource allocation excellence (β_{23} = 0.204, $p < .05$), managerial information reliability (β_{29} = 0.374, $p < .01$), cost-benefit quality (β_{35} = 0.256, $p < .01$), and mastering strategic management (β_{41} = 0.261, $p < .01$). Prior research has indicated that top management involvement is a key factor affecting strategic management accounting effectiveness (Iden & Eikebrokk, 2015; Tzempelikos, 2015).

Top management involvement which refers to the practice of management to encourage and motivate employees to recognize and understand the pathway in an organizational mechanism as to strategic management accounting effectiveness and organizational goal achievement such as that which includes resource allocation excellence, managerial information reliability, cost-benefit quality, and mastering strategic management (Raymond & Poon, 2013). Top management involvement to assure needed resources were provided (Olson, 2004). In addition, roles of top management involvement and organizational project management are an essential part to resource allocation excellence (Hyvari, 2016).

A key factor for enabling greater managerial information reliability success is top management involvement. This empirical evidence confirms the theoretical framework that to maximize quality of managerial information reliability requires top management involvement (Avison & G., 2006; Gil & Hartmann, 2007). Top management involvement which fosters a positive attitude towards managerial information reliability can build a powerful coalition group to develop a vision that is aligned to the corporate strategy. Top management involvement for managerial information reliability is to provide the main resources of financial and human resources (Palvia, 2003). Top management involves and provides for adequate financial, material and human resources for managerial information reliability (Boonstra, 2013). This result can be interpreted that top management involvement plays an important role to realize the quality of managerial information reliability.

Top management involvement is one of the most critical factors for implementation of cost-benefit quality (Awan, Ahmad, & Sparks, 2009). Consistent with Ahmed (2017), it is supported that top management involvement had a strong direct effect on cost-benefit quality. Top management involvement should provide support, authority, financial backing, and resources of cost-benefit quality for the successful accomplishment of projects (Ahmed, 2017). Cost-benefit quality cannot be improved without an excellent or good level of involvement from top management (Young & Poon, 2013). Therefore, effective strategic management accounting implementation requires top management involvement (Zupancic, 2008).

Active involvement from top management is considered as one of the most important elements of mastering strategic management implementation and is necessary for mastering strategic management success (Davies & Ryals, 2009). Tzempelikos (2015) argues that "top management involvement is the most critical indicator of success". In addition, top management should affirm the importance of the mastering strategic management programmed as a major strategic orientation for the firm value. However, top management involvement should be "multifaceted" and decision-making is but one of its numerous roles. Effective mastering strategic management requires both top management commitment and involvement. This is because mastering strategic management relationships are inevitably going to be based on behaviors that derive from the attitudes of the organization (Tzempelikos, 2015).

There is simply no way for top management involvement to accomplish a strategic transformation without getting deeply engaged in project management. Moreover, both top management involvement and organizational project management have emphasized the importance of communication, because nowadays changes in environment and other focus areas require a fast response (Hyvari, 2016). However, one key role of top management is participation in decision-making (Young & Poon, 2013). Therefore, it can be concluded that top management involvement in a positive direction, which in turn impact resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management in a positive direction. **Thus, Hypotheses 7a, 7b, 7c, and 7d are supported.**

Secondly, the results demonstrate a positive and significant relationship between enterprise resource planning efficiency (the second antecedent) and mastering strategic management ($\beta_{42} = 0.261$, $p < .01$). It can be seen that firms with more enterprise resource planning efficiency will be increasingly mastering strategic management.

Enterprise resource planning efficiency enables organizations to integrate business processes and functions, and they can supply managers with real time information. Enterprise resource planning systems efficiency are, in fact, operational information technology systems enabling management to have sufficient and timely data on hand for analysis purposes (Yahia, 2010). Enterprise resource planning efficiency is already considered a ‘classic’ imperative within big companies, which is a very important condition for maintaining sustainable mastering strategic management. According to Fiaz, Ikram, & Ilyas (2018), enterprise resource planning efficiency is the most preferable in decision-making processes in management. Therefore, it can be concluded that enterprise resource planning efficiency is a positive direction, which in turn, impacts mastering strategic management in a positive direction. **Thus, Hypothesis 8d is supported.**

However, the interesting aspect of this finding are the non-significant results in the relationships among enterprise resource planning efficiency and the three dimensions of strategic management accounting effectiveness: resource allocation excellence ($\beta_{24} = 0.134$, $p > .05$), managerial information reliability ($\beta_{30} = -0.005$, $p > .05$), and cost-benefit quality ($\beta_{36} = -0.079$, $p > .05$). This evidence shows that enterprise resource planning efficiency did not increase resource allocation excellence, managerial information reliability, and cost-benefit quality.

This conclusion is in line with that of Nemati (2013) who held that enterprise resource planning efficiency may not support resource allocation excellence. In addition, consistent with Syida, Suhaimi, & Nawawi (2016), it was stated that enterprise resource planning efficiency can allow the information to be easily accessed, and further, it can pose the risk of fraud and unauthorized transactions. Also, enterprise resource planning efficiency may change accountants’ roles, but the strategic management accounting techniques do not change. However, such a system has not brought any changes to the informal control system because the culture of respecting others exists whether the resource planning efficiency is implemented or not (Soewarno & Isnalita, 2018). However, several issues still need to be resolved as the process of implementing resource planning efficiency is not an easy task for resource allocation excellence (Syida et al., 2016). Strategic management accounting effectiveness (such as resource allocation excellence) obtained from the system certainly improves as more detailed and accurate data can be obtained faster without changing the techniques. The basic function of strategic management accounting is to help the management to make decisions. There is no fixed structure or format for it.

This is consistent with prior studies which suggest that enterprise resource planning efficiency has no relationship with managerial information reliability; the possible reason for this is that although firms believe enterprise resource planning efficiency will help strategic management accounting effectiveness in a dynamic environment, firms may not apply and utilize communication techniques, or working methods of technology to match with the firms' strategy. In addition, Mercader et al. (2006), demonstrated that enterprise resource planning efficiency cannot be achieved without process, rule and habits where sharing and collaboration play key roles. Similarly,, each enterprise resource planning package uses a business model as an underlying framework and these models can differ in terms of how they operate (Costa et al., 2016). Understanding and being able to communicate this new process blueprint and how it differs from the old way of working is a huge challenge for managers going through an enterprise resource planning implementation. Also, there is a wealth of managerial information that is reliability important for decision-making, which lies outside the traditional enterprise resource planning efficiency boundaries (Stefanou, 2001).

This is consistent with Walczuch, Lemmink, & Streukens (2007) who presented that the executives are aware of enterprise resource planning efficiency, which result can complicate the improvement of the working system (i.e. budgeting, controlling project costs, controlling operational systems costs and charging). Importantly, managers' attitudes may have an influence on the allocation of new enterprise resource planning, and those managers may even refuse to learn and to change. However, it is not available in all of its functions (Kim et al., 2009). It is also complex to run, especially the cost-benefit quality (Moorthy, Mohamed, Gopalan, & San, 2011). According to Zoysa & Herath (2007), it is suggested that enterprise resource planning efficiency has no relationship with cost-benefit quality and the empirical data indicates that many companies are still using standard costing while changing their technology. Therefore, enterprise resource planning efficiency has no relationship with strategic management accounting effectiveness. **Thus, Hypotheses 8a, 8b, and 8c are not supported.**

Thirdly, the findings demonstrate that interdepartmental communications (the third antecedent) has significant, positive effects on one dimension of strategic management accounting effectiveness, that is, resource allocation excellence ($\beta 25 = 0.245$, $p < .01$). This is consistent with the work of Gondal et al. (2012) who found that effective interdepartmental communication is also considered as an essential and key contributor to carry out organizations' resource allocation excellence. It is an organizational process that provides contact and information exchange between a departmental organization and an organization's environment for the purpose of the operation of an organization and accomplishment of the organization's objective" (Gondal et al., 2012). According to Kalla (2005), it is stated that "all formal and informal communication is taking place internally at all levels of an organization." Interdepartmental communication among different functions of the departments allows the organizations to attain the set organizational goals (Mehmet & Hasan, 2011). In addition, Rajala (2011) found that less successful companies had little interdepartmental communication and that successful managers relied on interdepartmental communication. Therefore, a well-designed and effective communication system is essential for adapting organizational and resource allocation excellence, and also for sharing the necessary information inside and outside of the organization. **Therefore, Hypotheses 9a is supported.**

On the other hand, the finding also shows a non-significant result between interdepartmental communications and managerial information reliability ($\beta_{31} = 0.109$, $p > .05$), cost-benefit quality ($\beta_{37} = 0.030$, $p > .05$), and mastering strategic management ($\beta_{43} = -0.078$, $p > .05$). These results do not find any effect of interdepartmental communications on managerial information reliability, cost-benefit quality, and mastering strategic management.

On the other hand, ineffective interdepartmental communications might lead to many negative workplace outcomes such as anxiety, workplace frustration, little conviction, managerial information reliability, cost-benefit quality and mastering strategic management (Gondal et al., 2012; Agarwal., 2009; Spitzer & Swidler, 2003). Moreover, literature shows that extreme anxiety and pressure resulting from the contemporary world, results in enhanced harmful interdepartmental communications such as: condemnation, shouting, autocracy, and clashes (Gondal et al., 2012). In addition, consistent with Mothiba & Cur, (2008), interdepartmental communication was found necessary between health professionals in a hospital. The problems resulted from the lack of proper report-giving about patient care, so that the next health professional could able to provide relevant patient care informed by the report given. The planning process, together with the guidelines for effective communication, will provide the foundation for the entire managerial information reliability which may have broader implications and applications for the listed firms. This is consistent with prior studies which suggest that interdepartmental communications have no relationship with cost-benefit quality (Cuijpers et al., 2011). The cause may be due to information overload from multi-dimensional interdepartmental communications (Cuijpers et al., 2011). The potential drawbacks from interdepartmental communications diversity are that it would increase the system. Far too often, standard operating procedures fail to include any sort of interdepartmental communication. In addition, consistent with Pärl (2012), the reasons for this unanticipated finding may be related to the development and design of interdepartmental communications (not enough time, no convenient way to communicate, physical separation of departments, and possibly even animosity) which cannot directly be influenced by cost-benefit quality.

One of the major reasons today that organizations fail is due to the lack of internal coherence and proper communication systems among various departments. Interdepartmental communication breakdowns can have a severe impact on the efficiency of an organization and increases the stress level among employees, ultimately resulting in poor performance (Gondal et al., 2012). Consistent with

(Chabane & Larsson, 2015) there are distances between interdepartmental communications and mastering strategic management. This is because of the lack of a clear link between information that is sent to employees and what they are supposed to understand from it. Contrarious and inconsistent interests between the line function and the staff function is another common conflict that happens when individuals and units have different goals for the organization’s business (Cuijpers et al., 2011). It is, therefore, possible that interdepartmental communications do not appear to affect managerial information reliability, cost-benefit quality, and mastering strategic management in this research. **Thus, Hypotheses 9b, 9c, and 9d are not supported.**

Finally, the finding shows that market dynamics (the fourth antecedent) has positive significant effects on cost-benefit quality (β_{38} = 0.250, $p < .01$). These results mean that higher market dynamics has affected more cost-benefit quality. Previous studies argue that market dynamics can result in better company performance and reduce agency problems (Liao et al., 2016). According to the contingency theory, the firms faced with intense market dynamics are more focused on a strategy approach that is consistent with the external environment. Although the previous study has shown market dynamics (including competitive change, consumer trends, regulatory and legal issues, pricing trends, politics, risk management and increasing competition), these are a motivation for the development of strategic management accounting (Qian, Burritt & Monroe, 2011). These factors have an influence in the design of increasing cost-benefit quality (Baines & Langfield-Smith, 2003). Similarly, it was found that external expectation pressure from ownership and customer pressure influences cost-benefit quality (Darus, Mad, & Nejati, 2015). The contingence theory has supported that the management concepts that executives will hold, depend on the situation and the characteristics of the external environment that affect the operation of the organization. **Therefore, Hypotheses 10c is supported.**

Interestingly, market dynamics has no significant effects on resource allocation excellence (β_{26} = -0.014, $p > .05$), managerial information reliability (β_{32} = 0.125, $p > .05$), and mastering strategic management (β_{44} = 0.118, $p > .05$). The possible explanation is that the impact of competitive change on firm value has had importance in recent years, because highly competitive change leads to unpredictable external situations (Seo & Chae, 2016).

Consistent with Sajtos, Storbacka, Nenonen & Kjellberg (2014), it was found that a change in market dynamics does not affect the ability of resource allocation excellence. Market dynamism is fundamentally characterized as volatility and unpredictability (Seo & Chae, 2016). However, operating under market dynamics requires a decision by the company's management. So, if a decision is an important time to recognize the contributions of employees in this situation, they may not be interested (Bloch, 2012). Complying with (Seo & Chae, 2016), it was found that the uncertainty of market dynamics does not support the implementation of resource allocation excellence. In addition, the essential factors of describing market dynamism are rapid changes in technologies, changes in market structure, the instability of market demand, intense fluctuations in supply of materials, and the probability of market shocks (Hamilton, 2011). In addition, firms are required to improve and modify their products and services with innovation continuously to meet customers' needs in high market dynamism.

As the level of market dynamism is relatively high, firms are faced with unpredictable environments characterized by rapid technological changes, intense fluctuations in customer demand, and the instability of market structure that may not directly affect managerial information reliability (Dias et al., 2017). In the context of high dynamic market, firms are required to scan emergent customer preferences, expands the boundary of managerial information reliability and develop adaptive quick responses so that they can deal with the customers' needs properly and cope with turbulent market situations to remain competitive (Donkor et al., 2018). This may imply that market dynamics cannot help firms to have environmental identification efficiency orientation because market dynamics are inadequate for managerial information reliability (Seo & Chae, 2016). Managerial information reliability depends on several factors including skills, perspectives, and behaviors of employees for effective environmental operations (Pagalung, 2016).

Moreover, a business organization often operates in an industrial environment by hyper-competition. In this situation, the business organization must intimately estimate the competitive signals sent out by competitors and gather data for planning, so as to protect and maintain competitive positions (Chen, Tribbitt, Yang & Li, 2017). Thus, these firms usually suffered from these external uncertainty caused by highly dynamic market environments, which made it more difficult to predict future market situations, plan and organize their resources, and respond with market dynamics and mastering strategic management (Donkor et al., 2018). Likewise, competitive change environment includes competitive change, consumer trends, regulatory and legal issues, pricing trends, politics, risk management and increasing competition and distribution (Dias et al., 2017). However, uncertain perception and the complex environment lead to motivate one to develop new operational strategies (Donkor et al., 2018). Thus, it is possible that in the current situation, a firm focused on strategy respond to the sensitivity of the market more than by the use of strategic management accounting. **Thus, Hypotheses 10a, 10b, and 10d are not supported.**

For the control variables, the results indicate that firm age has no statistically significant effects on resource allocation excellence (β_{28}= -0.029, $p > .05$), managerial information reliability (β_{34}= 0.138, $p > .05$), and cost-benefit quality (β_{40}= -0.069, $p > .05$), and mastering strategic management (β_{46}= -0.046, $p > .05$). It interprets that the firm age does not influence resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management.

