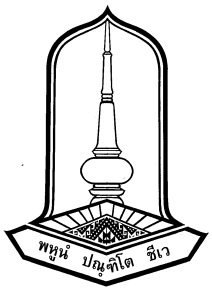

STRATEGIC MANAGERIAL ACCOUNTING CAPABILITY FOR SUSTAINABLE GOAL ACHIEVEMENT: EMPIRICAL EVIDENCE FROM ISO9001 MANUFACTURING FIRMS IN THAILAND

CHONTHICHA THAMMAVINYU

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Accounting at Mahasarakham University

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ABSTRACT

This research aims to investigate the relationship between the antecedents and the consequents of strategic managerial accounting capability. Strategic managerial accounting capability has five dimensions (cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest). The consequents of strategic managerial accounting capability are operational planning efficiency, internal control quality, information value increase, decision-making success, and business excellence outstanding. In addition, this research will analyze the impacts of six antecedents (top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence) on strategic managerial accounting capability. Furthermore, the moderating role of organizational learning capability is also investigated. The conceptual model is proposed by drawing on Resource-Advantage Theory and Contingency Theory. The population was drawn from ISO9001 certified manufacturing firms, of which a smaller number were selected as the sample. A questionnaire that was sent to accounting executives was used as the instrument for data collection from 283 firms. The effective response rate was 27.26%.

The results demonstrate that strategic managerial accounting capability positively impacts operational planning efficiency, internal control quality, and information value increase. Furthermore, operational planning efficiency, internal control quality, and information value increase have a positive relationship with decision-making success and business excellence outstanding. Furthermore, decision-

making success has a significant positive correlation with business excellence outstanding. Decision-making success and business excellence outstanding also have positive relationships with sustainable goal achievement. For the influences of the antecedents, this research found that top management long-term vision, accounting system quality, technology pressure, stakeholder force, and competitive turbulence affect strategic managerial accounting capability. For the moderating effect, organizational learning capability only had an effect upon performance evaluation justice awareness and sustainable goal achievement.

This research concludes with directions and suggestions for managers to identify and justify key components of strategic managerial accounting capability that may be critical in the operation of a business that affects the achievement of sustainable goals. Therefore, the firm should promote and encourage strategic managerial accounting capability in ways that generate more benefits for both firm and stakeholders. Further research should re-investigate the research hypotheses that are not statistically significant such as information mining effectiveness, accounting knowledge management, and organizational learning capability. In addition, future research should confirm the benefits of this scale by applying it to different demographic conditions to widen the generalizability of its findings.

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CHAPTER I

INTRODUCTION

Overview

World globalization provides the opportunity for emerging countries in Asia and Latin America to participate in world competition and borderless business (Jaruga and Ho, 2002). Thus, emerging countries are attempting to develop their countries' infrastructure to encourage globalization strategies, while a number of firms endeavor to develop organizational infrastructure for competitive advantage and sustainability. Thailand is ranked 38th in the Global Competitiveness Report of the World Economic Forum 2013. Thus, Thailand needs to develop management strategies that help firms in Thailand increase their global competitiveness. Currently, many firms seek a way to cope with the uncertainty (Rom and Rohde, 2007) and to gain a competitive advantage (Torres and Tribo, 2011; Williams and Seaman, 2002). Accounting information, especially managerial accounting information, is important for firms to reach optimal strategic decision. The main drawback is that managerial accounting reporting has no regulation. It is internally-generated information.

Strategic managerial accounting embraces management accounting techniques with a clear strategic focus, future-orientated stance, and explicit external focus, forming the core of the concept of strategic managerial accounting. Additionally, strategic managerial accounting draws heavily on non-financial measures (Bhimani and Langfield-Smith, 2007). Strategic managerial accounting has been well-accepted in a number of organizations as a generic approach to accounting for strategic positioning. The emphasis of strategic managerial accounting is commonly centered on performance measurement (Roslender and Hart, 2002).

Prior research for strategic managerial accounting has focused on the usable management accounting tools in specific organizations (Barker, 2009; Kennedy and Affleck-Graves, 2001) and management accounting practices (Cadez and Guilding, 2008; Joshi, 2001). The consequences of strategic managerial accounting link to business strategy (Cinquini and Tenucci, 2010; Laing, 2013) and organizational

performance (Abdel-Al and McLellan, 2013). Most methodology uses case studies (Cuganesan, Dunford, and Palmer, 2012; Kennedy and Affleck-Graves, 2001; Laing, 2013; Lohr, 2012; Ma and Tayles, 2009) or interviews (Abdul Rahman et al., 2012) to study the specific business or industry. On the contrary, there has been a gap in the empirical research.

The literature in managerial accounting still lacks empirical evidence for investigating the relationship between the antecedents and the consequents of strategic managerial accounting capability. Therefore, the investigation and verification for the relationships between the antecedents and the consequents of strategic managerial accounting capability and sustainable goal achievement are necessary for academic research.

This research proposes four contributions to the literature on strategic managerial accounting capability. Firstly, it proposes a new way to investigate the affects of strategic managerial accounting. Secondly, it proposes new dimensions of strategic managerial accounting capability that are different from those articulated by prior research. Thirdly, it proposes the consequents of strategic managerial accounting capability by focusing on sustainable goal achievement under the contingency environment which only a few researchers have investigated. Finally, it proposes that the concepts of Resource-Advantage Theory and Contingency Theory can be adopted to explain the impact of endogenous and exogenous factors on the reviews of strategic managerial accounting capability, thereby leading to sustainable goal achievement in the single model. This model has analytical strength because previous reviews of strategic managerial accounting capability literature were lacking in a heuristic view of antecedents and consequents.

This research aims to fill a gap in the literature by investigating strategic managerial accounting that effects operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding and sustainable goal achievement. Furthermore, it also seeks to fulfill the gap in antecedents at the firm level, leading to strategic managerial accounting capability. Eventually, this research sets out to present new data and new empirical insights within the field of management accounting.

Purpose of the Research

The main purpose of this research is to investigate the relationship between strategic managerial accounting capability and sustainable goal achievement. Moreover, the specific purposes of this research are as follows:

1. To investigate the influence of each dimension of strategic managerial accounting capability on operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement,

2. To investigate the effects of operation planning efficiency, internal control quality, and information value increase on decision-making success and business excellence outstanding,

3. To determine the relationship between decision-making success and business excellence outstanding,

4. To test how decision-making success and business excellence outstanding influence sustainable goal achievement,

5. To ascertain the relationships among top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence on each dimension of strategic managerial accounting capability, and

6. To verify the moderating effects of organizational learning capability and its influences on the relationships among each dimension of strategic managerial accounting capability and operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement.

Research Questions

The key question of this research is, “How does strategic managerial accounting capability have an impact on sustainable goal achievement?” Also, the specific research questions are as follows:

1. How does each dimension of strategic managerial accounting capability influence operational planning efficiency, internal control quality, and information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement?

2. How do operational planning efficiency, internal control quality, and information value increase affect decision-making success and business excellence outstanding?

3. How does decision-making success have an influence on business excellence outstanding?

4. How do both decision-making success and business excellence outstanding have an influence on sustainable goal achievement?

5. How do top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence affect each dimension of strategic managerial accounting capability?

6. How does organizational learning capability moderate the relationships among each dimension of strategic managerial accounting capability and operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement?

Scope of the Research

This research focuses on strategic managerial accounting capability among a sample of ISO9001 certified manufacturing firms in Thailand. On the basis of Resource-Advantage Theory and Contingency Theory, strategic managerial accounting capability is a resource of a firm which is defined as a combination of resources and capabilities. This capability can enhance the quality of management information, decision-making, and firm performance. Hence, this research concentrates on how strategic managerial accounting capability empowers firms to reach their best performance such as operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding,

and sustainable goal achievement. Consequently, this research also focuses on the antecedents of strategic managerial accounting capability, such as top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence. Moreover, the investigation of the moderating effect of organizational learning capability on the relationships among each dimension of strategic managerial accounting capability and operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement is included.

With respect to the research objectives and research questions, there are many variables in this research. For the strategic managerial accounting capability, five dimensions are encompassed. First, cost management orientation refers to the focus on using modern and appropriate management accounting or cost techniques to obtain cost information. Cost information provides accurate, complete, timely, and relevant data to support decision-making including decisions about product design, product pricing, product mix and customer profitability to enhance competitive advantage (Anderson and Lanen, 1999; Kaneko, Ussahawanitchakit, and Muenthaisong, 2013; Nicolaou, 2002; Swenson, 1995). Second, resource utilization focus is defined as the emphasis on the resource allocation process, the ability to react to stress, and the use of resources for maximizing benefit. Firms can analyze exact resource requirements, allocate adequate necessary resources, and use resources efficiency (Abernethy and Brownell, 1999; Balkin, Markman, and Gomez-Mejia, 2000; Hanpuwadol and Ussahawanitchakit, 2010). Third, performance evaluation justice awareness is defined as the awareness of the regulatory and performance measurement systems that comply with the law, equality, and justice. Performance evaluation provides for evaluation fairness, and it should accurately present the performance report, and provides relevant information. With this awareness, firms are able to motivate and influence employee's behavioral changes to achieve a better management accounting system (Erdogan, 2002; Jiambalvo, 2001; Lau, Wong, and Eggletion, 2008; Loi, Lam, and Chan, 2012; Melkonian, Monin, and Noorderhaven, 2011). Fourth, information mining effectiveness is defined as a component of strategic managerial accounting which provides an efficient information

management system to collect, integrate, retrieve, and distribute relevant information to optimize sustainable goal achievement (Nicolaou, 2000).

Lastly, business process linkage interest is defined as the cooperative system between functions or departments to achieve profitability and competitive advantage. The achievement of inter-functional cooperation in organizations will build the process to create information sharing, joint problem-solving, willingness to adapt to unanticipated change, and restraining from the use of power to the disadvantage of other participants (Mahama, 2006). Based on the aforementioned theories, this research hypothesizes that strategic managerial accounting capability has a positive influence on operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement. Furthermore, organizational learning capability is designated as the moderator of the relationship between strategic managerial accounting capability and its consequents.

Firms that have top management long-term vision, accounting knowledge management, and accounting system quality will enhance strategic managerial accounting capability. The external factors that affect strategic managerial accounting capability are technology pressure, stakeholder force, and competitive turbulence.

In this research, the sampling frame selected a number of firms from among the 1,057 manufacturing firms in Thailand that have been certified as ISO9001 compliant. These firms have been chosen because their certification indicates that they must have achieved optimal ways to maintain quality and gain competitive advantage. Consequently, they necessarily must have strategic managerial accounting capability. The unit of analysis is the firm and the key informant is the accounting director or accounting manager. The research instrument is a questionnaire that adapts each item from the theoretical definition based on prior research, and the content is validated by experts. The data was collected by questionnaire mail survey. The ordinary least squares (OLS) regression analysis was used to examine and test the hypotheses.

Organization of the Dissertation

This research is organized into five chapters as follows. Chapter one, the present chapter, presents the research's overview, purposes, research questions, scope, and the organization of the dissertation. Chapter two reviews the relevant literature and prior studies. It also provides a theoretical framework to describe the conceptual model, the definition of each construct, and the development of the related hypotheses for testing. Chapter three discusses the research methods (including the sample selection and data collection procedures), the variable measurements of each construct, and the statistical methods for examining the validity and reliability of the instrument (including the statistics and equations to test the hypotheses) and tables of the summary of definitions and operational variables of each construct. Chapter four discusses and explains the results of the descriptive statistics and the empirical results of hypotheses testing. Finally, chapter five details the conclusions, including the theoretical and practical contributions, as well as the limitations and suggestions for future research.

CHAPTER II

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

The previous chapter elaborated on an overview of the situation of strategic managerial accounting capability, which entails motivations, research objectives, research questions and the scope of the research. Consequently, this chapter develops the construct of the conceptual model and a review of the literature of previous research and studies.

This chapter is organized into three sections. The first section explains the theories that form the foundation for the conceptual model and provides definitions of all constructs in this research. The second section describes the relevant previous literature and delineates the hypotheses which are used to test the relationships among the constructs of the conceptual model. The final section presents the summary of hypothetical relationships to be tested among strategic managerial accounting capability and its antecedents and consequents.

Theoretical Foundation

This research implements Resource-Advantage Theory as the main theory to define the meaning of strategic managerial accounting capability. Contingency theory is included to clearly explain the connections between strategic managerial accounting capability and its antecedents. Each of the applied theories is detailed as follows.

Resource-Advantage Theory

Resource-Advantage Theory, proposed by Hunt and Morgan (1995), is a theory of competition. Organizational competitive advantage is derived from resource comparative advantage, which leads to better performance (Hunt and Morgan, 1995). The foundations of Resource-Advantage Theory are proposed to describe a situation where some firms are more likely to sustain superior performance, whereas others are not. The key to this resource-based approach to strategy formulation is to understand the relationship between resources, capabilities, competitive advantage, and profitability of

the firms; and to understand the mechanisms through which competitive advantage can be sustained over time.

Resource-Advantage Theory posits that firms control unique strategic resources that help them sustain their competitive advantage. It assumes that, within industries, strategic resources are heterogeneous among firms and not perfectly controlled. Firms with proper management of their strategic resource may fully realize theirs superior financial performance and can achieve their target goals and success. However, success for an organization will depend on the degree to which strategic managerial accounting capability fosters and maximizes organizational capability and the success of this will obviously depend on the capability of both management and employees.

This research applies Resource-Advantage Theory to explain strategic managerial accounting capability and sustainable goal achievement to provide a competitive advantage for all firms. It demonstrates how strategic managerial accounting capability encourages operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement.

Contingency Theory

Contingency Theory explains that there is no best way to organize a corporation, to lead a company, or to make decisions so that an organization. Choices which may be effective in some situations may not be successful in others (Otley, 1980), and that the difference lies in the specific contingencies. The major contingency aspect of this research is concerned with the relationships between endogenous and exogenous contextual factors, for which an organization is closely interdependent with the environment within which it operates. External factors are technology pressure, stakeholder force, and competitive turbulence; where endogenous factors are the organizational factors such as top management long-term vision, accounting knowledge management, and accounting system quality.

Gordon and Miller (1976) advocate using a contingency framework in this line of study because it takes into account the environment, organizational attributes, and managerial decision-making styles for designing accounting information systems to

promote effective decision-making. Contingency Theory hypothesizes that organizational structure is a function of context, a context that is simultaneously determined by the external environment and other organizational factors. Both exogenous environmental factors and endogenous firm-specific factors influence the firm's competitive strategy, the intervening variable of organizational structure, and, ultimately, its performance.

Otley (1980: 413) states that, "The contingency approach to management accounting is based on the premise that there is no universally appropriate accounting system which applies equally to all organizations in all circumstances. Rather, it is suggested that particular features of an appropriate accounting system will depend upon the specific circumstances in which an organization finds itself. Thus a contingency theory must identify specific aspects of an accounting system which are associated with certain defined circumstances and demonstrate an appropriate matching."

Chenhall (2003) has provided an overview of the contingency-based studies of management accounting, dating back to the works of Gordon and Miller (1976), Ginzberg (1980), Otley (1980), and Waterhouse and Tiessen (1978). The contingency approach has quickly become the dominant paradigm in empirical management accounting research.

Chenhall and Langfield-Smith (1998a), and Chenhall (2003) contend that contingency-based management accounting research should employ organizational performance as the dependent variable, a view that suggests that many studies have been described as "contingency-based" studies (Bruggeman and Slagmulder, 1995; Carr and Tomkins, 1996; Chenhall and Morris, 1995).

Haldma and Laats (2002) examined the management accounting practices of Estonian manufacturing companies. They found some evidence that changes in cost and management accounting practices are associated with shifts in the business and accounting environment as external contingencies, and with those in technology and organizational aspects as internal contingencies.

In conclusion, Resource-Advantage Theory has been applied to explain the dimensions of strategic managerial accounting capability (cost management orientation, resource utilization focus, performance evaluation justice awareness, information

mining effectiveness, and business process linkage interest), its consequences (operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement) and its moderator (organizational learning capability). Meanwhile, Contingency Theory describes the antecedents of strategic managerial accounting capability (top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, competitive turbulence) and strategic managerial accounting capability. These theories illustrate the relationships of strategic managerial accounting capability and its antecedents and consequents as shown in Figure 1. The next section elaborates on a review of the literature and the testable hypotheses of strategic managerial accounting capability which are discussed below.

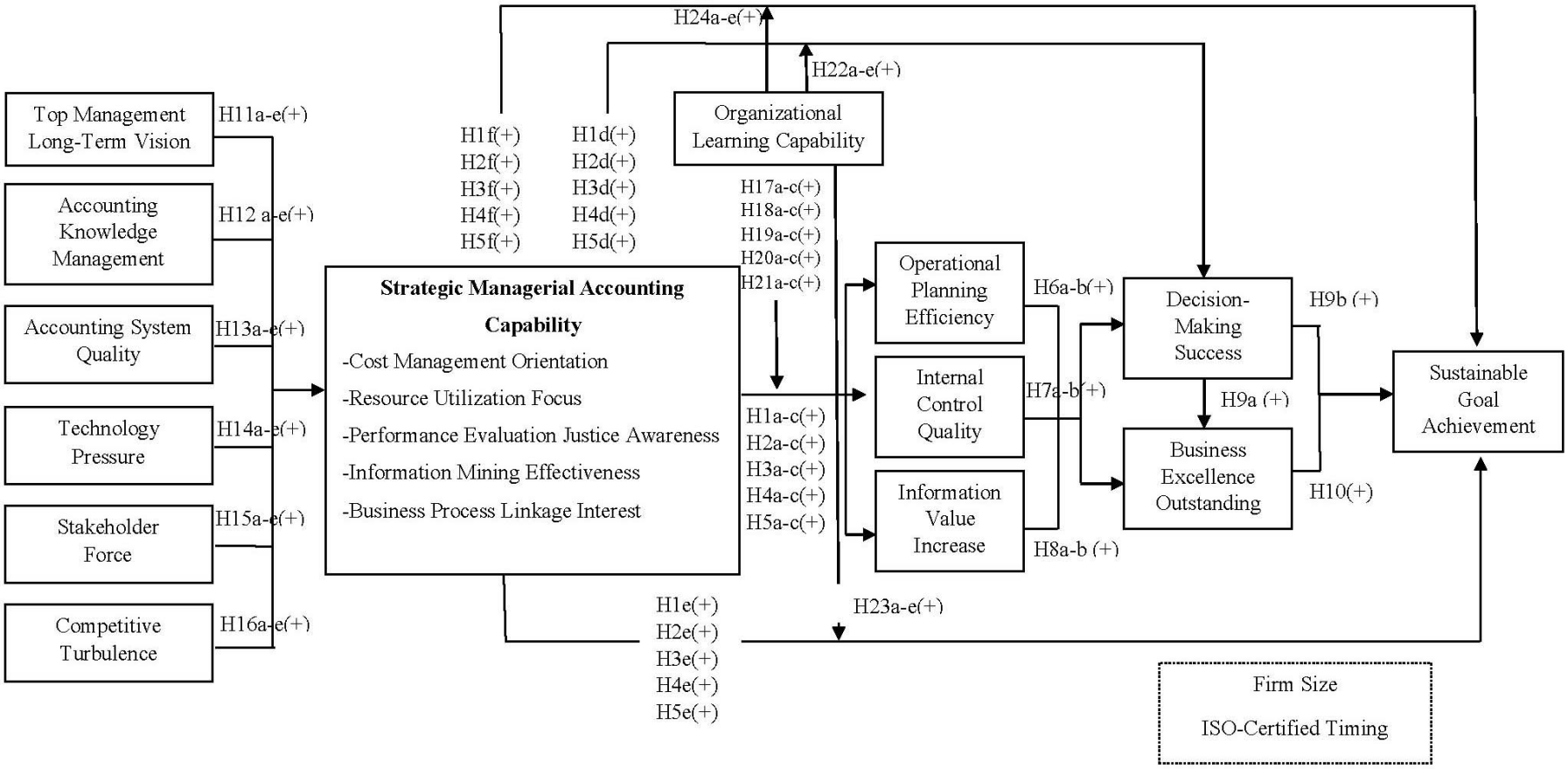
Relevant Literature Review and Development of Research Hypotheses

According to the theoretical foundations adopted in this research, strategic managerial accounting capability and sustainable goal achievement are the independent and dependent variables of the research. Consequently, operational planning efficiency, internal control quality, information value increase, decision-making success, and business excellence outstanding are the mediating effects of the research.
Top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence are antecedents of strategic managerial accounting capability. Lastly, organizational learning capability is the moderating variable of this research.

As described earlier, this research proposes that strategic managerial accounting capability positively correlates with sustainable goal achievement. Consequently, operational planning efficiency, internal control quality, and information value increase are supposed to have a positive relationship with decision-making success and business excellence outstanding. The antecedents of strategic managerial accounting capability consist of top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder

force, and competitive turbulence which are positively related to each dimension of strategic managerial accounting capability. As described earlier, the understanding of organizational learning capability as a moderator assumes that the more organizational learning capability there is, the stronger the positive relationship will be among the variables of strategic managerial accounting capability and operational planning efficiency, internal control quality, information value increase, decision-making success, and business excellence outstanding. In conclusion, the developed conceptual model and the postulated hypotheses are briefly illustrated in figure 1.

Figure 1: Conceptual Model of Strategic Managerial Accounting Capability of ISO9001 Manufacturing Firms in Thailand



Strategic Managerial Accounting Capability

The Chartered Institute of Management Accounting (CIMA) defines managerial accounting as a management and control tool within an organization charged with identifying, valuating, accumulating, analyzing, preparing, interpreting and communicating accounting information. It is used by senior or executive managers for facilitating managerial decision-making. Conventional management accounting narrowly focuses on the support of management decisions but crises in management accounting point out that traditional management accounting is insufficient for providing information to decision-makers (Roslender, 1995). The changes in the new industrial revolution (Yazdifar, 2003) have required manufacturing firms to adopt new management techniques to respond effectively to changes that include the growing availability of information, the rapid development of new technologies and the globalization of market pressures in order to adapt their roles.

Accounting scholars suggest a way that management accounting can get along with new business environments, and adapt to new management tools to be congruent with firm strategy. The first definition of strategic managerial accounting is defined by Simmonds (1981) as the provision and analysis of management accounting data about a business and its competition, or the use of developing and monitoring business strategy (Simmonds, 1981). CIMA, then, defines strategic managerial accounting as a technique that emphasizes external, non-financial, and internally-generated information.

In the UK context, strategic management accounting was defined by Bromwich and Bhimani (1989) as the continued development of a management accounting perspective with a clear strategic emphasis, where one is willing to embrace a strong qualitative orientation, and which is closely associated with the marketing function.

Capability refers to the ability of an organization to perform tasks and effectively utilizing organizational resources for achieving goals (Helfat and Peterraf, 2003).

This research, strategic managerial accounting capability is defined as the ability of an organization to perform tasks utilizing strategic managerial accounting data about a business and its competition for achieving the goals.

The prior research for strategic managerial accounting focuses on the usefulness of management accounting tools in a specific organization (Barker, 2009; Kennedy and Affleck-Graves, 2001), and management accounting practice (Cadez and Guilding, 2008; Joshi, 2001). The consequences of strategic managerial accounting link to business strategy (Cinquini and Tennucci, 2010; Laing, 2013) and organization performance (Abdel-Al and McLellan, 2013). This research aims to fill the gap by investigating the relationship among antecedents and consequents of strategic managerial accounting capability in a heuristic view.

A summary of the key literature review on strategic managerial accounting capability is presented in Table 1.

Table 1: Summary of Key Literature Reviews on Strategic Managerial Accounting Capability

Author(s)	Title	Research Focus/Hypotheses	Methods	Results
Chenhall and Langfield-Smith (1998a)	The relationship between strategic priorities, management techniques and management accounting: an empirical investigation using a system approach	To examines how combinations of management techniques and management accounting practices enhance the performance of organizations.	Survey 140 manufacturing firms selected from the Business Review Weekly list of Australia's largest companies (78 firms, response rate 56%), cluster analysis.	Management techniques included in the study were improving existing processes, quality systems, manufacturing systems innovations, integrating systems, team-based structures and human resource management policies.

Table 1: Summary of Key Literature Reviews on Strategic Managerial Accounting Capability (Continued)

Author(s)	Title	Research Focus/Hypotheses	Methods	Results
Chenhall and Langfield-Smith (1998b)	Adoption and benefits of management accounting practices: an Australian study	To identify the extent to which Australian manufacturing firms have adopted certain traditional and recently developed management accounting practice.	Survey 140 manufacturing firms selected from the Business Review Weekly list of Australia's largest companies (78 firms, response rate 56%).	The rates of adoption of traditional management accounting practices were higher than recently developed techniques. Newer techniques (ABC) were more widely adopted than found in prior surveys. The benefits obtained from traditional management accounting techniques were higher than those of newer techniques.

Table 1: Summary of Key Literature Reviews on Strategic Managerial Accounting Capability (Continued)

Author(s)	Title	Research Focus/Hypotheses	Methods	Results
Anderson and Lanen (1999)	Economic transition, strategy and the evolution of management accounting practices: the case of India	To explores the evolution of a broad range of management accounting practices.	Field-based research 14 Indian firms' adaptation to a more open, market economy.	Differences in management accounting practices in 1996 are examined in relation to firms' experience in and exposure to world markets prior to liberalization and as a function of contemporaneous differences in competitive strategy. They find evidence of changes associated with shifts in the external environment.

Table 1: Summary of Key Literature Reviews on Strategic Managerial Accounting Capability (Continued)

Author(s)	Title	Research Focus/Hypotheses	Methods	Results
Kennedy and Affleck-Graves (2001)	The impact of activity-based costing techniques on firm performance	To examine whether the many documented successful case study implementations of ABC are, on average, translated into superior stock performance.	Surveys were sent to the UK firms selected from the lists of The Times 1,000 from 1995 and 1996. Usable response rate 27.4%. Dependent variable is firm performance (Stock return, ROE, profit margin, asset turnover, debt ratio).	The adoption of ABC significantly improves a firm's relative performance in terms of both market and accounting-based measures. The superior stock performance of the ABC firms is not immediate, but took until the second half of the three-year study period to manifest itself.

Table 1: Summary of Key Literature Reviews on Strategic Managerial Accounting Capability (Continued)

Author(s)	Title	Research Focus/Hypotheses	Methods	Results
Guilding, Cravens, and Tayles (2000)	An international comparison of strategic management accounting practices	What accounting practices may comprise strategic management accounting, cross-country comparisons.	Questionnaire survey large companies in New Zealand, UK, USA.	12 SMA practice in the survey, results suggest that competitor accounting and strategic pricing are mostly used. Cross-country comparisons highlight fairly similar levels of SMA usage.
Joshi (2001)	The international diffusion of new management accounting practices: the case of India	To determine the extent to which management accounting practices have been adopted by Indian manufacturing companies, the degree of benefits derived from, and the future emphasis on, each of the management accounting techniques.	Questionnaire surveys of Indian manufacturing companies selected from the Center for Monitoring Indian Economy's list of 500 companies, response rate 24.4%.	Indian manufacturing companies rely heavily on traditional management accounting techniques. In most of the cases, higher benefits were derived from the traditional practices compared to the newly developed practices.

Table 1: Summary of Key Literature Reviews on Strategic Managerial Accounting Capability (Continued)

Author(s)	Title	Research Focus/Hypotheses	Methods	Results
Cadez and Guilding (2008)	An exploratory investigation of an integrated contingency model of strategic management accounting	To examines the effect of strategic choices, market orientation, and company size on two distinct dimensions of SMA.	Questionnaires were mailed to selected firms from the Slovenian Chamber of Commerce and Trade from among the 500 largest companies. 388 firms, 49.7% response rate. Independent variables are strategy type (prospector/defender), SMA usage accountants' participation, market orientation, company size. Dependent variable is firm performance.	Company size and strategy had a significant bearing on the successful application of SMA.

Table 1: Summary of Key Literature Reviews on Strategic Managerial Accounting Capability (Continued)

Author(s)	Title	Research Focus/Hypotheses	Methods	Results
Barker (2009)	Exploring the relationship between SBU performance and management accounting techniques	To cluster 42 management accounting techniques.	Survey senior accounting executives of larger Canadian companies, 102 companies. Cluster and discriminant analysis. Strategy type (prospector/defender), SMA usage accountants' participation, market orientation, company size. Dependent variable is firm performance.	There is a relationship between different levels of SBU performance and usage of management accounting techniques. Variable costing/pricing, sales forecasting, gross margin reports, strategic cost management and marketing cost reports are sufficient to correctly support SBU performance.

Table 1: Summary of Key Literature Reviews on Strategic Managerial Accounting Capability (Continued)

Author(s)	Title	Research Focus/Hypotheses	Methods	Results
Ma and Tayles (2009)	On the emergency of strategic management accounting: an institutional perspective	To investigate management accounting change in a large UK pharmaceutical company and to document the practice.	Case study, Meditech group, a global medical technology company operating in 33 countries.	The result of interviews and meetings revealed an increasing strategic role for management accountants in informing strategic decision-making.
Cinquini and Tenucci (2010)	Strategic management accounting and business strategy: a loose coupling?	To investigate whether business strategy influences SMA.	Internet questionnaire survey of Italian companies.	Customer accounting, competitive position monitoring, competitor performance appraisal based on published financial statement and quality costing represent the most widely used SMA techniques in the Italian sample. Defender and cost leader type of strategy are found to be more willing to use SMA technique address cost information.

Table 1: Summary of Key Literature Reviews on Strategic Managerial Accounting Capability (Continued)

Author(s)	Title	Research Focus/Hypotheses	Methods	Results
Abdul Rahman et al. (2012)	Strategic management accounting and benchmarking practices in Malaysian hospitals	To describes the use of a particular management accounting technology (benchmarking) in 3 Malaysian hospitals.	Interviews with decision support specialists and medical experts.	The fundamental differences between the model hospital and two other hospitals have been identified mainly on the managerial approaches and the extent to application of this SMA technology in improving business operations and decision-making functions.
Cuganesan, Dunford, and Palmer (2012)	Strategic management accounting and strategy practices within a public sector agency	To examines the role of management accounting in organizational practices through which strategy is enacted, and does this by way of a longitudinal study of a public sector agency.	A longitudinal case study of a public sector agency. Data collected by two phase interviews, observations, and archival material comprising annual reports.	Particular management accounting techniques being used for strategizing by entities in the public sector provides a useful counter-point to the private sector orientation that has dominated SMA research to date.

Table 1: Summary of Key Literature Reviews on Strategic Managerial Accounting Capability (Continued)

Author(s)	Title	Research Focus/Hypotheses	Methods	Results
Lohr (2012)	Specificities of managerial accounting at SMEs: case studies from the German Industrial Sector	To investigate the extent that managerial accounting conducted at SME firms in Germany is aligned to the field's state of the art as suggested in academic publications.	5 case study, interviews and surveys SME industrial sector.	SME are often restrained in their ability to exercise managerial accounting because they lack the necessary resources. Managerial accounting can be equally beneficial to these firms as it is to large corporations.

Table 1: Summary of Key Literature Reviews on Strategic Managerial Accounting Capability (Continued)

Author(s)	Title	Research Focus/Hypotheses	Methods	Results
Abdul Al and McLellan (2013)	Strategy and management accounting practices alignment and its effect on organizational performance	To study the effect on performance by the degree of fit between the various management accounting practices that an organization employs and the strategy pursued by that organization.	Questionnaire and interview, 215 firms were selected in Egyptian stock exchange, and senior management accountants or the financial managers were asked about 42 MA techniques.	Organizational performance depends on the fit between organizational context and structure. If an organization has a good alignment between management accounting practices and strategy employed, this fit has both a positive and significant effect on operational performance. Management accounting practices do not differ from one industry to another, but rather from one strategy to another. The type of industry does not have an impact on the type of management accounting practices adopted; it is the type of strategy that must be supported with specific management accounting practices that have an impact on performance.