Lastly, the results indicate that firm size has a significant and negative relationship with resource allocation excellence (β_{27} = .239, $p < .01$), it implies that resource allocation excellence is affected by the influence of firm size. In conclusion, firm size has a significant effect on resource allocation excellence. Conversely, there are no significant relationships between firm size and managerial information reliability (β_{33} = -.036, $P > .05$), cost-benefit quality (β_{39} = .053, $p > .05$), and continuous organizational improvement investment (β_{45} = .098, $p > .05$). Hence, any firm size has no significant different effect on managerial information reliability, cost-benefit quality and mastering strategic management.

Summary

In this chapter, descriptive statistics for respondent characteristics and sample characteristics were reported. The multiple regression analysis and specific correlation analysis were used to test the hypotheses developed in the study, as well as to investigate the relationships among the variables. The results revealed that all dimensions of strategic management accounting effectiveness (resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management) have a strong and positive impact on all its consequences (operational efficiency, advantages of management and firm value). In addition, operational efficiency and advantages of management have a strong, positive impact on firm value.

In the antecedent factors, top management involvement is the majority influential determinants of four dimensions of strategic management accounting effectiveness. Meanwhile, enterprise resource planning efficiency has strong, positive effects on mastering strategic management. In addition, interdepartmental communications have strong, positive and significant effects on resource allocation excellence. Further, proactive market dynamics has a strong, positive effect only on cost-benefit quality.

In conclusion, Hypotheses 1, 2, 3, 4, 6, and 7 are supported; and Hypotheses 8, 9, and 10 are partially supported. The summary of the hypotheses testing results is shown in Table 19 and figure 8.

The next chapter shows the conclusions of the research. It provides an overall view of research and summarizes the main point of this research. Additionally, it provides the limitations of this research and future research suggestions.

Table 19 Summary of the Results of Hypotheses Testing

Hypotheses	Description of Hypothesized Relationships	Results
H1a	Resource allocation excellence will positively relate to operational efficiency.	Supported
H1b	Resource allocation excellence will positively relate to advantages of management.	Supported
H1c	Resource allocation excellence will positively relate to firm value.	Supported
H2a	Managerial information reliability will positively relate to operational efficiency.	Supported
H2b	Managerial information reliability will positively relate to advantages of management.	Supported
H2c	Managerial information reliability will positively relate to firm value.	Supported
H3a	Cost-benefit quality will positively relate to operational efficiency.	Supported
H3b	Cost-benefit quality will positively relate to advantages of management.	Supported
H3c	Cost-benefit quality will positively relate to firm value.	Supported
H4a	Mastering strategic management will positively relate to operational efficiency.	Supported
H4b	Mastering strategic management will positively relate to advantages of management.	Supported
H4c	Mastering strategic management will positively relate to firm value.	Supported
H5	Operational efficiency will positively relate to firm value.	Supported
H6	Advantages of management will positively relate to firm value.	Supported
H7a	Top management involvement will positively relate to resource allocation excellence.	Supported

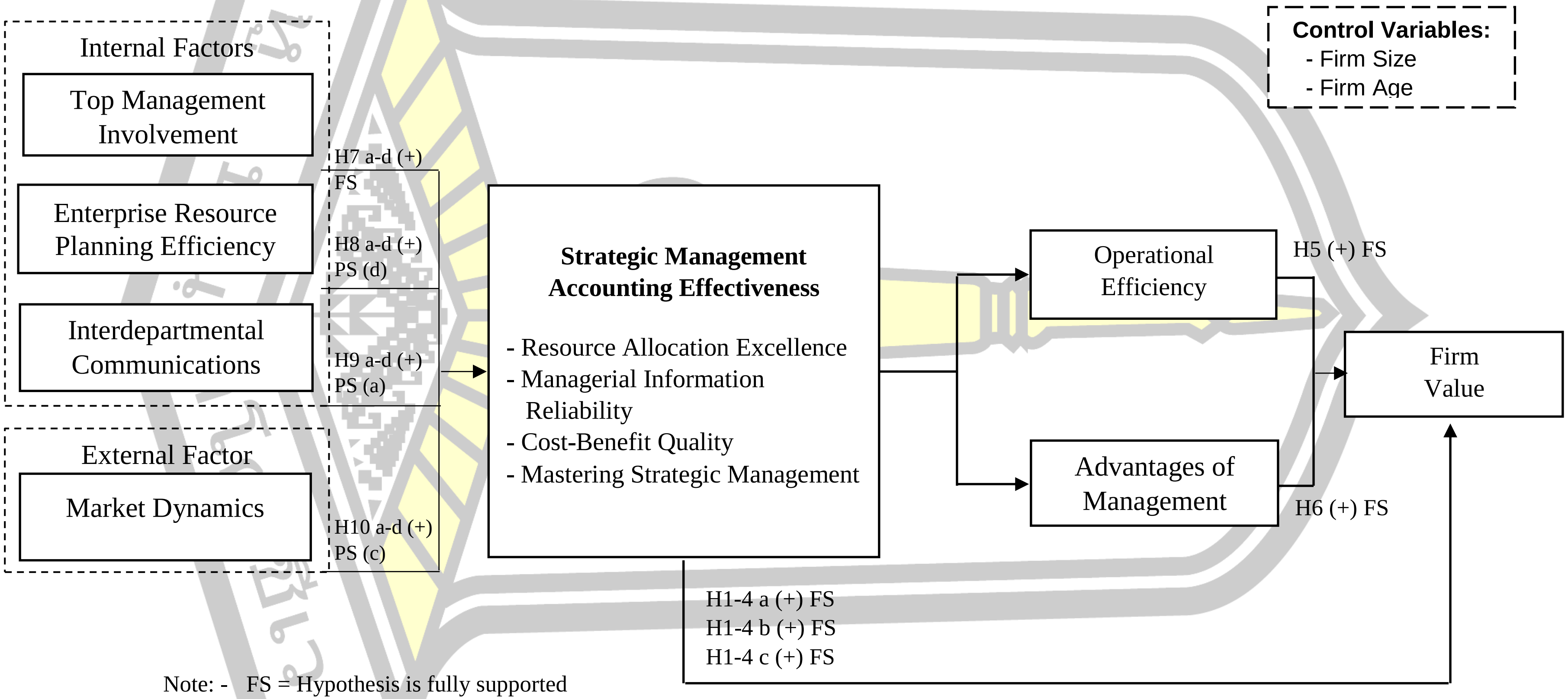
Table 19 Summary of the Results of Hypotheses Testing (continued)

Hypotheses	**Description of Hypothesized Relationships**	**Results**
H7b	Top management involvement will positively relate to managerial information reliability.	Supported
H7c	Top management involvement will positively relate to cost-benefit quality.	Supported
H7d	Top management involvement will positively relate to mastering strategic management.	Supported
H8 a	Enterprise resource planning efficiency will positively relate to resource allocation excellence.	Not Supported
H8 b	Enterprise resource planning efficiency will positively relate to managerial information reliability.	Not Supported
H8 c	Enterprise resource planning efficiency will positively relate to cost-benefit quality.	Not Supported
H8 d	Enterprise resource planning efficiency will positively relate to mastering strategic management.	Supported
H9 a	Interdepartmental communications will positively relate to resource allocation excellence.	Supported
H9 b	Interdepartmental communications will positively relate to managerial information reliability.	Not Supported
H9 c	Interdepartmental communications will positively relate to cost-benefit quality.	Not Supported
H9 d	Interdepartmental communications will positively relate to mastering strategic management.	Not Supported
H10 a	Market dynamics will positively relate to resource allocation excellence.	Not Supported
H10 b	Market dynamics will positively relate to managerial information reliability.	Not Supported

Table 19 Summary of the Results of Hypotheses Testing (continued)

Hypotheses	**Description of Hypothesized Relationships**	**Results**
H10 c	Market dynamics will positively relate to cost-benefit quality.	Supported
H10 d	Market dynamics will positively relate to mastering strategic management.	Not Supported

Figure 8 Summary of Results in the Relationships of the Conceptual Model



Note: - FS = Hypothesis is fully supported

PS = Hypothesis is partially supported (identify in parentheses)

NS = Hypothesis is not supported

CHAPTER V

DISCUSSION AND CONCLUSION

The prior chapter illustrates the characteristics of the key informants and organizations, descriptive statistics, a correlation matrix, and hypotheses testing. In order to summarize comprehensive discovery, this chapter initially highlights the conclusion according to the research content, including the completion of all hypotheses' outcomes provided in the figure format. This chapter provides the overview of all findings, including the summary of the findings and hypothesis testing, contributions to the theoretical knowledge and also a contribution to practice, research limitations, and further research that could be extended.

Discussion and Conclusion

The discussion and conclusion of this research as to the existing body of knowledge in the strategic management accounting effectiveness area are discussed below.

Discussion

In discussing the findings from this study, three core steps are taken: first, the findings are flagged; second the results are explained to pinpoint similarities or contrasts with previous research; and third the theoretical explanation of the findings is undertaken. The discussion of the findings from this study will be organized along hypothetical definitions for this study, as mentioned earlier. Following the sociomaterialism perspective related to strategic management accounting practices in the dynamic capability theory, this research used the initial work conducted by Simons (1987) to develop the construct of strategic management accounting effectiveness. This research investigated how dynamic capability development can be affected by each dimension of strategic management accounting effectiveness (resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management), in the context of operational efficiency, advantages of management and firm value. As Teece et al. (1997) also suggested, effective management of resources is important to create value from resources and capabilities. Dynamic resources help a firm adapt its resource mix and thereby maintain the sustainability of the firm's competitive advantage, which otherwise might be quickly eroded. The argument is that because some resources can be specific to firms and are not easily imitated, firms differ in terms of their resource base.

Consistent with previous research, connectivity and compatibility under strategic organizational, is positively related to strategic management accounting effectiveness and firm value as well as the strategic management accounting efficiency from organizational practices and sustainable competitive advantage (Dashtbayaz, Mohammadi, & Mohammadi, 2014; Dheseviano & Egbunike, 2018; Rostami, 2015; Ahmad & Zabri, 2016; Angelakis et al., 2015). The dynamic capability approach also suggests that strategic management accounting practices infused in organizational capabilities can help organizations to renew; and sustainable competitive advantage is the key to business success (Nimtrakoon, 2009; Novianty, 2015)

This study's results support the assumption that the construct of strategic management accounting effectiveness, including resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management are positively associated with operational efficiency, advantages of management, and firm value. The findings of this research show that each dimension of strategic management accounting effectiveness has a significant association with operational efficiency, advantages of management, and firm value. This finding is consistent with the existing literature and with the dynamic capability theory. Even though this research collected data from large firms, the findings can be used in other contexts as well. This is because the dynamic capability view has the element of reconfiguration of capabilities according to the environmental change (Teece, 2016)

Secondly, this research address operational efficiency and advantages of management as the mediators of strategic management accounting effectiveness and firm value in the contingency theory. The contingency theory explains that there is no best way to organize a corporation, to lead a firm, or to make decisions. Therefore, an organization which is effective in some situations may not be successful in others (Fiedler, 1964). This research has investigated how the development of the contingency theory can be affected by operational efficiency and advantages of management in the context of firm value. Originally, the contingency theory as a framework of organizational control, is based on factors which may occur and that cannot be controlled (Amara & Benelifa, 2017). Management accounting practices support to managers, management goals, and the organizational objectives (Ojra, 2014). Likewise, the best way to manage any firm depends on the nature of the environment to which the firms must relate. Thus, an organization that is effective in some situations may not be successful in others, depending on the internal and external situations (Sherine & McLellan, 2013).

This study's results support the assumption that operational efficiency and advantages of management are positively associated with firm value. The findings of this research show that operational efficiency and advantages of management have the strongest association with firm value. This finding is consistent with the existing literature and with the contingency theory.

Finally, this research investigated how dynamic capability development can be influenced by top management involvement, enterprise resource planning efficiency, interdepartmental communications and market dynamics as the antecedents of the dimension of strategic management accounting effectiveness in the same model. These results support the assumption that top management involvement is positively associated with each dimension of strategic management accounting effectiveness. These results also support the assumption that enterprise resource planning efficiency, interdepartmental communications and market dynamics are partially supported with each dimension of strategic management accounting effectiveness.

Conclusion

This research investigates the relationships among each dimension of strategic management accounting effectiveness, operational efficiency, advantages of management and firm value in the context of Thai-listed firms. The proposed dimensions of strategic management accounting effectiveness are comprised of resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management. In addition, top management involvement, enterprise resource planning efficiency, interdepartmental communications, and market dynamics are designed as the antecedents of strategic management accounting effectiveness.

The key research question of this study is “how do the four dimensions of strategic management accounting effectiveness have an influence on operational efficiency, advantages of management and firm value?” In details, there are four specific research questions as follows: 1) How does each dimension of strategic management accounting effectiveness affect operational efficiency, advantages of management and firm value? 2) How do operational efficiency and advantages of management affect firm value? 3) How do top management involvement, enterprise resource planning efficiency, interdepartmental communications, market dynamics have an influence on strategic management accounting effectiveness?

The key objective of this research is to examine the relationship between strategic management accounting effectiveness which are four dimensions (including resource allocation excellence, managerial information reliability, cost-benefit quality, mastering strategic management) and firm value. In addition, the specific research objectives are as follows: 1) to investigate the effects of the four dimensions of between strategic management accounting effectiveness (resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management) on operational efficiency, advantages of management and firm value; 2) to investigate the relationships between operational efficiency and advantages of management on firm value; 3) and to study the relationships among top management involvement, enterprise resource planning efficiency, interdepartmental communications, market dynamics, and each dimension of strategic management accounting effectiveness.

In this research, two theories were integrated in explaining the relationship and phenomena that are found in the research; namely, the dynamic capability theory and contingency theory. Firstly, the contingency theory is applied to explain the relationships between all antecedents of strategic management accounting effectiveness and each dimension of strategic management accounting effectiveness, as well as the degree of social exchange which influences strategic management accounting effectiveness. Secondly, the diffusion of dynamic capability theory is applied to explain the relationships of strategic management accounting effectiveness (resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management) on operational efficiency, advantages of management and firm value.

The population of this investigation was selected from the database of the Stock Exchange of Thailand on its website, http://www.set.or.th. As of December 31, 2017. Data were collected by mail questionnaire, and 538 questionnaires were sent to the accounting executive (e.g., accounting director, accounting manager, and chief accountant) as the key informant. The mail survey resulted in a 22.31% response rate. For statistical analysis, multiple regression analysis is used to analyze the data. Besides, the research instrument was developed from previous research and literature reviews. To evaluate, all measures of the scale are considered appropriate for further analysis and are accepted for validity and reliability via a pre-test. Statistics used in this research were applied to multiple regression analysis for hypothesis testing.

According to the first research question, the results found that resource allocation excellence has a positive influence on operational efficiency, advantages of management and firm value. Managerial information reliability has a positive influence on operational efficiency, advantages of management and firm value. Furthermore, cost-benefit quality has a positive influence on operational efficiency, advantages of management and firm value. Moreover, mastering strategic management has a positive influence on operational efficiency, advantages of management and firm value.

In the second research question, the results found that operational efficiency, and advantages of management have a positive influence on firm value.

The findings according to the third research question found that top management involvement has a positive effect on resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management. Next, enterprise resource planning efficiency has a positive effect on mastering strategic management. Also, interdepartmental communications has a positive effect on resource allocation excellence. In addition, market dynamics has a significantly positive effect on cost-benefit quality. In summary, the results are concluded and provided in Table 20.

Table 20 Summary of Results in All Research Questions

Research Questions	Hypotheses	Results	Conclusions
Specific Research Question (1) How do the four dimensions of strategic management accounting effectiveness have an influence on operational efficiency, advantages of management and firm value?	H51a-c H2a-c H3a-c H4a-c	- Resource allocation excellence has positive effects on operational efficiency, advantages of management and firm value. - Managerial information reliability has strong positive effects on operational efficiency, advantages of management and firm value. - Cost-benefit quality has strong positive effects on operational efficiency, advantages of management and firm value. - Mastering strategic management has strong positive effects on operational efficiency, advantages of management and firm value.	Fully Supported

Table 20 Summary of Results in All Research Questions (Continued)

Research Questions	**Hypotheses**	**Results**	**Conclusions**
(2) How do operational efficiency and advantages of management affect firm value?	H5-6	- Operational efficiency and advantages of management has positive effects to firm value.	Fully Supported
(3) How do top management involvement, enterprise resource planning efficiency, interdepartmental communications, market dynamics have an influence on strategic management accounting effectiveness?	H7 a-d H8 a-d H9 a-d H10 a-d	- Top management involvement has positive influences on resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management. - Enterprise resource planning efficiency has positive influences on mastering strategic management. - Interdepartmental communications has positive influences on resource allocation excellence. - Market dynamics has positive influences on cost-benefit quality.	Partially supported

Theoretical and Managerial Contributions

According to the result of this research, the main contributions suggest that strategic management accounting effectiveness has an important role in increasing the firm value of Thai-listed firms. It can fulfill the gap in management literature by introducing strategic management accounting effectiveness under the dynamic capability and contingency theories, and suggests the appropriate dimensions to enhance the strategic management accounting capability of a firm. Thus, this research shows the details of both theoretical and managerial contributions as follows:

<u>Theoretical Contribution</u>

Previous research has suggested that while improving the sustainability strategy in regards to the implementation process, managers should carefully identify and measure key performance drivers in and among the various inputs and complex processes of business. This research aims to understand relationship between strategic management accounting effectiveness and firm value. It employs theoretical frameworks based on the dynamic capability for explaining firms' abilities to use strategic management accounting for operations to improve firms' competitive advantages and value. This research provides the following contributions. First, a conceptual framework tests four dimensions of strategic management accounting effectiveness and its relationship with its consequences. The findings suggest that four dimensions of strategic management accounting effectiveness are firms' capabilities, and valuable resources in that they enhance firms' competitive advantages.

This research provides further understanding of how firms can utilize strategic management accounting effectiveness dimensions (resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management) in their operations to create competitive advantages over other firms. Secondly, this research finds that operational efficiency and advantages of management influences firm value. The results shed light on mediating variables as operational efficiency and advantages of management which are based on the dynamic capability concept that enhances firms' values through firms' capabilities to use strategic management accounting that link to operations. Thus, the findings of this research expand the existing theory of dynamic capability in that it helps to explain better competitive advantages and enables a firm to attain superior performance.

Furthermore, the contingency theory is employed to explain strategic management accounting effectiveness in the area of the concern of influence factors which affect strategic management accounting effectiveness. Firstly, the contingency theory explains that organizations often find the best way to generate efficient work. For this reason, internal and external factors are important. Therefore, in this research, the contingency theory is used to describe the internal factors (top management involvement, enterprise resource planning efficiency, interdepartmental communications) and external factors (market dynamics). This is because the characteristics of strategic management accounting effectiveness are dynamic and continuous organizational development. Therefore, the optimal course of action is contingent (dependent) upon the internal and external situation. A contingent leader effectively applies their own style of leadership to the right situation. For the aforementioned reasons, the contingency theory is used to explain the relationship of antecedent variables and the strategic management accounting effectiveness variable in this research.

Managerial Contribution

The results of this research contribute to providing helpful insights and useful guidelines to develop strategic management accounting practices in order to help the organization to achieve competitive advantage and firm value under the constantly changing business environment, which it is difficult to predict future events. The results suggest that the organization can grow in a dynamic business environment by achieving two key performance efficiencies: operational efficiency and advantages of management. This outcome can be achieved when the organization focuses on developing strategic management accounting effectiveness with the ability to resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management. These competencies of strategic management accounting effectiveness would allow decision makers to gain sufficient information in choosing the best way for operations and would have a positive impact on the value of the organizations. Especially, its four dimensions, including resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management, are important ways to continuously help the organization add value and performance. They assist the organization to evaluate its own potential and competitiveness to clearly determine its competitive position in the industry, as well as provide information that relates to cost in business, competitors' potentialities, and profitability of customers for planning and making the decision to set competitive strategy to respond to the market effectively that will help to achieve its goals and lead to long-term profitability. Therefore, in order to enhance strategic management accounting competency into dynamic capability and contribute to successful business outcomes, the organization should first develop a strategic management accounting system with an emphasis on strategic positioning analysis to analyze and access the potential and competitiveness that will help to set the clear direction and prominent operational plan in the industry. The organization can develop this practice by attention to the use of strategic accounting information to help analyze and synthesize the strengths, weaknesses, opportunities, obstacles, and the competitiveness of the organization in setting a strategic direction and business plan in a systematic and concrete way. Further, it commits to using accounting information for setting good practices and to allocate resources efficiently which will help achieve the goals and lead to longer-term profitability.

Moreover, with regard to the results of the antecedents of strategic management accounting effectiveness, these indicate that strategic management accounting effectiveness can be established from top management involvement, enterprise resource planning efficiency, interdepartmental communications, and market dynamics. Therefore, the finding suggests that top management involvement should focus on strategic management accounting effectiveness that leads to goals achievement. Besides, firms should concentrate on supporting accountants in regards to interdepartmental communications and other competencies in order to improve skills, abilities, and the accounting experience. Additionally, firms should be devoted to enterprise resource planning efficiency investment, including integration of skill and technology usage that continuously increases the ability of operations. Finally, firms should consider market dynamics situations that lead to the application of optimal strategies within organizations in order to increase cost-benefit quality.

Limitations and Future Research Directions

Limitations

Although the findings of this research have theoretical and managerial implications for strategic management accounting organizational researchers and accounting director, some care should be taken due to the limitations of this research.

The sample size of this research has samples of which the response rate of this research was based on a survey research accepted at 22.31%, but it has only 118 respondents, which is considered to be small. As a result, it may affect the analysis of the power of the statistical test so that the results of the hypotheses are also impacted. This bias restricted generalization of the findings and prevented further statistical analyses for this group but caution must also be exercised when generalizing from the results for large firms given the low response rate. However, data collection for large firms is difficult and therefore the limitation of low response rates cannot be avoided.

Future Research Directions

In this research, a major contribution is identifying the antecedent and consequences of strategic management accounting effectiveness. One major contribution of this present study is that it has enhanced the literature on the fact that companies are giving much more attention to strategic management accounting as a step towards organizing their strategic orientation. To enhance knowledge in this area, further studies using a robust qualitative or quantitative, or a combination of both, is necessary. Such studies should aim to highlight the direct, as well as the moderating/ mediating influence of these two factors in the usage of strategic management accounting and performance orientation of organizations.

As a result, future research may consider seeking organizational factors as the mediating effect to study the relationships between among four antecedents including: top management involvement, enterprise resource planning efficiency, interdepartmental communications, market dynamics and four dimensions of strategic management accounting effectiveness (resource allocation excellence, managerial information reliability, cost-benefit quality and mastering strategic management) and needs to re-investigate the research hypotheses that are not statistically significant. It is very interesting for future research.

Furthermore, this research uses only questionnaires for collecting data. Thus, future research may develop other methods which may be applied in the future such as in-depth interviews or case studies in order to fully understanding this construct measurement and confirm all relationships of this model. Finally, the result of this research is derived from one sample of Thai-listed firms. Thus, future research may collect data from different groups of the sample and/or comparative population in order to verify the ability to generalize the research and increase reliability.

Summary

This chapter has detailed the conclusion of the results on the effects of strategic management accounting effectiveness on firm value that is supported by the theoretical frameworks, including the dynamic capability theory and the contingency theory. The results of this research confirm that strategic management accounting effectiveness has a positive, influential impact on firm value through operational efficiency and advantages of management. Given this evidence, it can be seen that the research question is supported. However, there are both fully-supported and partially-supported hypotheses.

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APPENDICES

APPENDIX A

The Original Items

Table 1A: Original Items in Scales

Construct	Items
Resource Allocation Excellence (RAE)	
RAE1	The firm focuses on evaluating the value of personnel by calculating the cost and investment return in human resources in order to manage the benefits from human resource
RAE2	The firm focuses on the use of information technology appropriately to achieve excellent resource saving.
RAE3	The firm is determined to use machine data analysis techniques and equipment from strategic management accounts to maximize asset utilization worth the investment.
RAE4	The firm has the use of resources that are appropriate, appropriate and maximize the benefits to the business.
Managerial Information Reliability (MIR)	
MIR1	The firm is confident that the correct financial information helps the business to be able to use to efficiently manage financial resources.
MIR2	The firm is confident that providing management account information that is relevant will lead to accurate decisions.
MIR3	The firm focused on the development of reliable financial information, which will help to forecast future operating results are accurate.
MIR4	The firm is confident that the timely use of the managerial account information will help increase the efficiency of the decision.
MIR5	The firm believes that financial information is related to making decisions and lead to the best choice of operations to achieve the ultimate goal of firm.
Cost-Benefit Quality	
CBQ1	The firm concentrate on the cost-effectiveness and the value of limited resources by comparing benefits and costs of the project at the point where the benefit is equal to the cost of the project.
CBQ2	The firm believes that there are benefits assessments over the cost of resources required for investment in the project.
CBQ3	The firm focuses on investment risk analysis by using management accounting information in order to receive returns that are worth the investment.
CBQ4	The firm uses various techniques (such as break-even point, NPV, IRR) so that the investment in the project receives the expected return.

Table 1A: Original Items in Scales (Continued)

Construct	Items
Mastering Strategic Management (MSM)	
MSM1	The firm aims that the evaluate and follow-up of work continuously can to standards or service that is outstanding in the industry
MSM2	The entity has improved developing strategies for measuring performance (Balanced Scorecard) to work to targets that were set.
MSM3	The firm believes a good internal control can quality control of products or services to meet the standards and customers' expectations.
MSM4	The firm focuses on the use of Theory of Constraints in order to effectively solve problems of slow operations.
MSM5	The firm believes that using the Six Sigma strategy can help reduce the amount of waste or wastage that occurs in the production process.
Operational Efficiency (OPE)	
OPE1	The firm focuses on producing products or services that meet the standard timely, including delivering products to customers within a quick time.
OPE2	The firm engrosses to developing the potential and ability to operate in all aspects that are constantly increasing and different from competitors.
OPE3	The firm concentrates on delivering quality products or service to satisfaction customers.
OPE4	The firm emphasizes to continuously improved and developed its operations.
OPE5	The firm engrosses to operations with flexibility to achieve success in operations under uncertain situations.
Advantages of Management (AOM)	
AOM1	The firm is able to produce standardized products or services on time, including delivering products to customers within a fast time.
AOM2	The firm is able to develop operational potential in all areas that have always increased and different from competitors.
AOM3	The firm can deliver quality products or services. Always create satisfaction for customers.
AOM4	The firm can improve our products and services continuously.

Table 1A: Original Items in Scales (Continued)

Construct	Items
Firm Value (FIV)	
FIV1	The firm has the ability to produce profitability target and plans of the firm.
FIV2	The firm can generate various returns as expected.
FIV3	The firm is acceptance from stakeholders as being the most effective and efficient business operation.
FIV4	The firm focuses on quality of after sales services that is more outstanding than its competitors and has been accepted by customers.
FIV5	The firm has existed increase new customers comparing with previous operating.
Top Management Involvement (TMI)	
TMI1	Executives support the necessary resources, budget, and other facilities make the operation more efficient.
TMI2	Executives push on the development of strategic management accounting system make operate under various circumstances.
TMI3	Executives focus on applying new techniques and new methods of strategic management accounting always, it gives more useful information to decisions make.
TMI4	Executives focus on the nets emphasizes the creating experience for the employees in the organization in concrete form.
TMI5	Executive encourages employees to participate in policy setting and operating direction of business to generate common goal toward sustainable achievement.
Enterprise Resource Planning Efficiency (ERP)	
ERP1	The firm's enterprise resource planning system that can be accessed and run quickly to support the operation had achieved its goals.
ERP2	The firm's enterprise resource planning systems can be linked together, as well as enabled the Company to increase capacity to meet the competition is good.
ERP3	The firm has the integration of accounting information systems that that are linked to the internal use of the organization, making the data to be retrieved efficiently
ERP4	The firm has an efficient database storage system to support timely operations.
ERP5	The firm focused on the application of enterprise resource planning systems to enable operations to meet the goals.

Table 1A: Original Items in Scales (Continued)

Construct	Items
Interdepartmental Communications (INC)	
INC1	The firm to focuses on creating an atmosphere of interdepartmental communication for maximum efficiency in operations.
INC2	The firm to focuses on solving the problems of interdepartmental communication that will help the firm achieve excellent operational goals.
INC3	The firm concentrates on the vision of communication between the executives that are relevant to its operations even more efficient.
INC4	The business gives importance to interdepartmental communication with flexibility in communication to achieve communication success under uncertain situations.
INC5	The firm concentrates on using technology or new techniques in interdepartmental communication to facilitate and speed up interdepartmental communication.
Market Dynamics (MAD)	
MAD1	The firm focuses on and follows politics and government policies related to business operations in order to be able to adapt to changes that occur very well.
MAD2	Environment associated with business operations have more complex makes to firms must seek ways to manage risk to achieve maximize efficiency.
MAD3	The firm's committed to finding cheap resources of raw materials and replacement products to gain competitive advantages.
MAD4	Demand for customers has changed dramatically, so businesses have to continually improve and develop their strategies so that they can continue to respond to the needs of customers.
MAD5	Firm has followed up the operations of both new and old competitors in order to create a superior competitive strategy continuously.