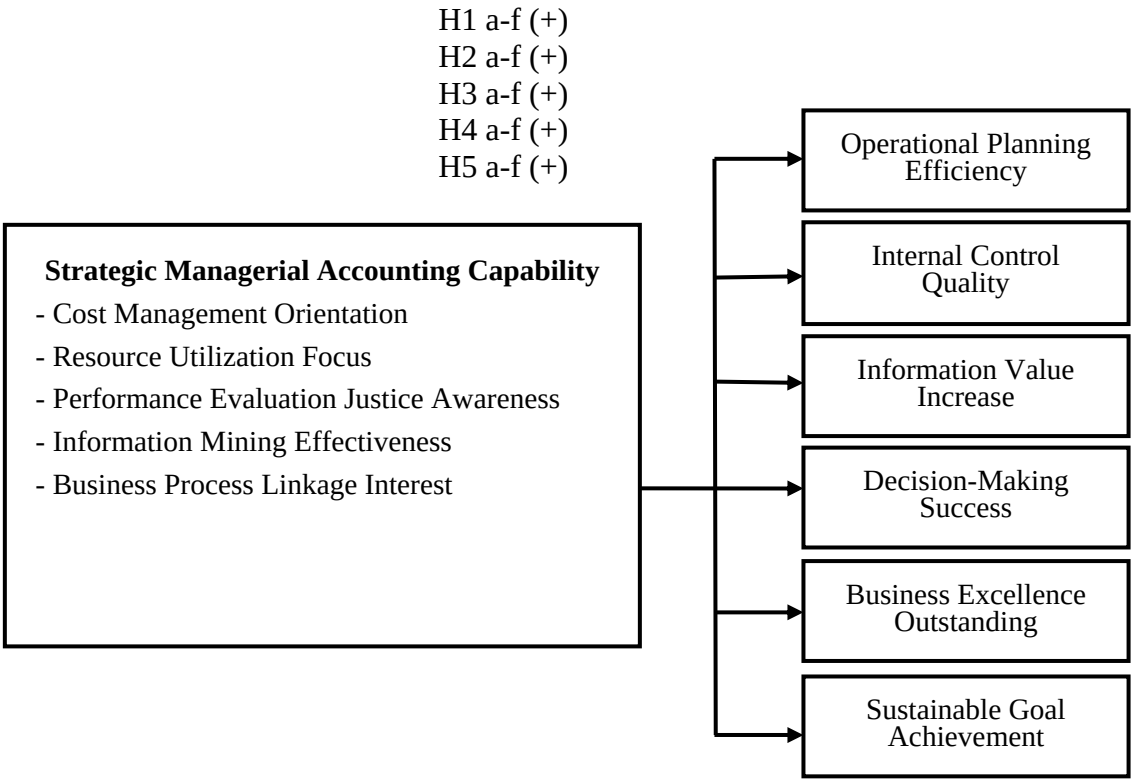
Table 1: Summary of Key Literature Reviews on Strategic Managerial Accounting Capability (Continued)

Author(s)	Title	Research Focus/Hypotheses	Methods	Results
Laing (2013)	Different strategic types operating in the same industry: a multiple case study	To examine the viability of different strategic types operating in the same industry.	Multiple case approach with general insurance industry in Australia, data collected by surveys and interviews.	The analysis revealed that different strategic types (defender/prospector /analyzer) can successfully exist in the same industry by adopting different performance priorities, different management control systems and different approaches to external environmental issues.

Strategic Managerial Accounting Capability and Its Consequences

For the constructs of strategic managerial accounting capability, five dimensions are posited that consist of 1) cost management orientation, 2) resource utilization focus, 3) performance evaluation justice awareness, 4) information mining effectiveness, and 5) business process linkage interest, all of which are combined in the following model.

Figure 2: The Effects of Strategic Managerial Accounting Capability on Its Consequences



Cost Management Orientation

Currently, the economic environment has become more complex among industries due to developments in global markets in different industries, increased competition in providing top quality products with reasonable prices, and other issues. They all need to be managed within the complex challenges of business transactions, and they require rapid, informed and relevant information. At the same time, firms are

making efforts to increase their profitability ratios with minimum cost. These efforts compel companies to keep costs under control and to use the most accurate and reliable cost systems (Apak et al., 2012).

The first component of strategic managerial accounting capability that supports a firm's strategy to achieve sustainable goals is cost management orientation. Cost management orientation in this situation refers to the techniques for developing the strategic position of a firm. It can be explained as a coherent set of cost management systems used for providing both financial and competitive advantage (Apak et al., 2012). Strategic cost management is a method oriented to the planning and control of enterprise activities, and an analysis of the sellers, buyers and competitors in the value chain.

Shank and Govindarajan (1992) state that cost information plays into four stages of strategic management: strategy formulation, strategy communication, strategy implementation and strategic control. In addition, cost management responsibility is a three-part process: value chain analysis, strategic positioning analysis, and cost driver analysis. Cost information plays an important role in the decisions of pricing, product-mixing, making-or-buying, cost-reducing, and developing new products. Cost information can help firms to achieve competitive strategy, which is significant to business decision-making (Robin and Kaplan, 1988).

In this research, cost management orientation is defined as the focus on using modern and appropriate management accounting or cost techniques to obtain cost information. This cost information provides for accurate, complete, timely, and relevant decision-making, including decisions about product design, product pricing, product mix, and customer profitability to enhance competitive advantage (Anderson and Lanen, 1999; Kaneko et al., 2013; Nicolaou, 2002; Swenson, 1995).

Prior research reveals that the higher levels of cost system sophistication are positively associated with the importance of cost information (Al-Omiri and Drury, 2007). The level of cost information has a positive influence on firm performance (Anderson, Asdemir, and Tripathy, 2013). Cadez and Guilding (2008) have identified that company size and strategic type (prospector/defender) have a significant bearing on the successful application of a cost system. In another instance of cost management

research, Alsoboa and Aldehayyat (2013) indicated that the use of modern techniques of management accounting is not due to one strategy, but that all strategies contribute to the use of such techniques, which might signal the importance of implementing multiple strategies. They reveal that activity-based costing, target costing, business process re-engineering and benchmarking should adopt cost leadership, differentiation, and a focus on as many strategies as possible (Alsoboa and Aldehayyat, 2013).

Abdel-Al and McLellan (2013) have shown that organizational performance depends on the fit between organizational context and structure. If an organization has good alignment between management accounting practices and employed strategy, this fit has both a positive and significant effect on operational performance. Management accounting practices do not differ from one industry to another, but rather from one strategy to another. The type of industry does not have an impact on the type of management accounting practices adopted; it is the type of strategy that must be supported with specific management accounting practices which have an impact on performance. Similarly, Cadez and Guilding (2008) suggest that the implementation of strategic cost management tools, positively and significantly affects business performance. In conclusion, cost management orientation has a strategic role in informing strategic decision-making (Ma and Tayles, 2009) and is also used to monitor and control the business process of the firms (Chenhall, 2007).

According to the theoretical and literature review as mentioned above, cost management orientation is focused on using management accounting tools for strategic decision-making in a monitoring and controlling role. Hence, cost management orientation has the potential to positively affect operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement. The hypotheses are proposed as follows.

Hypothesis 1a: The higher the cost management orientation is, the more likely that firms will gain greater operational planning efficiency.

Hypothesis 1b: The higher the cost management orientation is, the more likely that firms will gain greater internal control quality.

Hypothesis 1c: The higher the cost management orientation is, the more likely that firms will gain greater information value increase.

Hypothesis 1d: The higher the cost management orientation is, the more likely that firms will gain greater decision-making success.

Hypothesis 1e: The higher the cost management orientation is, the more likely that firms will gain greater business excellence outstanding.

Hypothesis 1f: The higher the cost management orientation is, the more likely that firms will gain greater sustainable goal achievement.

Resource Utilization Focus

The second dimension of strategic managerial accounting capability is resource utilization focus. Resource utilization focus refers to the coordination process which involves the allocation of specific resources to activities that may affect others. Resource utilization focus includes both tangible and intangible assets, knowledge, skills and experience, innovation technology, know-how, and opportunities between the inter-functional team and inter-organizational team for supporting the work of business processes to achieve corporate target costing (Barney, 2001).

In this research, resource utilization focus is defined as the emphasis on the resource allocation process, the ability to react to stress, and the use of resources for maximizing benefits. Firms can analyze exact resource requirements, allocating adequate necessary resources, and use resources efficiently (Abernethy and Brownell, 1999; Balkin et al., 2000; Hanpuwadol and Ussahawanitchakit, 2010).

The prior research suggests that firms should have an ability to appraise resource usage toward minimizing the resources on economizing (Balkin et al., 2000). The level of resource allocation or investment has a positive impact on firm performance (Chen and Hsu, 2010), and resource utilization efficiency directly

improves performance within an organization (Chaikambang, Ussahawanitchakit, and Boonlua, 2012). Based on the previous literature, the related hypotheses are postulated as follows.

Hypothesis 2a: The higher the resource utilization focus is, the more likely that firms will gain greater operational planning efficiency.

Hypothesis 2b: The higher the resource utilization focus is, the more likely that firms will gain greater internal control quality.

Hypothesis 2c: The higher the resource utilization focus is, the more likely that firms will gain greater information value increase.

Hypothesis 2d: The higher the resource utilization focus is, the more likely that firms will gain greater decision-making success.

Hypothesis 2e: The higher the resource utilization focus is, the more likely that firms will gain greater business excellence outstanding.

Hypothesis 2f: The higher the resource utilization focus is, the more likely that firms will gain greater sustainable goal achievement.

Performance Evaluation Justice Awareness

The third dimension of strategic managerial accounting capability is performance evaluation justice awareness. The objectives of performance evaluation justice awareness are to measure operational success and motivation by influencing changes in employees' behavior for enhancing firm performance (Jiambalvo, 2001).

Performance evaluation justice awareness consists of procedural and distributive justice. Procedural justice refers to the fairness of procedures by which performance is evaluated. Fair procedures are valuable because they allow individuals control over outcomes. Distributive justice refers to individuals comparing their input-

output ratios with those of others in order to determine the level of fairness. When individuals perceive inequity, they modify their effort, or change their perceptions of inputs or outcomes. In performance appraisals, individuals compare their efforts with the rating they received, and the fairness of the rating is perceived as a form of distributive justice (Erdogan, 2002).

In this research, performance evaluation justice awareness is defined as the perception among employees of the fairness of the systems of evaluation and reporting. The performance evaluation provides fairness in the evaluation process, presents the performance report accurately, and provides relevant information. Thus, firms can then be able to motivate and influence an employee's behavioral changes to achieve a better management accounting system (Erdogan, 2002; Jiambalvo, 2001; Lau et al., 2008; Loi et al., 2012; Melkonian, Monin, and Noorderhaven, 2011).

One role of management accounting is to be responsible for providing information relevant to the decisions of executives in planning and controlling (Chong and Eggleton, 2003). Management accounting plays into both the development and operation of performance measurement systems (Chenhall and Langfield-Smith, 1998). Prior research reveals that performance evaluation systems should participate in the process of design in multilevel organizations (Haas and Kleingeld, 1999). Fullerton and McWatters (2002) provide empirical evidence that the use of non-traditional performance measures such as bottom-up measures, product quality, and vendor quality, as well as incentive systems of employee empowerment and compensation rewards for quality production are related to the degree of just-in-time (JIT) implemented practices (Fullerton and McWatters, 2002). Performance evaluation and compensation that are based on total quality management (TQM) can enhance organization profitability (Chenhall, 1997).

Performance evaluation justice awareness enhance the strategic competitiveness of organizations. The influence of performance measurement systems on strategic outcomes is indirect through the mediating roles of the alignment of manufacturing with strategy and organizational learning (Chenhall, 2005). Difficult goals are significantly more likely to lead to performance gains if individuals are committed to achieving them (Webb, 2004).

The justice of performance evaluation leads to providing a variety of benefits such as improved performance, information for personnel decisions, and creating opportunity for communication (Bouskila Yam and Kluger, 2011). It also affects task performance, leads to improving the work process (Erdogan, 2002), and affects firm performance (Bouskila-Yam and Klugger, 2011).

In conclusion, based on the substantial available literature, the awareness of performance evaluation justice has a positive influence on operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement. This research accordingly suggests the hypotheses are as follows:

Hypothesis 3a: The higher the performance evaluation justice awareness is, the more likely that firms will gain greater operational planning efficiency.

Hypothesis 3b: The higher the performance evaluation justice awareness is, the more likely that firms will gain greater internal control quality.

Hypothesis 3c: The higher the performance evaluation justice awareness is, the more likely that firms will gain greater information value increase.

Hypothesis 3d: The higher the performance evaluation justice awareness is, the more likely that firms will gain greater decision-making success.

Hypothesis 3e: The higher the performance evaluation justice awareness is, the more likely that firms will gain greater business excellence outstanding.

Hypothesis 3f: The higher the performance evaluation justice awareness is, the more likely that firms will gain greater sustainable goal achievement.

Information Mining Effectiveness

Data is the raw material that is obtained from the sources. Data tells nothing; for example, the number of customers, as the data from a service station, is not as meaningful as why the customer went to that service station. Information has been defined as data endowed with relevance and purpose. Information is most valuable when it makes a difference for the receiver to know about it. The fourth dimension of strategic managerial accounting capability is information mining effectiveness.

Information mining effectiveness refers to the process of extracting previously unknown, comprehensible, and actionable information from any source, including transactions, documents, e-mail, web pages, and others; and then using it to make crucial business decisions (Tkach, 1998). The concept of information mining is known as the process of discovering new and valuable information from a large collection of raw data (Firestone, 1997), and which should enhance the decision-making of the organization (Webb, 2004).

In this research, information mining effectiveness is defined as the strategy of an efficient information management system to collect, integrate, retrieve, and distribute relevant information to optimize sustainable goal achievement (Nicolaou, 2000; Webb, 2004).

The prior research indicates that the different function areas within an organization promote the increased need to minimize redundancies, create coordination requirements for the sharing of scarce resources, and enable the interdependence of any function (Govindarajan and Fisher, 1990; Nicolaou, 2000). Firms should have the ability to effectively integrate information between function areas that can generate a whole picture of the organization's information and increase the value of its work.

Prior research indicates that information mining has a positive influence on operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement. This research accordingly suggests the hypotheses are as follows:

Hypothesis 4a: The higher the information mining effectiveness is, the more likely that firms will gain greater operational planning efficiency.

Hypothesis 4b: The higher the information mining effectiveness is, the more likely that firms will gain greater internal control quality.

Hypothesis 4c: The higher the information mining effectiveness is, the more likely that firms will gain greater information value increase.

Hypothesis 4d: The higher the information mining effectiveness is, the more likely that firms will gain greater decision-making success.

Hypothesis 4e: The higher the information mining effectiveness is, the more likely that firms will gain greater business excellence outstanding.

Hypothesis 4f: The higher the information mining effectiveness is, the more likely that firms will gain greater sustainable goal achievement.

Business Process Linkage Interest

The fifth dimension of strategic managerial accounting capability is business process linkage interest. According to the literature of management accounting, it is suggested that managerial accounting information plays a role in four business management processes: formulating strategies, communicating those strategies throughout the organization, developing and carrying out tactics to implement the strategies, developing and implementing controls to monitor the success of the implementation steps, and the success in meeting the strategic objective (Shank, 1989). Consequently, management accounting interacts with all functions within the organization. Strategic managerial accounting should have the ability to communicate and link value chains or business processes.

The value chain for any firm, in any business, is the linked set of value-creating activities, all the way from basic raw material sources for component suppliers through the ultimate end-use product delivered into the final consumers' hands (Shank, 1989). The elements of the value chain differ in their association with product outcomes, marketing, and production that are related to product quality, and research and

development which are related to product innovation. Procurement, for example, is related to both product quality and product innovation (Prajogo, McDermott, and Goh, 2008).

In this research, business process linkage interest is defined as the cooperative system between functions or departments to achieve profitability and competitive advantage. The achievement of inter-functional cooperation in organizations will be built into the process to create information sharing, joint problem-solving, willingness to adapt to unanticipated changes, and restraining from the use of power to the disadvantage of other participants (Mahama, 2006).

The prior research demonstrates that the level of responsiveness to managerial accounting information has a positive relationship with the increase in firm performance. Firms might combine precedent and antecedent information in formulating the operation (Anderson et al., 2013). Business process linkage interest is the key to achieving competitive advantage (Prajogo et al., 2008) and has a positive influence on firm performance (Hitt, Ireland, and Hoskisson, 1999). Management communication of organization-related information, such as information about change, organizational policies, procedures and financial factors will enhance employees' psychological attachment, encourage them to perceive their status, and contribute to achieving organizational goals. Based on the prior literature, business process linkage interest has a positive influence on operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement. This research proposes the hypotheses are as follows:

Hypothesis 5a: The higher the business process linkage interest is, the more likely that firms will gain greater operational planning efficiency.

Hypothesis 5b: The higher the business process linkage interest is, the more likely that firms will gain greater internal control quality.

Hypothesis 5c: The higher the business process linkage interest is, the more likely that firms will gain greater information value increase.

Hypothesis 5d: The higher the business process linkage interest is, the more likely that firms will gain greater decision-making success.

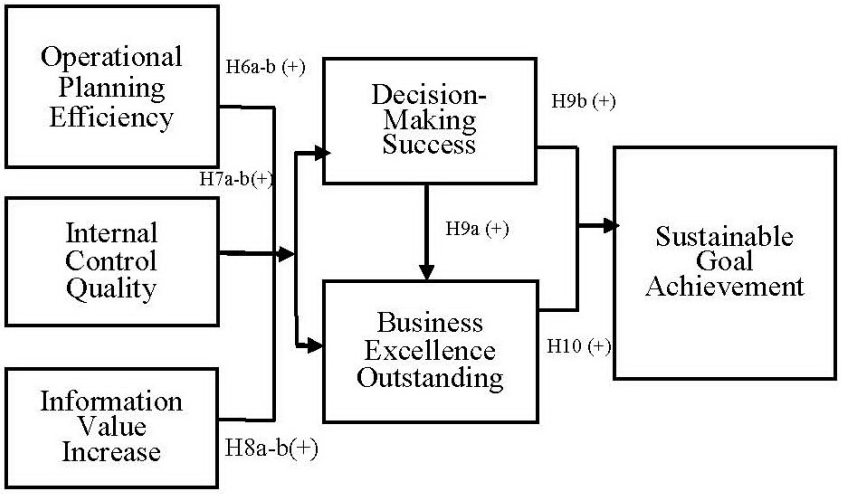
Hypothesis 5e: The higher the business process linkage interest is, the more likely that firms will gain greater business excellence outstanding.

Hypothesis 5f: The higher the business process linkage interest is, the more likely that firms will gain greater sustainable goal achievement.

The Effects of Strategic Managerial Accounting Capability Consequences on Sustainable Goal Achievement

This research employs operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement as the consequences of strategic managerial accounting capability.

Figure 3: The Effects of Strategic Managerial Accounting Capability Consequences on Sustainable Goal Achievement



Operational Planning Efficiency

Operational planning efficiency is the process of translating a strategic plan to plan and action; it also includes budget planning. This plan describes milestones, conditions for success, and explains how or what portion of a strategic plan will be put into operation during a given operational period (Camillus and Grant, 1980). Operational planning efficiency also includes new processes and practices that define the way that the organization will conduct business.

In this research, operational planning efficiency is defined as the ability of operation planning to achieve, accuracy of forecast and resource usefulness. The prior research indicated that operational planning efficiency appears strongly associated with several indicators of performance. Robinson, Logan, and Salem (1986) found that food retailers who engaged in comprehensive operational planning—covering marketing, inventory, finance and personnel issues—should experience higher performance than competitors who do not engage in comprehensive operational planning efforts. Also, regular operational planning leads to more timeliness. Firms which implement a formal budgeting practice have higher firm performance (King, Clarkson, and Wallace, 2010). Poon, Pike, and Tjosvold (2001) state that operational planning efficiency depends on establishing strongly cooperative goals among team members and overall business goals. Strategic managerial accounting provides information and work procedures to monitor and control the business process; hence, strategic managerial accounting capability leads firms to have operational planning efficiency. The hypotheses are proposed as follows:

Hypothesis 6a: There is a positive relationship between operational planning efficiency and decision-making success.

Hypothesis 6b: There is a positive relationship between operational planning efficiency and business excellence outstanding.

Internal Control Quality

Internal control quality refers to a system of policies and procedures a firm employs to safeguard the firm's assets, ensure accurate and reliable accounting records and information, promote efficiency, and measure compliance with established policies (Committee of Sponsoring Organizations of the Treadway Commission: COSO, 1992). Internal control can be divided into five separate components: control environment, risk assessment, control activities, information and communication, and monitoring.

Wouters and Verdaasdong (2002 cited from Zimmerman, 1997) describes two purposes of internal accounting systems: to provide some of the knowledge necessary for planning and decision-making, and to help motivate and monitor people in organizations. Thus, if firms have strategic managerial accounting capability, they will have better internal control quality. The prior research indicates that managerial accounting information is appropriate for monitoring the firm's organizational activities (Hoque, 2000). This results in budgetary control budgeting and strategic planning which play important roles in managing risk (Abdul-Rahman et al., 2012).

In this research, internal control quality is defined as the high standards of an efficient system of policies and procedures a firm employs to safeguard the firm's assets, ensure accurate and reliable working processes, promote efficiency, and measure compliance with established policies. The hypotheses are established below:

Hypothesis 7a: There is a positive relationship between internal control quality and decision-making success.

Hypothesis 7b: There is a positive relationship between internal control quality and business excellence outstanding.

Information Value Increase

An increased in information value is a central feature of decision analysis (Bickel, 2008). Zhao et al. Culley (2008) have introduced an approach to identify the characteristics of information value as follows: accessibility, usability, currentness, contextualized, accuracy, availability, and relevance. Williams, Eaton, and Breininger

(2011) argued that an increase in information value can be used to help decisions made in the face of uncertainty. Sori (2009) demonstrates that financial information value is valuable data processing that provides a basis for making decisions within an organization.

In this research, information value increase is defined as information whose effectiveness and responsiveness for information users has increased (Bickel, 2008). Further, the value of information mitigates the uncertainty of decision solutions and enhances competitive advantage. Valuable information empowers firms to compete more effectively in the marketplace because they can utilize valuable information resources to help minimize various forms of waste such as inventory excesses or inadequate underutilized business processes. They can also rapidly respond to changing market needs (Cowling and Waterson, 1976), and the firms are able to reduce cost and improve service in order to enhance firm value (Brynjolfsson and Hitt, 2000). Valuable cost specialization information provides satisfaction to managers to support organizational activities in order to increase effectiveness (Lin and Yu, 2002). Dunk (2004) found that strategic managerial accounting capability has an effect on the quality of management information. William and Seaman (2002) found that strategic managerial accounting capability provide value-added information for managerial decision making and control activity, which then facilitates the achievement of business goals. The related hypotheses are proposed below:

Hypothesis 8a: There is a positive relationship between information value increase and decision-making success.

Hypothesis 8b: There is a positive relationship between information value increase and business excellence outstanding.

Decision-Making Success

Decision-making success is the process of choosing among the alternative solutions available to an action or a problem situation (Raiborn, Kinney, and Prather-Kinsey, 2006). Most decisions are unprogrammed and have at least some degree of uncertainty, ambiguity and complexity. Strategic managerial accounting capability can

reduce the uncertainty and complexity of actions. Information should help prior to the decision-making process by preparing the decision; during the decision-making by simulating the decision options; and afterward, by communicating the final decision to the performers, including the control of its execution (Socea, 2012).

Management accounting information can affect managerial decision-making in two ways: directly as an input to decisions, or indirectly by influencing the behavior of managers (Wall and Greiling, 2011). Decision-facilitating information refers to the management accounting information that is intended to reduce the pre-decision uncertainty of the decision-maker and enhance the probability of making better decisions with respect to the desired objectives. The decision-influencing function refers to management accounting information that is important only in multi-person contexts that intend to affect the behavior of other persons; and additionally, in the management context, to influence managerial decision-making. As mentioned above, management accounting information can be used for both decision-facilitating as well as for the decision-influencing function.

The prior research has indicated that management accounting information helps managers to know what happened in the past, and what is the present situation of the company, making visible those events that are not perceptible by daily activities, providing a quantitative overview of the company, and helping managers prepare for future activities and decisions (Socea, 2012). Strategic managerial accounting capability facilitates managerial decision-making, mitigates uncertainty and increases the probability of decision-making success. Kennedy and Affleck-Graves (2001) indicated that strategic managerial accounting capability positively affects investment decision and operating decision of firms.

In this research, decision-making success is defined as the assessment by the decision-maker to successfully achieve the purposes of their decisions. Decision-making success can be observed from the decision-maker's point of view as to the successful, relevant information for decisions obtained from strategic managerial accounting capability. This research, accordingly, proposes the following hypotheses:

Hypothesis 9a: There is a positive relationship between decision-making success and business excellence outstanding.

Hypothesis 9b: There is a positive relationship between decision-making success and sustainable goal achievement.

Business Excellence Outstanding

Business excellence outstanding is implied in customer focus, stakeholder value, and process management through the use of strategic managerial accounting capability with the goal of improving performance (Rivard, Raymond, and Verreault, 2006). Business excellence outstanding is a long-term process, concerned with key strategic issues which utilize those best practices that have been linked to the development of continuous performance over the competition (Bunnoon, Ussahawanitchakit, and Janjarasjit, 2013). Business excellence outstanding contains a number of management tools to support managers and team members to achieve measurable success in increasing both short and long-term profitability, competitiveness and sustainability (Zhao, 2004).

Strategic managerial accounting capability enhances the firm's ability to develop and maintain competitive advantage, provide the best practices, and encourage creative innovation (Abbott, 2004; Nah, Islam, and Tan, 2007). The prior research has demonstrated that managerial accounting information has a positive influence on organization performance (Mia and Clarke, 1999).

Business excellence outstanding has become a recent goal of the quality movement (Macleod and Baxter, 2001), and prior research has found that pursuing business excellence and sustainable development has profound managerial implications for sustainable development in the corporate world (Zhao, 2004).

In this research, business excellence outstanding is defined as the best practice to develop core functional processes, to perform better, and to develop quality to provide excellence to customers. This research proposes the following hypothesis:

Hypothesis 10: There is a positive relationship between business excellence outstanding and sustainable goal achievement.

Sustainable Goal Achievement

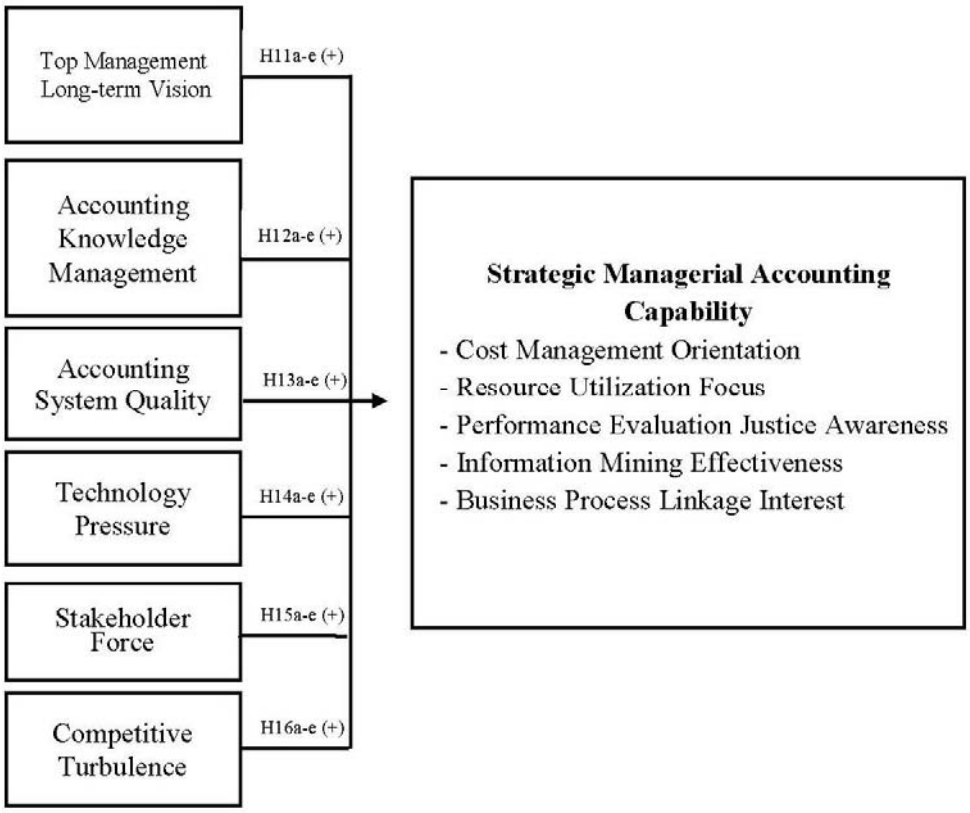
The World Commission on Environment and Development defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Zhao (2004 cited from Turner, 1990) defines sustainable development as activities that maximize the net benefits of economic development while maintaining the services and quality of natural resources over time. Songini and Pistoni (2012) state that a firm that intends to embed sustainable principles in practice needs to use strategic managerial accounting capability to influence people's behavior and to align people's objectives with the firm's goals and strategies. Strategic managerial accounting capability also deals with the identification of the drivers of past and future performance and the related indicators, and this suggests the need for alignment between business strategy and sustainable goal achievement.

In this research, sustainable goal achievement is defined as a firm that succeeds to maximize profitability, market share, competitiveness, and reputation through opportunity. Furthermore, firms can operate in the long run or in an uncertain environment. The prior research suggests that if firms aim to become sustainable, managers must address the dimensions of sustainability at the strategic level as part of their strategy content at the corporate, business and functional level (Bonn and Fisher, 2011).

Antecedents of Strategic Managerial Accounting Capability

This research has designates top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence as the antecedents of strategic managerial accounting capability.

Figure 4: The Effects of Antecedents on Strategic Managerial Accounting Capability



Top Management Long-term Vision

Vision is the future of a company and is that basic factor which reflects a clear understanding of the present and future situations, displaying the objectives of a company. Moreover, vision is more import for an organization in that it leads to goals and objectives (Altiok, 2011). Vision in the long-term view describes how the organization would like the world in which it operates to be.

Top management long-term vision refers to a holistic future successfully built upon a multi-dimensional performance concept, including long-term financial success, long-term growth, and organizational and social commitment (Srikarsem, Ussahawanitchakit, and Muenthaisong, 2009). The executive is a key factor in supporting and promoting the adoption of innovative methods or techniques used in the organization, and the vision for long-term operation that occurs within the minds of

each individual executive which could be different, and which would reflect their different needs (Prasong, Ussahawanitchakit, and Muenthaisong, 2013).

In this research, top management long-term vision is defined as an idealized goal which leaders create to achieve in the future, and that emphasizes the long-term viewpoint to achieve organizational outcomes in the long run (Korbangyang, Ussahawanitchakit, and Suwannarat, 2010). The prior research suggests that management employs allocation methods to influence the behavior of managers to take action in the best interest of the firms (Ramadan, 1989). Furthermore, support from top management also positively influences the accounting information system (Komala, 2012). Hence, this research proposes the following hypotheses:

Hypothesis 11a: There is a positive relationship between top management long-term vision and cost management orientation.

Hypothesis 11b: There is a positive relationship between top management long-term vision and resource utilization focus.

Hypothesis 11c: There is a positive relationship between top management long-term vision and performance evaluation justice awareness.

Hypothesis 11d: There is a positive relationship between top management long-term vision and information mining effectiveness.

Hypothesis 11e: There is a positive relationship between top management long-term vision and business process linkage interest.

Accounting Knowledge Management

Accounting knowledge management is defined as the development of an accountant's capability, attendance in training, partial experience, and accounting initiative. Accounting knowledge management should provide a strong fundamental understanding of accounting, auditing, and tax; including the history of the accounting profession and accounting thought, as well as the content, concepts, structure and

meaning of reporting for organizational operations, both for internal and external use. It also includes the methods for identifying, gathering, summarizing, verifying, analyzing and interpreting financial data (Awayiga, Onumah, and Tsamenyi, 2010).

Chenhall (2003) suggests that training for accountant competency has a significant positive influence on cost accounting success. Tontiset, Ussahawanitchakit, and Thanyakhan (2010) found that accountant competency is associated with successful cost accounting implementation. Lin (2008) suggests that the importance of intellect and the understanding of processes affect the accuracy of accounting information. Lin, Xiong, and Liu (2005), and Lin (2008) demonstrate that the knowledge and skills of accounting professionals, as well as changing demands, stem from the new business environment. Chankaew, Ussahawanitchakit, and Boonlua (2012) found that accounting knowledge positively relates to cost allocation concentration, target pricing focus, performance evaluation competency, customer profitability analysis, and activity-based management (ABM) capability.