APPENDIX B

Key Respondent Characteristics

Table B1 Key Respondent Characteristics

Descriptions	Categories	Frequencies	Percentage
1. Gender	Male	23	19.49
	Female	95	80.51
	Total	118	100
2. Age	Less than 35 years old	21	17.80
	35-40 years old	28	23.73
	41-45 years old	28	23.73
	More than 45 years old	41	34.75
	Total	118	100
3. Education levels	Bachelor's degree or lower	62	52.54
	Master's degree	53	44.92
	Doctoral Degree	3	2.54
	Total	118	100
4. Working experience	Less than 5 years	3	2.54
	5-10 years	23	19.49
	11-15 years	20	16.95
	More than 15 years	72	61.02
	Total	118	100
5. Average monthly income	Less than 100,000 Baht	54	45.76
	100,000-150,000 Baht	38	32.21
	150,001-200,000 Baht	15	12.71
	More than 200,000 Baht	11	9.32
	Total	118	100
6. Working position	Accounting director	22	18.64
	Accounting manager	68	57.63
	Others	28	23.73
	Total	118	100

APPENDIX C

Demographic of Firm Characteristics

Table C1 Demographic Characteristics of Firm-Listed in Thailand

Descriptions	Categories	Frequencies	Percentage
1. Industrial category	Agro and Food Industry	5	4.24
	Consumer Products	14	11.86
	Property & Construction	35	29.66
	Industrials	51	43.22
	Resources	6	5.08
	Technology	7	5.93
	Total	118	100
2. The period of time in business	Less than 5 years	3	2.54
	5 -10 years	4	3.39
	11 – 15 years	9	7.63
	More than 15 years	102	86.44
	Total	118	100
3. Total assets of the firm	Less than 10,000,000,000 Baht	64	54.24
	10,000,000,000-50,000,000,000 Baht	17	14.41
	50,000,000,001-100,000,000,000 Baht	8	6.78
	More than 100,000,000,000 Baht	29	24.57
	Total	118	100
4. Number of employees	Less than 500 employees	52	44.06
	500-1,000 employees	32	27.12
	1,001-1,500 employees	9	7.63
	More than 1,500 employees	25	21.19
	Total	118	100
5. Total revenue of the firm	Less than 10,000,000,000 Baht	74	62.71
	10,000,000,000-50,000,000,000 Baht	20	16.95
	50,000,000,001-100,000,000,000 Baht	5	4.24
	More than 100,000,000,000 Baht	19	16.10
	Total	118	100

APPENDIX D

Non-Response Bias Tests

Table D1 Non-Response Bias Tests

Comparison	N	Mean	Std. Dev.	t	p-value
The period of time in operating business	118				
- First Group	70	3.771	0.594	-0.171	0.865
- Second Group	48	3.792	0.683		
Total Assets of the firm	118				
- First Group	70	2.057	1.284	0.415	0.679
- Second Group	48	1.958	1.254		
Number of employees	118				
- First Group	70	2.029	1.179	-0.343	0.732
- Second Group	48	2.104	1.171		
Total revenue of the firm	118				
- First Group	70	1.843	1.175	1.239	0.218
- Second Group	48	1.583	1.028		

APPENDIX E

Item Factor Loadings and Reliability Analyses in Pre-Test

Table E1 Item Factor Loadings and Reliability Analyses in Pre-Test[a]

Constructs	Items	Factor Loadings	Item Total Correlation	Reliability (Alpha)
Resource Allocation Excellence	RAE1	0.679	0.488	0.790
	RAE2	0.809	0.686	
	RAE3	0.721	0.617	
	RAE4	0.710	0.619	
Managerial Information Reliability	MIR1	0.736	0.800	0.956
	MIR2	0.882	0.941	
	MIR3	0.834	0.848	
	MIR4	0.883	0.876	
	MIR5	0.931	0.929	
Cost-Benefit Quality	CBQ1	0.624	0.447	0.773
	CBQ2	0.712	0.481	
	CBQ3	0.697	0.720	
	CBQ4	0.808	0.681	
Mastering Strategic Management	MSM1	0.666	0.688	0.857
	MSM2	0.738	0.707	
	MSM3	0.490	0.592	
	MSM4	0.784	0.795	
	MSM5	0.755	0.607	
Operational Efficiency	OPE1	0.520	0.565	0.896
	OPE2	0.850	0.839	
	OPE3	0.869	0.812	
	OPE4	0.871	0.817	
	OPE5	0.755	0.693	
Advantages of Management	AOM1	0.831	0.777	0.920
	AOM2	0.856	0.830	
	AOM3	0.857	0.850	
	AOM4	0.852	0.814	

Table E1 Item Factor Loadings and Reliability Analyses in Pre-Test[a] (continued)

Constructs	Items	Factor Loadings	Item Total Correlation	Reliability (Alpha)
Firm Value	FIV1	0.933	0.873	0.916
	FIV2	0.945	0.895	
	FIV3	0.844	0.745	
	FIV4	0.854	0.779	
	FIV5	0.780	0.678	
Top Management Involvement	TMI1	0.743	0.715	0.894
	TMI2	0.628	0.711	
	TMI3	0.731	0.796	
	TMI4	0.601	0.803	
	TMI5	0.648	0.675	
Enterprise Resource Planning Efficiency	ERP1	0.855	0.682	0.868
	ERP2	0.818	0.695	
	ERP3	0.593	0.647	
	ERP4	0.818	0.694	
	ERP5	0.742	0.773	
Interdepartmental Communications	INC1	0.596	0.713	0.877
	INC2	0.774	0.777	
	INC3	0.614	0.733	
	INC4	0.583	0.766	
	INC5	0.766	0.564	
Market Dynamics	MAD1	0.511	0.567	0.751
	MAD2	0.591	0.481	
	MAD3	0.672	0.491	
	MAD4	0.757	0.501	
	MAD5	0.777	0.555	

APPENDIX F

Test of Assumption of Regression Analysis

Appendix F-Results of testing the basic assumption of regression analysis

Regression analysis (OLS) is used to test the interrelationship between various independent and dependent variables by the SPSS program. From the relation model and the hypotheses, the following 10 equation models are presented including assumptions of the regression model as follows: 1) Linearity of phenomenon measured, 2) Constant variance of the error terms (Homoscedasticity), 3) Normality of the error term distribution, 4) Independence of the error terms, and 5) Test of Multicollinearity. The results of testing are shown as follow:

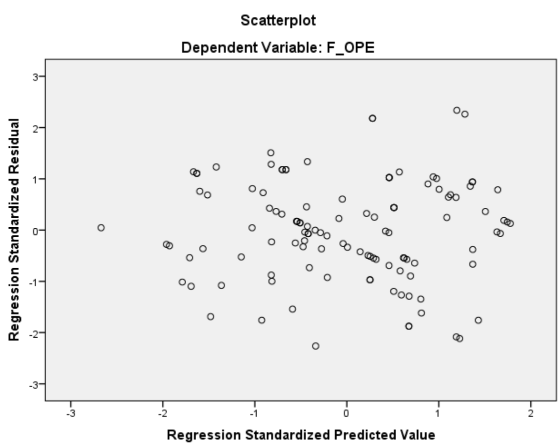
1. Linearity of phenomenon measured

Linearity is a statistical agreement about the relationship between independent variables and the dependent variable as to whether the relationships are linear in nature or not. If the relationship between independent variables and the dependent variable is not linear, the results of the regression analysis will under-estimate the true relationship. The linearity of the dependent – independent variables relationship describes the degree change in the dependent variable as related to the independent variable. A preferable method of detection is an examination of residual plots that is used (plots of standardized residuals as a function of standardized predicted values, readily available in most statistical software). The results of linearity testing do not demonstrate any nonlinear pattern to the residuals. Thus, the relationships between the dependent variable and independent variables of each model are linear.

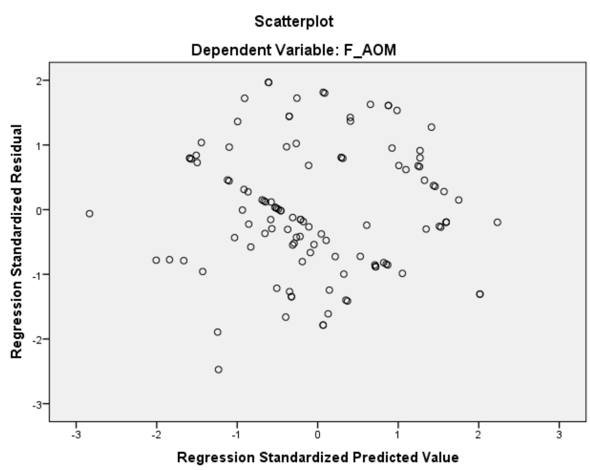
2. Test of constant variance of the error terms (Homoscedasticity)

Homoscedasticity means that the variance of errors is the same cross all levels of the independent variables. The research is checked by visual examination of a plot of the standardized residuals by regression standardized predicted value. Ideally, residuals are randomly scattered around 0 (the horizontal line) providing a relatively even distribution. Heteroscedasticity is indicated when the residuals are not evenly scattered around the line. This research shows that the scatterplot of residuals is randomly scattered around 0 (the horizontal line). Hence, heteroscedasticity may not be a serious problem for this research. The following shows the residual plots for linearity and constant variance of error terms testing.

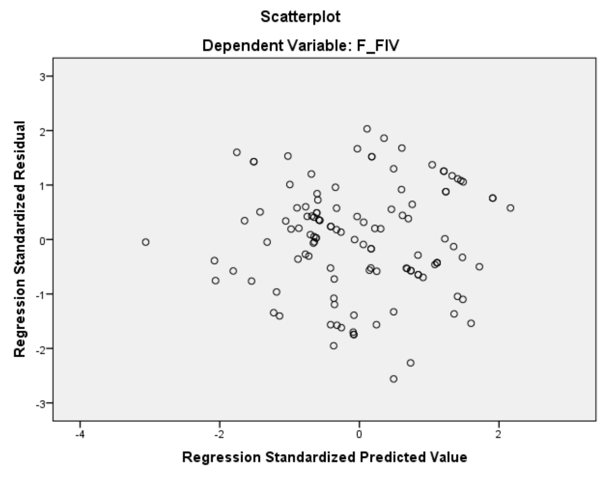
Equation 1: $OPE = \alpha_{01}+\beta_1 RAE+\beta_2 MIR+\beta_3 CBQ+\beta_4 MSM+\beta_5 FIS+\beta_6 FIA+\varepsilon$



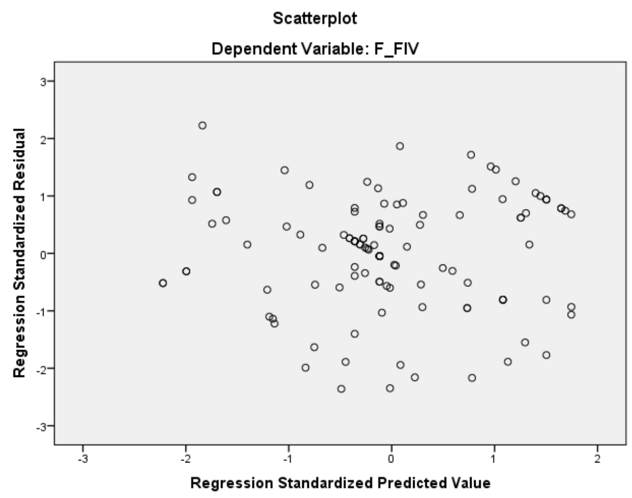
Equation 3: $AOM = \alpha_{03}+\beta_{18} RAE+\beta_{19} MIR+\beta_{20} CBQ+\beta_{21} MSM+\beta_{22} FIS+\beta_{23} FIA+\varepsilon$



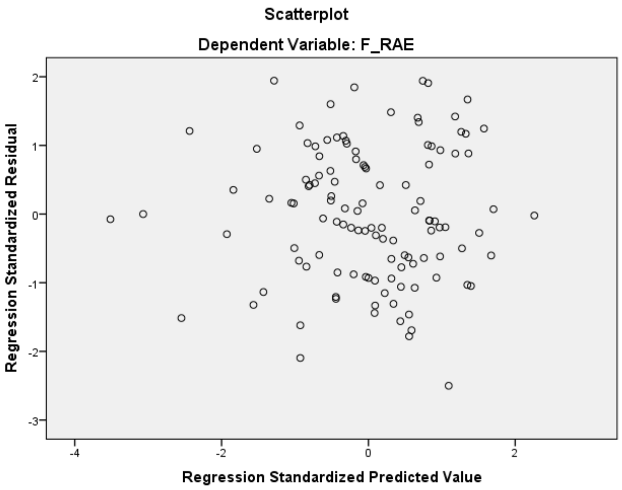
Equation 3: $FIV = \alpha 05 + \beta 35RAE + \beta 36MIR + \beta 37CBQ + \beta 38MSM + \beta 39FIS + \beta 40FIA + \varepsilon$



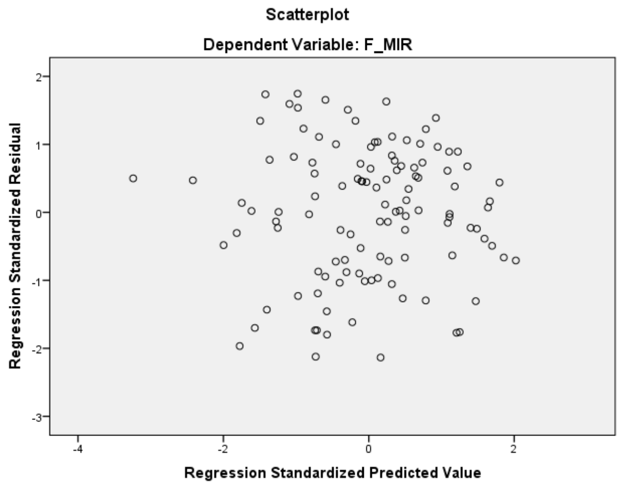
Equation 4: $FIV = \alpha 06 + \beta 41OPE + \beta 42AOM + \beta 43FIS + \beta 44FIA + \varepsilon$



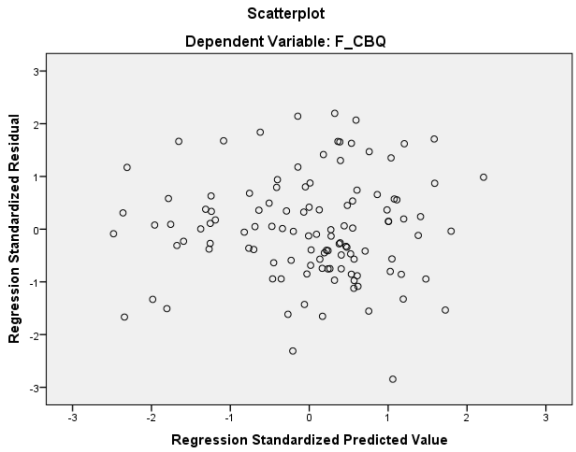
Equation 5: $RAE = \alpha 07+\beta 45TMI+\beta 46ERP+\beta 47INC+\beta 48MAD+\beta 49FIS+\beta 50FIA+\varepsilon$



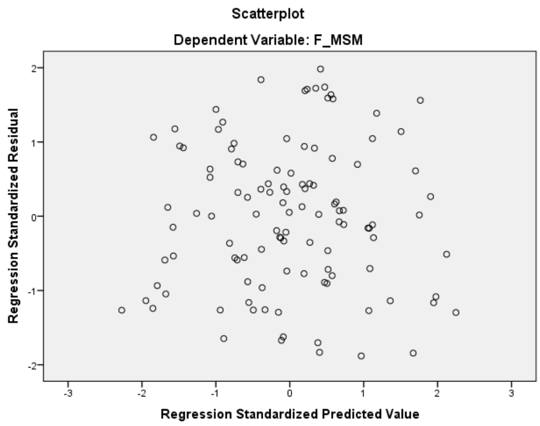
Equation 6: $MIR = \alpha 08+\beta 51TMI+\beta 52ERP+\beta 53INC+\beta 54MAD+\beta 55FIS+\beta 56FIA+\varepsilon$



Equation 7: $CBQ = \alpha_{09} + \beta_{57}TMI + \beta_{58}ERP + \beta_{59}INC + \beta_{60}MAD + \beta_{61}FIS + \beta_{62}FIA + \varepsilon$



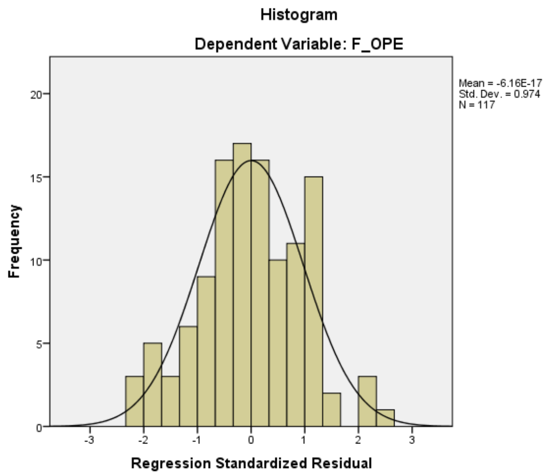
Equation 8: $MSM = \alpha 63 + \beta 64TMI + \beta 65ERP + \beta 66INC + \beta 67MAD + \beta 68FIS + \beta 69FIA + \varepsilon$

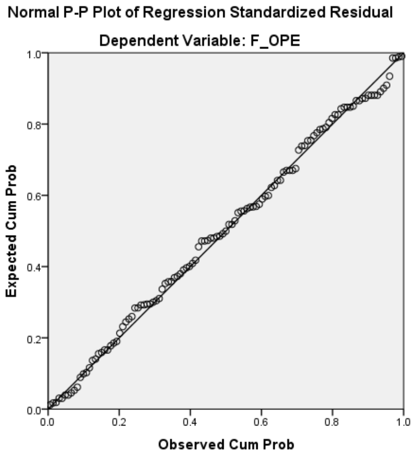


3. Normality of the error term distribution

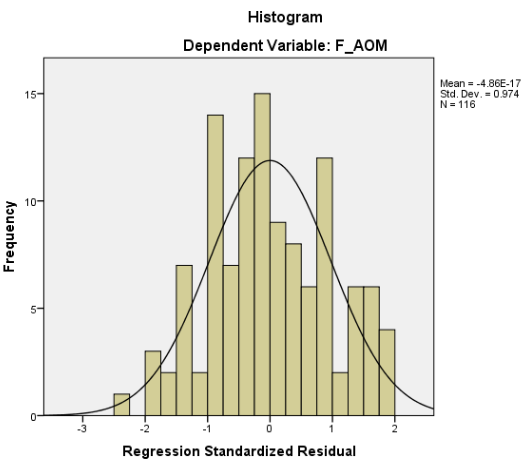
The normal probability plot of the residuals and the histogram of residuals are used to check the normality of error term distribution. “The normal distribution makes a straight diagonal line, and the plotter residuals are compared with the diagonal. If a distribution in normal, the residual line closely follows the diagonal” (Hair et al., 2014). As shown in the following, the values fall along the diagonal with no systematic departures. Therefore, the assumption of normality is met. As a result, the non-normality problems should not be of concern.