The knowledge of the accounting manager also influences the accounting information system (Komala, 2012). Wang and Huynh (2013) found that knowledge management integrated with managerial accounting practice can improve firm performance. Hence, this research proposes the following hypotheses:

Hypothesis 12a: There is a positive relationship between accounting knowledge management and cost management orientation.

Hypothesis 12b: There is a positive relationship between accounting knowledge management and resource utilization focus.

Hypothesis 12c: There is a positive relationship between accounting knowledge management and performance evaluation justice awareness.

Hypothesis 12d: There is a positive relationship between accounting knowledge management and information mining effectiveness.

Hypothesis 12e: There is a positive relationship between accounting knowledge management and business process linkage interest.

Accounting System Quality

Accounting system refers to the preparation guide in recording transactions in line with reality and according to the specified accounting standards, as well as the preparation of financial reports to reflect the performance of the organization for the executives' and stakeholders' formation guidelines in effectively implementing accounting policies and procedures (Bunnoon, Ussahawanitchakit, and Janjarasjit, 2013)

In this research, accounting system quality as Bunnoon et al. (2013) define it, is the measure of excellence or a state of being free from defects, deficiencies and significant variations, with an organized set of manual and computerized accounting methods, procedures, and controls established to gather, record, classify, analyze, summarize, interpret, and present accurate and timely financial data for management decisions. The prior research suggest that accounting system quality has a positive effect on strategic managerial accounting capability (Mia and Clarke, 1999; Nicolaou, 2002; Sutton, 2006). Hence, this research proposes the following hypotheses as:

Hypothesis 13a: There is a positive relationship between accounting system quality and cost management orientation.

Hypothesis 13b: There is a positive relationship between accounting system quality and resource utilization focus.

Hypothesis 13c: There is a positive relationship between accounting system quality and performance evaluation justice awareness.

Hypothesis 13d: There is a positive relationship between accounting system quality and information mining effectiveness.

Hypothesis 13e: There is a positive relationship between accounting system quality and business process linkage interest.

Technology Pressure

Technology pressure is defined as the advance and movement of information technology and other relative activities, operations, practices, and strategies. t can affect positive and negative outcomes, and performance of the firms' organization, executives and employees (Lichtenthaler, 2007). Technology limitations may constrain the design of an accounting system (Haldma and Laats, 2002) while new technology may lead to changes in the cost structure and accounting system. As technological progress continues, the strategic managerial accounting capability will probably become more complex and sophisticated.

Prior research suggests that technology change is the key driver of increasing labor and capital productivity, and has become the major driving force of long-term economic growth (Belegri-Roboli and Michaelides, 2006). Rapid changes in technology and systems also increase the difficulty of managing the change process (Sutton, 2006). The speed of forward change of technology associated with new technology products impact on a firm's operation procedures (Glazer and Weiss, 1993). Hence, this research proposes the following hypotheses:

Hypothesis 14a: There is a positive relationship between technology pressure and cost management orientation.

Hypothesis 14b: There is a positive relationship between technology pressure and resource utilization focus.

Hypothesis 14c: There is a positive relationship between technology pressure and performance evaluation justice awareness.

Hypothesis 14d: There is a positive relationship between technology pressure and information mining effectiveness.

Hypothesis 14e: There is a positive relationship between technology pressure and business process linkage interest.

Stakeholder Force

Stakeholder force is defined as the needs that firms perceive of all persons involved with the firm, and those relationships which impact (both directly and indirectly), dominate or monitor activities of the firm. The pressure of stakeholders' influences shapes a firm's decision. Many internal and external stakeholders are interested in the sustainability of firms. Internal stakeholders such as employees and managers might be affected by the workforce within the work environment. Furthermore, external stakeholders include communities affected by investors, creditors, government agencies, shareholders, investors, customers, and suppliers (Lee and Hutchison, 2005). Murillo-Luna, Graces-Ayerbe, and Rivera-Torres (2008) indicate that force from stakeholders has an effect on the reporting system of the firm. This research proposes the following hypotheses:

Hypothesis 15a: There is a positive relationship between stakeholder force and cost management orientation.

Hypothesis 15b: There is a positive relationship between stakeholder force and resource utilization focus.

Hypothesis 15c: There is a positive relationship between stakeholder force and performance evaluation justice awareness.

Hypothesis 15d: There is a positive relationship between stakeholder force and information mining effectiveness.

Hypothesis 15e: There is a positive relationship between stakeholder force and business process linkage interest.

Competitive Turbulence

The key element of the external environment is competitive turbulence, as described by Porter (1985). Competitive turbulence in this research is defined as the unpredictability of external conditions of change that may affect the competitive environment. The competition in the market pressures firms; thus, managers use strategic managerial accounting capability to control and evaluate the operation to mitigate the risk of uncertainty and try to gain competitive advantage. Waweru (2008) suggests that competition intensity has an influence on managerial accounting system change. Mia and Clarket (1999) indicate that the effect of competitive intensity is on the level of strategic managerial accounting capability and firm performance. Hence, this research proposes the following hypotheses:

Hypothesis 16a: There is a positive relationship between competitive turbulence and cost management orientation.

Hypothesis 16b: There is a positive relationship between competitive turbulence and resource utilization focus.

Hypothesis 16c: There is a positive relationship between competitive turbulence and performance evaluation justice awareness.

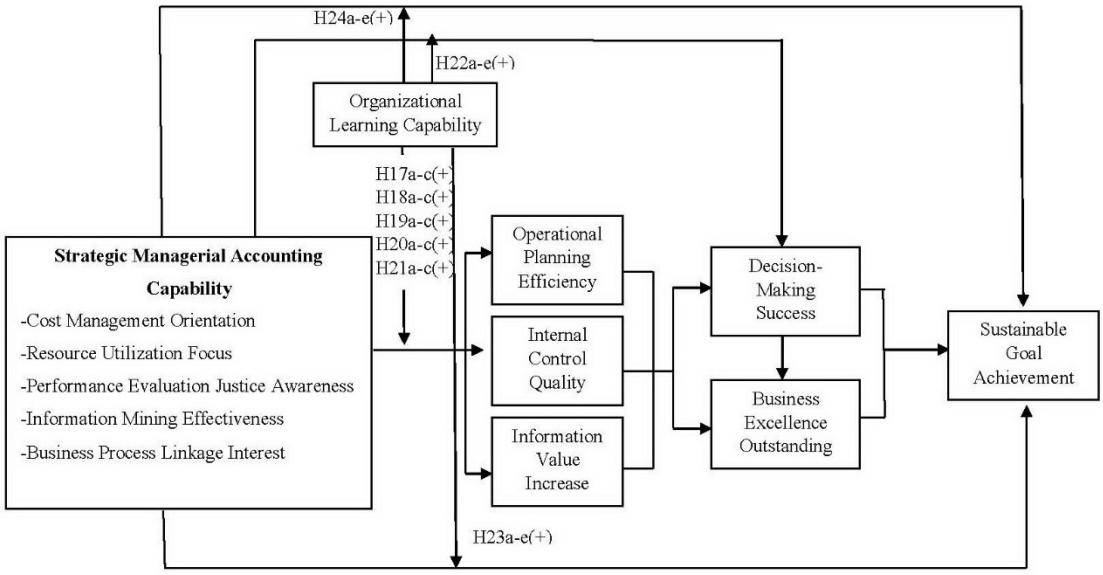
Hypothesis 16d: There is a positive relationship between competitive turbulence and information mining effectiveness.

Hypothesis 16e: There is a positive relationship between competitive turbulence and business process linkage interest.

Moderating Effects of Organizational Learning Capability

This research addresses organizational learning capability as the moderator of the relationships among strategic managerial accounting capability and the consequents of operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement.

Figure 5: The Moderating Effects of Organizational Learning Capability



Organizational Learning Capability

Organizational learning capability is defined as the organization's ability to create and improve knowledge based on managerial commitment, systems perspective, knowledge transfer, and integration of all the processes in an organization (Sookaneknun, Ussahawanitchakit, and Boonlua, 2013).

The prior research suggests that strategic managerial accounting capability enhances the strategic competitiveness of organizations. The influence of strategic managerial accounting capability on strategic outcomes is indirect through the mediating roles of the alignment of manufacturing with strategy and organizational learning (Chenhall, 2005). Liao, Fei, and Liu (2008) found that organizational learning

capability has an important positive effect on firm performance. Said, Hui, Othman, and Taylor (2010) demonstrated that organizational learning capability has direct mediating effects on strategic managerial accounting capability and organizational performance. Choe (2004) demonstrated that organizational learning capability has a moderating impact on the relationship between strategic managerial accounting capability and firm performance. Thus, the hypotheses are formulated as follows:

Hypothesis 17a: Organizational learning capability will positively moderate the relationships between cost management orientation and operational planning efficiency.

Hypothesis 17b: Organizational learning capability will positively moderate the relationships between cost management orientation and internal control quality.

Hypothesis 17c: Organizational learning capability will positively moderate the relationships between cost management orientation and information value increase.

Hypothesis 18a: Organizational learning capability will positively moderate the relationships between resource utilizing focus and operational planning efficiency.

Hypothesis 18b: Organizational learning capability will positively moderate the relationships between resource utilizing focus and internal control quality.

Hypothesis 18c: Organizational learning capability will positively moderate the relationships between resource utilizing focus and information value increase.

Hypothesis 19a: Organizational learning capability will positively moderate the relationships between performance evaluation justice awareness and operational planning efficiency.

Hypothesis 19b: Organizational learning capability will positively moderate the relationships between performance evaluation justice awareness and internal control quality.

Hypothesis 19c: Organizational learning capability will positively moderate the relationships between performance evaluation justice awareness and information value increase.

Hypothesis 20a: Organizational learning capability will positively moderate the relationships between information mining effectiveness and operational planning efficiency.

Hypothesis 20b: Organizational learning capability will positively moderate the relationships between information mining effectiveness and internal control quality.

Hypothesis 20c: Organizational learning capability will positively moderate the relationships between information mining effectiveness and information value increase.

Hypothesis 21a: Organizational learning capability will positively moderate the relationships between business process linkage interest and operational planning efficiency.

Hypothesis 21b: Organizational learning capability will positively moderate the relationships between business process linkage interest and internal control quality.

Hypothesis 21c: Organizational learning capability will positively moderate the relationships between business process linkage interest and information value increase.

Hypothesis 22a: Organizational learning capability will positively moderate the relationships between cost management orientation and decision-making success.

Hypothesis 22b: Organizational learning capability will positively moderate the relationships between resource utilization focus and decision-making success.

Hypothesis 22c: Organizational learning capability will positively moderate the relationships between performance evaluation justice awareness and decision-making success.

Hypothesis 22d: Organizational learning capability will positively moderate the relationships between information mining effectiveness and decision-making success.

Hypothesis 22e: Organizational learning capability will positively moderate the relationships between business process linkage interest and decision-making success.

Hypothesis 23a: Organizational learning capability will positively moderate the relationships between cost management orientation and business excellence outstanding.

Hypothesis 23b: Organizational learning capability will positively moderate the relationships between resource utilization focus and business excellence outstanding.

Hypothesis 23c: Organizational learning capability will positively moderate the relationships between performance evaluation justice awareness and business excellence outstanding.

Hypothesis 23d: Organizational learning capability will positively moderate the relationships between information mining effectiveness and business excellence outstanding.

Hypothesis 23e: Organizational learning capability will positively moderate the relationships between business process linkage interest and business excellence outstanding.

Hypothesis 24a: Organizational learning capability will positively moderate the relationships between cost management orientation and sustainable goal achievement.

Hypothesis 24b: Organizational learning capability will positively moderate the relationships between resource utilization focus and sustainable goal achievement.

Hypothesis 24c: Organizational learning capability will positively moderate the relationships between performance evaluation justice awareness and sustainable goal achievement.

Hypothesis 24d: Organizational learning capability will positively moderate the relationships between information mining effectiveness and sustainable goal achievement.

Hypothesis 24e: Organizational learning capability will positively moderate the relationships between business process linkage interest and sustainable goal achievement.

Summary

This chapter has detailed the conceptual model of the effects of strategic managerial accounting capability on sustainable goal achievement. This chapter has presented the theoretical foundation, relevant literature review, and hypothesis development. The conceptual framework is derived from Resource-Advantage Theory and Contingency Theory. In addition, this research has proposed a set of 24 testable hypotheses. Strategic managerial accounting capability is the main concern of this research and shall focus on its antecedents and consequents. This research also

investigates the impacts of operational planning efficiency, internal control quality, information value increase, decision-making success, and business excellence outstanding on sustainable goal achievement through the effect of the moderating role of organizational learning capability. Moreover, the effects of the antecedents, including top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence are investigated. Table 2 presents the summaries of all hypothesized relationships.

The next chapter describes the research methods including the population, sample selection and data collection procedure, the variable measurements of each construct, methods, statistics and equations to test the hypotheses and summarize the definitions and operational variables of all constructs as shown.

Table 2: Summary of Hypothesized Relationships

Hypothesis	**Description of Hypothesized Relationships**
H1a	The higher the cost management orientation is, the more likely that firms will gain greater operational planning efficiency.
H1b	The higher the cost management orientation is, the more likely that firms will gain greater internal control quality.
H1c	The higher the cost management orientation is, the more likely that firms will gain greater information value increase.
H1d	The higher the cost management orientation is, the more likely that firms will gain greater decision-making success.
H1e	The higher the cost management orientation is, the more likely that firms will gain greater business excellence outstanding.
H1f	Hypothesis 1f: The higher the cost management orientation is, the more likely that firms will gain greater sustainable goal achievement.
H2a	The higher the resource utilization focus is, the more likely that firms will gain greater operational planning efficiency.
H2b	The higher the resource utilization focus is, the more likely that firms will gain greater internal control quality.

Table 2: Summary of Hypothesized Relationships (Continued)

Hypothesis	Description of Hypothesized Relationships
H2c	The higher the resource utilization focus is, the more likely that firms will gain greater information value increase.
H2d	The higher the resource utilization focus is, the more likely that firms will gain greater decision-making success.
H2e	The higher the resource utilization focus is, the more likely that firms will gain greater business excellence outstanding.
H2f	The higher the resource utilization focus is, the more likely that firms will gain greater sustainable goal achievement.
H3a	The higher the performance evaluation justice awareness is, the more likely that firms will gain greater operational planning efficiency.
H3b	The higher the performance evaluation justice awareness is, the more likely that firms will gain greater internal control quality.
H3c	The higher the performance evaluation justice awareness is, the more likely that firms will gain greater information value increase.
H3d	The higher the performance evaluation justice awareness is, the more likely that firms will gain greater decision-making success.
H3e	The higher the performance evaluation justice awareness is, the more likely that firms will gain greater business excellence outstanding.
H3f	The higher the performance evaluation justice awareness is, the more likely that firms will gain greater sustainable goal achievement.
H4a	The higher the information mining effectiveness is, the more likely that firms will gain greater operational planning efficiency.
H4b	The higher the information mining effectiveness is, the more likely that firms will gain greater internal control quality.
H4c	The higher the information mining effectiveness is, the more likely that firms will gain greater information value increase.

Table 2: Summary of Hypothesized Relationships (Continued)

Hypothesis	Description of Hypothesized Relationships
H4d	The higher the information mining effectiveness is, the more likely that firms will gain greater decision-making success.
H4e	The higher the information mining effectiveness is, the more likely that firms will gain greater business excellence outstanding.
H4f	The higher the information mining effectiveness is, the more likely that firms will gain greater sustainable goal achievement.
H5a	The higher the business process linkage interest is, the more likely that firms will gain greater operational planning efficiency.
H5b	The higher the business process linkage interest is, the more likely that firms will gain greater internal control quality.
H5c	The higher the business process linkage interest is, the more likely that firms will gain greater information value increase.
H5d	The higher the business process linkage interest is, the more likely that firms will gain greater decision-making success.
H5e	The higher the business process linkage interest is, the more likely that firms will gain greater business excellence outstanding.
H5f	The higher the business process linkage interest is, the more likely that firms will gain greater sustainable goal achievement.
H6a	There is a positive relationship between operational planning efficiency and decision-making success.
H6b	There is a positive relationship between operational planning efficiency and business excellence outstanding.
H7a	There is a positive relationship between internal control quality and decision-making success.
H7b	There is a positive relationship between internal control quality and business excellence outstanding.

Table 2: Summary of Hypothesized Relationships (Continued)

Hypothesis	Description of Hypothesized Relationships
H8a	There is a positive relationship between information value increase and decision-making success.
H8b	There is a positive relationship between information value increase and business excellence outstanding.
H9a	There is a positive relationship between decision-making success and business excellence outstanding.
H9b	There is a positive relationship between decision-making success and sustainable goal achievement.
H10	There is a positive relationship between business excellence outstanding and sustainable goal achievement.
H11a	There is a positive relationship between top management long-term vision and cost management orientation.
H11b	There is a positive relationship between top management long-term vision and resource utilization focus.
H11c	There is a positive relationship between top management long-term vision and performance evaluation justice awareness.
H11d	There is a positive relationship between top management long-term vision and information mining effectiveness.
H11e	There is a positive relationship between top management long-term vision and business process linkage interest.
H12a	There is a positive relationship between accounting knowledge management and cost management orientation.
H12b	There is a positive relationship between accounting knowledge management and resource utilization focus.
H12c	There is a positive relationship between accounting knowledge management and performance evaluation justice awareness.

Table 2: Summary of Hypothesized Relationships (Continued)

Hypothesis	Description of Hypothesized Relationships
H12d	There is a positive relationship between accounting knowledge management and information mining effectiveness.
H12e	There is a positive relationship between accounting knowledge management and business process linkage interest.
H13a	There is a positive relationship between accounting system quality and cost management orientation.
H13b	There is a positive relationship between accounting system quality and resource utilization focus.
H13c	There is a positive relationship between accounting system quality and performance evaluation justice awareness.
H13d	There is a positive relationship between accounting system quality and information mining effectiveness.
H13e	There is a positive relationship between accounting system quality and business process linkage interest.
H14a	There is a positive relationship between technology pressure and cost management orientation.
H14b	There is a positive relationship between technology pressure and resource utilization focus.
H14c	There is a positive relationship between technology pressure and performance evaluation justice awareness.
H14d	There is a positive relationship between technology pressure and information mining effectiveness.
H14e	There is a positive relationship between technology pressure and business process linkage interest.
H15a	There is a positive relationship between stakeholder force and cost management orientation.

Table 2: Summary of Hypothesized Relationships (Continued)

Hypothesis	Description of Hypothesized Relationships
H15b	There is a positive relationship between stakeholder force and resource utilization focus.
H15c	There is a positive relationship between stakeholder force and performance evaluation justice awareness.
H15d	There is a positive relationship between stakeholder force and information mining effectiveness.
H15e	There is a positive relationship between stakeholder force and business process linkage interest.
H16a	There is a positive relationship between competitive turbulence and cost management orientation.
H16b	There is a positive relationship between competitive turbulence and resource utilization focus.
H16c	There is a positive relationship between competitive turbulence and performance evaluation justice awareness.
H16d	There is a positive relationship between competitive turbulence and information mining effectiveness.
H16e	There is a positive relationship between competitive turbulence and business process linkage interest.
H17a	Organizational learning capability will positively moderate the relationships between cost management orientation and operational planning efficiency.
H17b	Organizational learning capability will positively moderate the relationships between cost management orientation and internal control quality.
H17c	Organizational learning capability will positively moderate the relationships between cost management orientation and information value increase.

Table 2: Summary of Hypothesized Relationships (Continued)

Hypothesis	Description of Hypothesized Relationships
H18a	Organizational learning capability will positively moderate the relationships between resource utilizing focus and operational planning efficiency.
H18b	Organizational learning capability will positively moderate the relationships between resource utilizing focus and internal control quality.
H18c	Organizational learning capability will positively moderate the relationships between resource utilizing focus and information value increase.
H19a	Organizational learning capability will positively moderate the relationships between performance evaluation justice awareness and operational planning efficiency.
H19b	Organizational learning capability will positively moderate the relationships between performance evaluation justice awareness and internal control quality.
H19c	Organizational learning capability will positively moderate the relationships between performance evaluation justice awareness and information value increase.
H20a	Organizational learning capability will positively moderate the relationships between information mining effectiveness and operational planning efficiency.
H20b	Organizational learning capability will positively moderate the relationships between information mining effectiveness and internal control quality.
H20c	Organizational learning capability will positively moderate the relationships between information mining effectiveness and information value increase.

Table 2: Summary of Hypothesized Relationships (Continued)

Hypothesis	Description of Hypothesized Relationships
H21a	Organizational learning capability will positively moderate the relationships between business process linkage interest and operational planning efficiency.
H21b	Organizational learning capability will positively moderate the relationships between business process linkage interest and internal control quality.
H21c	Organizational learning capability will positively moderate the relationships between business process linkage interest and information value increase.
H22a	Organizational learning capability will positively moderate the relationships between cost management orientation and decision-making success.
H22b	Organizational learning capability will positively moderate the relationships between resource utilization focus and decision-making success.
H22c	Organizational learning capability will positively moderate the relationships between performance evaluation justice awareness and decision-making success.
H22d	Organizational learning capability will positively moderate the relationships between information mining effectiveness and decision-making success.
H22e	Organizational learning capability will positively moderate the relationships between business process linkage interest and decision-making success.
H23a	Organizational learning capability will positively moderate the relationships between cost management orientation and business excellence outstanding.

Table 2: Summary of Hypothesized Relationships (Continued)

Hypothesis	Description of Hypothesized Relationships
H23b	Organizational learning capability will positively moderate the relationships between resource utilization focus and business excellence outstanding.
H23c	Organizational learning capability will positively moderate the relationships between performance evaluation justice awareness and business excellence outstanding.
H23d	Organizational learning capability will positively moderate the relationships between information mining effectiveness and business excellence outstanding.
H23e	Organizational learning capability will positively moderate the relationships between business process linkage interest and business excellence outstanding.
H24a	Organizational learning capability will positively moderate the relationships between cost management orientation and sustainable goal achievement.
H24b	Organizational learning capability will positively moderate the relationships between resource utilization focus and sustainable goal achievement.
H24c	Organizational learning capability will positively moderate the relationships between performance evaluation justice awareness and sustainable goal achievement.
H24d	Organizational learning capability will positively moderate the relationships between information mining effectiveness and sustainable goal achievement.
H24e	Organizational learning capability will positively moderate the relationships between business process linkage interest and sustainable goal achievement.

CHAPTER III

RESEARCH METHODS

The prior chapter delineated the understanding of strategic managerial accounting capability with a theoretical foundation, literature review, conceptual framework, and development of testable hypotheses. This chapter describes the research methods which are organized as follows. Firstly, the sample selection and data collection procedures, including a description of the population and methods for selecting the sample, the data collection, and the test of non-response bias are discussed. Subsequently, the variable measurements are presented. Thirdly, a description of the methods used, including tests of validity and reliability, and the analytical statistics are detailed. Also, the related regression equations are presented. Finally, tables that presents the summaries of the definitions and the operation variables of the constructs are included.

Sample Selection and Data Collection Procedure

This research studies the heuristic views of strategic managerial accounting capability as antecedents and consequents. The population is ISO9001 manufacturing firms in Thailand, totaling 1,057 firms as identified from the database of the Thai Industrial Standards Institute, Ministry of Industry. These firms are the most valuable for investigation in strategic managerial accounting capability for three reasons. Firstly, “ISO-certificated firms” means that firms have a series of standards, developed and published by the International Organization for Standardization that define, establish, and maintain an effective, quality, assurance system for manufacturing and service industries. The prior research suggests that ISO certification supports firm performance and gains a competitive advantage (Ussahawanitchakit, 2002). Secondly, strategic managerial accounting supports the management process of the firms to meet sustainable goal achievement, which is closely related to the value chain of the firms. Therefore, ISO9001-certificated firms are assured for their design, development, manufacturing, installation, and service. Firms that have adopted these standards of

quality as a strategic goal need measures other than short-term financial measures to monitor and control the success, making ISO9001 firms suitable to be investigated for strategic managerial accounting capability. Finally, this research has chosen to study strategic managerial accounting capability in Thailand because Thailand is ranked 38th in the Global Competitiveness Report of the World Economic Forum 2013. Furthermore, the previous research reveals that this quality is an important priority in order to enhance the manufacturing firms' competitiveness in Thailand (Phusavat and Kanchana, 2007). Thus, strategic managerial accounting capability leads to meet the sustainable goal achievement, and therefore the manufacturing firms certified by ISO9001 in Thailand will provide an excellent research context suitable for this topic.

Population and Sample

The population of this research is ISO9001 manufacturing firms in Thailand, a total of 1,057 firms drawn from the website of the Thai Industrial Standards Institute, Ministry of Industry, Thailand (http://www.tisi.go.th, last accessed February 1, 2014). This database is a complete source that provides an address, certified type, and certified date.

According to Yamane (1973), an appropriate sample size is calculated by the following equation.

$$n = \frac{N}{1 + Ne^2}$$

Where,

n = sample size

N = population size

e = level of precision

At a 95% confidence level, an appropriate sample size can be calculated as below:

$$n = \frac{1,057}{1 + 1,057(.05)^2}$$

n = 290

The average response rate for a mail survey in prior accounting research is 20% (Aaker, Kumar, and Day, 2001). Therefore, to achieve a sufficient amount of returned mail surveys, all of the 1,057 firms are selected as the population sample of this research.

Data Collection

This research focuses on a study design in which the variables are measured at one time. Therefore, this research employs a mailed questionnaire as the instrument for collecting data. This is an appropriate and effective survey because mailing questionnaires is a widely-used method for large-scale data collection in behavioral accounting. A mail survey can be distributed to a variety of locations at low cost and with ease of implementation (Dillman, 2000).

The key informants are the accounting managers of firms because they have a major responsibility in strategic managerial accounting capability. They can also provide direct information and have an understanding of their business. After completion, the questionnaires were directly sent back to the researcher by the prepaid returned envelopes that were provided to ensure confidentiality.

The questionnaire for the survey was developed in two stages. Firstly, the questionnaire was designed based on the literature review, to identify relevant concepts and earlier operationalized scale items. Some items were derived from existing validated scales while some have been developed specifically for this research. All of the scales have been approved by experienced persons to establish the face validity of the construct. Secondly, two academic experts in management accounting and strategic management served as professional judges to evaluate each item on the scale. Their comments and suggestions were used to improve the questionnaire.

The questionnaire consisted of seven parts. Part one was about the personal information of the key informant such as gender, age, marital status, experience in the accounting profession, average monthly income, and present working position. Part two consisted of questions about the profile of the business such as form of business, authorized capital, total assets, sales revenue per year, period of time in operation, number of employees, main customer group, and period of time in ISO9001. Part three

was about the strategic managerial accounting capability constructs in the conceptual model. Part four was to elicit opinions about the consequents of strategic managerial accounting capability such as operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement. Part five was to elicit opinions about internal factors, namely, top management long-term vision, accounting knowledge management, accounting system quality, and organizational learning capability. Part six was to elicit opinions about technology pressure, stakeholder force, and competitive turbulence. Part seven was an open-ended question and request for suggestions. The items in all constructs were developed from the literature review and were designed on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

An instrument package was sent that consisted of the questionnaire, a cover letter containing an explanation of the research, and a postage prepaid return envelope. This package was distributed to each key informant in April 2014. To encourage a higher response rate and reduce non-response bias, the suggestions of Dillman (2000) were adhered to. The planned schedule to collect the data was within eight weeks. At the first stage, the questionnaire was answered and sent back in the first four weeks. After four weeks, to increase response rate, a follow-up postcard was sent to firms which had not yet replied, to remind them to complete the questionnaire and to request their cooperation in answering it. For the convenience of follow-up mailing, questionnaires were pre-coded at the left corner on the back of the third page to enable non-respondents to be traced and followed-up. Two weeks after the postcard was sent, the researcher sent a follow-up mailing with a duplicate copy of the questionnaire and return envelope.

Of the total number of questionnaires mailed, 19 of the surveys were undeliverable because the address had moved to unknown locations. Removing the undeliverable from the original 1,056 mailed, the number of valid mailings was 1,038 surveys, from which 293 responses were returned. Since 10 responses were found incomplete and with response errors, these were deducted from further analysis. This left 283 completed questionnaires to be used, and thus with an effective response rate of 27.26%. According to Aaker, Kumar, and Day (2001), an acceptable response rate for a

mailed survey and appropriate follow up procedure is considered 20%. The details of usable questionnaires returned are presented in Table 3.

Table 3: Details of Questionnaire Mailing and Its Response Rate

Details	Numbers
Questionnaires Mailed	1,057
Returned Questionnaires	19
Successfully Mailed Questionnaires	1,038
Received Questionnaires	293
Incomplete Questionnaires	10
Complete and Usable Questionnaires	283
Effective Response Rate (283*100/1,038)	27.26%

Test of Non-Response Bias

The data that was collected was tested for non-response bias. To detect possible response bias problems, a t-test compared early and late respondents about the demographics and some important variables to test the bias (Armstrong and Overton, 1977). Then responses from the first mailing group were used to compare with responses received from the second mailing group on the basis of demographic information (industrial category, authorized capital, period of time in operation, number of employees, and period of time in ISO9001), and some important variables (cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest). If no statistically significant differences between early and late respondents, it demonstrates a lack of non-response bias between respondents and non-respondents. The early group represent the respondents whereas the later group stand in for non-respondents.

In this research, all 283 usable questionnaires were split equally into two groups. The early respondents are the first group and the late respondents are in the second. Then, first mailing group (142) are used to compare with the second mailing

group (141) in terms of their demographic information and some important variables. The results shown in Table B (Appendix B) presents no statically significant difference between early and late respondents at a 95% confidence level (industrial category, $t = -.035$, $p > .05$; authorized capital, $t = -.158$, $p > .05$; period of time in operation, $t = -.175$, $p > .05$; number of employees, $t = -.110$, $p > .05$; period of time in ISO9001, $t = -.157$, $p > .05$; cost management orientation, $t = -.142$, $p > .05$; resource utilization focus, $t = -.066$, $p > .05$; performance evaluation justice awareness, $t = .056$, $p > .05$; information mining .effectiveness, $t = .054$, $p > .05$; business process linkage interest, $t = .097$, $p > .05$).

Measurement

Variable measurements were developed from the related literature. All constructs are abstractions that cannot be directly observed or measured. Thus, the construct should be measured by multiple items (Churchill, 1979). This research transforms the abstractions into details of the definition of each construct, operational variables, scaled sources, and sample questions that are the items on the questionnaire. Each variable was measured on a five-point Likert scale, ranking from 1 (strongly disagree) to 5 (strongly agree). All constructs were developed for measuring from the definition of each construct, operational variables, and scale sources shown in Table 4. The variable measurements of the dependent variable, independent variables, antecedent variables, mediating variables, moderating variable, and controls of this research are elaborated as follows.

Dependent Variable

Sustainable Goal Achievement (SGA). Sustainable goal achievement is defined as the achievement of maximum profitability, market share, competitiveness, and reputation through opportunity. Furthermore, firms can operate in the long run or in an uncertain environment. This construct is measured using a six-item scale modified from Sampattikorn, Ussahawanitchakit, and Boonlua (2012).

Independent Variables

The core construct of this research is strategic managerial accounting capability. This variable is measured using five attributes: cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest. These attributes reflect practices aimed to achieve sustainable goal achievement. The measure of each attribute depends on its definition as detailed below.

Cost Management Orientation (CMO). Cost management orientation refers to a coherent set of cost management systems used for providing both financial and non-financial information. This construct is measured, using a five-item scale developed as a new scale based on its definition.

Resource Utilization Focus (RUF). Resource utilization focus refers to the ability to analyze exact resource requirements, allocate adequate necessary resources, and use resources efficiently. This construct is measured using a five-item scale developed as a new scale based on its definition.

Performance Evaluation Justice Awareness (PEJ). Performance evaluation justice awareness refers to the ability of the evaluation process of employee performance to be performed fairly, comparing it to the practical level and work procedure guidelines. This construct is measured using a five-item scale developed as a new scale based on its definition.

Information Mining Effectiveness (IME). Information mining effectiveness refers to the ability to collect, integrate, analyze, and communicate relevant information to users. This construct is measured using a five-item scale developed as a new scale based on its definition.

Business Process Linkage Interest (BPL). Business process linkage interest refers to the ability of collective activity between functions or departments to achieve profitability and competitive advantage. This construct is measured using a five-item scale developed as a new scale based on its definition.