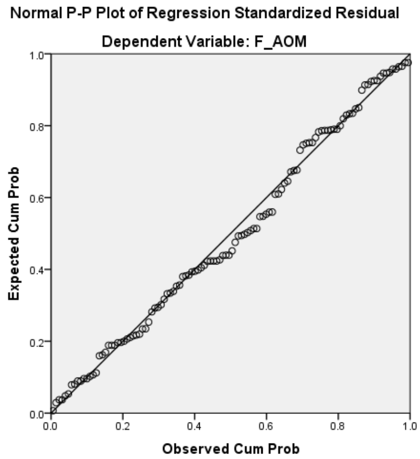
Equation 1: $OPE = \alpha_{01}+\beta_1 RAE+\beta_2 MIR+\beta_3 CBQ+\beta_4 MSM+\beta_5 FIS+\beta_6 FIA+\varepsilon$



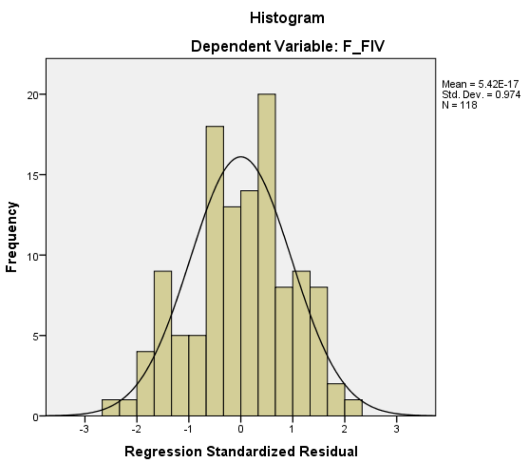


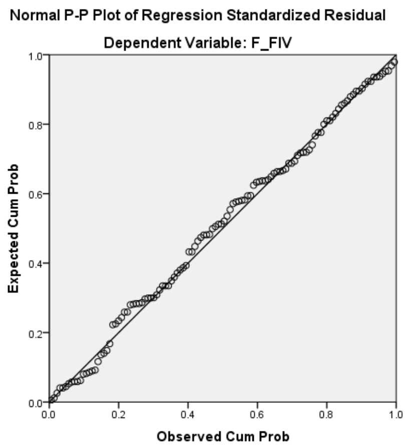
Equation 2: $AOM = \alpha_{03}+\beta_{18}RAE+\beta_{19}MIR+\beta_{20}CBQ+\beta_{21}MSM+\beta_{22}FIS+\beta_{23}FIA+\varepsilon$



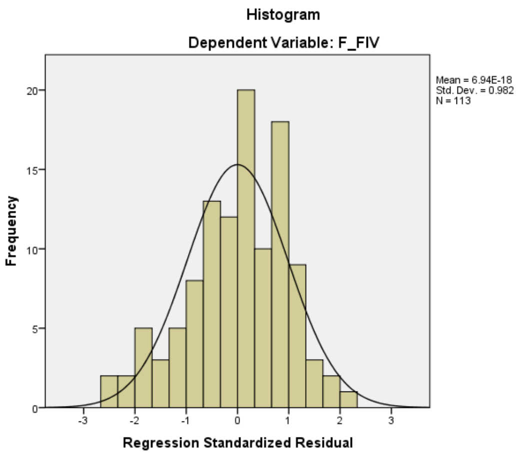


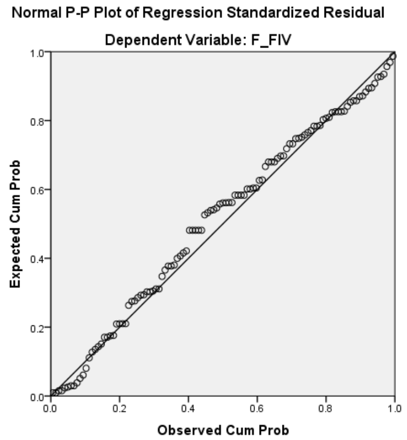
Equation 3: $FIV = \alpha 05+ \beta 35RAE+\beta 36MIR+\beta 37CBQ+\beta 38MSM+\beta 39FIS+\beta 40FIA+\varepsilon$



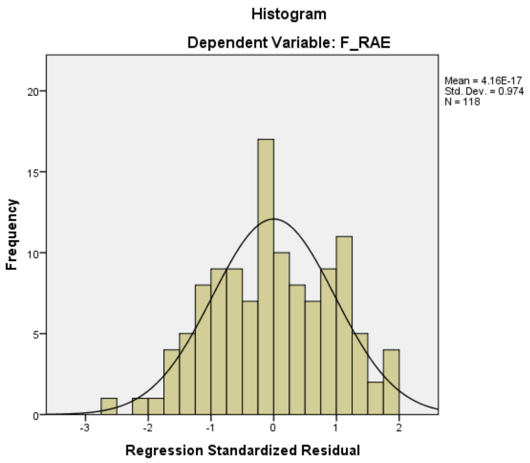


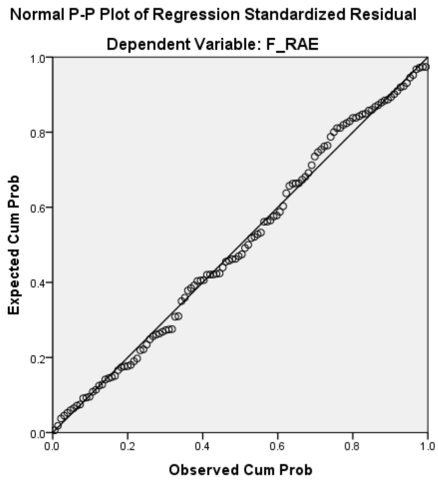
Equation 4: $FIV = \alpha06+\beta41OPE+\beta42AOM+\beta43FIS+\beta44FIA+\varepsilon$



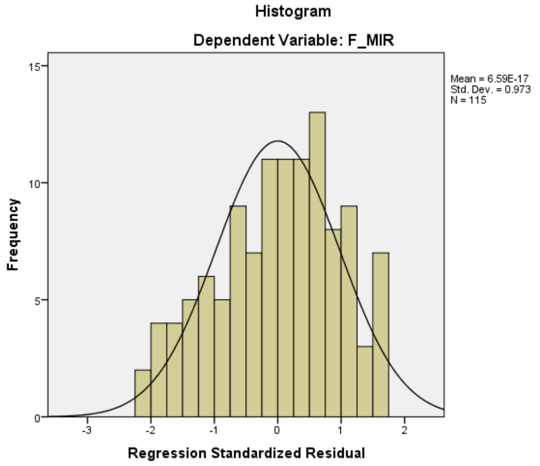


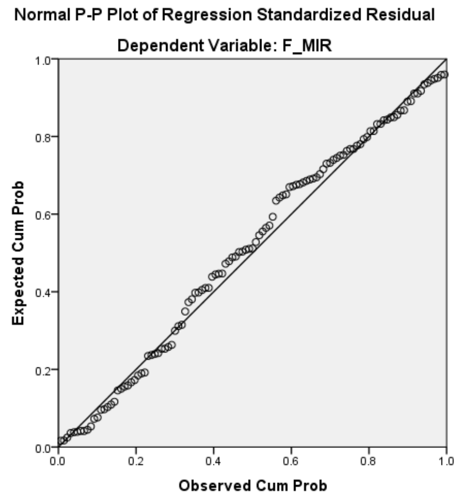
Equation 5: $RAE = \alpha07+\beta45TMI+\beta46ERP+\beta47INC+\beta48MAD+\beta49FIS+\beta50FIA+\varepsilon$



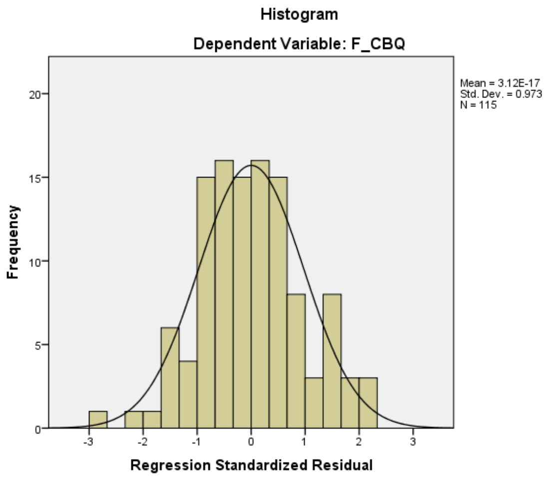


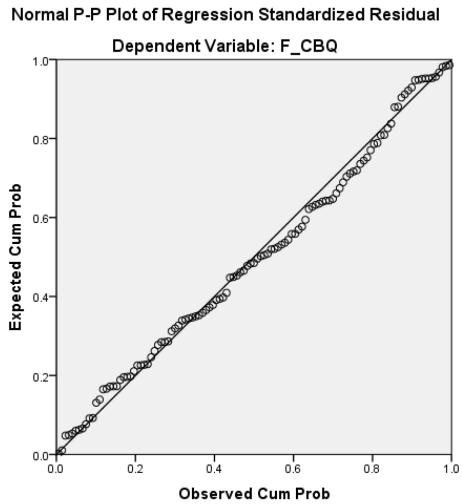
Equation 6: $MIR = \alpha08 + \beta51TMI + \beta52ERP + \beta53INC + \beta54MAD + \beta55FIS + \beta56FIA + \varepsilon$



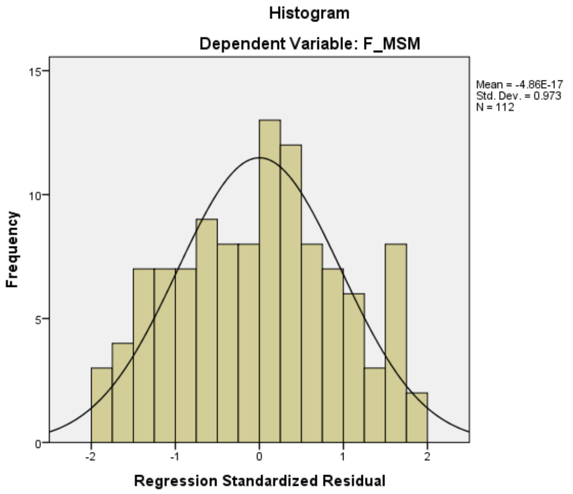


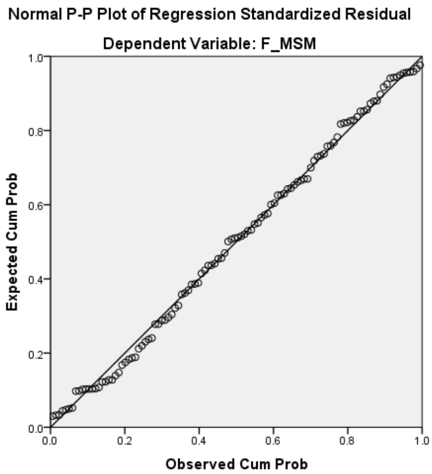
Equation 7: $CBQ = \alpha09 + \beta57TMI + \beta58ERP + \beta59INC + \beta60MAD + \beta61FIS + \beta62FIA + \varepsilon$





Equation 8: $MSM = \alpha 63 + \beta 64TMI + \beta 65ERP + \beta 66INC + \beta 67MAD + \beta 68FIS + \beta 69FIA + \varepsilon$





4. Test independence of the error terms (Test of Autocorrelation)

Test independence of the error terms is used by Durbin-Watson to test which data problem is oftentimes series data or cross-sectional data. The rule of thumb of Durbin-Watson "d statistic" has a value between 1.5 and 2.5 which shows no autocorrelation. From the results of Durbin-Watson d statistics, d statistics are in the range of 1.716-2.426. Hence, it could be assumed that the error terms are independent.

Table 1F: The results of the independence of error terms assumption testing

	Equations	Durbin-Watson (d Statistics)
Equation 1:	$OPE = \alpha_{01}+\beta_1 RAE+\beta_2 MIR+\beta_3 CBQ+\beta_4 MSM+\beta_5 FIS+\beta_6 FIA+\varepsilon$	2.169
Equation 2:	$AOM = \alpha_{03}+\beta_{18} RAE+\beta_{19} MIR+\beta_{20} CBQ+\beta_{21} MSM+\beta_{22} FIS+\beta_{23} FIA+\varepsilon$	1.865
Equation 3:	$FIV = \alpha_{05}+\beta_{35} RAE+\beta_{36} MIR+\beta_{37} CBQ+\beta_{38} MSM+\beta_{39} FIS+\beta_{40} FIA+\varepsilon$	2.351
Equation 4:	$FIV = \alpha_{06}+\beta_{41} OPE+\beta_{42} AOM+\beta_{43} FIS+\beta_{44} FIA+\varepsilon$	2.073
Equation 5:	$RAE = \alpha_{07}+\beta_{45} TMI+\beta_{46} ERP+\beta_{47} INC+\beta_{48} MAD+\beta_{49} FIS+\beta_{50} FIA+\varepsilon$	1.798
Equation 6:	$MIR = \alpha_{08}+ \beta_{51} TMI+\beta_{52} ERP+\beta_{53} INC+\beta_{54} MAD+\beta_{55} FIS+\beta_{56} FIA+\varepsilon$	2.426
Equation 7:	$CBQ = \alpha_{09}+ \beta_{57} TMI+\beta_{58} ERP+\beta_{59} INC+\beta_{60} MAD+\beta_{61} FIS+\beta_{62} FIA+\varepsilon$	1.905
Equation 8:	$MSM = \alpha_{63}+ \beta_{64} TMI+\beta_{65} ERP+\beta_{66} INC+\beta_{67} MAD+\beta_{68} FIS+\beta_{69} FIA+\varepsilon$	1.994

5. Test of Multicollinearity

Test independence of the error terms is used Durbin-Watson to test which data problem is oftentimes series data or cross-sectional data. The rule of thumb of Durbin-Watson d statistic has a value between 1.5 and 2.5 which indicates no autocorrelation. From the results of Durbin-Watson d statistics, d statistics are in the range of 1.580-2.127. Hence, it could be assumed that the error terms are independent.