Mediating Variables

Operational Planning Efficiency (OPE). Operational planning efficiency refers to the quality of planning, accuracy of forecasts, and resource usefulness of operation planning. This construct is measured using a five-item scale developed as a new scale based on its definition.

Internal Control Quality (ICQ). Internal control quality refers to the ability to monitor and control business processes. This construct is measured using a five-item scale developed as a new scale based on its definition.

Information Value Increase (IVI). Information value increase refers to firms integrating a variety of information and comprehensive information into all aspects of the business. This construct is measured using a five-item scale developed as a new scale based on its definition.

Decision-Making Success (DMS). Decision-making success refers to decision-makers who perceive the benefits of strategic managerial accounting by obtaining successful, relevant, and valuable information for decisions. This construct is measured using a five-item scale modified from Konthong, Ussahawanitchakit, and Boonlua (2010).

Business Excellence Outstanding (BE0). Business excellence outstanding refers to the successful practice available for the core function that is better than that of its competitors. This construct is measured using a five-item scale modified from Bunnoon, Ussahawanitchakit, and Janjarasjit (2013) and Chaikambang, Ussahawanitchakit, and Boonlua (2012).

Antecedent Variables

For this research, the internal and external factors are treated as the antecedents of strategic managerial accounting capability. This variable is measured using three factors of the internal factor, including top management long-term vision, accounting knowledge management, and accounting system quality. In addition, the three factors of the external factor are technology pressure, stakeholder force, and competitive

turbulence. The measure of each characteristic conforms to its definition to be discussed below.

Top Management Long-term Vision (TMV). Top management long-term vision refers to idealized goals focusing on an adjustment of strategy and policy to make a better fit with the changing environment, learning new operational processes, teamwork, and participation with subordinates for long-term growth. This construct is measured using a four-item scale modified from Korbangyang, Ussahawanitchakit, and Suwannarat (2010).

Accounting Knowledge Management (AKM). Accounting knowledge management refers to the emphasis and support for accounting knowledge in order to create guidelines that can be integrated and developed through appropriate knowledge management. This construct is measured using a four-item scale modified from Thammavinyu and Ussahawanitchakit (2013).

Accounting System Quality (ASQ). Accounting system quality refers to the development and application of accounting systems. A good accounting system is the operation of the company to achieve its goals. This construct is measured using a four-item scale modified from Bunnoon, Ussahawanitchakit, and Janjarasjit (2013).

Technology Pressure (THP). Technology pressure refers to the activities of adopting information technology and business practices. This construct is measured using a four-item scale developed as a new scale based on its definition.

Stakeholder Force (SHF). Stakeholder force refers to the issues which question the perceptions of internal and external persons who are in positions to influence the firm's decisions. This construct is measured using a four-item scale modified from Waroonkun and Ussahawanitchakit (2011).

Competitive Turbulence (CPT). Competitive turbulence refers to a level of competitive intensity which consists of a level of fierce competition such as in price wars and advertising wars (Kumar and Kumar, 2011); the level of entrants of competitors in the market place, the level of risk, and uncertain environments. This construct is measured using a five-item scale modified from Thammavinyu and Ussahawanitchakit (2103).

Moderating Variable

Organizational Learning Capability (OLC). Organizational learning capability refers to the organization's ability to create and improve knowledge based on managerial commitment, systems perspective, knowledge transfer, and the integration of all the processes in an organization. This construct is measured using a five-item scale modified from Sookaneknun, Ussahawanitchakit, and Boonlua (2013).

Control Variables

Firm Size (SIZ). Firm size is defined as a firm which has total assets more than 150,000,000 baht. The prior research indicated that firm size has an influence on the quality of accounting information because larger firms have intangible assets that can create firm value in the long-term (Barker, 2009; Cadez and Guilding, 2008; Celik, Ecer, and Karabacak, 2006; Solomon and Darby, 2005). Furthermore, others have found that the size of a firm has an influence on firm performance (Narver and Slater, 1990), the usefulness of accounting information (Defond, Hann, and Hu, 2005), and firm profitability (Maiga, Nilsson, and Jacobs, 2013). Hence, in this research, firm size is measured by a dummy variable "1" which refers to firms with total assets more than 150,000,000 baht, and "0" which refers to firms below that size.

ISO-Certified Timing (ISO). ISO-certified timing is defined as the amount of time under ISO9001 certification. The time of certification may impact the capability of accounting knowledge and the business processes of the firm. Firms with more time under ISO9001 certification may gain advantages over emerging firms. Hence, in this research, ISO-certified timing is measured by a dummy variable "1" referring to duration of certification less than 10 years, and "0" referring to ISO-certified duration of greater than 10 years.

Methods

In this research, tests of validity and reliability are undertaken which demonstrate the appropriateness of the data collection instrument and the credibility of the developed constructs. An additional method also presents the statistical techniques utilized in the analyses.

Validity and Reliability

Validity. Validity refers to the degree to which an instrument measures what it is supposed to measure (Kwok and Sharp, 1998). This research tests the validity of the instrument to confirm that a measure or set of measures accurately represent the concept of study. Two types of validity are tested: the first one is content validity, and second is construct validity.

Content validity is the extent to which the measurement represents the relevant content domain for the construct. Validity is the scale containing items which are adequate to measure what is intended to be measured (Nunnally and Bernstein, 1994). The content validity of the items can be established first by the prior literature review, in which the issues are scrutinized, and subsequently validated by two experts in academics research. These experts were requested to review and provide necessary recommendations to review the instrument in order to ensure that all constructs were sufficient to cover the contents of the variables.

Construct validity is an agreement between a theoretical concept and a specific measuring instrument or procedure. It is measured empirically by the correlation between the theoretically defined sets of variables. This research has tested the validity of the instrument to confirm that a measure or set of measures accurately represents the concepts of study. Factor analysis was utilized to check the validity of the instruments used for each of the constructs measured (Hair et al., 2010). Exploratory factor analysis (EFA) was used to test the new construct (cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, business process linkage interest, operational planning efficiency, internal control quality, information value increase, and technology pressure) and to reduce the

number of factors into a smaller set of single constructs or a high potential to inflate the component loading. Confirmatory factor analysis (CFA) was used to test the constructs developed from prior research (sustainable goal achievement, decision-making success, business excellence outstanding, top management long-term vision, accounting knowledge management, accounting system quality, stakeholder force, competitive turbulence, and operational learning capability). Factor loading is used to evaluate that validity should be greater than 0.40 (Nunnally and Berstein, 1994).

Reliability. Reliability refers to the degree of consistency and stability of a measure (O'Leary-Kelly and Vokurka, 1998). This research employs internal consistency for evaluating the reliability of the measurement; therefore, it refers to the degree to which items in the set are homogenous. The reliability of the measurements was evaluated by Cronbach's alpha coefficients. Cronbach's alpha values are equal to or greater than 0.70, indicating high construct reliability (Nunnally and Berstein, 1994).

The Pre-test of the Questionnaire

All constructs in the conceptual model consist of new scales that have been adopted and modified from prior research. A pre-test was used to confirm the validity and reliability of the questionnaire as having qualities of a good instrument. Thirty questionnaires were used in this pre-test, which measured the validity and reliability of the instrument. The size of factor loading was considered for the measurement of construct validity and Cronbach's alpha tested the internal consistency of each construct item that is considered for reliability of measurement. The results of factor loadings of each construct were greater than the 0.40 cut-off and are thus statistically significant. Consequently, this meets the construct validity as recommended by Nunnally and Berstein (1994). Additionally, the Cronbach's alpha coefficients for all variables expressed between 0.839 and 0.939, and exceeded the standard of 0.70 as recommended by Hair et al., (2010). As a result, the reliability of all variables can be accepted. The details of the description are presented in Table D (Appendix D). The results of factor loadings and alpha coefficients are presented in Table 4.

Table 4: Results of Validity and Reliability Testing

Constructs	N	Factor Loading	Alpha Coefficient
Cost Management Orientation (CMO)	30	.863-.939	.935
Resource Utilization Focus (RUF)	30	.830-.885	.905
Performance Evaluation Justice Awareness (PEJ)	30	.806-.923	.916
Information Mining Effectiveness (IME)	30	.824-.952	.928
Business Process Linkage Interest (BPL)	30	.815-.878	.898
Operational Planning Efficiency (OPE)	30	.827-.943	.939
Internal Control Quality (ICQ)	30	.812-.880	.904
Information Value Increase (IVI)	30	.797-.897	.909
Decision-Making Success (DMS)	30	.822-.889	.915
Business Excellence Outstanding (BEO)	30	.794-.911	.914
Sustainable Goal Achievement (SGA)	30	.604-.903	.887
Top Management Long-Term Vision (TMV)	30	.850-.944	.892
Accounting Knowledge Management (AKM)	30	.859-.942	.927
Accounting System Quality (ASQ)	30	.781-.862	.839
Technology Pressure (THP)	30	.748-.913	.881
Stakeholder Force (SHF)	30	.822-.930	.887
Competitive Turbulence (CPT)	30	.799-.938	.927
Organizational Learning Capability (OLC)	30	.759-.924	.907

Strategic managerial accounting capability consists of five dimensions: cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest. Each dimension has an influence on sustainable goal achievement. This research attempts to confirm that all five dimensions of strategic managerial accounting capability should be integrated together and at the same time, to test their joint impact on sustainable goal achievement. Table D (Appendix D) shows all five dimensions are loaded on one factor by themselves. The factor loading of five dimensions range from

0.806 to 0.952. All values of factor loading are higher than 0.40, which is consistent with the standards of Nunnally and Berstein (1994), for whom factor loadings greater than 0.40 were acceptable. The lowest factor loading of 0.604 was for sustainable goal achievement, and the highest factor loading of 0.952 was for information mining effectiveness. Thus, construct validity of this research is tapped by items in the measure as theorized. In addition, Cronbach's alpha coefficient vales were greater than the level of 0.70 as suggested by Hair et al., (2010). Therefore, this research has the reliability of all five constructs.

Statistics Techniques

Before testing the hypotheses, all raw data were checked, encoded, and recorded in a data file. After that, the basic assumption of multiple regression analysis was tested. This process involved checking the normality, heteroscedasticity, autocorrelation, and linearity. Moreover, the outlier problem was considered.

This research used descriptive analysis to provide the demographic data of key informants. The descriptive statistics of the variables were analyzed by mean, standard deviation, maximum and minimum of all variables. Inferential statistical techniques include factor analysis, variance inflation factor, correlation analysis, and regression analysis, each of which is fully discussed below:

Factor Analysis. Factor analysis is used to analyze the structure of the interrelationships among variables. In this research, the factor scores are selected for analyzing multiple regression analysis. The factor score is based on factor loading, meaning that every variable creates a factor score based on the size of its loading. Factor loading was found to be greater than 0.40 (Hair et al., 2010) and Cronbach's alpha was found to be greater than 0.7 (Nunnally and Berstein, 1994).

Correlation Analysis. A bivariate-correlation analysis of Pearson product-moment correlation was used to test the primary correlation between two variables. Correlation analysis is applied for testing the two assumption of regression analysis. Firstly, correlation analysis is used to test the relationship between independent variables and the dependent variable. The coefficient values between independent

variables and the dependent variable should be significantly correlated. Secondly, correlation coefficient is used as an indicator of multicollinearity assumptions, as the coefficient values between independent variables should be smaller than 0.80 and should not be significantly associated. However, if the coefficient values between independent variables is greater than 0.80, the multicollinearity problem will be identified by the variance inflation factor (VIF).

Variance Inflation Factor. The variance inflation factor (VIF) is an indicator of a high degree of multicollinearity among the variables. A multicollinearity problem is likely to exist when predictor variables correlate significantly with each other. This problem is hard to identify when there are separate effects of the predictors in the analysis. This research applied VIF to test multicollinearity among independent variables, and it provided an index that measures how much the variance of an estimated regression coefficient is increased as a result of collinearity. High VIF values indicate that a high degree of multicollinearity exists among independent variables. All VIF values should be smaller than 10 if it is to be considered that the associations among independent variables do not pose problems. (Hair et al., 2010). The results of regression analysis provide evidence that the VIF of each regression in the main variable ranges from 1.014 to 6.855, indicating that this research has no multicollinearity problem (See also Appendix E).

Regression Analysis. This research used the ordinary least squares (OLS) regression analysis to test the developed hypotheses and estimate factors affecting strategic managerial accounting capability, because both dependent and independent variables in this research are categorical data and interval data. Regression analysis indicates the strength of a relationship between two or more variables. It measures how much the dependent variable is explained by independent variables. Furthermore, ordinary least squares analysis is an appropriate method for examining the raw data in this research.

The independent variables for testing the developed hypotheses are cost management orientation (CMO), resource utilization focus (RUF), performance evaluation justice awareness (PEJ), information mining effectiveness (IME), business process linkage interest (BPL), top management long-term vision (TMV), accounting

knowledge management (AKM), accounting system quality (ASQ), technology pressure (THP), stakeholder force (SHF), and competitive turbulence (CPT). The mediating variables are operational planning efficiency (OPE), internal control quality (ICQ), information value increase (IVI), decision-making success (DMS), and business excellence outstanding (BEO). The moderator is organizational learning capability (OLC). The dependent variable is sustainable goal achievement (SGA). Finally, the control variables are firm size (SIZ), and ISO-certified timing (ISO). In this research, the detail of each equation of the aforementioned relationships are as follows.

The investigation of the relationships among five dimensions of strategic managerial accounting capability and operational planning excellence is presented in Equation 1 as follows:

$$\textit{Equation 1:} \quad OPE = \alpha_1 + \beta_1 CMO + \beta_2 RUF + \beta_3 PEJ + \beta_4 IME + \beta_5 BPL + \beta_6 SIZ + \beta_7 ISO + \varepsilon_1$$

The investigation of the relationships among five dimensions of strategic managerial accounting capability and internal control quality is presented in Equation 2 as follows:

$$\textit{Equation 2:} \quad ICQ = \alpha_2 + \beta_8 CMO + \beta_9 RUF + \beta_{10} PEJ + \beta_{11} IME + \beta_{12} BPL + \beta_{13} SIZ + \beta_{14} ISO + \varepsilon_2$$

The investigation of the relationships among five dimensions of strategic managerial accounting capability and information value increase is presented in Equation 3 as follows:

$$\textit{Equation 3:} \quad IVI = \alpha_3 + \beta_{15} CMO + \beta_{16} RUF + \beta_{17} PEJ + \beta_{18} IME + \beta_{19} BPL + \beta_{20} SIZ + \beta_{21} ISO + \varepsilon_3$$

The investigation of the relationships among five dimensions of strategic managerial accounting capability and decision-making success is presented in Equation 4 as follows:

$$\textit{Equation 4:} \quad DMS = \alpha_4 + \beta_{22}CMO + \beta_{23}RUF + \beta_{24}PEJ + \beta_{25}IME + \beta_{26}BPL + \beta_{27}SIZ + \beta_{28}ISO + \varepsilon_4$$

The investigation of the relationships among five dimensions of strategic managerial accounting capability and business excellence outstanding is presented in Equation 5 as follows:

$$\textit{Equation 5:} \quad BEO = \alpha_5 + \beta_{29}CMO + \beta_{30}RUF + \beta_{31}PEJ + \beta_{32}IME + \beta_{33}BPL + \beta_{34}SIZ + \beta_{35}ISO + \varepsilon_5$$

The investigation of the relationships among five dimensions of strategic managerial accounting capability and sustainable goal achievement is presented in Equation 6 as follows:

$$\textit{Equation 6:} \quad SGA = \alpha_6 + \beta_{36}CMO + \beta_{37}RUF + \beta_{38}PEJ + \beta_{39}IME + \beta_{40}BPL + \beta_{41}SIZ + \beta_{42}ISO + \varepsilon_6$$

The investigation of the impacts of operational planning efficiency, internal control quality, and information value increase on decision-making success is presented in Equation 7 as follows:

$$\textit{Equation 7:} \quad DMS = \alpha_7 + \beta_{43}OPE + \beta_{44}ICQ + \beta_{45}IVI + \beta_{46}SIZ + \beta_{47}ISO + \varepsilon_7$$

The investigation of the impacts of operational planning efficiency, internal control quality, and information value increase on business excellence outstanding is presented in Equation 8 as follows:

Equation 8: $BEO = \alpha_8 + \beta_{48}OPE + \beta_{49}ICQ + \beta_{50}IVI + \beta_{51}SIZ + \beta_{52}ISO + \varepsilon_8$

The investigation of the relationship between decision-making and business excellence outstanding is presented in Equation 9 as follows:

Equation 9: $BEO = \alpha_9 + \beta_{53}DMS + \beta_{54}SIZ + \beta_{55}ISO + \varepsilon_9$

The investigation of the impacts of decision-making success and business excellence outstanding on sustainable goal achievement is presented in Equation 10 as follows:

Equation 10: $SGA = \alpha_{10} + \beta_{56}DMS + \beta_{57}BEO + \beta_{58}SIZ + \beta_{59}ISO + \varepsilon_{10}$

The investigation of the effects of antecedent variables on cost management orientation is presented in Equation 11 as follows:

Equation 11: $CMO = \alpha_{11} + \beta_{60}TMV + \beta_{61}AKM + \beta_{62}ASQ + \beta_{63}THP + \beta_{64}SHF + \beta_{65}CPT + \beta_{66}SIZ + \beta_{67}ISO + \varepsilon_{11}$

The investigation of the effects of antecedent variables on resource utilization focus is presented in Equation 12 as follows:

Equation 12: $RUF = \alpha_{12} + \beta_{68}TMV + \beta_{69}AKM + \beta_{70}ASQ + \beta_{71}THP + \beta_{72}SHF + \beta_{73}CPT + \beta_{74}SIZ + \beta_{75}ISO + \varepsilon_{12}$

The investigation of the effects of antecedent variables on performance evaluation justice awareness is presented in Equation 13 as follows:

$$\textit{Equation 13:} \quad PEJ = \alpha_{13} + \beta_{76}TMV + \beta_{77}AKM + \beta_{78}ASQ + \beta_{79}THP + \beta_{80}SHF + \beta_{81}CPT + \beta_{82}\,SIZ + \beta_{83}ISO + \varepsilon_{13}$$

The investigation of the effects of antecedent variables on information mining effectiveness is presented in Equation 14 as follows:

$$\textit{Equation 14:} \quad IME = \alpha_{14} + \beta_{84}TMV + \beta_{85}AKM + \beta_{86}ASQ + \beta_{87}THP + \beta_{88}SHF + \beta_{89}CPT + \beta_{90}\,SIZ + \beta_{91}ISO + \varepsilon_{14}$$

The investigation of the effects of antecedent variables on business process linkage interest is presented in Equation 15 as follows:

$$\textit{Equation 15:} \quad BPL = \alpha_{15} + \beta_{92}TMV + \beta_{93}AKM + \beta_{94}ASQ + \beta_{95}THP + \beta_{96}SHF + \beta_{97}CPT + \beta_{98}\,SIZ + \beta_{99}ISO + \varepsilon_{15}$$

The investigation of the role of the moderator, namely, organizational learning capability, which moderates the relationships among each dimension of strategic managerial accounting capability and operational planning efficiency, is presented in Equation 16 as follows:

$$\textit{Equation 16:} \quad OPE = \alpha_{16} + \beta_{100}CMO + \beta_{101}RUF + \beta_{102}PEJ + \beta_{103}IME + \beta_{104}BPL + \beta_{105}OLC + \beta_{106}(CMO*OLC) + \beta_{107}(RUF*OLC) + \beta_{108}(PEJ*OLC) + \beta_{109}(IME*OLC) + \beta_{110}(BPL*OLC) + \beta_{111}\,SIZ + \beta_{112}ISO + \varepsilon_{16}$$

The investigation of the role of the moderator, namely, organizational learning capability, which moderates the relationships among each dimension of strategic managerial accounting capability and internal control quality, is presented in Equation 17 as follows:

Equation 17: $ICQ = \alpha_{17} + \beta_{113}CMO + \beta_{114}RUF + \beta_{115}PEJ + \beta_{116}IME + \beta_{117}BPL + \beta_{118}OLC + \beta_{119}(CMO*OLC) + \beta_{120}(RUF*OLC) + \beta_{121}(PEJ*OLC) + \beta_{122}(IME*OLC) + \beta_{123}(BPL*OLC) + \beta_{124}SIZ + \beta_{125}ISO + \varepsilon_{17}$

The investigation of the role of the moderator, namely, organizational learning capability, which moderates the relationships among each dimension of strategic managerial accounting capability and information value increase, is presented in Equation 18 as follows:

Equation 18: $IVI = \alpha_{18} + \beta_{126}CMO + \beta_{127}RUF + \beta_{128}PEJ + \beta_{129}IME + \beta_{130}BPL + \beta_{131}OLC + \beta_{132}(CMO*OLC) + \beta_{133}(RUF*OLC) + \beta_{134}(PEJ*OLC) + \beta_{135}(IME*OLC) + \beta_{136}(BPL*OLC) + \beta_{137}SIZ + \beta_{138}ISO + \varepsilon_{18}$

The investigation of the role of the moderator, namely, organizational learning capability, which moderates the relationships among each dimension of strategic managerial accounting capability and decision-making success, is presented in Equation 19 as follows:

Equation 19: $DMS = \alpha_{19} + \beta_{139}CMO + \beta_{140}RUF + \beta_{141}PEJ + \beta_{142}IME + \beta_{143}BPL + \beta_{144}OLC + \beta_{145}(CMO*OLC) + \beta_{146}(RUF*OLC) + \beta_{147}(PEJ*OLC) + \beta_{148}(IME*OLC) + \beta_{149}(BPL*OLC) + \beta_{150}SIZ + \beta_{151}ISO + \varepsilon_{19}$

The investigation of the role of the moderator, namely, organizational learning capability, which moderates the relationships among each dimension of strategic managerial accounting capability and business excellence outstanding, is presented in Equation 20 as follows:

Equation 20: $BEO = \alpha_{20} + \beta_{152}CMO + \beta_{153}RUF + \beta_{154}PEJ + \beta_{155}IME + \beta_{156}BPL + \beta_{157}OLC + \beta_{158}(CMO*OLC) + \beta_{159}(RUF*OLC) + \beta_{160}(PEJ*OLC) + \beta_{161}(IME*OLC) + \beta_{162}(BPL*OLC) + \beta_{163}SIZ + \beta_{164}ISO + \varepsilon_{20}$

The investigation of the role of the moderator, namely, organizational learning capability, which moderates the relationships among each dimension of strategic managerial accounting capability and sustainable goal achievement, is presented in Equation 21 as follows:

Equation 21: $SGA = \alpha_{21} + \beta_{165}CMO + \beta_{166}RUF + \beta_{167}PEJ + \beta_{168}IME + \beta_{169}BPL + \beta_{170}OLC + \beta_{171}(CMO*OLC) + \beta_{172}(RUF*OLC) + \beta_{173}(PEJ*OLC) + \beta_{174}(IME*OLC) + \beta_{175}(BPL*OLC) + \beta_{176}SIZ + \beta_{177}ISO + \varepsilon_{21}$

Where:

CMO	is	cost management orientation
RUF	is	resource utilization focus
PEJ	is	performance evaluation justice awareness
IME	is	information mining effectiveness
BPL	is	business process linkage interest
OPE	is	operational planning efficiency
ICQ	is	internal control quality
IVI	is	information value increase
DMS	is	decision-making success

BEO	is	business excellence outstanding
SGA	is	sustainable goal achievement
TMV	is	top management long-term vision
AKM	is	accounting knowledge management
ASQ	is	accounting system quality
THP	is	technology pressure
SHF	is	stakeholder force
CPT	is	competitive turbulence
OLC	is	organizational learning capability
SIZ	is	firm size
ISO	is	ISO-certified timing
ε	is	error term
α	is	constant
β	is	coefficient

The basis assumption of regression analysis was tested before testing the relationship between dependent and independent variables. All those assumptions consist of linearity, normality of the error terms, error randomness, constancy of variance, and multicollinearity. This research employed both plotting and statistical testing to prove the assumptions for multiple regression.

Firstly, linearity is an agreement in statistical theory regarding the relationship between independent and dependent variables, if the relationships are linear in nature. A nonlinearity of regression function can be detected by a residual plot against the independent variables.

Secondly, the normal distribution is used to describe any variable that tends to cluster around the mean. In this research, a histogram, normal probability plot, and Kolmogorov-Smirnov statistics are employed to test the normal distribution assumption. A histogram is a graphical representation of the distribution of a single variable. This graph is used to make a visual comparison to the normal distribution. If examination of the distribution is to evaluate normality, the normal curve can be an overlay on the distribution, as well to assess the correspondence of the actual distribution to the normal

distribution. Normal probability plot is represented by a straight line, having a 45-degree angle while the actual distribution is plotted against this line. Hence, any differences are shown as deviations from the straight line.

Thirdly, in regression analysis, it is assumed that each predicted value is independent. The predicted value is not related to any other prediction; that is, they are not sequenced by any variable. This research employed the Durbin-Watson statistic to test the assumption of autocorrelation. As a rule of thumb, if Durbin-Watson (d statistics) is found at nearly 2 ($1.5 < d < 2.5$), it is assumed that there is no autocorrelation. The result from Table 1E (Appendix E) demonstrates that the Durbin-Watson statistics of all equations are around 2. Hence, it could be assumed that the error terms are independence, that is, there is no autocorrelation for all models.

Fourth, homoscedasticity is the description of data for which the variance of the error terms appears constant over the range of values of an independent variable. When the error terms have increasing variance or unequal variance, it is called heteroscedasticity which is one of the most common assumption violations. This research uses scatter plot to test the assumption of homoscedasticity. When the error term is systematically related to the dependence of the variable it could be assumed that there is more likely a heteroscedasticity problem. Overall, the results from scatter plot show that none of the equations have a heteroscedasticity problem (See also Appendix E).

Lastly, the ideal situation for research would be to have a number of independent variables highly correlated with the dependent variable, but with little correlation among themselves. Multicollinearity will occur when any single independent variable is highly correlated with other independent variables. If the independent variables are highly correlated with themselves, it impacts the result of regression analysis. Consequently, the result of regression analysis is not believable. In order to have multicollinearity, this research uses variance inflation factor (VIF). Nunnally and Bernstein (1994) explain that if the VIF value is greater than 10, it has multicollinearity problem. Table 2E (Appendix E) shows that the VIF of each equation model is less than 10, implying that there is no multicollinearity.

Summary

This chapter has detailed the research methods for gathering data and examining all constructs in the conceptual model to answer the research objectives and research questions. The methods encompass sample selection and data collection procedure, including population and sample, data collection, and test of non-response bias.

The population was drawn from the 1,057 ISO9001 firms in Thailand chosen from the database of the Thai Industrial Standards Institute, Ministry of Industry, Thailand, as accessed on February 1, 2014. The data collection procedure was a questionnaire mail survey sent to accounting managers of each ISO9001 firms.

The descriptive, correlation, and ordinary least squares regression analysis were processed to test the 21 hypothesized equations. Furthermore, the variable measurements are followed for each of all variables in the conceptual model. Table 5 summarizes the variable measurements, the definition of each construct, operational variables, and scale source. In addition, the instrumental verifications, including tests of validity and reliability and the statistical analysis are presented.

The results of hypothesis testing are presented in the next chapter. In conclusion, the next chapter describes respondent characteristics, descriptive statistics, and fully discusses the implications of these results for clear understanding as well.

Table 5: Definition and Operational Variables of Constructs

Construct	Definition	Operating Variables	Scale Sources
Dependent Variable			
Sustainable goal achievement (SGA)	Firm achieves maximum profitability, market share, competitiveness, and reputation through opportunity. Furthermore, firms can operate in the long run or in an uncertain environment.	The firm's financial and nonfinancial outcome over the long run.	Newly developed scale
Independent Variables			
Cost management orientation (CMO)	The focus on using modern and appropriate management account or cost techniques to obtains cost information. The cost information provides accurate, complete, timely, and relevant information to support decision-making about product design, product pricing, product mix and customer profitability to enhance competitive advantage (Anderson and Lanen, 1999; Kaneko, Ussahawanitchakit, and Muenthaisong, 2013; Nicolaou, 2002; Swenson, 1995).	A coherent set of cost management systems used for providing both financial and non-financial information. The capacity to analyze and implement cost and management accounting techniques.	Newly developed scale

Table 5: Definition and Operational Variables of Constructs (Continued)

Construct	Definition	Operating Variables	Scale Sources
Resource utilization focus (RUF)	The emphasis on the coordination involving the allocation of specific resource to activities that may affect others (Abernathy and Brownell, 1999; Balkin, Markman, and Gomez-Mejia, 2000; Hanpuwadol and Ussahawanitchakit, 2010).	The ability to analyzing exact resource requirements, allocating adequate necessary resources, and using resource efficiency.	Newly developed scale
Performance evaluation justice awareness (PEJ)	The regulation and performance measurement systems that comply with the law, equality, and justice. The performance evaluation provides fairness of the evaluation (procedural and distributive justice), present the performance report accurately, and provide relevant information. Firm are able to motivate and influence employees behavior change to achieve better management accounting system (Erdogan, 2002; Jiambalvo, 2001; Lau, Wong, and Eggletion, 2008; Loi, Lam, and Chan, 2012; Melkonian, Monin, and Noorderhaven, 2011).	The ability of the evaluation process of employee performance compare to the practical level and work procedure guideline.	Newly developed scale

Table 5: Definition and Operational Variables of Constructs (Continued)

Construct	Definition	Operating Variables	Scale Sources
Information mining effectiveness (IME)	An efficient information management system to collect, integrated, retrieve, and distribute relevant and valuable information to optimize sustainable goal achievement (Nicolaou, 2000; Webb, 2004).	The ability to collect, integrate, analyze, and communicate valuable information to users.	Newly developed scale
Business process linkage interest (BPL)	Cooperative system with linkages between functions or departments to achieve profitability and competitive advantage. The achievement of inter-functional cooperation in an organization will be built in the process to create information sharing, joint problem solving, willingness to adapt to unanticipated change, and restraint from the use of power to the disadvantage of other participant (Mahama, 2006).	The ability to organize collective activity between functions or departments to achieve profitability and competitive advantage.	Newly developed scale

Table 5: Definition and Operational Variables of Constructs (Continued)

Construct	Definition	Operating Variables	Scale Sources
Mediating Variables			
Operational planning efficiency (OPE)	The ability of operational planning that has a quality of planning, accuracy of forecast, and resource usefulness.	The quality of planning, accuracy of forecast and resource usefulness of operation planning.	Newly developed scale
Internal control quality (ICQ)	An efficient system of policies and procedures a firm employs to safeguard the firm's assets, ensure accurate and reliable working process, promote efficiency, and measure in compliance with established policies	The ability to monitor and control business process.	Newly developed scale
Information value increase (IVI)	Information is effective and responsive for information users (Bickel, 2008), the value of the information can mitigate the uncertainly of decision solutions and enhance competitive advantage.	Firm integrated a variety of information and it has comprehensive information on all aspects of the business.	Newly developed scale

Table 5: Definition and Operational Variables of Constructs (Continued)

Construct	Definition	Operating Variables	Scale Sources
Decision making success (DMS)	An assessment that decisions are successfully made that achieve their purpose.	Decision making success can be observed from the perceptions of decision makers of the benefits of strategic managerial accounting capability obtained from successful relevance information for decision.	Modified from Prasong, Ussahawanitchakit, and Muenthaisong (2013); Tontiset, Ussahawanitchakit, and Thanyakhan (2010)
Business excellence outstanding (BEO)	The best practices to develop core functional process, to improve performance, and to develop quality to provide excellence to the customer.	The successful practices that are available for core function that place the firm in a better position than their competitor.	Modified from Bunnoon, Ussahawanitchakit, and Janjarasjit (2013); Chaikambang, Ussahawanitchakit, and Boonlua (2012)

Table 5: Definition and Operational Variables of Constructs (Continued)

Construct	Definition	Operating Variables	Scale Sources
Antecedent Variables			
Top management long-term vision (TMV)	The vision of an idealized goal or image which leadership creates to achieve goals in the future, and a vision that emphasizes the long-term point of view to achieve organizational outcomes in the long-run (Korbangyang, Ussahawanitchakit, and Suwannarat, 2010).	Idealized goals focus on an adjustment of strategy and policy to get a better fit with changing environment, learning new operation processes, teamwork and participation by subordinates for long-term growth.	Modified from Korbangyang, Ussahawanitchakit, and Suwannarat (2010)

Table 5: Definition and Operational Variables of Constructs (Continued)

Construct	Definition	Operating Variables	Scale Sources
Accounting knowledge management (AKM)	The development of accountants' capability through attendance in training, partial experience, and accounting initiative. Accounting knowledge should provide a strong fundamental understanding of accounting, auditing and tax, including the history of the accounting profession and accounting thought, as well as the content, concepts, structure and meaning of reporting for organizational operations both for internal and external use. It also includes the methods for identifying, gathering, summarizing, verifying, analyzing and interpreting financial data (Awayiga, Onumah, and Tsamenyi, 2010).	Emphasis and support for accounting knowledge in order to create guidelines, the integration and development of accounting knowledge through appropriate knowledge management.	Modified from Thammavinyu and Ussahawanitchajit (2013)

Table 5: Definition and Operational Variables of Constructs (Continued)

Construct	Definition	Operating Variables	Scale Sources
Accounting system quality (ASQ)	Measure of excellence or a state of being free from defects, deficiencies and significant variations with an organized set of manual and computerized accounting methods, procedures, and controls established to gather, record, classify, analyze, summarize, interpret, and present accurate and timely financial data for management decision (Bunnoon, Ussahawanitchakit, and Janjarasjit , 2013).	The development of quality accounting systems, the application of these accounting systems. A good accounting system, the operations of the company to achieve its goals.	Modified from Bunnoon, Ussahawanitchakit, and Janjarasjit (2013)
Technology pressure (THP)	The advance and movement of technology and other relative activities, operations, practices, and strategies. It can affect positive and negative outcomes and performance of the firms' organization, executives and employees (Lichtenthaler and Eckhard, 2007).	The activities of adopting information technology and business practices.	New scale

Table 5: Definition and Operational Variables of Constructs (Continued)

Construct	Definition	Operating Variables	Scale Sources
Stakeholder force (SHF)	Firms respond to the needs of all persons involved with the firm, especially those relationships which impact both directly and indirectly on activities of the firm.	The items question the perceptions of both internal and external persons in positions to influence the firm's decisions.	Modified from Waroonkun and Ussahawanitchakit (2011)
Competitive turbulence (CPT)	The unpredictability of external conditions of change that may affect the competitive environment (Porter, 1985).	The level of competitive intensity which consists of a level of fierce competition, the entrance of competitors in the market place and the level of risk and uncertainty in the environment.	Modified from Thammavinyu and Ussahawanitchakit (2103)
Moderating Variable			
Organization learning capability (OLC)	The organization's ability to create and improve knowledge based on managerial commitment, systems perspective, knowledge transfer, and integration of all the processes in an organization (Sookaneknun, Ussahawanitchakit, and Boonlua, 2013).	The ability to create improved knowledge based on managerial commitment, systems perspective, knowledge transfer, and the integration of all the processes in an organization.	Modified from Sookaneknun, Ussahawanitchakit, and Boonlua (2013)

Table 5: Definition and Operational Variables of Constructs (Continued)

Construct	Definition	Operating Variables	Scale Sources
Control Variables			
Firm size (SIZ)	A firm which has total assets more than 150,000,000 baht.	A dummy variable, "1" refers to firms that has total assets more than 150,000,000 baht, and "0" refers to those firms below that amount.	New scale
ISO-certified timing (ISO)	The amount of time that a firms has been certified ISO9001	A dummy variable, "1" refers to ISO certified duration of greater than 10 years, "0" refers to ISO certified duration of less than or equal to 10 years.	New scale

CHAPTER IV

RESULTS AND DISCUSSION

The previous chapter describes the research methods that were used to clearly answer the testable hypotheses. Chapter four presents the results of statistical testing beginning with the presentation of respondent characteristics and descriptive statistics to increase understanding of sample characteristics. Next, the results of correlation analysis and hypothesis testing by using multiple regression analysis are detailed. Finally, the summary of all hypothesis testing is also provided.