Table 2F: The results of mulicollinearity testing (strategic management accounting effectiveness and its consequences)

Independent Variables	Dependent Variables					
	OPE		AOM		FIV	
	Equation 1		Equation 2		Equation 3	
	Tolerance	VIF	Tolerance	VIF	Tolerance	VIF
RAE	.946		.943	1.060	.946	1.057
MIR	.993		.993	1.007	.993	1.007
CBQ	.998		.996	1.004	.998	1.002
MSM	.989		.985	1.015	.986	1.014
Firm Age	.893		.889	1.125	.891	1.122
Firm Size	.847		.841	1.189	.843	1.187
n	117		116		118	

Table 2F: The results of mulicollinearity testing (strategic management accounting effectiveness and its consequences)

Independent Variables	Dependent Variables									
	FIV		RAE		MIR		CBQ		MSM	
	Equation 4		Equation 5		Equation 6		Equation 7		Equation 8	
	Tolerance	VIF	Tolerance	VIF	Tolerance	VIF	Tolerance	VIF	Tolerance	VIF
OPE	.991	1.009								
AOM	.984	1.016								
TMI			.999	1.001	.999	1.001	.989	1.011	.996	1.004
ERP			.988	1.012	.989	1.011	.988	1.013	.991	1.009
INC : H9a-d			.996	1.004	.994	1.006	.993	1.007	.997	1.003
MAD : H10a-d			.993	1.007	.992	1.008	.992	1.008	.995	1.005
Firm Age	.892	1.121	.891	1.122	.886	1.128	.880	1.136	.894	1.119
Firm Size	.879	1.138	.894	1.187	.889	1.124	.877	1.140	.896	1.116
n	113		118		115		115		112	

APPENDIX G

Cover Letter and Questionnaire (English Version)

Questionnaire for the Ph.D. Dissertation
Research entitled "Strategic Management Accounting Effectiveness and Firm Value: An empirical evidence from Thai listed firms"

Dear Sir,

This research is a part of doctoral dissertation of Mr. Prasit Rungruang at the Mahasarakham Business School, Mahasarakham University, Thailand. The objective of this research is to investigate the relationship between strategic management accounting effectiveness and firm value: An empirical evidence from Thai listed firms. The questionnaire is divided into 7 parts

Part1: General information of accounting director or accounting manager of listed firms in Thailand,

Part2: General information of Thai listed firms,

Part3: Opinion on strategic management accounting effectiveness of Thai listed firms,

Part4: Opinions in consequences of strategic management accounting effectiveness of Thai listed firms,

Part5 : Opinions in internal factor that influence to strategic management accounting effectiveness of Thai listed firms,

Part6: Opinions in external factor that influence to strategic management accounting effectiveness of Thai listed firms and

Part 7: Recommendation and suggestions in strategic management accounting effectiveness of Thai listed firms.

Your answer will be kept as confidentiality and your information will not be shared with any outsider party without your permission.

If you want a summary of this research, please indicate your E-mail address or attach your business card with this questionnaire. The summary will be mailed to you as soon as the analysis is completed.

Thank you for your time answering all the questions. I have no doubt that your answer will provide valuable information for academic advancement. If you have any questions with respect to this research, please contact me directly.

Sincerely yours,

(Mr.Prasit Rungruang)
Ph. D. Student in Accounting
Mahasarakham Business School
Mahasarakham University, Thailand

Contact Info:
Office No: 043 – 754333 ext. 3431
Fax No: 043 – 754422
Mobile phone: 089 – 977 – 1003
E-mail: ton_prasit@hotmail.com

Part 1 General information of accounting executive Thai listed firms

1. Gender

❑ Male ❑ Female

2. Age

❑ Less than 35 years old ❑ 35 – 40 years old

❑ 41-45 years old ❑ More than 45 years old

3. Educational level

❑ Undergraduate ❑ Master’s degree

❑ Doctoral Degree

4. Working experience in your current firm

❑ Less than 5 years ❑ 5- 10 years

❑ 11 – 15 years ❑ More than 15 years

5. Average monthly income at present

❑ Less than 100,000 Baht ❑ 100,000 – 150,000 Baht

❑ 150,001-200,000 Baht ❑ More than 200,000 Baht

6. Working position

❑ Accounting director ❑ Accounting manager

❑ Other (Please Specify)……………………….…

Part 2 General information of Thai listed firms

1. Industrial category

- ❑ Agro and Food Industry
- ❑ Consumer Products
- ❑ Property & Construction
- ❑ Industrials
- ❑ Resources
- ❑ Technology

2. The period of tune in business

- ❑ Less than 5 years
- ❑ 5 -10 years
- ❑ 11-15 years
- ❑ More than 15 years

3. Total assets of the firm

- ❑ Less than 10,000,000,000 Baht
- ❑ 10,000,000,000 – 50,000,000,000 Baht
- ❑ 50,000,000,001 – 100,000,000,000 Baht
- ❑ More than 100,000,000,000 Baht

4. Number of employees

- ❑ Less than 50 persons
- ❑ 51 – 100 persons
- ❑ 1,001 – 1,500 persons
- ❑ More than 1,500 persons

5. Total revenue of the firm

- ❑ Less than 10,000,000,000 Baht
- ❑ 10,000,000,000 – 50,000,000,000 Baht
- ❑ 50,000,000,001 – 100,000,000,000 Baht
- ❑ More than 100,000,000,000 Baht

Section 3 Opinion on strategic management accounting effectiveness of Thai listed firms

Strategic management accounting effectiveness	Opinion Levels				
	Strongly Agree 5	Agree 4	Not Sure 3	Disagree 2	Strongly Disagree 1
Resource Management Excellence 1. The firm focuses on evaluating the value of personnel by calculating the cost and investment return in human resources in order to manage the benefits from human resource					
2. The firm focuses on the use of information technology appropriately to achieve excellent resource saving.					
3 The firm is determined to use machine data analysis techniques and equipment from strategic management accounts to maximize asset utilization worth the investment.					
4. The firm has the use of resources that are appropriate, appropriate and maximize the benefits to the business.					
Managerial information reliability 1. The firm is confident that the correct financial information helps the business to be able to use to efficiently manage financial resources.					
2. The firm is confident that providing management account information that is relevant will lead to accurate decisions.					

Section 3 Opinion on strategic management accounting effectiveness of Thai listed firms (Continued)

Strategic management accounting effectiveness	Opinion Levels				
	Strongly Agree 5	Agree 4	Not Sure 3	Disagree 2	Strongly Disagree 1
<u>Managerial information reliability</u> 3. The firm focused on the development of reliable financial information, which will help to forecast future operating results are accurate.					
4. The firm is confident that the timely use of the managerial account information will help increase the efficiency of the decision.					
5. The firm believes that financial information is related to making decisions and lead to the best choice of operations to achieve the ultimate goal of firm.					
<u>Cost-Benefit Quality</u> 1. The firm concentrate on the cost-effectiveness and the value of limited resources by comparing benefits and costs of the project at the point where the benefit is equal to the cost of the project.					
2. The firm believes that there are benefits assessments over the cost of resources required for investment in the project.					
3. The firm focuses on investment risk analysis by using management accounting information in order to receive returns that are worth the investment.					
4. The firm uses various techniques (such as break-even point, NPV, IRR) so that the investment in the project receives the expected return.					

Section 3 Opinion on strategic management accounting effectiveness of Thai listed firms (Continued)

Strategic management accounting effectiveness	Opinion Levels				
	Strongly Agree 5	Agree 4	Not Sure 3	Disagree 2	Strongly Disagree 1
Mastering Strategic management					
1. The firm aims that the evaluate and follow-up of work continuously can to standards or service that is outstanding in the industry					
2. The entity has improved developing strategies for measuring performance (Balanced Scorecard) to work to targets that were set.					
3. The firm believes a good internal control can quality control of products or services to meet the standards and customers' expectations.					
4. The firm focuses on the use of Theory of Constraints in order to effectively solve problems of slow operations.					
5. The firm believes that using the Six Sigma strategy can help reduce the amount of waste or wastage that occurs in the production process.					

Part4: Opinions in consequences of strategic management accounting effectiveness of Thai listed firms

Business Outcomes	Opinion Levels				
	Strongly Agree 5	Agree 4	Not Sure 3	Disagree 2	Strongly Disagree 1
Operational efficiency 1. The firm focuses on producing products or services that meet the standard timely, including delivering products to customers within a quick time.					
2. The firm engrosses to developing the potential and ability to operate in all aspects that are constantly increasing and different from competitors.					
3. The firm concentrates on delivering quality products or service to satisfaction customers.					
4. The firm emphasizes to continuously improved and developed its operations.					
5. The firm engrosses to operations with flexibility to achieve success in operations under uncertain situations.					
Advantages of Management 1. The firm is able to produce standardized products or services on time, including delivering products to customers within a fast time.					
2. The firm is able to develop operational potential in all areas that have always increased and different from competitors.					
3. The firm can deliver quality products or services. Always create satisfaction for customers.					
4. The firm can improve our products and services continuously.					

Part4: Opinions in consequences of strategic management accounting effectiveness of Thai listed firms, (Continued)

Business Outcomes	Opinion Levels				
	Strongly Agree 5	Agree 4	Not Sure 3	Disagree 2	Strongly Disagree 1
Firm Value 1. The firm has the ability to produce profitability target and plans of the firm.					
2. The firm can generate various returns as expected.					
3. The firm is acceptance from stakeholders as being the most effective and efficient business operation.					
4. The firm focuses on quality of after sales services that is more outstanding than its competitors and has been accepted by customers.					
5. The firm has existed increase new customers comparing with previous operating.					

Part5 : Opinions in internal factor that influence to strategic management accounting effectiveness of Thai listed firms.

Internal Environmental Operation	Opinion Levels				
	Strongly Agree 5	Agree 4	Not Sure 3	Disagree 2	Strongly Disagree 1
Top management involvement 1. Executives support the necessary resources, budget, and other facilities make the operation more efficient.					
2. Executives push on the development of strategic management accounting system make operate under various circumstances.					
3. Executives focus on applying new techniques and new methods of strategic management accounting always, it gives more useful information to decisions make.					
4. Executives focus on the nets emphasizes the creating experience for the employees in the organization in concrete form.					
5. Firm executive encourages employees to participate in policy setting and operating direction of business to generate common goal toward sustainable achievement.					
Enterprise Resource Planning Efficiency 1. The firm's enterprise resource planning system that can be accessed and run quickly to support the operation had achieved its goals.					
2. Enterprise resource planning systems can be linked together, as well as enabled the Company to increase capacity to meet the competition is good.					

Part5: Opinions in internal factor that influence to strategic management accounting effectiveness of Thai listed firms. (Continued)

Internal Environmental Operation	Opinion Levels				
	Strongly Agree 5	Agree 4	Not Sure 3	Disagree 2	Strongly Disagree 1
Enterprise Resource Planning Efficiency 3. The firm has the integration of accounting information systems that that are linked to the internal use of the organization, making the data to be retrieved efficiently					
4. The firm has an efficient database storage system to support timely operations.					
5. The firm focused on the application of enterprise resource planning systems to enable operations to meet the goals.					
Interdepartmental communication 1. The firm to focuses on creating an atmosphere of interdepartmental communication for maximum efficiency in operations.					
2. The firm to focuses on solving the problems of interdepartmental communication that will help the firm achieve excellent operational goals.					
3. Firm concentrates on the vision of communication between the executives that are relevant to its operations even more efficient.					
4. The business gives importance to interdepartmental communication with flexibility in communication to achieve communication success under uncertain situations.					

Part5: Opinions in internal factor that influence to strategic management accounting effectiveness of Thai listed firms. (Continued)

Internal Environmental Operation	Opinion Levels				
	Strongly Agree 5	Agree 4	Not Sure 3	Disagree 2	Strongly Disagree 1
Interdepartmental communication 5. Firm concentrates on using technology or new techniques in interdepartmental communication to facilitate and speed up interdepartmental communication.					

Part6: Opinions in external factor that influence to strategic management accounting effectiveness of Thai listed firms. (Continued)

External Environmental Operation	Opinion Levels				
	Strongly Agree 5	Agree 4	Not Sure 3	Disagree 2	Strongly Disagree 1
Market dynamics 1. The firm focuses on and follows politics and government policies related to business operations in order to be able to adapt to changes that occur very well.					
2. Environment associated with business operations have more complex makes to firms must seek ways to manage risk to achieve maximize efficiency.					
3. The firm's committed to finding cheap resources of raw materials and replacement products to gain competitive advantages.					
4. Demand for customers has changed dramatically, so businesses have to continually improve and develop their strategies so that they can continue to respond to the needs of customers.					
5. Firm has followed up the operations of both new and old competitors in order to create a superior competitive strategy continuously.					

Part 7: Recommendation and suggestions in strategic management accounting effectiveness of Thai listed firms.

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Thank you for devote your valuable time to answer all of the questions. Please, mail the questionnaires by the postage pre-paid envelops already attachment.