Respondent Characteristics and Descriptive Statistics

In this research, ISO9001 manufacturing firms in Thailand are the unit of analysis and the key informants are the accounting executives. Because they represent their firms in the accounting field and they completed the questionnaire of this research, they shall be referred to as respondents. The characteristics of these respondents are described by their demographic characteristics including gender, age, marital status, education level, working experience, average monthly income, and current working position. Moreover, the firm characteristic are also described by business type, industrial category, authorized capital, total assets, sales revenue per year, period of time in operation, number of employees, main customer group, and period of time in ISO9001. Table 1C in Appendix C shows the demographic characteristics of the 283 participants with returned questionnaires. About 84.10 percent of the respondents are female and 15.90 percent are male. The span of age of participants is 30 – 40 years old (41.34 percent). Most of the respondents are married (57.24 percent). The majority of the education level of key informants is lower or equal to a bachelor's degree (61.84 percent). In addition, 58.66 percent of the respondents have been working more than 15 years. Moreover, most of the respondents received a salary of less than 75,000 baht per month (61.13 percent) and in terms of current position, 83.75 percent are accounting managers and 4.95 percent are accounting directors.

As can be seen in Table 2C in Appendix C, most of the business types are limited company (90.11 percent) and 9.89 percent are public limited company. Most of the firms in the industrial category are industrial (57.24 percent). The span of authorized capital is more than 150,000,000 baht (39.93 percent). A majority of the firms had total assets of more than 150,000,000 baht (56.19 percent) and had average sales revenue per year of more than 150,000,000 baht. The amount of time in operation was mostly more than 15 years (65.37 percent), and most of the firms had over 150 persons as employees (55.83 percent). Most of the firms had domestic customers (84.46 percent), and the period of time in ISO9001 is mostly 5 – 10 years (51.24 percent).

Results of Descriptive Statistics

Table 6 details the descriptive statistics including the mean and standard deviation. Overall, the range of mean scores for all constructs is 3.612 – 4.065. It is noteworthy that the mean scores for all perspectives of strategic managerial accounting capability (cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest) are high, which are 4.017, 3.946, 3.923, 3.875, and 3.970, respectively indicates that ISO9001 manufacturing firms in Thailand demonstrate a recognition of the importance of strategic managerial accounting capability. In addition, strategic managerial accounting capability has a standard deviation value of 0.628 – 0.692. Moreover, the results also show that the mean scores of the consequents of strategic managerial accounting capability were also quite high consequences consisting of operational planning efficiency (3.813), internal control quality (3.647), information value increase (3.816), decision-making success (3.710), business excellence outstanding (3.612), and sustainable goal achievement (3.799). The standard deviation values of the consequents of strategic managerial accounting capability fell within a range of 0.605 – 0.664.

The mean scores of strategic managerial accounting capability antecedents, consisting of top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence, are 4.605, 3.975, 4.060, 3.951, 3.859, and 3.912, respectively. The results indicate that ISO9001 firms in Thailand have a high degree of top management long-

term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence. The standard deviation value of the antecedents of strategic managerial accounting capability is between 0.565 – 0.641. Additionally, the mean scores for the moderating effect of organizational learning capability is 3.934, and the standard deviation is 0.616. Finally, the result shows that the mean score for the measure of firm size and ISO-certified duration are 3.02 and 2.32, and the standard deviation value of firm size and ISO-certified duration are 1.213 and 0.787, respectively.

Results of Correlation Analysis

The Pearson correlation for bivariate analysis of each variable pair has been conducted in this research. The results of the correlation coefficient matrix is shown in Table 6. There are two advantages of the correlation analysis in this research. The first is to examine the relationship and direction between primary variables. The second is to check whether there is a problem of a high correlation between independent variables, known as multicollinearity. Multicollinearity is indicated when the inter-correlation between explanatory variables is over 0.80 (Hair et al., 2010). Table 6 shows the results of the correlation analysis of all constructs. The bivariate correlation procedure is subject to a two-tailed statistical test at 2 levels as $p < 0.05$ and $p < 0.01$. Thus, the correlation matrix can prove the correlation between two variables and verify the presence of multicollinearity problems by the inter-correlation among the independent variables. The results indicate no multicollinearity problems in this research because most of the results are lower than 0.80 (Hair et al., 2010). The correlation matrix in Table 6 demonstrates that all five dimensions of strategic managerial accounting capability, including cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest are significantly and positively related to consequent variables. Accordingly, the evidence suggests that they are significantly related among the five dimensions of strategic managerial accounting capability between 0.652 and 0.824, $p < 0.01$. The results indicate the dimensions of strategic managerial accounting capability consequents relating to operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence

outstanding, and sustainable goal achievement have a significant positive correlation between 0.625 and 0.851, $p < 0.01$. More definitely, the antecedent constructs, including top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence are significantly related to the dimensions of strategic managerial accounting capability ($r = 0.433 – 0.652$, $p < 0.01$). Finally, the moderating effect of organizational learning capability has correlations with all variables between 0.532 and 0.799, $p < 0.01$. These correlations are still less than the level of 0.80, as recommended by Hair et al. (2010). As a result, the multicollinearity problems should not be a concern.

Table 6: Descriptive Statistics and Correlation Matrix of Strategic Managerial Accounting Capability and All Constructs

Variables	CMO	RUF	PEJ	IME	BPL	OPE	ICQ	IVE	DMS	BEO	SGA	TMV	AKM	ASQ	THP	SHF	CPT	OLC	SIZ	ISO
Mean	4.017	3.946	3.923	3.875	3.970	3.813	3.647	3.816	3.710	3.612	3.799	4.065	3.975	4.030	3.951	3.859	3.912	3.934	n/a	n/a
S.D.	.664	.692	.671	.666	.628	.664	.647	.614	.605	.641	.641	.614	.641	.565	.579	.594	.588	.616	n/a	n/a
CMO	1																			
RUF	.688***	1																		
PEJ	.732***	.705***	1																	
IME	.652***	.722***	.757***	1																
BPL	.718***	.729***	.824***	.774***	1															
OPE	.664***	.632***	.667***	.577***	.674***	1														
ICQ	.555***	.638***	.697***	.587***	.692***	.817***	1													
IVI	.641***	.590***	.653***	.574***	.656***	.803***	.827***	1												
DMS	.586***	.622***	.595***	.591***	.673***	.781***	.829***	.820***	1											
BEO	.565***	.633***	.614***	.578***	.650***	.781***	.833***	.773***	.851***	1										
SGA	.547***	.528***	.531***	.521***	.544***	.674***	.632***	.625***	.706***	.734***	1									
TMV	.587***	.589***	.658***	.533***	.662***	.577***	.591***	.644***	.562***	.567***	.585***	1								
AKM	.529***	.494***	.615***	.471***	.596***	.550***	.588***	.658***	.536***	.531***	.564***	.760***	1							
ASQ	.618***	.476***	.664***	.487***	.652***	.618***	.655***	.705***	.620***	.607***	.568***	.772***	.805***	1						
THP	.433***	.500***	.500***	.469***	.529***	.509***	.536***	.528***	.503***	.527***	.483***	.572***	.514***	.564***	1					
SHF	.480***	.480***	.566***	.449***	.550***	.541***	.560***	.562***	.528***	.522***	.578***	.615***	.579***	.614***	.717***	1				
CPT	.526***	.467***	.569***	.518***	.594***	.556***	.496***	.524***	.492***	.457***	.597***	.670***	.606***	.600***	.659***	.781***	1			
OLC	.560***	.594***	.631***	.526***	.656***	.667***	.747***	.721***	.644***	.652***	.547***	.706***	.757***	.799***	.578***	.616***	.532***	1		
SIZ	.080	-.081	.046	-.049	-.010	.057	-.008	.095	-.026	-.027	.035	.122**	.144**	.140**	.047	.133**	.133**	0.39	1	
ISO	-.070	.034	.004	.034	.046	-.027	-.019	.049	-.043	.028	-.033	.117**	.121**	.084	-.033	.089	.033	.072	.242***	1

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

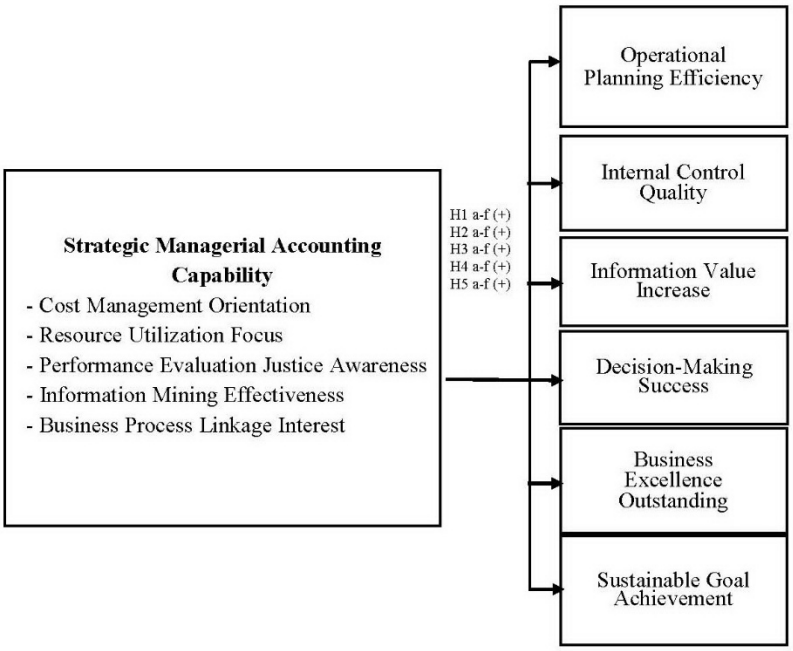
Hypothesis Testing and Results

The Ordinary Least Squares (OLS) regression analysis was conducted in this research. The regression equation is a linear combination of the independent variables that best explains and predicts the dependent variable (Aulakh, Massaki, and Hildy, 2000). Therefore, OLS is an appropriate method for examining the hypothesized relationships. In this research, all hypotheses are transformed into 21 equations. Furthermore, there are two dummy variables used in firm size and ISO-certified timing which are consistent with the data collection included in those equations for testing as follows.

The Effects of Strategic Managerial Accounting Capability on Its Consequents

With respect to the relationships, this research posits strategic managerial accounting capability as the antecedent. Operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement are the consequences of strategic managerial accounting capability. Table 7 shows the correlations between the independent and dependent variables. For the independent variables, five dimensions of strategic managerial accounting capability are combined; they consist of cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest. The dependent variables consist of operation planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement as illustrated in Figure 2.

Figure 2: The Effects of Strategic Managerial Accounting Capability on Its Consequents



The correlation among independent and dependent variables are shown in Table 7. The results indicated that cost management orientation is significantly and positively correlated with operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement ($r = .664$, $p < .01$; $r = .555$, $p < .01$; $r = .641$, $p < .01$; $r = .586$, $p < .01$; $r = .565$, $p < .01$; $r = .547$, $p < .01$; respectively). In turn, resource utilization focus has a significant and positive correlation with operation planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement ($r = .632$, $p < .01$; $r = .638$, $p < .01$ $r = .590$, $p < .01$; $r = .622$, $p < .01$; $r = .633$, $p < .01$; $r = .528$, $p < .01$; respectively). Furthermore, performance evaluation justice awareness has a significant and positive correlation with operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement ($r = .667$, $p < .01$; $r = .697$, $p < .01$; $r = .653$, $p < .01$; $r = .595$, $p < .01$; $r = .614$, $p < .01$; $r = .531$, $p < .01$; respectively). Moreover, information mining effectiveness has a significant and positive correlation with operational planning efficiency, internal control quality, information value

increase, decision-making success, business excellence outstanding, and sustainable goal achievement ($r = .577$, $p < .01$; $r = .587$, $p < .01$; $r = .574$, $p < .01$; $r = .591$, $p < .01$; $r = .578$, $p < .01$ $r = .521$, $p < .01$; respectively). Finally, business process linkage interest has a significant and positive correlation with operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement ($r = .674$, $p < .01$; $r = .692$, $p < .01$; $r = .656$, $p < .01$; $r = .673$, $p < .01$; $r = .650$, $p < .01$; $r = .544$, $p < .01$; respectively).

For the correlation among independent variables, the results from Table 7 also show that cost management orientation is significantly and positively correlated with resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest ($r = .688$, $p < .01$; $r = .732$, $p < .01$; $r = .652$, $p < .01$; $r = .718$, $p < .01$; respectively). Then, resource utilization focus is significantly and positively correlated with performance evaluation justice awareness, information mining effectiveness, and business process linkage interest ($r = .705$, $p < .01$; $r = .722$, $p < .01$; $r = .729$, $p < .01$; respectively). Also, performance evaluation justice awareness has a significant and positive correlation with information mining effectiveness and business process linkage interest ($r = .757$, $p < .01$; $r = .824$, $p < .01$; respectively). Moreover, information mining effectiveness has a significant and positive correlation with business process linkage interest ($r = .774$, $p < .01$).

Likewise, variance inflation factors (VIF) have been used to test the correlation among the independent variables (see Table 8). In this case, the maximum value of VIF is 4.103, which is well below the cut-off value of 10 (Hair et al., 2010), meaning that each variable is not correlated with each other. Accordingly, there is no significant evidence of multicollinearity problems confronted in this research.

Table 7: Descriptive Statistics and Correlation Matrix of Strategic Managerial Accounting Capability and Its Consequents

Variables	CMO	RUF	PEJ	IME	BPL	OPE	ICQ	IVE	DMS	BEO	SGA	SIZ	ISO
Mean	4.017	3.946	3.923	3.875	3.970	3.813	3.647	3.816	3.710	3.612	3.799	n/a	n/a
S.D.	.664	.692	.671	.666	.628	.664	.647	.614	.605	.641	.641	n/a	n/a
CMO	1												
RUF	.688***	1											
PEJ	.732***	.705***	1										
IME	.652***	.722***	.757***	1									
BPL	.718***	.729***	.824***	.774***	1								
OPE	.664***	.632***	.667***	.577***	.674***	1							
ICQ	.555***	.638***	.697***	.587***	.692***	.817***	1						
IVI	.641***	.590***	.653***	.574***	.656***	.803***	.827***	1					
DMS	.586***	.622***	.595***	.591***	.673***	.781***	.829***	.820***	1				
BEO	.565***	.633***	.614***	.578***	.650***	.781***	.833***	.773***	.851***	1			
SGA	.547***	.528***	.531***	.521***	.544***	.674***	.632***	.625***	.706***	.734***	1		
SIZ	.080	-.081	.046	-.049	-.010	.057	-.008	.095	-.026	-.027	.035	1	
ISO	.070	.034	.004	.034	.046	-.027	-.019	.049	-.043	.028	-.033	.242***	1

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

Table 8 exhibits the result of OLS regression analysis of the impacts of each perspective of strategic managerial accounting capability (cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest) on its consequents (operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement) which are followed by Hypotheses 1 to 5.

Firstly, the evidence in Table 8 relates to cost management orientation (Hypotheses 1a – 1f), and the results indicate that cost management orientation significantly and positively relates to operational planning efficiency ($\beta_1 = .259$, $p < .01$). This is consistent with prior studies which suggest that cost information plays an important role in organization planning (Robin and Kaplan, 1988). Prior research reveals that the higher levels of cost management orientation are positively associated with operational planning efficiency of firms (Al-Omiri and Drury, 2007; Anderson, Asdemir, and Tripathy, 2013). As mentioned above, this research shows that the relationships of cost management orientation enhance operational planning efficiency. ***Hence, Hypothesis 1a is supported.***

Similarly, the relationship between cost management orientation and information value increase has a significant positive effect as $\beta_{15} = .238$, $p < .01$. This is

consistent with Anderson and Lanen (1999); Anderson et al., (2013); Al-Omiri and Drury (2007) who state that cost management orientation provides accurate, complete, timely, and relevant information. The level of cost management orientation has a positive influence on firm performance (Anderson et al., 2013). Thus, firms with cost management orientation tend to have an increase in the value of information. ***Thus, Hypothesis 1c is supported.***

In the same way, the relationship between cost management orientation and decision-making success has a significant positive effect as $\beta_{22} = .141$, $p < .05$. This is consistent with Ma and Tayles (2009) who suggest that cost management orientation has a strategic role in informing strategic decision-making. Yeshmin and Hossan (2011) also found that cost management orientation is essential in decision-making. From the reasons cited above, cost management orientation has been shown elsewhere to enhances decision-making success, and it is shown here as well. ***Thus, Hypothesis 1d is supported.***

The relationship between cost management orientation and sustainable goal achievement has a significant positive effect as $\beta_{36} = .229$, $p < .01$. This is consistent with prior studies which suggest that the cost management orientation provides both financial and competitive advantage (Apak et al., 2012; Kaneko et al., 2013). Abdel-Al and McLellan (2013) present that organizational performance depends on cost management orientation. Then, firms with cost management orientation tend to have sustainable goal achievement. ***Thus, Hypothesis 1f is supported.***

Conversely, cost management orientation has no significant effects on internal control quality ($\beta_8 = -.054$, $p > .10$) and business excellence outstanding ($\beta_{29} = .072$, $p > .10$). In fact, cost management is one of the critical components of internal control and business excellence. Cost management orientation is also used to monitor and control the business process of the firm (Chenhall, 2007), but the control system needs more dimensions. The reason for this situation is that firms which focus on cost management strategy generally emphasize cost reduction to the exclusion of other dimensions, and, they may cut the investment in control and cost system. Thus, cost management orientation may not be sufficient for internal control quality and business excellence outstanding. ***Hence, Hypotheses 1b and 1e are not supported.***

Table 8: Results of the Effects of Strategic Managerial Accounting Capability on Its Consequents

Independent Variables	Dependent Variables					
	EQ1: OPE	**EQ2: ICQ**	**EQ3: IVI**	**EQ4: DMS**	**EQ5: BEO**	**EQ6: SGA**
Strategic Managerial Accounting Capability:						
Cost Management Orientation (CMO: H1a-f)	**.259***** (.065)	-.054 (.065)	**.238***** (.068)	**.141**** (.069)	.072 (.070)	**.229***** (.077)
Resource Utilization Focus (RUF: H2a-f)	**.198***** (.067)	**.247***** (.067)	**.121*** (.070)	**.221***** (.071)	**.279***** (.072)	**.156**** (.079)
Performance Evaluation Justice Awareness (PEJ: H3a-f)	**.170**** (.080)	**.356***** (.081)	**.188**** (.084)	-.043 (.085)	.113 (.086)	.044 (.095)
Information Mining Effectiveness (IME: H4a-f)	-.047 (.071)	-.062 (.071)	.011 (.074)	.067 (.075)	.023 (.076)	.124 (.084)
Business Process Linkage Interest (BPL: H5a-f)	**.244***** (.082)	**.307***** (.082)	**.235***** (.085)	**.398***** (.086)	**.284***** (.088)	.138 (.097)
Control Variables:						
Firm Size (SIZ)	.127 (.086)	.020 (.086)	**.163*** (.090)	.021 (.091)	-.023 (.092)	.107 (.102)
ISO Certified Timing (ISO)	**-.163*** (.088)	-.084 (.088)	-.007 (.092)	-.175 (.093)	.004 (.095)	-.164 (.104)
Adjusted R^2	.542	.541	.502	.493	.472	.359
Maximum VIF	4.103	4.103	4.103	4.103	4.103	4.103

*** p < .01, ** p < .05, * p < .10

Beta coefficients with standard errors in parenthesis

Secondly, in regard to resource utilization focus (Hypotheses 2a – 2f), the finding show that resource utilization focus significantly affects operational planning efficiency ($\beta_2 = .198$, $p < .01$), internal control quality ($\beta_9 = .247$, $p < .01$), information value increase ($\beta_{16} = .121$, $p < .10$), decision-making success ($\beta_{23} = .221$, $p < .01$), business excellence outstanding ($\beta_{30} = .279$, $p < .01$), and sustainable goal achievement ($\beta_{37} = .156$, $p < .05$). This is consistent with prior studies which suggest that the firms have ability in operational planning toward resource utilization focus (Balkin et al., 2000), enhance decision-making success and have internal control quality (Chaikambang et al., 2012). Resource utilization focus improves performance directly within an organization. Information value increase empowers firms to use that information in order to compete in the market place. It also has a positive impact on business excellence outstanding and sustainable goal achievement (Chen and Hsu, 2010). ***Therefore, Hypotheses 2a to 2f are supported.***

Thirdly, in light of performance evaluation justice awareness (Hypotheses 3a – 3f), the results indicate that an awareness of performance evaluation justice awareness significantly and positively relates to operational planning efficiency ($\beta_3 = .170$, $p < .05$). This is consistent with Chong and Eggleton (2003) who suggest that performance evaluation justice awareness affect planning, control, and the relevant work process of firms. Lau and Tan (2006) support that performance evaluation justice awareness which procedural fairness and interpersonal trust jointly are able to have positive effects on the relationship between performance evaluation justice awareness and operational planning efficiency. Therefore, this research shows that the relationships of performance evaluation justice awareness enhances operational planning efficiency. ***Hence, Hypothesis 3a is supported.***

Likewise, the relationship between performance evaluation justice awareness and internal control quality has a significant positive effect as $\beta_{10} = .356$, $p < .01$. This is consistent with Erdogan (2002) who states that performance evaluation justice awareness affects task performance, leads to improving the work process, and as a result enhances internal control quality. ***Therefore, Hypothesis 3b is supported.***

Furthermore, performance evaluation justice awareness has positive influences on information value increase (β_{17} = .188, p < .05). This is consistent with previous research which argued that performance evaluation justice awareness creates opportunity for communication and integrates the information among inter-functional department (Bouskila-Yam and Kluger, 2011). Divorski and Scheirer (2001) found that performance evaluations which use quality data may be able to enhance information value. Therefore, the result in this research confirms the previous research findings. ***Hence, Hypothesis 3c is supported.***

Although, previous research explains that performance evaluation justice awareness has a significant positive effect on firm performance, in this research, the results indicate that performance evaluation justice awareness has no significant effects on decision-making success (β24 = -.043, p > .10), business excellence outstanding (β_{31} = .113, p > .10), and sustainable goal achievement (β_{38} = .044, p > .10). This is because performance evaluation justice awareness has indirect influence through the mediating roles of the alignment of strategy and organizational learning (Chenhall, 2005). Hence, performance evaluation justice awareness does not play a significant role in explaining decision-making success, business excellence outstanding, and sustainable goal achievement. ***Thus, Hypotheses 3d, 3e, and 3f are not supported.***

Fourthly, in regard to information mining effectiveness (Hypotheses 4a – 4f), the result indicates that information mining effectiveness had no significant effect on operational planning efficiency (β_4 = -.047, p > .10), internal control quality (β_{11} = -.062, p > .10), information value increase (β_{18} = .011, p > .10), decision-making success (β_{25} = .067, p > .10), business excellence outstanding (β_{32} = .023, p > .10), and sustainable goal achievement (β_{39} = .124, p > .10). The possible explanation is that, for the sustainable goal, firms are required to use not only financial and nonfinancial information, but they need external and future information (Chenhall, 2007). Strategic managerial accounting capability is only one component of information that firms need to use in an uncertain environment. Therefore, the variable, set narrowly, failed to show significance. This is the reason why many companies do not pay attention to information mining effectiveness. ***Thus, Hypotheses 4a to 4f are not supported.***

Finally, the results related to business process linkage interest (Hypotheses 5a – 5f) reveals that business process linkage interest has a positive influence on operational planning efficiency ($\beta_5 = .244$, $p < .01$), internal control quality ($\beta_{12} = .307$, $p < .01$), information value increase ($\beta_{19} = .235$, $p < .01$), decision-making success ($\beta_{26} = .398$, $p < .01$), and business excellence outstanding ($\beta_{33} = .284$, $p < .01$). Therefore, the results in this research confirm the previous arguments that business process linkage interest contributes to good relationships among the dimensions of operational planning efficiency, internal control quality, and information value increase. The resulting relationship yields improving decision-making success and business excellence outstanding. This is consistent with Mahama (2006) who stated that business process linkage interest enhances profitability and competitive advantage. ***Hence, Hypotheses 5a to 5e are supported.***

Conversely, business process linkage interest has no significant effect on sustainable goal achievement ($\beta_{40} = .138$, $p > .10$). The possible explanation is that sustainable goal achievement should have competitive advantage and financial performance in the long-term, but business process linkage interest focuses on the short-term for formulating the operation (Anderson et al., 2013). ***Thus, Hypothesis 5f is not supported.***

In summary, these findings reveal that four dimensions of strategic managerial accounting capability (cost management orientation, resource utilization focus, performance evaluation justice awareness, and business process linkage interest) have direct influences on their consequent variables. Therefore, Hypothesis 2 is fully supported and Hypotheses 1, 3, and 5 are partially supported. Nevertheless, for the one dimension of strategic managerial accounting capability (information mining effectiveness), hypothesis 4 is not supported.

For the control variables, the results indicate that firm size has a positive relationship with information value increase ($\beta_{20} = .163$, $p < .10$), meaning that a bigger firm values information more than smaller firms. Firm size has a negative and significant relationship with business excellence outstanding ($\beta_{34} = -.023$, $p > .10$), meaning that smaller firms had a fewer of the qualities of business excellence than larger firms. This is consistent with Yazdifar (2003) who suggests that large industrial

firms have required strategic managerial accounting to be in place to gain competitive advantage over other firms. However, firm size does not affect operational planning efficiency ($\beta_6 = .127$, $p > .10$), internal control quality ($\beta_{13} = .020$, $p > .10$), decision-making success ($\beta_{27} = .021$, $p > .10$), and sustainable goal achievement ($\beta_{41} = .107$, $p > .10$), meaning that firm size does not impact operational planning efficiency, internal control quality, decision-making success, and sustainable goal achievement. Lastly, the results find the positive relationship between ISO-certified timing and business excellence outstanding ($\beta_{35} = .004$, $p < .01$), indicating that the longer a firm was certified as ISO-compliant, the more likely it was to exhibit the qualities of business excellence. In addition, ISO-certified timing is inversely correlated with operational planning efficiency ($\beta_7 = -.163$, $p < .10$), meaning that the less time a firm has been ISO-certified, the more likely it is to have greater operational planning efficiency than older ISO-certified timing firms. The results found no relationships among ISO-certified timing and internal control quality ($\beta_{14} = -.084$, $p > .10$), information value increase ($\beta_{21} = -.007$, $p > .10$), decision-making success ($\beta_{28} = -.175$, $p > .10$), and business excellence outstanding ($\beta_{35} = .004$, $p > .10$), and sustainable goal achievement ($\beta_{42} = -.164$, $p > .10$), meaning that ISO-certified timing demonstrated no impact on the variables of internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement.

The Effects of Strategic Managerial Accounting Capability Consequents on Sustainable Goal Achievement

As described in Chapter Two, strategic managerial accounting capability consequents have been combined into six categories: operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement. This research determined that operational planning efficiency, internal control quality, and information value increase have direct and positive influence on decision-making success and business excellence outstanding. Furthermore, this research posits that decision-making success directly affects business excellence outstanding as illustrated in Figure 3.

Figure 3: The Effects of Strategic Managerial Accounting Capability Consequents on Sustainable Goal Achievement

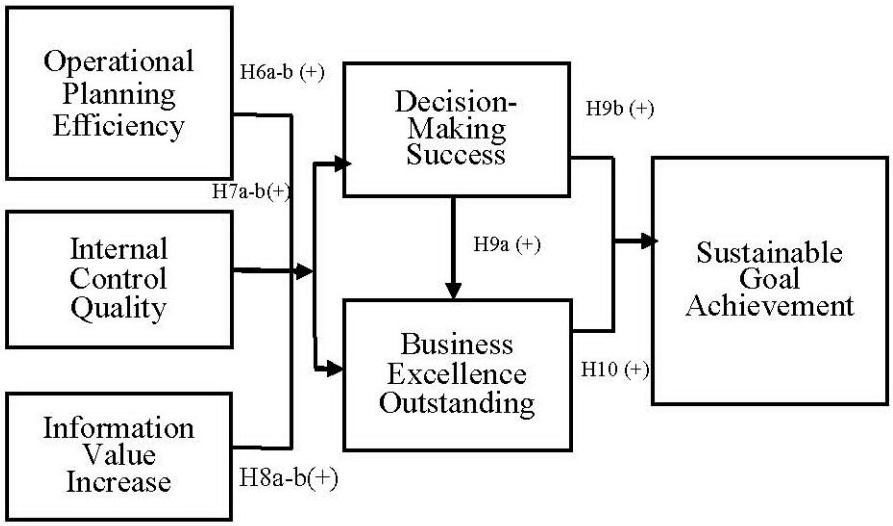


Table 9 shows the results of correlation analysis which indicate that operational planning efficiency is significantly and positively correlated with decision-making success, business excellence outstanding, and sustainable goal achievement ($r = .781$, $p < .01$; $r = .781$, $p < .01$; $r = .674$, $p < .01$, respectively). The results show that internal control quality has a significant and positive correlation with decision-making success, business excellence outstanding, and sustainable goal achievement ($r = .829$, $p < .01$; $r = .833$, $p < .01$; $r = .632$, $p < .01$, respectively). Furthermore, information value increase has a significant and positive correlation with decision-making success, business excellence outstanding, and sustainable goal achievement ($r = .820$, $p < .01$; $r = .773$, $p < .01$; $r = .625$, $p < .01$, respectively). Moreover, decision-making success has a significant and positive correlation with business excellence outstanding and sustainable goal achievement ($r = .851$, $p < .01$; $r = .706$, $p < .01$, respectively), and business excellence outstanding has a significant and positive correlation with sustainable goal achievement ($r = .734$, $p < .01$).