APPENDIX H

Cover Letter and Questionnaire (Thai Version)

ที่ อว 0605.10/448

คณะการบัญชีและการจัดการ
มหาวิทยาลัยมหาสารคาม
ตำบลขามเรียง อำเภอกันทรวิชัย
จังหวัดมหาสารคาม
44150

13 สิงหาคม 2562

เรื่อง ขอความอนุเคราะห์กรอกแบบสอบถาม

เรียน ผู้อำนวยการฝ่ายบัญชี

ด้วย นายประสิทธิ์ รุ่งเรือง รหัสนิสิต 59010960002 นิสิตระดับปริญญาเอก หลักสูตรปรัชญาดุษฎีบัณฑิต (ปร.ด.) สาขาวิชาการบัญชี คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม กำลังศึกษาวิทยานิพนธ์ เรื่อง “ประสิทธิผลของการบัญชีบริหารเชิงกลยุทธ์และมูลค่าของกิจการ: หลักฐานเชิงประจักษ์ของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย” ซึ่งเป็นส่วนหนึ่งของการทำวิทยานิพนธ์หลักสูตรปรัชญาดุษฎีบัณฑิต (ปร.ด.) และการศึกษาในครั้งนี้ได้เน้นให้นิสิตศึกษาข้อมูลด้วยตนเอง ดังนั้น เพื่อให้การจัดทำวิทยานิพนธ์เป็นไปด้วยความเรียบร้อยและบรรลุวัตถุประสงค์ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม จึงใคร่ขอความอนุเคราะห์ให้ นายประสิทธิ์ รุ่งเรือง ศึกษาและเก็บรวบรวมในรายละเอียดตามแบบสอบถามที่แนบมาพร้อมนี้

คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม หวังเป็นอย่างยิ่งว่าคงได้รับความอนุเคราะห์จากท่านในการให้ข้อมูลในครั้งนี้เป็นอย่างยิ่ง และขอขอบคุณมา ณ โอกาสนี้

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.นิติพงษ์ ส่งศรีโรจน์)
คณบดีคณะการบัญชีและการจัดการ
มหาวิทยาลัยมหาสารคาม

ฝ่ายวิชาการระดับบัณฑิตศึกษา
คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม
โทรศัพท์ 0-4375-4333 ต่อ 3431
โทรสาร 0-4375-4422

แบบสอบถามเพื่อการวิจัย

เรื่อง ประสิทธิผลของการบัญชีบริหารเชิงกลยุทธ์และมูลค่าของกิจการ: หลักฐานเชิงประจักษ์ของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย

คำชี้แจง

โครงการวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาวิจัยเรื่อง "ประสิทธิผลของการบัญชีบริหารเชิงกลยุทธ์และมูลค่าของกิจการ:หลักฐานเชิงประจักษ์ของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย" เพื่อใช้เป็นข้อมูลในการจัดทำวิทยานิพนธ์ในระดับปริญญาเอกของผู้วิจัย ในหลักสูตรปรัชญาดุษฎีบัณฑิต คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม โทรศัพท์ 043-754333

ข้าพเจ้าใคร่ขอความอนุเคราะห์จากท่านผู้ตอบแบบสอบถาม ได้โปรดตอบแบบสอบถามชุดนี้ โดยรายละเอียดของแบบสอบถามประกอบด้วยส่วนคำถาม 7 ตอน ดังนี้

ตอนที่ 1 ข้อมูลทั่วไปเกี่ยวกับผู้อำนวยการฝ่ายบัญชีหรือผู้จัดการฝ่ายบัญชีบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย

ตอนที่ 2 ข้อมูลทั่วไปเกี่ยวกับบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย

ตอนที่ 3 ความคิดเห็นเกี่ยวกับประสิทธิผลของการบัญชีบริหารเชิงกลยุทธ์ของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย

ตอนที่ 4 ความคิดเห็นเกี่ยวกับผลการดำเนินงานของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย

ตอนที่ 5 ความคิดเห็นเกี่ยวกับปัจจัยภายในที่มีผลต่อการดำเนินงานองบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย

ตอนที่ 6 ความคิดเห็นเกี่ยวกับปัจจัยภายนอกที่มีผลต่อการดำเนินงานของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย

ตอนที่ 7 ข้อคิดเห็น ปัญหาและข้อเสนอแนะเกี่ยวกับประสิทธิผลการบัญชีบริหารเชิงกลยุทธ์ของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย

คำตอบของท่านจะถูกเก็บรักษาเป็นความลับ และจะไม่มีการใช้ข้อมูลใด ๆ ที่เปิดเผยเกี่ยวกับตัวท่านในการรายงานข้อมูล รวมทั้งจะไม่มีการร่วมใช้ข้อมูลดังกล่าวกับบุคคลภายนอกอื่นใดโดยไม่ได้รับอนุญาตจากท่าน และหากท่านต้องการรายงานสรุปผลการวิจัย โปรดระบุ E-mail ของท่าน หรือแนบนามบัตรของท่านมากับแบบสอบถามชุดนี้

( ) ต้องการ e-mail ____ ( ) ไม่ต้องการ

ผู้วิจัยขอขอบพระคุณที่ท่านได้กรุณาเสียสละเวลาในการตอบแบบสอบถามได้อย่างถูกต้องครบถ้วน ข้อมูลที่ได้รับจากท่านจะเป็นประโยชน์อย่างยิ่งต่อการวิจัยในครั้งนี้ หากท่านมีข้อสงสัยประการใดเกี่ยวกับแบบสอบถามโปรดติดต่อผู้วิจัย นายประสิทธิ์ รุ่งเรือง โทรศัพท์ 089-9771003 หรือ E-mail: ton_prasit@hotmail.com

ขอขอบพระคุณอย่างสูงมา ณ โอกาสนี้

(นายประสิทธิ์ รุ่งเรือง)

นิสิตระดับปริญญาเอก สาขาวิชาการบัญชี

คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม

ตอนที่ 1 ข้อมูลทั่วไปเกี่ยวกับผู้บริหารฝ่ายบัญชีบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย

1. เพศ
   - ❑ ชาย ❑ หญิง
2. อายุ
   - ❑ น้อยกว่า 35 ปี ❑ 35- 40 ปี
   - ❑ 41- 45 ปี ❑ มากกว่า 45 ปี
3. ระดับการศึกษา
   - ❑ ปริญญาตรี ❑ ปริญญาโท
   - ❑ ปริญญาเอก
4. ประสบการณ์ในการทางานทางด้านบัญชีหรือเกี่ยวข้องกับงานบัญชี
   - ❑ น้อยกว่า 5 ปี ❑ 5 – 10 ปี
   - ❑ 11 - 15 ปี ❑ มากกว่า 15 ปี
5. รายได้เฉลี่ยต่อเดือน
   - ❑ ต่ำกว่า 100,000 บาท ❑ 100,000 - 150,000 บาท
   - ❑ 150,001 - 200,000 บาท ❑ มากกว่า 200,000 บาท
6. ตำแหน่งงานในปัจจุบัน
   - ❑ ผู้อำนวยการฝ่ายบัญชี ❑ ผู้จัดการฝ่ายบัญชี
   - ❑ อื่น ๆ (โปรดระบุ)...

ตอนที่ 2 ข้อมูลทั่วไปเกี่ยวกับบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย

1. ประเภทกลุ่มอุตสาหกรรม

❑ กลุ่มเกษตรและอุตสาหกรรมอาหาร ❑ กลุ่มสินค้าอุปโภคบริโภค

❑ กลุ่มอสังหาริมทรัพย์และก่อสร้าง ❑ กลุ่มสินค้าอุตสาหกรรม

❑ กลุ่มทรัพยากรธรรมชาติ ❑ กลุ่มเทคโนโลยี

2. ระยะเวลาในการดำเนินธุรกิจ

❑ น้อยกว่า 5 ปี ❑ 5 ปี – 10 ปี

❑ 11 ปี – 15 ปี ❑ มากกว่า 15 ปี

3. สินทรัพย์รวมของบริษัท

❑ ต่ำกว่า 10,000,000,000 บาท ❑ 10,000,000,000–50,000,000,000 บาท

❑ 50,000,000,001 - 100,000,000,000 บาท ❑ มากกว่า 100,000,000,000 บาท

4. จำนวนพนักงานของกิจการ

❑ น้อยกว่า 500 คน ❑ 500 – 1,000 คน

❑ 1,001 – 1,500 คน ❑ มากกว่า 1,500 คน

ตอนที่ 3 ความคิดเห็นเกี่ยวกับประสิทธิผลของการบัญชีบริหารเชิงกลยุทธ์ของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย

ประสิทธิผลของการบัญชีบริหารเชิงกลยุทธ์	ระดับความคิดเห็น				
	มากที่สุด 5	มาก 4	ปานกลาง 3	น้อย 2	น้อยที่สุด 1
ความเป็นเลิศในการจัดสรรทรัพยากร (Resource Allocation Excellence) 1. กิจการมุ่งเน้นการประเมินมูลค่าของบุคคลากรด้วยการคำนวณหาผลตอบแทนจากการลงทุนในทรัพยากรมนุษย์เพื่อการบริหารผลประโยชน์จากข้อมูลทรัพยากรมนุษย์					
2. กิจการมุ่งเน้นการใช้เทคโนโลยีสารสนเทศอย่างเหมาะสมเพื่อก่อให้เกิดการประหยัดทรัพยากรได้อย่างดีเยี่ยม					
3. กิจการมุ่งมั่นใช้เทคนิควิเคราะห์ข้อมูลเครื่องจักร และอุปกรณ์จากบัญชีบริหารเชิงกลยุทธ์เพื่อให้เกิดความคุ้มค่าสูงสุด					
4. กิจการมีการประยุกต์ใช้ทรัพยากรที่เพียงพอเหมาะสมและเกิดประโยชน์สูงสุดในการดำเนินงานต่อกิจการ					
ความน่าเชื่อถือของข้อมูลการบริหาร (Managerial information reliability) 1. กิจการเชื่อมั่นว่าข้อมูลทางการเงินที่ถูกต้องช่วยทำให้กิจการสามารถนำไปใช้ในบริหารทรัพยากรทางการเงินได้อย่างมีประสิทธิภาพ					
2. กิจการมั่นใจว่าการนำเสนอข้อมูลบัญชีบริหารที่ตรงประเด็นจะช่วยนำไปสู่การตัดสินใจอย่างแม่นยำ					
3. กิจการมุ่งเน้นการพัฒนาความน่าเชื่อถือของข้อมูลทางการเงินซึ่งจะช่วยให้สามารถการพยากรณ์ผลการดำเนินงานในอนาคตได้อย่างถูกต้องแม่นยำ					
4. กิจการเชื่อมั่นว่าการใช้ข้อมูลบัญชีบริหารที่ทันเวลาจะช่วยให้เพิ่มประสิทธิภาพการตัดสินใจ					

ตอนที่ 3 (ต่อ)

ประสิทธิผลของการบัญชีบริหารเชิงกลยุทธ์	ระดับความคิดเห็น มากที่สุด 5	มาก 4	ปานกลาง 3	น้อย 2	น้อยที่สุด 1
<u>ความน่าเชื่อถือของข้อมูลการบริหาร (Managerial information reliability)</u> 5. กิจการเชื่อว่าข้อมูลทางการเงินเกี่ยวข้องและครบถ้วนกับการตัดสินใจ และช่วยให้สามารถนำไปสู่การเลือกทางเลือกที่ดีที่สุดในการดำเนินงานเพื่อให้บรรลุผลสำเร็จสูงสุดตามเป้าหมายกิจการ					
คุณภาพของต้นทุน-ผลประโยชน์ (cost-benefit quality) 1. กิจการมั่นใจเกี่ยวกับความคุ้มค่าของทรัพยากร โดยการเปรียบเทียบผลประโยชน์และต้นทุนของโครงการก่อนตัดสินใจลงทุนอย่างสม่ำเสมอ					
2. กิจการเชื่อว่ามีการประเมินผลประโยชน์ที่ได้รับมากกว่าต้นทุนของทรัพยากรที่ต้องใช้เพื่อการลงทุนในโครงการ					
3. กิจการมุ่งเน้นวิเคราะห์ความเสี่ยงจากการลงทุนโดยใช้ข้อมูลบัญชีบริหารเพื่อให้ได้ผลตอบแทนที่คุ้มค่ากับการลงทุน					
4. กิจการมีการใช้เทคนิคต่าง ๆ (เช่น จุดคุ้มทุน, NPV, IRR) เพื่อให้การลงทุนในโครงการได้รับผลตอบแทนตามที่วางไว้					

ตอนที่ 3 (ต่อ)

ประสิทธิผลของการบัญชีบริหารเชิงกลยุทธ์	ระดับความคิดเห็น				
	มากที่สุด 5	มาก 4	ปานกลาง 3	น้อย 2	น้อยที่สุด 1
<u>**กลยุทธ์การเป็นผู้นำ (Mastering Strategic management)**</u> 1. กิจการเชื่อมั่นว่าการประเมินผลและติดตามการปฏิบัติงานอย่างต่อเนื่อง สามารถนำไปสู่มาตรฐานหรือการให้บริการจนเป็นที่โดดเด่นในอุตสาหกรรม					
2. กิจการมีการปรับปรุงและพัฒนาการใช้กลยุทธ์ในการวัดผลการดำเนินงาน (Balanced Scorecard) เพื่อให้การปฏิบัติงานเป็นไปตามเป้าหมายที่ได้กำหนด					
3. กิจการเชื่อว่าการควบคุมภายในสามารถนำไปใช้ในการควบคุมคุณภาพของผลิตภัณฑ์หรือบริการให้เป็นไปตามมาตรฐานที่ลูกค้าคาดหวังได้เป็นอย่างดี					
4. กิจการมุ่งเน้นการใช้ทฤษฎีข้อจำกัด (Theory of Constraints) เพื่อแก้ไขปัญหาการดำเนินงานที่ล่าช้าได้อย่างมีประสิทธิภาพ					
5. กิจการเชื่อว่าการใช้กลยุทธ์ Six Sigma ช่วยลดปริมาณของเสียหรือความสูญเปล่าที่เกิดขึ้นในกระบวนการผลิตได้					

ตอนที่ 4 ความคิดเห็นเกี่ยวกับผลการดำเนินงานของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย

ผลการดำเนินงาน	ระดับความคิดเห็น				
	มากที่สุด 5	มาก 4	ปานกลาง 3	น้อย 2	น้อยที่สุด 1
<u>ประสิทธิภาพในการดำเนินงาน (Operational Efficiency)</u> 1. กิจการสามารถผลิตสินค้าหรือบริการที่มีมาตรฐานได้ทันเวลารวมถึงจัดส่งสินค้าให้ลูกค้าภายในเวลาที่รวดเร็วอยู่เสมอ					
2. กิจการสามารถพัฒนาศักยภาพในการดำเนินงานทุกด้านที่เพิ่มขึ้นโดยตลอดและแตกต่างจากคู่แข่งขัน					
3. กิจการสามารถส่งมอบสินค้าหรือบริการที่มีคุณภาพสร้างความพึงพอใจให้กับลูกค้าด้วยดีเสมอมา					
4. กิจการสามารถปรับปรุงและพัฒนาผลิตภัณฑ์หรือบริการอย่างต่อเนื่อง					
5. กิจการมีการดำเนินงานที่มีความยืดหยุ่นทำให้เกิดความสำเร็จในการดำเนินงานภายใต้สถานการณ์ความไม่แน่นอนได้เป็นอย่างดี					
<u>ความได้เปรียบในการบริหาร (Advantages of Management)</u> 1. กิจการมีการวางแผนการผลิตสินค้าหรือบริการเพื่อให้มีปริมาณที่เหมาะสมเพียงพอต่อความต้องการ					
2. กิจการมีกลไกการกำกับติดตามการบริหารงานให้เป็นไปตามแผนงานอย่างต่อเนื่อง					
3. กิจการมุ่งเน้นควบคุมการปฏิบัติงานให้เป็นไปตามมาตรฐานที่กำหนดไว้					
4. กิจการวินิจฉัยปัญหาในการดำเนินงานและสามารถแก้ไขปัญหาดังกล่าวได้อย่างมีประสิทธิภาพ					

ตอนที่ 4 (ต่อ)

ผลการดำเนินงาน	ระดับความคิดเห็น				
	มากที่สุด 5	มาก 4	ปานกลาง 3	น้อย 2	น้อยที่สุด 1
<u>มูลค่าของกิจการ (Firm Value)</u> 1. กิจการมีความสามารถในการทำกำไรให้เป็นไปตามเป้าหมายและแผนของกิจการที่วางไว้					
2. กิจการสามารถสร้างผลตอบแทนต่าง ๆ เป็นไปตามที่คาดหวัง					
3. กิจการได้รับการยอมรับจากผู้มีส่วนได้เสียว่าเป็นกิจการที่มีผลดำเนินงานที่มีประสิทธิภาพและมีประสิทธิผลสูงสุด					
4. กิจการมุ่งเน้นคุณภาพของการให้บริการหลังการขายที่โดดเด่นกว่าคู่แข่งขันและได้รับการยอมรับจากลูกค้า					
5. กิจการมีลูกค้าใหม่เพิ่มขึ้นเมื่อเทียบกับการดำเนินงานในอดีต					