Table 9: Descriptive Statistics and Correlation Matrix of Strategic Managerial Accounting Capability Consequents on Sustainable Goal Achievement

Variables	OPE	ICQ	IVI	DMS	BEO	SGA	SIZ	ISO
Mean	3.813	3.647	3.816	3.710	3.612	3.799	n/a	n/a
S.D.	.664	.647	.614	.605	.641	.614	n/a	n/a
OPE	1							
ICQ	.817***	1						
IVI	.803***	.827***	1					
DMS	.781***	.829***	.820***	1				
BEO	.781***	.833***	.773***	.851***	1			
SGA	.674***	.632***	.625***	.706***	.734***	1		
SIZ	.057	-.008	.095	-.026	-.027	.035	1	
ISO	-.027	-.019	.049	-.043	.028	-.033	.242***	1

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

Furthermore, this research hypothesizes that decision-making success and business excellence outstanding positively influence sustainable goal achievement. Table 9 shows the correlation coefficients between decision-making success, business excellence outstanding, and sustainable goal achievement. It demonstrates that decision-making success has a significant and positive correlation with sustainable goal achievement ($r = .706$, $p < .01$). Business excellence outstanding also has a significant and positive correlation with sustainable goal achievement ($r = .734$, $p < .02$). All of these correlation coefficients exceed 0.80; for example, operational planning efficiency and internal control quality are at 0.817; operational planning efficiency and information value increase are at 0.803; and internal control quality and information value increase art at 0.827.

For the correlation among independent variables, operational planning efficiency has a significant and positive correlation with internal control quality and information value increase ($r = .817$, $p < .01$; $r = .803$, $p < .01$, respectively). In turn, internal control quality significantly and positively correlates with information value increase ($r = .827$, $p < .01$). In addition, with regard to the multicollinearity problem, VIF was used to test the correlation among independent variables (see Table 10). In this

analysis, the maximum value of VIF is 4.112, far less than 10, indicates that there is no evidence of multicollinearity problems (Hair et al., 2010).

Table 10: The Results of Strategic Managerial Accounting Capability Consequents on Sustainable Goal Achievement

Independent Variables	**Dependent Variables**			
	EQ7: DMS	**EQ8: BEO**	**EQ9: BEO**	**EQ10: SGA**
Operational Planning Excellence	**.179*** **	**.250*** **		
(OPE: H6a-b)	(.056)	(.058)		
Internal Control Quality (ICQ: H7a-b)	**.366*** **	**.484*** **		
	(.060)	(.062)		
Information Value Increase (IVI: H8a-b)	**.384*** **	**.175*** **		
	(.058)	(.061)		
Decision-Making Success (DMS: H9a-b)			**.853*** **	**.285*** **
			(.031)	(.076)
Business Excellence Outstanding				**.494*** **
(BEO: H10)				(.076)
Control Variables:				
Firm Size (SIZ)	**-.122** **	**-.133** **	-.044	**.135* **
	(.062)	(.065)	(.065)	(.082)
ISO Certified Timing (ISO)	-.074	.109	**.147** **	-.107
	(.065)	(.067)	(.068)	(.086)
Adjusted R^2	.754	.733	.725	.562
Maximum VIF	4.112	4.112	1.064	3.682

*** p < .01, ** p < .05, * p < .10

Beta coefficients with standard errors in parenthesis

Table 10 presents the results of OLS regression analysis of the strategic managerial accounting capability consequents on sustainable goal achievement which are followed by Hypotheses 6 to 10. The evidence in Table 10 indicates that operational planning efficiency has significant and positive relationships to decision-making success (β_{43} = .176, p < .01). Previous research has found that, under certain conditions, strategic managerial accounting provides the information and work procedures to monitor and control the business process. This has shown to improve operational planning efficiency and enhance decision-making success (Chenhall, 2007). This research confirms Chenhall's findings. Therefore, operational planning efficiency has been found to enhance decision-making success. ***Thus, Hypothesis 6a is supported.***

Additionally, the results indicate that operational planning efficiency has a positive influence on business excellence outstanding (β_{48} = 250, p < .01), which is similar to prior evidence. Robinson et al. (1986) suggest that firms which engaged in comprehensive operational planning should experience higher performance than their competitors. King et al. (2010) found that firms with operational planning efficiency had better outstanding business excellence than other firms. Therefore, operational planning efficiency enhances business excellence outstanding. ***Hence, Hypothesis 6b is supported.***

For Hypothesis 7, internal control quality has a significant and positive relationship to decision-making success (β_{44} = .366, p < .01) and business excellence outstanding (β_{49} = .484, p < .01). This is consistent with Wouters and Verdaasdonk (2002) who suggest that if firms have strategic managerial accounting capability, they will have better internal control quality and thus, internal control quality will associate with decision-making success. Hoque (2000) suggests that internal control quality enhances business excellence outstanding. Three overall reasons are an appropriate explanation for the reason why there are associated relationships among internal control quality, decision-making success, and business excellence outstanding. ***Therefore, Hypotheses 7a and 7b are supported.***

With regard to Hypothesis 8, it has been demonstrated that information value increase has significant and positive effects on decision-making success (β_{45} = .384, p < .01). In the existing literature, Bickel (2008) suggests that increasing the value of information is a central feature of decision analysis. Accordingly, Williams et al. (2011) argued that information value increase can be used to support decisions made in the face of uncertainty. This is consistent with Sori (2009) who stated that information value is that data whose value enhance decision-making success. As mentioned above, this research shows that the relationships of information value increase enhances decision-making success. ***Hence, Hypothesis 8a is supported.***

Furthermore, the results also indicate that information value increase has significant and positive effects on business excellence outstanding (β_{50} = .175, p < .01). This is because the focuses on increasing information value increase contribute to the good relationship of firm performance and which then leads to business excellence which is outstanding over competitors. Brynjolfsson and Hitt (2000) demonstrate that information value increase enhances business excellence of firms. Therefore, the results in this research confirms the previous argument. ***Hence, Hypothesis 8b is supported.***

For Hypothesis 9, the results reveal that decision-making success has a significant and positive relationship to business excellence outstanding (β_{53} = .853, p < .01). This is consistence with O'Donnel and David (2000) who state that information from strategic managerial accounting capability enhances the abilities in decision-making that lead to success, and thus resulting in the enhancement of business excellence. Therefore, firms with decision-making success tend to have outstanding levels of business excellence. ***Thus, Hypothesis 9a is supported.***

Likewise, the evidence indicates that decision-making success significantly and positively affects sustainable goal achievement (β_{56} = .285, p < .01). This is consistent with Socea (2012) who states that strategic managerial accounting capability helps firms to know what happened in the past, and what is the present situation of the firm, making visible those events that are not perceptible by daily activities. It provides a quantitative heuristic view of the firm and helps a firm to prepare for future activities and decision-making. Therefore, this is an appropriate explanation for the findings that there is an

associative relationship between decision-making success and sustainable goal achievement. ***Thus, Hypothesis 9b is supported.***

Finally, the evidence from Hypothesis 10 demonstrates that business excellence outstanding has a positive and significant effect on sustainable goal achievement ($\beta_{57} = .494$, $p < .01$). In accordance with previous research, business excellence outstanding contains a number of management tools to support firms to achieve measurable success in increasing both short and long-term profitability, competitiveness, and sustainability (Abbott, 2004; Nah et al., 2007; Zhao, 2004). From the reasons above, the conclusion is drawn that business excellence outstanding enhances sustainable goal achievement. ***Thus, Hypothesis 10 is supported.***

In conclusion, operational planning efficiency, internal control quality, and information value increase have a significant positive association with decision-making success and business excellence outstanding. Furthermore, decision-making success has positive relationships with business excellence outstanding. Likewise, decision-making success and business excellence outstanding have positive relationships with sustainable goal achievement. Therefore, Hypotheses 6 to10 are strongly supported.

For the control variables, the results indicate that firm size has significant and positive relationships with sustainable goal achievement ($\beta_{58} = .135$, $p < .10$), meaning that more likely it is to have more sustainable goal achievement than smaller firms. This is consistent with Yazdifar (2003) who suggests that firms in a modern environment are required to adopt new management tools to support sustainable goal achievement. Conversely, the results also indicate that firm size has significant and negative association with decision-making success ($\beta_{46} = -.122$, $p < .05$) and business excellence outstanding ($\beta_{51} = -.133$, $p < .05$), indicating that smaller firms are more likely to exhibit decision-making success and business excellence outstanding than bigger firms. Furthermore, the duration of time as an ISO-certified business is positively correlated to business excellence outstanding ($\beta_{55} = .147$, $p < .05$), meaning that the longer a firm has been certified, the more likely it is to have the indications of business excellence. Despite this, the length of time of ISO-certification has no effect on decision-making success ($\beta_{47} = -.074$, $p > .10$) and sustainable goal achievement ($\beta_{59} = -.107$, $p > .10$),

indicating that ISO-certified timing does not reveal any impact on decision-making success and sustainable goal achievement.

The Effects of Antecedents on Strategic Managerial Accounting Capability

As shown in Figure 4, this research has designated top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence as the independent variables, while the five dimensions contained in strategic managerial accounting capability (cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest) are posited as the dependent variables of the relationships.

Figure 4: The Effects of Antecedents on Strategic Managerial Accounting Capability

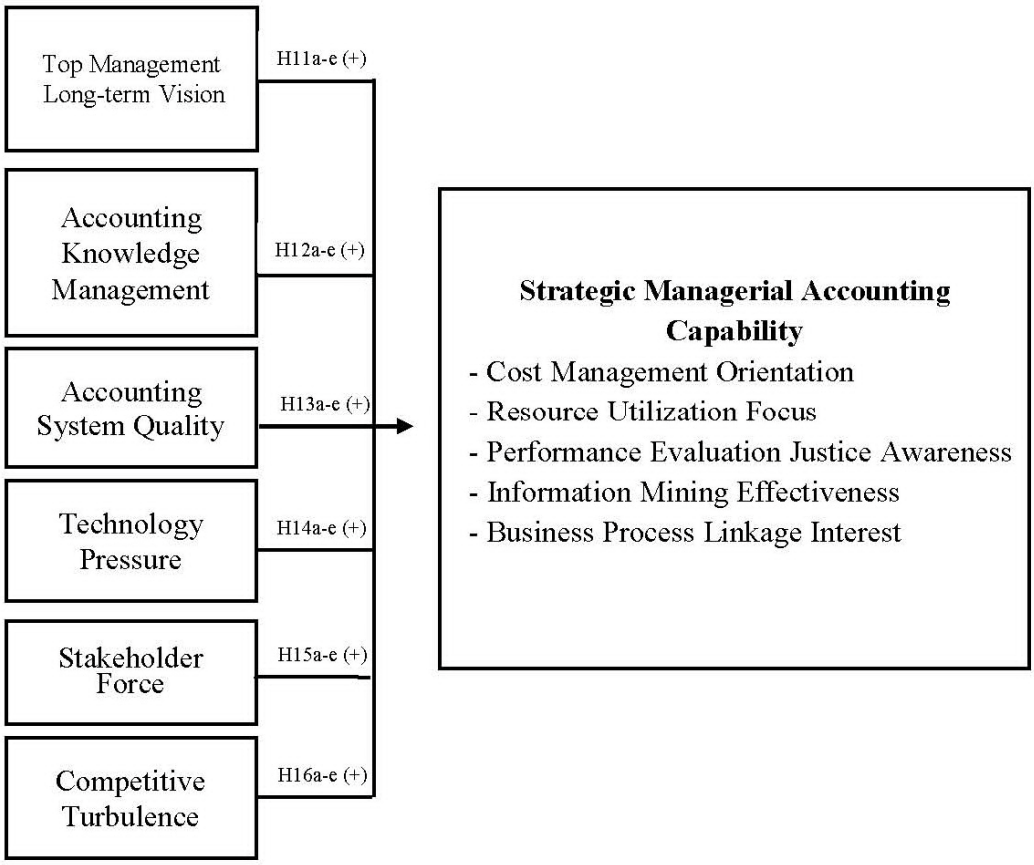


Table 11 shows the correlation among the independent and dependent variables. The results explain that top management long-term vision has a significant and positive correlation with cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest ($r = .587$, $p < .01$; $r = .589$, $p < .01$; $r = .658$, $p < .01$; $r = .533$, $p < .01$; $r = .662$, $p < .01$, respectively). Accounting knowledge management has a significant and positive correlation with cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest ($r = .529$, $p < .01$; $r = .494$, $p < .01$; $r = .615$, $p < .01$; $r = .471$, $p < .01$; $r = .596$, $p < .01$, respectively). Accounting system quality significantly and positively correlates with cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest ($r = .618$, $p < .01$; $r = .476$, $p < .01$; $r = .664$, $p < .01$; $r = .487$, $p < .01$; $r = .652$, $p < .01$, respectively). Technology pressure significantly and positively correlates with cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest ($r = .433$, $p < .01$; $r = .500$, $p < .01$; $r = .500$, $p < .01$; $r = .469$, $p < .01$; $r = .529$, $p < .01$, respectively).
Then, stakeholder force has a significant and positive correlation with cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest ($r = .480$, $p < .01$; $r = .480$, $p < .01$; $r = .566$, $p < .01$; $r = .449$, $p < .01$; $r = .550$, $p < .01$, respectively). Similarly, competitive turbulence significantly and positively correlates with cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest ($r = .526$, $p < .01$; $r = .467$, $p < .01$; $r = .569$, $p < .01$; $r = .518$, $p < .01$; $r = .594$, $p < .01$, respectively).

Table 11: Descriptive Statistics and Correlation Matrix of Strategic Managerial Accounting Capability Antecedents

Variables	TMV	AKM	ASQ	THP	SHF	CPT	CMO	RUF	PEJ	IME	BPL	SIZ	ISO
Mean	4.065	3.975	4.030	3.951	3.859	3.912	4.017	3.946	3.923	3.875	3.970	n/a	n/a
S.D.	.614	.641	.565	.579	.594	.588	.664	.692	.671	.666	.628	n/a	n/a
TMV	1												
AKM	.760***	1											
ASQ	.772***	.805***	1										
THP	.572***	.514***	.564***	1									
SHF	.615***	.579***	.614***	.717***	1								
CPT	.670***	.606***	.600***	.659***	.781***	1							
CMO	.587***	.529***	.618***	.433***	.480***	.526***	1						
RUF	.589***	.494***	.476***	.500***	.480***	.467***	.688***	1					
PEJ	.658***	.615***	.664***	.500***	.566***	.569***	.732***	.705***	1				
IME	.533***	.471***	.487***	.469***	.449***	.518***	.652***	.722***	.757***	1			
BPL	.662***	.596***	.652***	.529***	.550***	.594***	.718***	.729***	.824***	.774***	1		
SIZ	.122**	.144**	.140**	.047	.133**	.133**	.080	-.081	.046	-.049	-.010	1	
ISO	.117**	.121**	.084	-.003	.089	.033	.070	.034	.004	.034	.046	.242***	1

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

For the correlations among the independent variables, the results show that top management long-term vision has a significant and positive correlation with accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence ($r = .760$, $p < .01$; $r = .772$, $p < .01$; $r = .572$, $p < .01$; $r = .615$, $p < .01$; $r = .670$, $p < .01$, respectively). Accounting knowledge management has a significant and positive correlation with accounting system quality, technology pressure, stakeholder force, and competitive turbulence ($r = .805$, $p < .01$; $r = .514$, $p < .01$; $r = .579$, $p < .01$; $r = .606$, $p < .01$, respectively). Accounting system quality significantly and positively correlates with technology pressure, stakeholder force, and competitive turbulence ($r = .564$, $p < .01$; $r = .614$, $p < .01$; $r = .600$, $p < .01$, respectively). Likewise, technology pressure significantly and positively correlates with stakeholder force and competitive turbulence ($r = .717$, $p < .01$; $r = .659$, $p < .01$, respectively). Furthermore, stakeholder force has a significant and positive correlation with competitive turbulence ($r = .781$, $p < .01$). However, the correlation among

independent variables is smaller than 0.80, except that the correlation between accounting knowledge management and accounting system quality is ($r = .805$, $p < .01$), indicating that the multicollinearity problems are not a concern in this analysis.

With regard to the multicollinearity problem, VIF was also used to test the correlation among independent variables (see Table 12). In this analysis, the maximum value of VIF is 3.627, which is less than the criterion of 10 (as cited by Hair et al., 2010), indicating that multicollinearity problems were not significant.

Table 12 presents the results of OLS regression analysis of Hypotheses 11 to 16 that proposes the effects of top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence on each dimension of strategic managerial accounting capability.

With regard to top management long-term vision, the results demonstrate that top management long-term vision has a significant and positive influence on cost management orientation ($\beta_{60} = .192$, $p < .05$), resource utilization focus ($\beta_{68} = .426$, $p < .01$), performance evaluation justice awareness ($\beta_{76} = .250$, $p < .01$), information mining effectiveness ($\beta_{84} = .216$, $p < .01$), and business process linkage interest ($\beta_{92} = .258$, $p < .01$). In the existing literature, top management long-term vision leading to achieving a sustainable goal (Altiok, 2011). The executive vision is a key factor in supporting and promoting the adoption of strategic managerial accounting capability, and the vision for long-term operation that occurs within the minds of each individual executive could be different (Prasong et al., 2013). Komala (2012) suggests that top management long-term vision also positively influences strategic managerial accounting capability. As mentioned above, this research shows that the relationship of top management long-term vision enhances cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest. ***Therefore, Hypotheses 11a to 11e are supported.***

Table 12: Results of the Effects of Antecedents on Strategic Managerial Accounting Capability

Independent Variables	Dependent Variables				
	EQ11: CMO	**EQ12: RUF**	**EQ13: PEJ**	**EQ14: IME**	**EQ15: BPL**
Top Management Long-Term Vision	**.192****	**.426*****	**.250*****	**.216*****	**.258*****
(TMV: H11a-e)	(.083)	(.084)	(.076)	(.087)	(.075)
Accounting Knowledge Management	-.055	.113	.083	.048	.027
(AKM: H12a-e)	(.084)	(.085)	(.076)	(.088)	(.076)
Accounting System Quality	**.401*****	-.079	**.280*****	.103	**.279*****
(ASQ: H13a-e)	(.087)	(.088)	(.079)	(.092)	(.079)
Technology Pressure (THP: H14a-e)	.000	**.194*****	.008	**.147****	.083
	(.069)	(.070)	(.063)	(.073)	(.063)
Stakeholder Force (SHF: H15a-e)	-.004	.104	**.136***	-.058	.012
	(.083)	(.084)	(.076)	(.088)	(.075)
Competitive Turbulence(CPT: H16a-e)	**195****	-.026	.081	**.248*****	**.189*****
	(.081)	(.082)	(.074)	(.085)	(.073)
Control Variables:					
Firm Size (SIZ)	-.045	**-.322*****	-.100	**-.271*****	**-237*****
	(.096)	(.097)	(.087)	(.101)	(.087)
ISO Certified Timing (ISO)	.041	.018	-.130	.051	.022
	(.101)	(.102)	(.092)	(.106)	(.091)
Adjusted R^2	.415	.399	.512	.348	.519
Maximum VIF	3.627	3.627	3.627	3.627	3.627

*** p < .01, ** p < .05, * p < .10

Beta coefficients with standard errors in parenthesis

Surprisingly, the results indicate that accounting knowledge management does not appear to directly influence cost management orientation (β_{61} = -.055, p > .10), resource utilization focus (β_{69} = .113, p > .10), performance evaluation justice awareness (β_{77} = .083, p > .10), information mining effectiveness (β_{85} = .048, p > .10), and business process linkage interest (β_{93} = .027, p > .10). Therefore, accounting knowledge management has not been shown to have a relationship with cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest. ***Thus, Hypotheses 12a to 12e are not supported.***

For testing the hypotheses concerning accounting system quality, the results reveal that accounting system quality has significant positive impacts on cost management orientation (β_{62} = .401, p < .01), performance evaluation justice awareness (β_{78} = .280, p < .01), and business process linkage interest (β_{94} = .279, p < .01). Hence, accounting system quality tends to have strategic managerial accounting capability. ***Therefore, Hypotheses 13a, 13c, and 13e are supported.***

Conversely, the results also shown that accounting system quality does not significantly affect resource utilization focus (β_{70} = -.079, p > .10) and information mining effectiveness (β_{86} = .103, p > .10). Therefore, accounting system quality has shown no relationship with strategic managerial accounting capability. ***Thus, Hypotheses 13b and 13d are not supported.***

With regard to technology pressure, the results indicate that technology pressure has no significant effects on cost management orientation (β_{63} = .000, p > .10), performance evaluation justice awareness (β_{79} = .008, p > .10), and business process linkage interest (β_{95} = .083, p > .10). Despite this, the results also indicate that technology pressure did have significant and positive effects on resource utilization focus (β_{71} = .194, p < .01) and information mining effectiveness (β_{87} = .147, p < .05). The possible reason for this is that, as previous research demonstrates that technology pressure can affect positive and negative firm outcomes. Changes in technology and systems also increase the difficulty of managing the change process. Thus, in this research, technology pressure directly affects the dimensions of strategic managerial accounting capability which concern technology as resource utilization focus and

information mining effectiveness, but cannot be seen as being an influence on non-technological dimensions. ***Therefore, Hypotheses 14a, 14c, and 14e are not supported. Hypotheses 14b and 14d are supported.***

For testing the hypothetical effects of stakeholder force hypotheses, the results show stakeholder force has significant impacts on performance evaluation justice awareness (β_{80} = .136, p < .10). This is consistent with Lee and Hutchison (2005) who suggest that internal stakeholders as employees and managers influence strategic managerial accounting capability. ***Therefore, Hypothesis 15c is supported.***

On the other hand, stakeholder force does not demonstrate significant impacts on cost management orientation (β_{64} = -.004, p > .10), resource utilization focus (β_{72} = .104, p > .10), information mining effectiveness (β_{88} = -.058, p > .10), and business process linkage interest (β_{96} = .012, p > .10). Therefore, stakeholder force has no relationship with cost management orientation, resource utilization focus, information mining effectiveness, and business process linkage interest. ***Therefore, Hypotheses 15a, 15b, 15d, and 15e are not supported.***

Lastly, the results from Table 12 also present positive relationships among competitive turbulence and cost management orientation (β_{65} = .195, p < .05), information mining effectiveness (β_{89} = .248, p < .01), and business process linkage interest (β_{97} = .189, p < .01). The prior research suggests that competitive turbulence has an influence on management accounting. Thus, this research result has also shown that competitive turbulence influences the cost activities functions of cost management orientation, information mining effectiveness, and business process linkage. ***Therefore, Hypotheses 16a, 16d, and 16e are supported.*** In addition, this research also reveals that competitive turbulence has no significant relationship between resource utilization focus (β_{73} = -.026, p > .10) and performance evaluation justice awareness (β_{81} = .081, p > .10). ***Therefore, Hypotheses 16b and 16c are not supported.***

In summary, top management long-term vision, accounting system quality, technology pressure, stakeholder force, and competitive turbulence have been shown to be key determinants of driving the strategic managerial accounting capability of ISO9001 manufacturing firms in Thailand, however with a mixed set of results. Hence, Hypothesis 11 is strongly supported while Hypotheses 13, 14, 15, and 16 are partially

supported. Accounting knowledge management, on the other hand, shows no influence on strategic managerial accounting capability. Therefore, Hypothesis 12 is not supported.

For the two control variables, firm size has a significant and negative relationship with resource utilization focus (β_{74} = -.322, p < .01), meaning that the bigger firms were less likely to have a resource utilization focus than smaller firm, information mining effectiveness (β_{90} = -.271, p < .01), indicating that smaller firms were more likely to be effective in their information mining than bigger firms, and business process linkage interest (β_{98} = -.237, p < .01), showing that linkages within a firm were more prominent with smaller firms than larger ones. Conversely, firm size had no significant effects on cost management orientation (β_{66} = -.045, p > .10), and performance evaluation justice awareness (β_{82} = -.100, p > .10). Granlund and Taipaleenmaki (2005) support the conclusion that larger firms tend not focus on strategic managerial accounting capability because they may lack the time to use and produce relevant accounting information from various perspectives. For them too, a cost-benefit mindset is absent in the largest firms. Laitinen (2001) state that strategic managerial accounting capability help management in large organizations to identify directions for future action but may be ineffective in small companies. As a result, the interpretation of the relationships among the antecedents and each dimension of strategic managerial accounting capability do not appear to be affected by firm size.

Additionally, ISO-certified timing has no statistically significant effects on the relationships among the antecedents (top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence) and each dimension of strategic managerial accounting capability (cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest) (β_{67} = .041 , p > .10; β_{75} = .018, p > .10; β_{83} = -.130, p > .10; β_{91} = .051, p > .10; β_{99} = .022, p > .10, respectively). As a result, the interpretation of the relationships among the antecedents and each dimension of strategic managerial accounting capability do not impact the influences of ISO-certified timing.

The Moderating Effects of Organizational Learning Capability

With respect to the relationships, this research posits organizational learning capability as the moderating effect of the relationships among the five dimensions of strategic managerial accounting capability, operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement as shown in Figure 5.

Figure 5: The Moderating Effects of Organizational Learning Capability

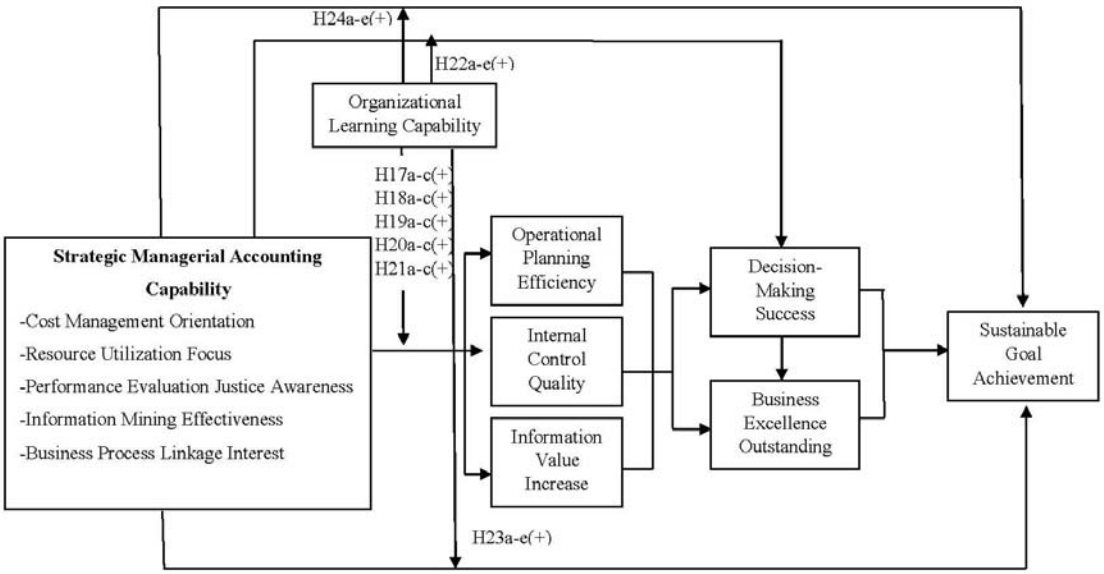


Table 13 shows that organizational learning capability has a significant and positive correlation with cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, business process linkage interest, operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement ($r = .560$, $p < .01$; $r = .594$, $p < .01$; $r = .631$, $p < .01$; $r = .526$, $p < .01$; $r = .656$, $p < .01$; $r = .667$, $p < .01$; $r = .747$, $p < .01$; $r = .721$, $p < .01$; $r = .644$, $p < .01$; $r = .652$, $p < .01$; $r = .547$, $p < .01$, respectively).

Table 13: Descriptive Statistics and Correlation Matrix of Strategic Managerial Accounting Capability Consequents and Organizational Learning Capability as a Moderator

Variables	**CMO**	**RUF**	**PEJ**	**IME**	**BPL**	**OPE**	**ICQ**	**IVI**	**DMS**	**BEO**	**SGA**	**OLC**	**SIZ**	**ISO**
Mean	4.017	3.946	3.923	3.875	3.970	3.813	3.647	3.816	3.710	3.612	3.799	3.934	n/a	n/a
S.D.	.664	.692	.671	.666	.628	.664	.647	.614	.605	.641	.641	.616	n/a	n/a
CMO	1													
RUJ	.688***	1												
PEJ	.732***	.705***	1											
IME	.652***	.722***	.757***	1										
BPL	.718***	.729***	.824***	.774***	1									
OPE	.664***	.632***	.667***	.577***	.674***	1								
ICQ	.555***	.638***	.697***	.587***	.692***	.817***	1							
IVI	.614***	.590***	.653***	.574***	.656***	.803***	.827***	1						
DMS	.586***	.622***	.595***	.591***	.673***	.781***	.829***	.820***	1					
BEO	.565***	.633***	.614***	.578***	.650***	.781***	.833***	.773***	.851***	1				
SGA	.547***	.528***	.531***	.521***	.544***	.674***	.632***	.625***	.706***	.734***	1			
OLC	.560***	.594***	.631***	.526***	.656***	.667***	.747***	.721***	.644***	.652***	.547***	1		
SIZ	.080	-.081	.046	-.049	-.010	.057	-.008	.095	-.026	-.027	.035	.039	1	
ISO	.070	.034	.004	.034	.046	-.027	-.019	.049	-.043	.028	-.033	.072	.242***	1

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

The moderating role of organizational learning capability on the relationships between the five dimensions of strategic managerial accounting capability and the consequents are based on Hypotheses 17 to 24. The results of the OLS regression analysis are provided in Table 14.

Firstly, there was no significant evidence of a moderating role of organizational learning capability among the dimensions of cost management orientation, operational planning efficiency (β_{106} = .097, p > .10), internal control quality (β_{119} = -.031, p > .10), and information value increase (β_{132} = -.009, p > .10). ***Therefore, Hypotheses 17a, 17b, and 17c are not supported.***

Secondly, there was no significant evidence of a moderating role of organizational learning capability among resource utilization focus, operational planning efficiency (β_{107} = .057, p > .10), internal control quality (β_{120} = .045, p > .10), and information value increase (β_{133} = .073, p > .10). ***Therefore, Hypotheses 18a, 18b, and 18c are not supported.***

Thirdly, there was no significant evidence of a moderating role of organizational learning capability among performance evaluation justice awareness, operational planning efficiency (β_{108} = -.038, p > .10), and internal control quality (β_{121} = -.088, p > .10). ***Therefore, Hypotheses 19a and 19b are not supported.***

Conversely, the results reveal that organizational learning capability significantly and negatively moderates the relationship between performance evaluation justice awareness and information value increase (β_{134} = -.124, p < .10). ***Thus, Hypothesis 19c is not supported.***

Fourthly, there was no significant evidence of a moderating role of organizational learning capability among information mining effectiveness, operational planning efficiency (β_{109} = -.036, p > .10), internal control quality (β_{122} = .039, p > .10), and information value increase (β_{135} = .089, p > .10). ***Therefore, Hypotheses 20a, 20b, and 20c are not supported.***

Table 14: Results of Moderating Effect of Organizational Learning Capability

Independent Variables	Dependent Variables					
	EQ16: OPE	**EQ17: ICQ**	**EQ18: IVI**	**EQ19: DMS**	**EQ20: BEO**	**EQ21: SGA**
Cost Management Orientation (CMO)	**.244*** **	-.075	**.221*** **	**.119***	.040	**.196*** **
	(.063)	(.058)	(.061)	(.066)	(.067)	(.074)
Resource Utilization Focus (RUF)	**.142** **	**.147** **	.028	**.148** **	**.220*** **	.087
	(.066)	(.061)	(.064)	(.069)	(.070)	(.078)
Performance Evaluation Justice Awareness (PEJ)	.091	**.239*** **	.070	-.113	.046	.020
	(.078)	(.072)	(.076)	(.082)	(.083)	(.092)
Information Mining Effectiveness (IME)	-.008	-.008	.058	.116	.070	**.171** **
	(.068)	(.063)	(.066)	(.072)	(.073)	(.080)
Business Process Linkage Interest (BPL)	.120	**.150** **	.081	**.276*** **	**.144***	.012
	(.080)	(.074)	(.078)	(.084)	(.085)	(.094)
Moderator:						
Organizational Learning Capability (OLC)	**.325*** **	**.460*** **	**.456*** **	**.337*** **	**.359*** **	**.315*** **
	(.054)	(.050)	(.052)	(.056)	(.057)	(.063)
CMO*OLC	.097	-.031	-.009	.022	.135	.118
(H17a-c, H22a, H23a, H24a)	(.082)	(.076)	(.080)	(.087)	(.088)	(.097)
RUF*OLC	.057	.045	.073	-.016	-.042	**-.137***
(H18a-C, H22b, H23b, H24b)	(.070)	(.065)	(.068)	(.074)	(.075)	(.083)
PEJ*OLC	-.038	-.088	**-.124***	.003	-.008	**.204** **
(H19a-c, H22c, H23c, H24c)	(.075)	(.070)	(.073)	(.079)	(.080)	(.089)
IME*OLC	-.036	.039	.089	-.031	-.049	-.050
(H20a-c, H22d, H23d, H24d)	(.071)	(.065)	(.069)	(.074)	(.075)	(.083)
BPL*OLC	-.030	.061	.029	.097	.045	.001
(H21a-c, H22e, H23e, H24e)	(.081)	(.075)	(.079)	(.085)	(.086)	(.095)
Control Variables:						
Firm Size (SIZ)	.113	-.009	**.130***	.017	-.026	.115
	(.082)	(.076)	(.080)	(.086)	(.087)	(.097)
ISO Certified Timing (ISO)	**-.172** **	-.122	-.041	**-.222*** **	-.036	**-.237** **
	(.085)	(.079)	(.083)	(.090)	(.091)	(.101)
Adjusted R^2	.593	.652	.616	.550	.537	.433
Maximum VIF	6.911	6.911	6.911	6.911	6.911	6.911

*** p < .01, ** p < .05, * p < .10

Beta coefficients with standard errors in parenthesis

Fifthly, there was no significant evidence of a moderating role of organizational learning capability among business process linkage interest, operational planning efficiency (β_{110} = -.030, p > .10), internal control quality (β_{123} = .061, p > .10), and information value increase (β_{136} = .029, p > .10). ***Therefore, Hypotheses 21a, 21b, and 21c are not supported.***

Sixthly, there was no significant evidence of a moderating role of organizational learning capability among decision-making success, cost management orientation (β_{145} = .022, p > .10), resource utilization focus (β_{146} = -.016, p > .10), performance evaluation justice awareness (β_{147} = .003, p > .10), information mining effectiveness (β_{148} = -.031, p > .10), and business process linkage interest (β_{149} = .097, p > .10). ***Therefore, Hypotheses 22a, to 22e are not supported.***

Seventhly, there was no significant evidence of a moderating role of organizational learning capability among business excellence outstanding, cost management orientation (β_{158} = .135, p > .10), resource utilization focus (β_{159} = -.042, p > .10), performance evaluation justice awareness (β_{160} = -.008, p > .10), information mining effectiveness (β_{161} = -.049, p > .10), and business process linkage interest (β_{162} = .045, p > .10). ***Therefore, Hypotheses 23a, to 23e are not supported.***

Lastly, there was no significant evidence of a moderating role of organizational learning capability between performance evaluation justice awareness and sustainable goal achievement (β_{173} = .204, p < .05). ***Therefore, Hypothesis 24c is supported.*** Conversely, the results indicate that there was a significant though negative moderating role of organizational learning capability between resource utilization focus and sustainable goal achievement (β_{172} = -.137, p < .10). ***Thus, Hypothesis 24b is not supported.*** Nevertheless, there was no significant evidence of a moderating role of organizational learning capability had no significant effect among sustainable goal achievement, cost management orientation (β_{171} = .118, p > .10), information mining effectiveness (β_{174} = -.050, p > .10), and business process linkage interest (β_{175} = .001, p > .10). ***Therefore, Hypotheses 24a, 24d, and 24e are not supported.***

In summary, organizational learning capability had a moderating effect on the relationship between performance evaluation justice awareness and sustainable goal achievement. Thus, Hypothesis 24 is partially supported while Hypotheses 17, 18, 19, 20, 21, 22, and 23 are not supported. The possible reason for this is that Lenard (2003) explains this in proposing that organizational learning capability cannot have an effect in short-time, but it may have significant effect over the long-time.

For the control variable of firm size, had a positive effect on information value increase ($\beta_{137} = .130$, $p < .10$), implying that organizational learning capability moderate the relationship between strategic managerial accounting capability and information value increase for bigger firm. It had no significant effect on operational planning efficiency ($\beta_{111} = .113$, $p > .10$), internal control quality ($\beta_{124} = -.009$, $p > .10$), decision-making success ($\beta_{150} = .017$, $p > .10$), business excellence outstanding ($\beta_{163} = -.026$, $p > .10$), and sustainable goal achievement ($\beta_{176} = .115$, $p > .10$). Therefore, the relationship between the five dimensions of strategic managerial accounting capability and operational planning efficiency, internal control quality, information value increase, business excellence outstanding, and sustainable goal achievement, by which organizational learning capability is the moderator, were not influenced by firm size.

Likewise, ISO-certified timing had no significant effect on internal control quality ($\beta_{125} = -.122$, $p > .10$), information value increase ($\beta_{138} = -.041$, $p > .10$), and business excellence outstanding ($\beta_{164} = -.036$, $p > .10$); but there was a significant negative effect on operational planning efficiency ($\beta_{112} = -.172$, $p < .01$), decision-making success ($\beta_{151} = -.222$, $p < .01$), and sustainable goal achievement ($\beta_{177} = -.237$, $p < .05$), indicating that organizational learning capability moderates the relationship between the five dimensions of strategic managerial accounting capability and operational planning efficiency, decision-making success, and sustainable goal achievement for those firms most recently ISO-certified more than for older firms. Therefore, the relationship between the five dimensions of strategic managerial accounting capability, and operational planning efficiency, decision-making success, and sustainable goal achievement, by which organizational learning capability is the moderator, were influenced by ISO-certified timing.

Summary

This section presented the results of each statistic, including descriptive statistics and the main statistics to answer the hypotheses using Ordinary Least Squares (OLS) regression analysis. The overall results indicate that strategic managerial accounting capability positively impacts operational planning efficiency, internal control quality, and information value increase. Then, operational planning efficiency, internal control quality, and information value increase have a positive relationship with decision-making success and business excellence outstanding. Furthermore, decision-making success has positive relationships with business excellence outstanding. Decision-making success and business excellence outstanding also have positive relationships with sustainable goal achievement. For the influences of the antecedents, this research found that top management long-term vision, accounting system quality, technology pressure, stakeholder force, and competitive turbulence affect strategic managerial accounting capability, while accounting knowledge management shows no such influence. For the moderating effect, organizational learning capability is a factor that encourages only the relationships between performance evaluation justice awareness and sustainable goal achievement.

The next chapter describes the conclusions, contributions, limitations, and future research directions.

Table 15: Summary of the Results of Hypotheses Testing

Hypothesis	Description of Hypothesized Relationships	Results
H1a	The higher the cost management orientation is, the more likely that firms will gain greater operational planning efficiency.	Supported
H1b	The higher the cost management orientation is, the more likely that firms will gain greater internal control quality.	Not Supported
H1c	The higher the cost management orientation is, the more likely that firms will gain greater information value increase.	Supported
H1d	The higher the cost management orientation is, the more likely that firms will gain greater decision-making success.	Supported
H1e	The higher the cost management orientation is, the more likely that firms will gain greater business excellence outstanding.	Not Supported
H1f	Hypothesis 1f: The higher the cost management orientation is, the more likely that firms will gain greater sustainable goal achievement.	Supported
H2a	The higher the resource utilization focus is, the more likely that firms will gain greater operational planning efficiency.	Supported
H2b	The higher the resource utilization focus is, the more likely that firms will gain greater internal control quality.	Supported
H2c	The higher the resource utilization focus is, the more likely that firms will gain greater information value increase.	Supported

Table 15: Summary of the Results of Hypotheses Testing (Continued)

Hypothesis	Description of Hypothesized Relationships	Results
H2d	The higher the resource utilization focus is, the more likely that firms will gain greater decision-making success.	Supported
H2e	The higher the resource utilization focus is, the more likely that firms will gain greater business excellence outstanding.	Supported
H2f	The higher the resource utilization focus is, the more likely that firms will gain greater sustainable goal achievement.	Supported
H3a	The higher the performance evaluation justice awareness is, the more likely that firms will gain greater operational planning efficiency.	Supported
H3b	The higher the performance evaluation justice awareness is, the more likely that firms will gain greater internal control quality.	Supported
H3c	The higher the performance evaluation justice awareness is, the more likely that firms will gain greater information value increase.	Supported
H3d	The higher the performance evaluation justice awareness is, the more likely that firms will gain greater decision-making success.	Not Supported
H3e	The higher the performance evaluation justice awareness is, the more likely that firms will gain greater business excellence outstanding.	Not Supported
H3f	The higher the performance evaluation justice awareness is, the more likely that firms will gain greater sustainable goal achievement.	Not Supported

Table 15: Summary of the Results of Hypotheses Testing (Continued)

Hypothesis	Description of Hypothesized Relationships	Results
H4a	The higher the information mining effectiveness is, the more likely that firms will gain greater operational planning efficiency.	Not Supported
H4b	The higher the information mining effectiveness is, the more likely that firms will gain greater internal control quality.	Not Supported
H4c	The higher the information mining effectiveness is, the more likely that firms will gain greater information value increase.	Not Supported
H4d	The higher the information mining effectiveness is, the more likely that firms will gain greater decision-making success.	Not Supported
H4e	The higher the information mining effectiveness is, the more likely that firms will gain greater business excellence outstanding.	Not Supported
H4f	The higher the information mining effectiveness is, the more likely that firms will gain greater sustainable goal achievement.	Not Supported
H5a	The higher the business process linkage interest is, the more likely that firms will gain greater operational planning efficiency.	Supported
H5b	The higher the business process linkage interest is, the more likely that firms will gain greater internal control quality.	Supported
H5c	The higher the business process linkage interest is, the more likely that firms will gain greater information value increase.	Supported

Table 15: Summary of the Results of Hypotheses Testing (Continued)

Hypothesis	Description of Hypothesized Relationships	Results
H5d	The higher the business process linkage interest is, the more likely that firms will gain greater decision-making success.	Supported
H5e	The higher the business process linkage interest is, the more likely that firms will gain greater business excellence outstanding.	Supported
H5f	The higher the business process linkage interest is, the more likely that firms will gain greater sustainable goal achievement.	Not Supported
H6a	There is a positive relationship between operational planning efficiency and decision-making success.	Supported
H6b	There is a positive relationship between operational planning efficiency and business excellence outstanding.	Supported
H7a	There is a positive relationship between internal control quality and decision-making success.	Supported
H7b	There is a positive relationship between internal control quality and business excellence outstanding.	Supported
H8a	There is a positive relationship between information value increase and decision-making success.	Supported
H8b	There is a positive relationship between information value increase and business excellence outstanding.	Supported
H9a	There is a positive relationship between decision-making success and business excellence outstanding.	Supported
H9b	Hypothesis 9b: There is a positive relationship between decision-making success and sustainable goal achievement.	Supported

Table 15: Summary of the Results of Hypotheses Testing (Continued)

Hypothesis	Description of Hypothesized Relationships	Results
H10	There is a positive relationship between business excellence outstanding and sustainable goal achievement.	Supported
H11a	There is a positive relationship between top management long-term vision and cost management orientation.	Supported
H11b	There is a positive relationship between top management long-term vision and resource utilization focus.	Supported
H11c	There is a positive relationship between top management long-term vision and performance evaluation justice awareness.	Supported
H11d	There is a positive relationship between top management long-term vision and information mining effectiveness.	Supported
H11e	There is a positive relationship between top management long-term vision and business process linkage interest.	Supported
H12a	There is a positive relationship between accounting knowledge management and cost management orientation.	Not Supported
H12b	There is a positive relationship between accounting knowledge management and resource utilization focus.	Not Supported
H12c	There is a positive relationship between accounting knowledge management and performance evaluation justice awareness.	Not Supported

Table 15: Summary of the Results of Hypotheses Testing (Continued)

Hypothesis	Description of Hypothesized Relationships	Results
H12d	There is a positive relationship between accounting knowledge management and information mining effectiveness.	Not Supported
H12e	There is a positive relationship between accounting knowledge management and business process linkage interest.	Not Supported
H13a	There is a positive relationship between accounting system quality and cost management orientation.	Supported
H13b	There is a positive relationship between accounting system quality and resource utilization focus.	Not Supported
H13c	There is a positive relationship between accounting system quality and performance evaluation justice awareness.	Supported
H13d	There is a positive relationship between accounting system quality and information mining effectiveness.	Not Supported
H13e	There is a positive relationship between accounting system quality and business process linkage interest.	Supported
H14a	There is a positive relationship between technology pressure and cost management orientation.	Not Supported
H14b	There is a positive relationship between technology pressure and resource utilization focus.	Supported
H14c	There is a positive relationship between technology pressure and performance evaluation justice awareness.	Not Supported
H14d	There is a positive relationship between technology pressure and information mining effectiveness.	Supported
H14e	There is a positive relationship between technology pressure and business process linkage interest.	Not Supported

Table 15: Summary of the Results of Hypotheses Testing (Continued)

Hypothesis	Description of Hypothesized Relationships	Results
H15a	There is a positive relationship between stakeholder force and cost management orientation.	Not Supported
H15b	There is a positive relationship between stakeholder force and resource utilization focus.	Not Supported
H15c	There is a positive relationship between stakeholder force and performance evaluation justice awareness.	Supported
H15d	There is a positive relationship between stakeholder force and information mining effectiveness.	Not Supported
H15e	There is a positive relationship between stakeholder force and business process linkage interest.	Not Supported
H16a	There is a positive relationship between competitive turbulence and cost management orientation.	Supported
H16b	There is a positive relationship between competitive turbulence and resource utilization focus.	Not Supported
H16c	There is a positive relationship between competitive turbulence and performance evaluation justice awareness.	Not Supported
H16d	There is a positive relationship between competitive turbulence and information mining effectiveness.	Supported
H16e	There is a positive relationship between competitive turbulence and business process linkage interest.	Supported
H17a	Organizational learning capability will positively moderate the relationship between cost management orientation and operational planning efficiency.	Not Supported
H17b	Organizational learning capability will positively moderate the relationship between cost management orientation and internal control quality	Not Supported

Table 15: Summary of the Results of Hypotheses Testing (Continued)

Hypothesis	Description of Hypothesized Relationships	Results
H17c	Organizational learning capability will positively moderate the relationship cost management orientation and information value increase.	Not Supported
H18a	Organizational learning capability will positively moderate the relationship between resource utilizing focus and operational planning efficiency.	Not Supported
H18b	Organizational learning capability will positively moderate the relationship between resource utilizing focus and internal control quality.	Not Supported
H18c	Organizational learning capability will positively moderate the relationship between resource utilizing focus and information value increase.	Not Supported
H19a	Organizational learning capability will positively moderate the relationship between performance evaluation justice awareness and operational planning efficiency.	Not Supported
H19b	Organizational learning capability will positively moderate the relationship between performance evaluation justice awareness and internal control quality.	Not Supported
H19c	Organizational learning capability will positively moderate the relationship between performance evaluation justice awareness and information value increase.	Not Supported
H20a	Organizational learning capability will positively moderate the relationship between information mining effectiveness and operational planning efficiency.	Not Supported

Table 15: Summary of the Results of Hypotheses Testing (Continued)

Hypothesis	Description of Hypothesized Relationships	Results
H20b	Organizational learning capability will positively moderate the relationship between information mining effectiveness and internal control quality.	Not Supported
H20c	Organizational learning capability will positively moderate the relationship between information mining effectiveness and information value increase.	Not Supported
H21a	Organizational learning capability will positively moderate the relationship between business process linkage interest and operational planning efficiency.	Not Supported
H21b	Organizational learning capability will positively moderate the relationship between business process linkage interest and internal control quality.	Not Supported
H21c	Organizational learning capability will positively moderate the relationship between business process linkage interest and information value increase.	Not Supported
H22a	Organizational learning capability will positively moderate the relationship between cost management orientation and decision-making success.	Not Supported
H22b	Organizational learning capability will positively moderate the relationship between resource utilization focus and decision-making success.	Not Supported
H22c	Organizational learning capability will positively moderate the relationship between performance evaluation justice awareness and decision-making success.	Not Supported
H22d	Organizational learning capability will positively moderate the relationship between information mining effectiveness and decision-making success.	Not Supported

Table 15: Summary of the Results of Hypotheses Testing (Continued)

Hypothesis	Description of Hypothesized Relationships	Results
H22e	Organizational learning capability will positively moderate the relationship between business process linkage interest and decision-making success.	Not Supported
H23a	Organizational learning capability will positively moderate the relationship between cost management orientation and business excellence outstanding.	Not Supported
H23b	Organizational learning capability will positively moderate the relationship between resource utilization focus and business excellence outstanding.	Not Supported
H23c	Organizational learning capability will positively moderate the relationship between performance evaluation justice awareness and business excellence outstanding.	Not Supported
H23d	Organizational learning capability will positively moderate the relationship between information mining effectiveness and business excellence outstanding.	Not Supported
H23e	Organizational learning capability will positively moderate the relationship between business process linkage interest and business excellence outstanding.	Not Supported
H24a	Organizational learning capability will positively moderate the relationship between cost management orientation and sustainable goal achievement.	Not Supported
H24b	Organizational learning capability will positively moderate the relationship between resource utilization focus and sustainable goal achievement.	Not Supported

CHAPTER V

CONCLUSION

This research has investigated the influences of strategic managerial accounting capability on its consequents, and the relationships among the dimensions of strategic managerial accounting capability. The moderating effect of organizational learning capability is also examined. Analytically, this research has assigned top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence as the antecedents of strategic managerial accounting capability.

The key research question in this research has been, “How does strategic managerial accounting capability have an impact on sustainable goal achievement?” The specific research questions are as follows: (1) How does each dimension of strategic managerial accounting capability influence operational planning efficiency, internal control quality, and information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement? (2) How do operational planning efficiency, internal control quality, and information value increase affect decision-making success and business excellence outstanding? (3) How does decision-making success have an influence on business excellence outstanding? (4) How does decision-making success and business excellence outstanding have an influence on sustainable goal achievement? (5) How do top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence affect each dimension of strategic managerial accounting capability? (6) How does organization learning capability moderate the relationships among each dimension of strategic managerial accounting capability and operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement?

There are two theories being applied to explain the phenomena in the research, namely, Resource-Advantage Theory of the firm and Contingency Theory. The resource-advantage theory of the firm is used to illustrate the dimensions of strategic managerial accounting capability and the consequents of their relationships. Meanwhile,

Contingency Theory is used to describe the relationships among the dimensions of strategic managerial accounting capability and the antecedents. Moreover, this research proposes a form of interaction theory to explain the relationship of each variable and to answer the research questions and objectives.

With respect to the research objectives and research questions, there are many variables in this research. Strategic managerial accounting capability is the independent variable and it is measured by five dimensions consisting of cost management orientation, resource utilization focus, performance evaluation justice awareness, information mining effectiveness, and business process linkage interest. Strategic managerial accounting capability is hypothesized to be positively associated with operational planning efficiency, internal control quality, information value increase, decision-making success, and business excellence outstanding. Within the relationships, sustainable goal achievement is the dependent variable of the research. Organizational learning capability determined as the moderating variable. Moreover, top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence are assigned as the antecedents of strategic managerial accounting capability.

This research selected manufacturing firms in Thailand certified as ISO9001 compliant as the sample because they have adopted a series of standards which had been developed and published by the International Organization for Standardization. These standards define, establish, and maintain an effective quality assurance system for manufacturing and service industries. A questionnaire was drafted, pre-tested and used as the data collection instrument. Originally, 1,057 questionnaires were directly mailed to the accounting manager of these ISO9001-certified firms, of which 1,038 surveys were valid, and from which 283 completed questionnaires were used, resulting in a response rate of 27.26%.

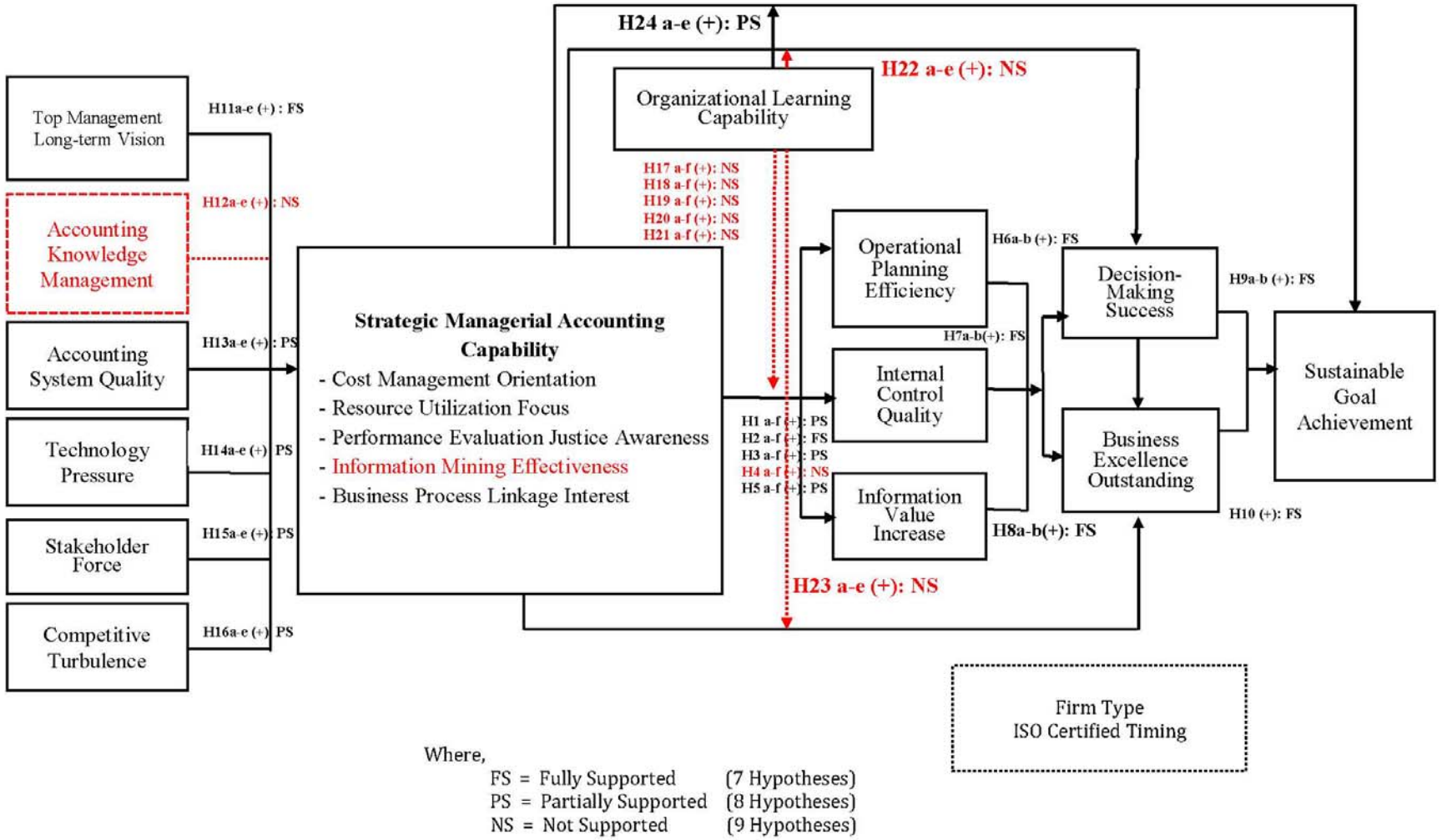
The overall results demonstrate that strategic managerial accounting capability, including cost management orientation, resource utilization focus, performance evaluation justice awareness, and business process linkage interest, positively influence the consequents of operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and

sustainable goal achievement. In addition, decision-making success has been shown to have an effect on business excellence, which, in turn, impacts sustainable goal achievement. Organizational learning capability has been shown to moderate the relationships between strategic managerial accounting capability and sustainable goal achievement.

For the influences of the antecedents, the findings reveal that top management long-term vision, accounting system quality, technology pressure, stakeholder force, and competitive turbulence affect strategic managerial accounting capability, while accounting knowledge management shows no discernable effect.

In summary, the key research question is supported by the empirical evidence, while the specific research questions are either partially supported or at times contradicted. The supported hypotheses are illustrated in Figure 6.

Figure 6: Summary of the Results of the Hypotheses Testing



Summary of Results

To summarize the results, strategic managerial accounting capability, including cost management orientation, resource utilization focus, performance evaluation justice awareness, and business process linkage interest, has been shown to positively influence a set of consequents which are operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement. Especially, resource utilization focus is a key element of strategic managerial accounting capability to obtain these consequences. Then, decision-making has positive relationships with business excellence outstanding. Furthermore, decision-making success and business excellence outstanding have a positive relationship with sustainable goal achievement. For the influences of the antecedents, this research found that top management long-term vision, accounting system quality, technology pressure, stakeholder force, and competitive turbulence affect strategic managerial accounting capability. For the moderating effect, organizational learning capability only appears to be involved with the relationships between one dimension of strategic managerial accounting capability and sustainable goal achievement.

Table 16: Summary of Results in All Hypotheses Testing

Research Questions	Hypothesis	Results	Conclusions
(1) How does strategic managerial accounting capability have an impact on sustainable goal achievement?	Hypotheses 1f, 2f, 3f, 4f, 5f	Cost management orientation and resource utilization focus have a positive influence on sustainable goal achievement.	Partially Supported
(2) How does each dimension of strategic managerial accounting capability influence operational planning efficiency, internal control quality, and information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement?	Hypotheses 1a-e, 2a-e, 3a-e, 4a-e, 5a-e	Cost management orientation has a positive influence on operational planning efficiency, information value increase, decision-making success, and sustainable goal achievement; resource utilization focus has positive correlations with on all six consequents; performance evaluation justice awareness has a significant positive correlation with operational planning efficiency, internal control quality, and information value increase;	Partially Supported

Table 16: Summary of Results in All Hypotheses Testing (Continued)

Research Questions	Hypothesis	Results	Conclusions
		business process linkage interest has a positive influence on operational planning efficiency, internal control quality, information value increase, decision-making success, and business excellence outstanding.	
(3) How do operational planning efficiency, internal control quality, and information value increase affect decision-making success and business excellence outstanding?	Hypotheses 6a-b, 7a-b, 8a-b	Operational planning excellence, internal control quality, and information value increase have a significant positive influence on decision-making success and business excellence outstanding.	Full Supported

Table 16: Summary of Results in All Hypotheses Testing (Continued)

Research Questions	Hypothesis	Results	Conclusions
(4) How does decision-making success have an influence on business excellence outstanding?	Hypotheses 9a	Decision-making success has a significant and positive affect on business excellence outstanding.	Supported
(5) How do decision-making success and business excellence outstanding have an influence on sustainable goal achievement?	Hypotheses 9b, 10	Decision-making success and business excellence have a significant and positive influence on sustainable goal achievement.	Supported
(6) How do top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence affect each dimension of strategic managerial accounting capability?	Hypotheses 11a-e, 12a-e, 13a-e, 14a-e, 15a-e, 16a-e	Top management long-term vision, accounting system quality, technology pressure, stakeholder force, and competitive turbulence positively affect each dimension of strategic managerial accounting capability, while accounting knowledge management shows no such impact.	Partially Supported

Table 16: Summary of Results in All Hypotheses Testing (Continued)

Research Questions	Hypothesis	Results	Conclusions
(7) How does organization learning capability moderate the relationships among each dimension of strategic managerial accounting capability and operational planning efficiency, internal control quality, and information value increase, decision-making success, business excellence outstanding, sustainable goal achievement?	Hypotheses 17a-c, 18a-c, 19a-c, 20a-c, 21a-c, 22a-e, 23a-e, 24a-e	Organizational learning capability demonstrates positive moderating effects on the relationships between performance evaluation justice awareness and sustainable goal achievement, but it does not show such moderating effects on operational planning efficiency, internal control quality, and information value increase, decision-making success, and business excellence outstanding.	Partially Supported

Theoretical and Managerial Contributions

Theoretical Contribution

This research is the first empirical evidence that indicates causal relationships among the dimensions of strategic managerial accounting capability and sustainable goal achievement of ISO9001-certified manufacturing firms. These dimensions are operational planning efficiency, internal control quality, information value increase, decision-making success, and business excellence outstanding. Moderating effects of organizational learning capability were also analyzed that may affect these relationships. Furthermore, this research identified top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence as the antecedents of strategic managerial accounting capability. The theoretical contribution is the examination of new dimensions of strategic managerial accounting capability which has created and empirically tested the construct of these antecedents and consequents which has only been done in a few research studies in the management accounting discipline. Furthermore, this research provides a theoretical contribution with an important expansion of previous knowledge and relevant literature of strategic managerial accounting capability.

The results of this research help to confirm the usefulness of Resource-Advantage Theory and the contingency theory in explaining strategic managerial accounting capability as real-world business phenomena. Resource-Advantage Theory explains the relationships among strategic managerial accounting capability, operational planning efficiency, internal control quality, information value increase, decision-making success, business excellence outstanding, and sustainable goal achievement. Likewise, organizational learning capability is supported by the resource-advantage theory of the firm. Also, the relationships among the internal and external factors (top management long-term vision, accounting knowledge management, accounting system quality, technology pressure, stakeholder force, and competitive turbulence) and each dimension of strategic managerial accounting capability conform to Contingency Theory.

Managerial Contribution

The research results have managerial implications for practitioners. This research contributes to providing a guideline for firms about how to establish strategic managerial accounting capability. This is significant because firms which have strategic managerial accounting capability are likely to achieve sustainable goals. Therefore, those executives who are responsible should be concerned that strategic managerial accounting capability can have an influence on operational planning efficiency, internal control quality, information value increase, decision-making success, and business excellence outstanding. Interestingly, this research provides a better understanding of how a firm can encourage strategic managerial accounting capability. These findings show that firms should focus on top management long-term vision, accounting knowledge management, and accounting system quality as the internal factors that best support strategic managerial accounting capability. Moreover, firms should emphasize technology pressure, stakeholder force, and competitive turbulence as important external factors that affect strategic managerial accounting capability.

Limitations and Future Research Directions

Limitations

Although the results of this research have theoretical and managerial implications for management accounting research discipline respectively, some limitations should be mentioned. Firstly, the sample size of this research used only 283 respondents, which is considered a small sample for the measure of eighteen variables. As a result, this may affect the analytical power of the statistical tests so that the results of the hypotheses are possibly weakened. Secondly, the results of this research are derived from data solely collected from manufacturing firms in Thailand, although all were certified as ISO9001 compliant. Thus, the findings may be narrow as they lack a generalization concept of other sectors or other countries.

Future Research Directions

According to the results of this research, some of the research hypotheses are not statistically significant. In particular, one of the five dimensions of strategic managerial accounting capability demonstrated no significant effect on its consequents. One of six antecedents had no significant effect on strategic managerial accounting capability, and the moderating effects are mostly insignificant. As a result, future research needs to re-investigate the research hypotheses that are not statistically significant and those in which the finding were found to be negatively correlated, such as information mining effectiveness, accounting knowledge management, and organizational learning capability. In addition, future research should consider seeking other potential moderating variables.