ตอนที่ 5 ความคิดเห็นเกี่ยวกับปัจจัยภายในและปัจจัยภายนอกที่มีผลต่อการดำเนินงานองบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย

ปัจจัยภายในที่มีผลต่อการดำเนินงาน	ระดับความคิดเห็น				
	มากที่สุด 5	มาก 4	ปานกลาง 3	น้อย 2	น้อยที่สุด 1
การมีส่วนร่วมของผู้บริหารระดับสูง (Top management involvement) 1. ผู้บริหารสนับสนุนทรัพยากรที่จำเป็นอย่างเต็มที่ในการดำเนินงานซึ่งช่วยให้การดำเนินงานมีประสิทธิภาพมากยิ่งขึ้น					
2. ผู้บริหารผลักดันพัฒนาระบบการบัญชีบริหารเชิงกลยุทธ์อย่างต่อเนื่องช่วยให้กิจการสามารถดำเนินงานภายใต้สถานการณ์ต่าง ๆ ได้เป็นอย่างดี					
3. ผู้บริหารมุ่งเน้นให้มีการประยุกต์ใช้เทคนิคเกี่ยวกับการบัญชีบริหารเชิงกลยุทธ์อยู่เสมอเพื่อให้ได้ข้อมูลที่เป็นประโยชน์ในการตัดสินใจเพิ่มมากขึ้น					
4. ผู้บริหารมุ่งเน้นให้มีการสร้างเสริมประสบการณ์ให้กับพนักงานในองค์กรอย่างเป็นรูปธรรม					
5. ผู้บริหารส่งเสริมบุคลากรให้มีส่วนร่วมในการกำหนดนโยบายการดำเนินงานขององค์กร เพื่อสร้างเป้าหมายในการดำเนินงานร่วมกันมุ่งสู่ความสำเร็จอย่างต่อเนื่อง					
ประสิทธิภาพการวางแผนทรัพยากรขององค์กร (Enterprise Resource Planning Efficiency) 1. กิจการมีระบบการวางแผนทรัพยากรขององค์กรที่สามารถเข้าถึงและเรียกใช้งานได้อย่างรวดเร็วเพื่อสนับสนุนการดำเนินงานได้บรรลุผลตามเป้าหมาย					
2. กิจการมีระบบการวางแผนทรัพยากรทางด้านเทคโนโลยีและการสื่อสารที่รวดเร็วตอบสนองการแข่งขันได้เป็นอย่างดี					
3. กิจการมีการบูรณาการระบบสารสนเทศทางบัญชีที่เชื่อมโยงการใช้งานภายในองค์กรทำให้ตอบสนองการดำเนินงานได้เป็นอย่างดี					

ตอนที่ 5 (ต่อ)

ปัจจัยภายในที่มีผลต่อการดำเนินงาน	ระดับความคิดเห็น				
	มากที่สุด 5	มาก 4	ปานกลาง 3	น้อย 2	น้อยที่สุด 1
ประสิทธิภาพการวางแผนทรัพยากรขององค์กร (Enterprise Resource Planning Efficiency) 4. กิจการมีระบบจัดเก็บฐานข้อมูลอย่างมีประสิทธิภาพเพื่อสนับสนุนการปฏิบัติงานได้ทันเวลา					
5. กิจการประยุกต์ใช้ระบบการวางแผนทรัพยากรขององค์กร เพื่อให้การดำเนินงานเป็นไปตามเป้าหมายที่วางไว้ได้					
การสื่อสารระหว่างแผนก (Interdepartmental communication) 1. กิจการมุ่งเน้นการสร้างบรรยากาศในการสื่อสารระหว่างแผนกเพื่อให้เกิดประสิทธิภาพสูงสุดต่อการดำเนินงาน					
2. กิจการให้ความสำคัญกับการแก้ไขปัญหาด้านการสื่อสารระหว่างแผนกเพื่อให้การดำเนินงานบรรลุตามวัตถุประสงค์					
3. กิจการเชื่อมั่นว่าการสื่อสารวิสัยทัศน์จากผู้บริหารสู่พนักงานที่ตรงประเด็นจะช่วยให้การดำเนินงานมีประสิทธิภาพมากยิ่งขึ้น					
4. กิจการให้ความสำคัญกับการสื่อสารระหว่างแผนกด้วยความยืดหยุ่นในการสื่อสารเพื่อให้เกิดความสำเร็จในการสื่อสารภายใต้สถานการณ์ความไม่แน่นอนได้เป็นอย่างดี					
5. กิจการมุ่งเน้นการใช้เทคโนโลยีใหม่ ๆ ในการสื่อสารภายในองค์กรเพื่อให้เกิดความสะดวกและรวดเร็วยิ่งขึ้น					

ตอนที่ 6 ความคิดเห็นเกี่ยวกับปัจจัยภายนอกที่มีผลต่อการดำเนินงานของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย

ปัจจัยภายนอกที่มีผลต่อการดำเนินงาน	ระดับความคิดเห็น				
	มากที่สุด 5	มาก 4	ปานกลาง 3	น้อย 2	น้อยที่สุด 1
พลวัตตลาด (Market Dynamics) 1. กิจการติดตามการเมืองและนโยบายของรัฐบาลที่เกี่ยวข้องกับการดำเนินธุรกิจ เพื่อให้สามารถปรับตัวต่อการเปลี่ยนแปลงที่เกิดขึ้นได้เป็นอย่างดี					
2. กิจการปรับเปลี่ยนวิธีการบริหารความเสี่ยงภายใต้สภาพแวดล้อมที่เปลี่ยนแปลงไปอยู่ตลอดเวลา					
3. กิจการสามารถแสวงหาปัจจัยนำเข้าที่มีราคาต่ำเพื่อสร้างความได้เปรียบจากการแข่งขัน					
4. ความต้องการของลูกค้ามีการเปลี่ยนแปลงอย่างรวดเร็ว ทำให้กิจการต้องปรับปรุงและพัฒนากลยุทธ์อย่างต่อเนื่อง เพื่อให้สามารถตอบสนองความต้องการของลูกค้า					
5. กิจการมีการติดตามการดำเนินงานของคู่แข่งทั้งรายใหม่และรายเก่าเพื่อสร้างกลยุทธ์การแข่งขันที่เหนือกว่าอย่างต่อเนื่อง					

ตอนที่ 7 ข้อคิดเห็น ปัญหาและข้อเสนอแนะเกี่ยวกับประสิทธิผลการบัญชีบริหารเชิงกลยุทธ์ของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย

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ขอขอบพระคุณท่านที่ได้กรุณาสละเวลาตอบแบบสอบถามทุกข้อ ได้โปรดพับแบบสอบถาม
และใส่ซองที่แนบมาพร้อมนี้ส่งคืนตามที่อยู่ที่ระบุ

APPENDIX I

Letters to the Experts

ที่ อว 0605.10/ 183

คณะการบัญชีและการจัดการ
มหาวิทยาลัยมหาสารคาม
ตำบลขามเรียง อำเภอกันทรวิชัย
จังหวัดมหาสารคาม
44150

27 มิถุนายน 2562

เรื่อง ขอความอนุเคราะห์เป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัย

เรียน อาจารย์ ดร.มัทนชัย สุทธิพันธุ์

ด้วย นายประสิทธิ์ รุ่งเรือง รหัสนิสิต 59010960002 นิสิตระดับปริญญาเอก หลักสูตรปรัชญาดุษฎีบัณฑิต (ปร.ด.) สาขาวิชาการบัญชี ระบบในเวลาราชการ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม กำลังศึกษาวิทยานิพนธ์ เรื่อง “ประสิทธิผลของการบัญชีบริหารเชิงกลยุทธ์และมูลค่าของกิจการ: หลักฐานเชิงประจักษ์ของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย” ซึ่งเป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปรัชญาดุษฎีบัณฑิต ดังนั้น เพื่อให้การดำเนินการเป็นไปด้วยความเรียบร้อยและบรรลุตามวัตถุประสงค์ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม จึงใคร่ขอความอนุเคราะห์ท่านเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัยและข้อเสนอแนะเพื่อนำข้อมูลที่ได้ไปดำเนินการทำวิทยานิพนธ์ต่อไป ตามแบบสอบถามที่แนบมาพร้อมนี้

คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม หวังเป็นอย่างยิ่งว่าคงได้รับความอนุเคราะห์จากท่านด้วยดี และขอขอบคุณมา ณ โอกาสนี้ด้วย

ขอแสดงความนับถือ

(อาจารย์วราวุฒิ นาคบุญนำ)
รองคณบดีฝ่ายกิจการนิสิต รักษาการแทน
คณบดีคณะการบัญชีและการจัดการ
มหาวิทยาลัยมหาสารคาม

งานวิชาการระดับบัณฑิตศึกษา
คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม
โทรศัพท์ 0-4375-4333 ต่อ 3431
โทรสาร 0-4375-4422

บันทึกข้อความ

หน่วยงาน คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม โทรศัพท์ 043-754333-3431 Fax 043- 754422
ที่ อว 0605.10/ **วันที่** 27 มิถุนายน 2562
เรื่อง ขอเรียนเชิญเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัย

เรียน ผู้ช่วยศาสตราจารย์ ดร.นิติพงษ์ ส่งศรีโรจน์

ด้วย นายประสิทธิ์ รุ่งเรือง รหัสนิสิต 59010960002 นิสิตระดับปริญญาเอก หลักสูตรปรัชญาดุษฎีบัณฑิต (ปร.ด.) สาขาวิชาการบัญชี ระบบในเวลาราชการ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม กำลังศึกษาวิทยานิพนธ์ เรื่อง “ประสิทธิผลของการบัญชีบริหารเชิงกลยุทธ์และมูลค่าของกิจการ: หลักฐานเชิงประจักษ์ของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย” ซึ่งเป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปรัชญาดุษฎีบัณฑิต ดังนั้น เพื่อให้การดำเนินการเป็นไปด้วยความเรียบร้อยและบรรลุตามวัตถุประสงค์ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม จึงใคร่ขอความอนุเคราะห์ท่านเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัยและข้อเสนอแนะเพื่อนำข้อมูลที่ได้ไปดำเนินการทำวิทยานิพนธ์ต่อไป ตามแบบสอบถามที่แนบมาพร้อมนี้

จึงเรียนมาเพื่อโปรดพิจารณา

(รองศาสตราจารย์ ดร.สุวรรณ หวังเจริญเดช)
รองคณบดีฝ่ายวิชาการ

คำสั่ง
- [x] ทราบ
- [ ] ตามเสนอ
- [ ] อนุญาต
- [ ] อนุมัติ
- [ ] ลงนามแล้ว
- [x] อื่นๆ..........

(1) แจ้ง [illegible] แล้ว
(2) ให้ประสานพบตัวเองครับ

(ผู้ช่วยศาสตราจารย์ ดร.นิติพงษ์ ส่งศรีโรจน์)
คณบดีคณะการบัญชีและการจัดการ
มหาวิทยาลัยมหาสารคาม
1 ก.ค. 2562

บันทึกข้อความ

หน่วยงาน คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม โทรศัพท์ 043-754333-3431 Fax 043- 754422

ที่ อว 0605.10/ **วันที่** 27 มิถุนายน 2562

เรื่อง ขอเรียนเชิญเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัย

เรียน ผู้ช่วยศาสตราจารย์ ดร.อิงอร นาชัยฤทธิ์

ด้วย นายประสิทธิ์ รุ่งเรือง รหัสนิสิต 59010960002 นิสิตระดับปริญญาเอก หลักสูตรปรัชญาดุษฎีบัณฑิต (ปร.ด.) สาขาวิชาการบัญชี ระบบในเวลาราชการ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม กำลังศึกษาวิทยานิพนธ์ เรื่อง "ประสิทธิผลของการบัญชีบริหารเชิงกลยุทธ์และมูลค่าของกิจการ: หลักฐานเชิงประจักษ์ของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย" ซึ่งเป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปรัชญาดุษฎีบัณฑิต ดังนั้น เพื่อให้การดำเนินการเป็นไปด้วยความเรียบร้อยและบรรลุตามวัตถุประสงค์ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม จึงใคร่ขอความอนุเคราะห์ท่านเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัยและข้อเสนอแนะเพื่อนำข้อมูลที่ได้ไปดำเนินการทำวิทยานิพนธ์ต่อไป ตามแบบสอบถามที่แนบมาพร้อมนี้

จึงเรียนมาเพื่อโปรดพิจารณา

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รองคณบดีฝ่ายกิจการนิสิต รักษาการแทน
คณบดีคณะการบัญชีและการจัดการ

บันทึกข้อความ

หน่วยงาน คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม โทรศัพท์ 043-754333-3431 Fax 043- 754422
ที่ อว 0605.10/ **วันที่** 27 มิถุนายน 2562
เรื่อง ขอเรียนเชิญเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัย

เรียน ผู้ช่วยศาสตราจารย์ ดร.ญาณินท์ ตั้งภิโญพุฒิคุณ

ด้วย นายประสิทธิ์ รุ่งเรือง รหัสนิสิต 59010960002 นิสิตระดับปริญญาเอก หลักสูตรปรัชญาดุษฎีบัณฑิต (ปร.ด.) สาขาวิชาการบัญชี ระบบในเวลาราชการ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม กำลังศึกษาวิทยานิพนธ์ เรื่อง "ประสิทธิผลของการบัญชีบริหารเชิงกลยุทธ์และมูลค่าของกิจการ: หลักฐานเชิงประจักษ์ของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย" ซึ่งเป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปรัชญาดุษฎีบัณฑิต ดังนั้น เพื่อให้การดำเนินการเป็นไปด้วยความเรียบร้อยและบรรลุตามวัตถุประสงค์ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม จึงใคร่ขอความอนุเคราะห์ท่านเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัยและข้อเสนอแนะเพื่อนำข้อมูลที่ได้ไปดำเนินการทำวิทยานิพนธ์ต่อไป ตามแบบสอบถามที่แนบมาพร้อมนี้

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คณบดีคณะการบัญชีและการจัดการ

บันทึกข้อความ

หน่วยงาน คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม โทรศัพท์ 043-754333-3431 Fax 043- 754422

ที่ อว 0605.10/ **วันที่** 27 มิถุนายน 2562

เรื่อง ขอเรียนเชิญเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัย

เรียน ผู้ช่วยศาสตราจารย์ ดร.ณัฐวุฒิ ตันติเศรษฐ

ด้วย นายประสิทธิ์ รุ่งเรือง รหัสนิสิต 59010960002 นิสิตระดับปริญญาเอก หลักสูตรปรัชญาดุษฎีบัณฑิต (ปร.ด.) สาขาวิชาการบัญชี ระบบในเวลาราชการ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม กำลังศึกษาวิทยานิพนธ์ เรื่อง “ประสิทธิผลของการบัญชีบริหารเชิงกลยุทธ์และมูลค่าของกิจการ: หลักฐานเชิงประจักษ์ของบริษัทจดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย” ซึ่งเป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปรัชญาดุษฎีบัณฑิต ดังนั้น เพื่อให้การดำเนินการเป็นไปด้วยความเรียบร้อยและบรรลุตามวัตถุประสงค์ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม จึงใคร่ขอความอนุเคราะห์ท่านเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัยและข้อเสนอแนะเพื่อนำข้อมูลที่ได้ไปดำเนินการทำวิทยานิพนธ์ต่อไป ตามแบบสอบถามที่แนบมาพร้อมนี้

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BIOGRAPHY

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