In this research, some construct measurements have been developed based on prior research of strategic managerial accounting capability. Thus, future research should confirm the usefulness of the scale by applying it to different populations (e.g. service firms) or collect data from a larger population or other countries in order to widen the perspective and generalizability. Any new scales should be triangulated by applying a qualitative method such as in-depth interviews with accounting executives of each firm in order to confirm construct measurements and the relationships of this model. Moreover, the evidence provides that control variables, including firm size and ISO-certified timing, have an effect on the results. Consequently, future research may consider separating firms into groups based on the criteria of firm size and ISO-certified timing.

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APPENDICES

APPENDIX A

The Original Items

Table A: Original Items in Scales

Construct	Items
Cost Management Orientation (CMO)	
CMO1	Firm emphasizes to implement cost management techniques in preparation and presentation of managerial accounting information for cost estimation, pricing, and strategic planning.
CMO2	Firm commit in develop cost allocation method and cost system for accurate costs, to be able to support decision-making efficiency.
CMO3	Firm focus on the development of organizational capacity and capability to link the modern cost accounting techniques in accordance with strategic goal for competitive advantage.
CMO4	Firm focus on the cost management system that can analyze cost behavior and customers need for maximize customer need and decision-making quality.
CMO5	Firm believe that accurate cost and appropriate cost management system result on firm performance.
Resource Utilization Focus (RUF)	
RUF1	Firm focus on the analysis of the demands for resource management to achieve the optimal use of resources.
RUF2	Firm concentrates on adequately resource allocation for each department to ensure the department's goal achievement.
RUF3	Firm commit to develop guidelines for the allocation and resources uses to ensure maximum benefit of organization.
RUF4	Firm encourage planning and sharing resource for internal and external organization to achieve business goals.
RUF5	Firm focuses on analysis capacity and resource benefit of each department as a guideline for preparing budget to maximize firm performance.

Table A: Original Items in Scales (Continued)

Construct	Items
Performance Evaluation Justice Awareness (PEJ)	
PEJ1	Firm focuses on the adoption of rules in performance evaluation that measure explicitly and disclosure to relevant person, to acceptance and success in short term and long term.
PEJ2	Firm believes that managerial accounting collect data on key performance measure, both financial and nonfinancial measures, result to accurate and fairness performance evaluation report.
PEJ3	Firm focus on the preparation and presentation of managerial accounting information to assess accuracy, transparency, and recognition from the employees.
PEJ4	Firm support the preparation of numerous performance evaluation report that congruence with working practice of firm for fairness and satisfaction to performance evaluation system.
PEJ5	Firm focuses on the application to evaluate the performance of justice in order to create incentives and successful firm's operational.
Information Mining Effectiveness (IME)	
IME1	Firm commit to develop customer information collected information in the past, present, and future, that meet the customer need and support to long-term success.
IME2	Firm focuses on providing information system with a compound information between departments of the firm, providing complete information to efficiency decision-making.
IME3	Firm support the process of procurement, implement, and maintenance of information from internal and external company in order to obtain completely, accurately, and timely information in uncertainty environment.
IME4	Firm emphasizes on integration and link relevant information to support decision-making quality.

Table A: Original Items in Scales (Continued)

Construct	Items
Business Process Linkage Interest (BPL)	
BPL1	Firm believes that managerial accounting system linked business processes can support firm to sustainable goal achievement.
BPL2	Firm commits to link business processes and the participation of all departments to achieve operational efficiency and effectiveness in short term and long-term operations.
BPL3	Firm support to participation and consultation between departments to operate in the same way for efficient business operations.
BPL4	Firm focuses on the development of communication between departments. This will make the preparation and reporting of accounting information is accurately and timely, contributes to the benefit of the firm.
BPL5	Firm emphasizes that business alliance and networking in the creative exchange of knowledge and innovation are help firm to gain the competitive advantage and best performance.
Operational Planning Efficiency (OPE)	
OPE1	Managerial accounting information of the firm used for the implementation plan and budget effectively. Management accounting information to be used for the planning and budgeting effectively.
OPE2	Firm use managerial accounting information for control operations as projected by the budget.
OPE3	Firm has a quality planning, improving business benefit, value of the firm and competitive advantage.
OPE4	Firm was planned in accordance with the goals and operate as the system.
OPE5	Firm can plan their work properly and in accordance with the actual circumstances.

Table A: Original Items in Scales (Continued)

Construct	Items
Internal Control Quality (ICQ)	
ICQ1	The process detecting errors in the operation of the firm was planned and controlled efficiently.
ICQ2	Firm evaluate internal controls reliably.
ICQ3	Firm has good internal control practices, prevent fraud, reduce waste, and cost savings in the management process.
ICQ4	Firm can integrate the methods and guidelines for management control in accordance with the planning and policy effectively.
ICQ5	Firm can prevent potential risks excellence.
Information Value Increase (IVI)	
IVI1	Firm has information in accurate and covers all activities related to the operations of the firm.
IVI2	Firm has information that is different and varied, consistent with the objectives of every situation.
IVI3	Firm has database management to collected data, stored, and used in the operation of firm in present and future.
IVI4	Firm can provide managerial accounting information for management decision-making as well.
IVI5	Firm can provide managerial accounting information to stakeholders in a timely that meets the requirements defined and used.
Decision-Making Success (DMS)	
DMS1	Firm can analyze alternative solutions in competitive environment.
DMS2	Firm can trade-off for maximize firm's value.
DMS3	Firm can consider and make decisions effectively conducing the achievement of objective.
DMS4	Firm has the potential business planning.
DMS5	Firm can reasonable recognize the business problems.

Table A: Original Items in Scales (Continued)

Construct	Items
Business Excellence Outstanding (BEO)	
BEO1	Firm has continuous of organizational process improvement and continuous development, which can respond the environment as well.
BEO2	Firm has management in accordance with goals achievement and prominent than competitors in the same industry.
BEO3	Firm has potential and ability to operate in organizations with excellence and is difference from competitors.
BEO4	Firm can produce quickly and can be defined by the plan as well.
BEO5	Firm has information system to operate with a concrete systematic that lead to enhance accuracy, trustworthiness of information, and it will bring increase success to operations.
Sustainable Goal Achievement (SGA)	
SGA1	Financial position and performance of firm are strong and stable and can perform continuously in the long-run.
SGA2	Firm has the operating results increasing continued compared with results in recent years.
SGA3	Firm has been recognized and well-known of business community about the continuous improvement for product quality.
SGA4	Firm has the growth rate or market share increasingly and trend to enhance steadily in the long-run.
SGA5	Firm can innovate to produce new products, continued the business operate steadily.
SGA6	Firm has the ability and potential to maintain growth and survive in the future under the current economic crisis and the future.
Top Management Long-Term Vision (TMV)	
TMV1	Firm executive believes in changing strategy and policy to match environmental change that will make sustainable growth.

Table A: Original Items in Scales (Continued)

Construct	Items
TMV2	Firm executive facilitates employees to learn and understand new procedure of doing work to use as guideline for improving moderns and efficiency of work process.
TMV3	Firm executive believes in teamwork that can help business row and survive both in the present and future.
TMV4	Firm executive encourages employees to participate in policy setting and operating direction of business to generate common goal toward sustainable achievement.
Accounting Knowledge Management (AKM)	
AKM1	Firm focus on the development and capabilities of the accounting personnel in the integrating knowledge of multiple dimensions in order to create new knowledge, determining how to maximize the performance of the firm.
AKM2	Firm supporting activities for accounting personnel attend training to develop knowledge and skills in accounting and operations continued.
AKM3	Firm believes that accounting experience in the past is a guide and basic accounting practices that could very well be effective.
AKM4	Firm encourages accounting personnel to initiate ideas and innovate, that can be used to improve accounting operational.
Accounting system Quality (ASQ)	
ASQ1	Firm support the preparation of accounting records in accordance with reality and accounting standard set out the procedure for the preparation of the accounts of the company.
ASQ2	Firm focuses on the quality of the preparation of the accounting system in order to determine the accounting policies and methods of operation more efficiency.

Table A: Original Items in Scales (Continued)

Construct	Items
ASQ3	Firm believe that the quality of accounting information, which is derived from an accounting system that can effectively help businesses plan their operations more efficient.
ASQ4	Firm focuses on the preparation of financial reports for management and stakeholders as well through effective accounting system reflect the results of operations of the organization fully.
Technology Pressure (THP)	
THP1	The change in technology has an effect on firm's learning, understands, and adaptation of new know-how.
THP2	The current information technology systems are constantly evolving to help firm to work efficiently, effectively, and achieve goals.
THP3	The rapid change of information technology effect firm to learn and develop information system within organization to maximize the competitive advantage.
THP4	The advancement of information technology effect firm to develop their skill and implement information technology to improve performance and increase efficiency.
Stakeholder Force (SHF)	
SHF1	Stakeholders have expectations for the operation of the business sector to understand the needs of the stakeholders to improve accounting practices to be more effective.
SHF2	Regulatory agencies have issued regulations that make firm setup activities of the managerial accounting proactive to be more accurate.
SHF3	Customer and other stakeholders focus on firm performance that increase operational practice to best performance.
SHF4	Business partners and suppliers focus on sharing information then firm more focus on information quality.

Table A: Original Items in Scales (Continued)

Construct	Items
Competitive Turbulence (CPT)	
CPT1	Competitive environment in the present which is changed continuously leads firms to seek the business excellence practice in order to competitive advantage.
CPT2	A variety of products in present leads firms to developing products that stand out to customers.
CPT3	Competitors have the best performance, firm can follow the implementation of the competition to create a superior competitive strategy.
CPT4	Increasing in new competitors leads firms to improve operation for sustainability.
CPT5	Change in various customers requirement and uncertainty environment leads firm to emphasize the quality of managerial accounting capability.
Organizational Learning Capability (OLC)	
OLC1	Firm focus on perceiving and learning new issues while working so as to improve its works.
OLC2	Firm encourage sharing in order to work more effectively.
OLC3	Firm support to integration of prior knowledge and new knowledge in order to work more effectively.
OLC4	Firm promotes learning continuously to develop their work to be more effective both in short term and long term.
OLC5	Firm believes that organizational learning is important for assure sustainable goal.

APPENDIX B

Non-Response Bias Tests

Table B: Non-Response Bias Tests

Comparison		N	Mean	S.D.	t	Sig.**
Industrial Category:					-.035	.972
	First Group	142	4.06	1.794		
	Second Group	141	4.06	1.790		
Authorized Capital:					-.158	.875
	First Group	142	2.53	1.330		
	Second Group	141	2.55	1.333		
Period of Time in Operation:					-.175	.862
	First Group	142	3.44	.838		
	Second Group	141	3.46	.833		
Number of Employees:					-.110	.912
	First Group	142	3.09	1.136		
	Second Group	141	3.11	1.126		
Period of Time in ISO9001:					-.157	.879
	First Group	142	2.31	.877		
	Second Group	141	2.33	.882		
Cost Management Orientation					-.142	.887
	First Group	142	4.01	.662		
	Second Group	141	4.02	.668		
Resource Utilization Focus					-.067	.947
	First Group	142	3.94	.695		
	Second Group	141	3.95	.690		
Performance Evaluation Justice Awareness					.056	.955
	First Group	142	3.93	.673		
	Second Group	141	3.92	.671		
Information Mining Effectiveness					.054	.957
	First Group	142	3.88	.667		
	Second Group	141	3.87	.667		
Business Process Linkage Interest					.097	.923
	First Group	142	3.97	.630		
	Second Group	141	3.97	.627		

** $p < 0.05$

APPENDIX C

Summary of Demographic Characteristics of Respondents and Firms

Table 1C: The Summary of Demographic Characteristics of Respondents

Descriptions	Categories	Frequencies	Percent (%)
Gender	Male	45	15.90
	Female	238	84.10
	Total	**283**	**100.00**
Age	Less than 30 years old	14	4.95
	30 – 40 years old	117	41.34
	41 – 50 years old	112	39.58
	More than 50 years old	40	14.13
	Total	**283**	**100.00**
Marital Status	Single	115	40.64
	Married	162	57.24
	Divorced	6	2.12
	Total	**283**	**100.00**
Education Level	Lower than bachelor's degree or equal	175	61.84
	Higher than bachelor's degree	108	38.16
	Total	**283**	**100.00**
Working Experience	Less than 5 years	12	4.24
	5 – 10 years	50	17.67
	11 – 15 years	55	19.43
	More than 15 years	166	58.66
	Total	**283**	**100.00**
Average Monthly Income at Present	Less than 75,000 Baht	173	61.13
	75,000 - 100,000 Baht	48	16.96
	100,001 – 125,000 Baht	22	7.78
	More than 125,000 Baht	40	14.13
	Total	**283**	**100.00**
Working Position at Present	Accounting Director	14	4.95
	Accounting Manager	237	83.75
	Others	32	11.30
	Total	**283**	**100.00**

Table 2C: The Summary of Firm Characteristics of ISO9001 Manufacturing Firms in Thailand

Descriptions	Categories	Frequencies	Percent (%)
Business Form	Limited company	255	90.11
	Public limited company	28	9.89
	Total	**283**	**100.00**
Industrial Categories	Agro and Food Industry	7	2.47
	Consumer Products	11	3.89
	Industrials	162	57.24
	Property and Construction	23	8.13
	Resource	2	0.71
	Technology	14	4.95
	Others	64	22.61
	Total	**283**	**100.00**
Authorized Capital	Less than 50,000,000 Baht	101	35.69
	50,000,000 - 100,000,000 Baht	41	14.49
	100,000,001 - 150,000,000 Baht	28	9.89
	More than 150,000,000 Baht	113	39.93
	Total	**283**	**100.00**
Total Assets	Less than 50,000,000 Baht	52	18.37
	50,000,000 - 100,000,000 Baht	48	16.96
	100,000,001 - 150,000,000 Baht	24	8.48
	More than 150,000,000 Baht	159	56.19
	Total	**283**	**100.00**
Total Revenue	Less than 50,000,000 Baht	42	14.84
	50,000,000 - 100,000,000 Baht	44	15.55
	100,000,001 - 150,000,000 Baht	22	7.77
	More than 150,000,000 Baht	175	61.84
	Total	**283**	**100.00**
Period of Time in Operation	Less than 50,000,000 Baht	6	2.12
	50,000,000 – 100,000,000 Baht	45	15.90
	100,000,001 – 150,000,000 Baht	47	16.61
	More than 150,000,000 Baht	185	65.37
	Total	**283**	**100.00**

Table 2C: The Summary of Firm Characteristics of ISO9001 Manufacturing Firms in Thailand (Continued)

Descriptions	Categories	Frequencies	Percent (%)
Number of Employees	Less than 50 employees	37	13.07
	50 – 100 employees	56	19.79
	100 – 150 employees	32	11.31
	More than 150 employees	158	55.83
	Total	**283**	**100.00**
Target Customers	Domestic	239	84.46
	International	28	9.89
	Both	16	5.65
	Total	**283**	**100.00**
Period of Time in ISO9001	Less than 5 years	42	14.84
	5 – 10 years	145	51.24
	11 – 15 years	60	21.20
	More than 15 years	36	12.72
	Total	**283**	**100.00**

APPENDIX D

Test of Validity and Reliability

Table D: Factor Loadings and Reliability Analysis in Pre-Test

Constructs	N	Items	Factor Loading	Alpha Coefficient
Cost Management Orientation (CMO)	30	CMO1	.886	.935
		CMO2	.863	
		CMO3	.903	
		CMO4	.939	
		CMO5	.867	
Resource Utilization Focus (RUF)	30	RUF1	.830	.905
		RUF2	.885	
		RUF3	.832	
		RUF4	.869	
		RUF5	.850	
Performance Evaluation Justice Awareness (PEJ)	30	PEJ1	.872	.916
		PEJ2	.869	
		PEJ3	.806	
		PEJ4	.923	
		PEJ5	.857	
Information Mining Effectiveness (IME)	30	IME1	.824	.928
		IME2	.917	
		IME3	.952	
		IME4	.939	
Business Process Linkage Interest (BPL)	30	BPL1	.815	.898
		BPL2	.878	
		BPL3	.868	
		BPL4	.846	
		BPL5	.840	

Table D: Factor Loadings and Reliability Analysis in Pre-Test (Continued)

Constructs	N	Items	Factor Loading	Alpha Coefficient
Operational Planning Efficiency (OPE)	30	OPE1	.867	.939
		OPE2	.943	
		OPE3	.924	
		OPE4	.919	
		OPE5	.827	
Internal Control Quality (ICQ)	30	ICQ1	.812	.904
		ICQ2	.880	
		ICQ3	.846	
		ICQ4	.862	
		ICQ5	.864	
Information Value Increase (IVI)	30	IVI1	.831	.909
		IVI2	.878	
		IVI3	.797	
		IVI4	.897	
		IVI5	.872	
Decision-Making Success (DMS)	30	DMS1	.889	.915
		DMS2	.880	
		DMS3	.877	
		DMS4	.864	
		DMS5	.822	
Business Excellence Outstanding (BEO)	30	BEO1	.911	.914
		BEO2	.902	
		BEO3	.864	
		BEO4	.841	
		BEO5	.794	

Table D: Factor Loadings and Reliability Analysis in Pre-Test (Continued)

Constructs	N	Items	Factor Loading	Alpha Coefficient
Sustainable Goal Achievement (SGA)	30	SGA1	.759	.887
		SGA2	.803	
		SGA3	.604	
		SGA4	.903	
		SGA5	.868	
		SGA6	.835	
Top Management Long-Term Vision (TMV)	30	TMV1	.872	.892
		TMV2	.944	
		TMV3	.852	
		TMV4	.850	
Accounting Knowledge Management (AKM)	30	AKM1	.859	.927
		AKM2	.911	
		AKM3	.942	
		AKM4	.919	
Accounting System Quality (ASQ)	30	ASQ1	.824	.839
		ASQ2	.829	
		ASQ3	.781	
		ASQ4	.862	
Technology Pressure (THP)	30	THP1	.748	.881
		THP2	.877	
		THP3	.913	
		THP4	.889	
Stakeholder Force (SHF)	30	SHF1	.860	.887
		SHF2	.930	
		SHF3	.822	
		SHF4	.850	

Table D: Factor Loadings and Reliability Analysis in Pre-Test (Continued)

Constructs	N	Items	Factor Loading	Alpha Coefficient
Competitive Turbulence (CPT)	30	CPT1	.799	.927
		CPT2	.896	
		CPT3	.938	
		CPT4	.911	
		CPT5	.862	
Organizational Learning Capability (OLC)	30	OLC1	.784	.907
		OLC2	.924	
		OLC3	.916	
		OLC4	.892	
		OLC5	.759	

APPENDIX E

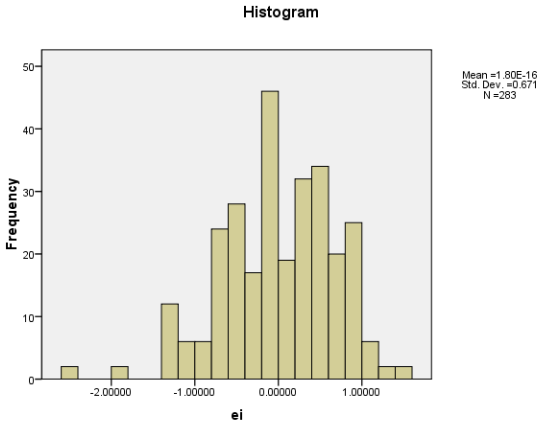
Test the Assumption of Regression Analysis

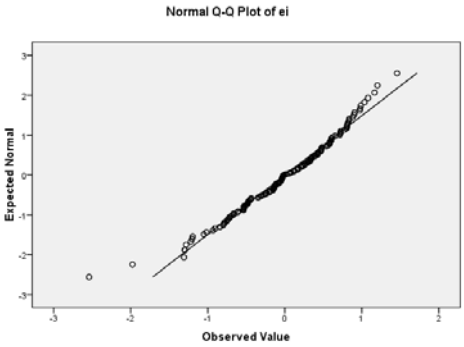
1. Testing the Assumptions of Linear Regression

1.1 Linearity of Phenomenon Measured

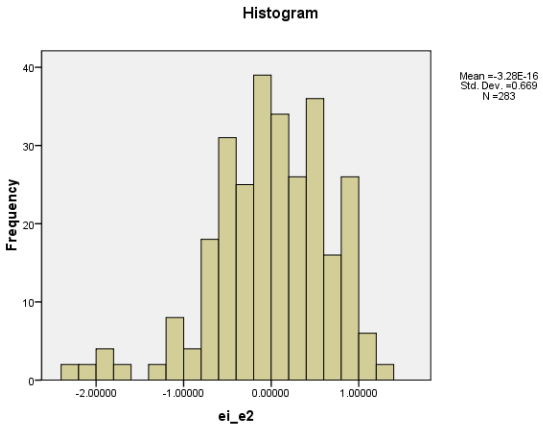
1.2 Normality of the Error Term Distribution

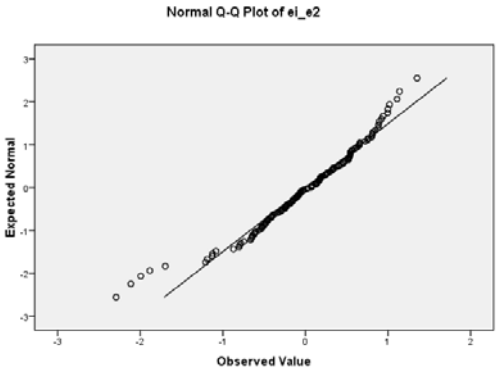
Equation 1: $OPE = \alpha_1 + \beta_1 CMO + \beta_2 RUF + \beta_3 PEJ + \beta_4 IME + \beta_5 BPL + \beta_6 SIZ + \beta_7 ISO + \varepsilon_1$



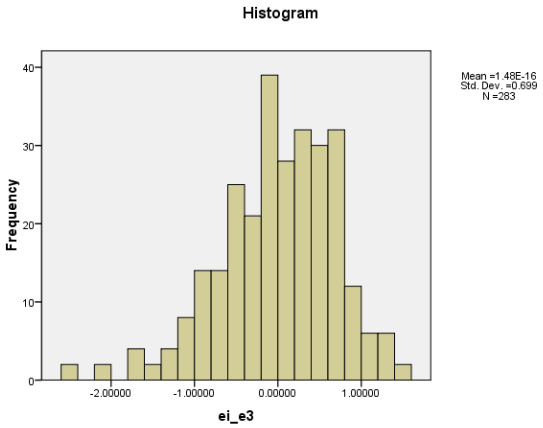


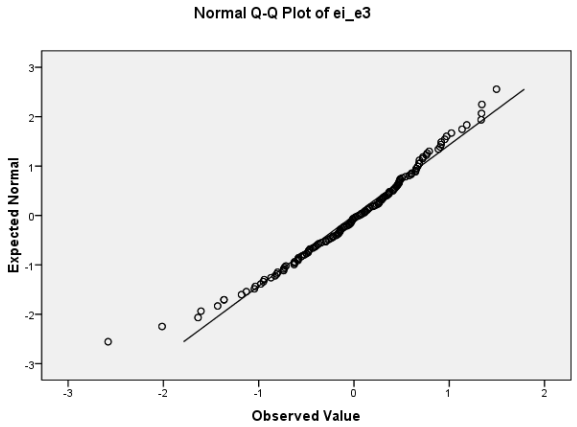
Equation 2: $ICQ = \alpha_2 + \beta_8 CMO + \beta_9 RUF + \beta_{10} PEJ + \beta_{11} IME + \beta_{12} BPL + \beta_{13} SIZ + \beta_{14} ISO + \varepsilon_2$



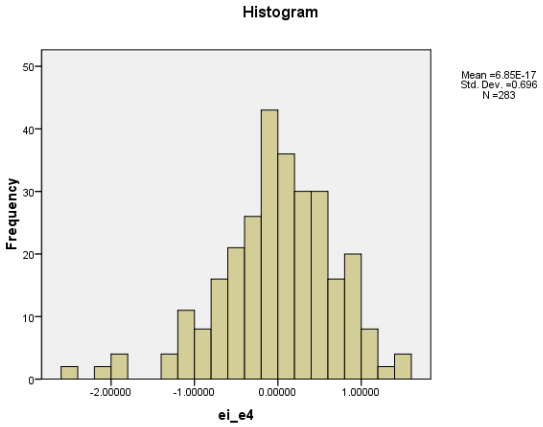


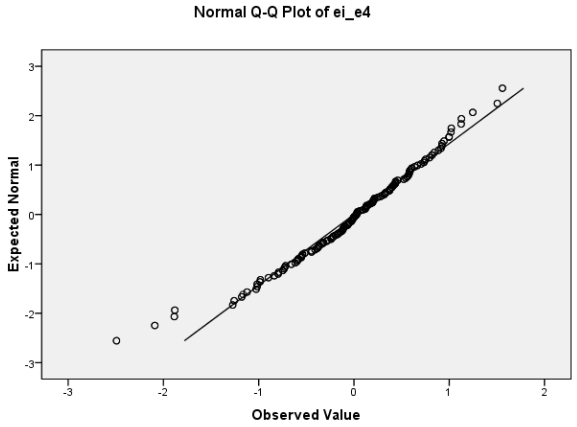
Equation 3: $IVI = \alpha_3 + \beta_{15}CMO + \beta_{16}RUF + \beta_{17}PEJ + \beta_{18}IME + \beta_{19}BPL + \beta_{20}SIZ + \beta_{21}ISO + \varepsilon_3$



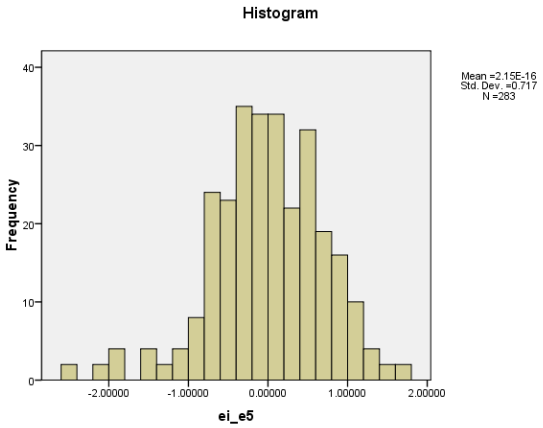


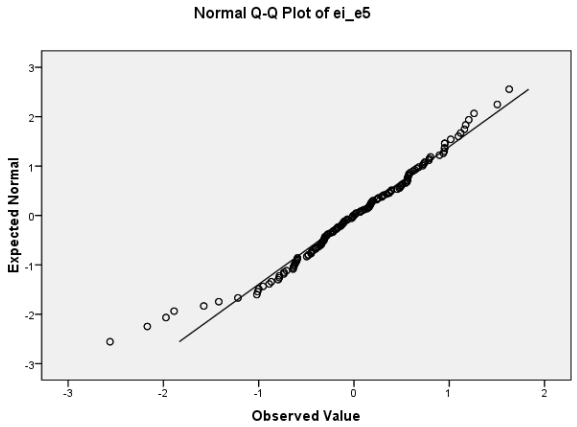
Equation 4: $DMS = \alpha_4 + \beta_{22}CMO + \beta_{23}RUF + \beta_{24}PEJ + \beta_{25}IME + \beta_{26}BPL + \beta_{27}SIZ + \beta_{28}ISO + \varepsilon_4$



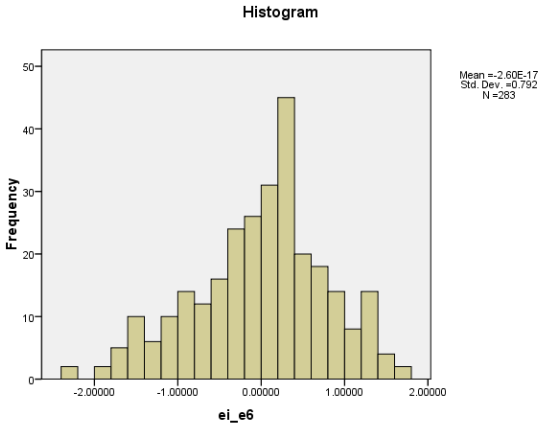


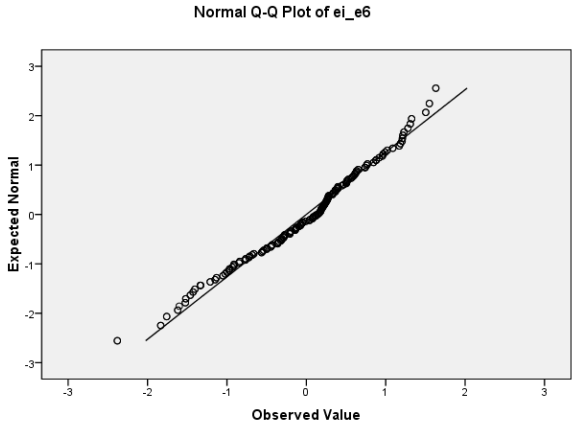
Equation 5: $BEO = \alpha_5 + \beta_{29}CMO + \beta_{30}RUF + \beta_{31}PEJ + \beta_{32}IME + \beta_{33}BPL + \beta_{34}SIZ + \beta_{35}ISO + \varepsilon_5$



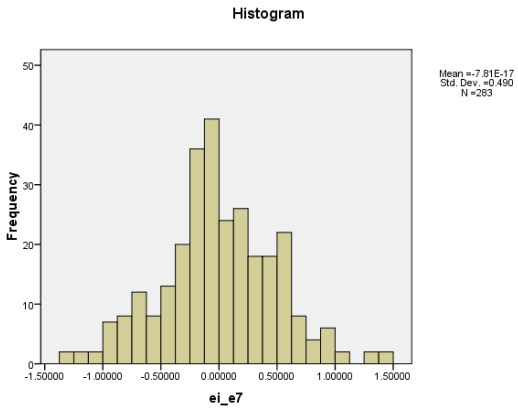


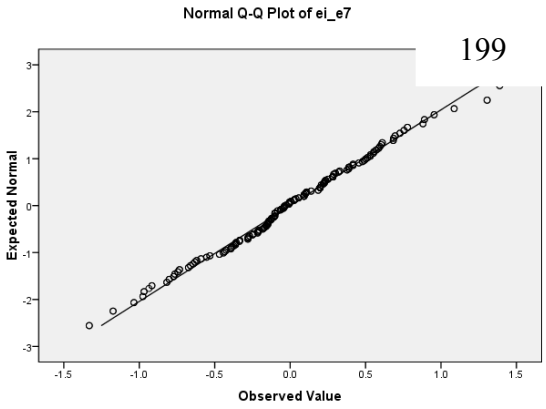
Equation 6: $SGA = \alpha_6 + \beta_{36}CMO + \beta_{37}RUF + \beta_{38}PEJ + \beta_{39}IME + \beta_{40}BPL + \beta_{41}SIZ + \beta_{42}ISO + \varepsilon_6$



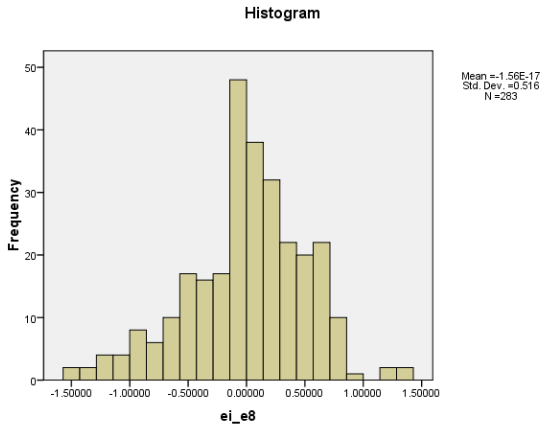


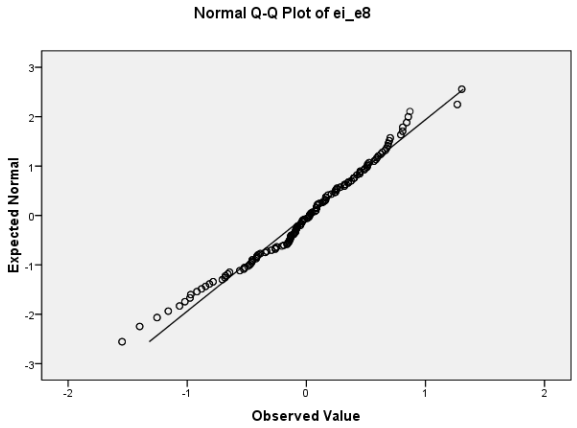
Equation 7: $DMS = \quad DMS = \alpha_7 + \beta_{43}OPE + \beta_{44}ICQ + \beta_{45}IVI + \beta_{46}SIZ + \beta_{47}ISO + \varepsilon_7$



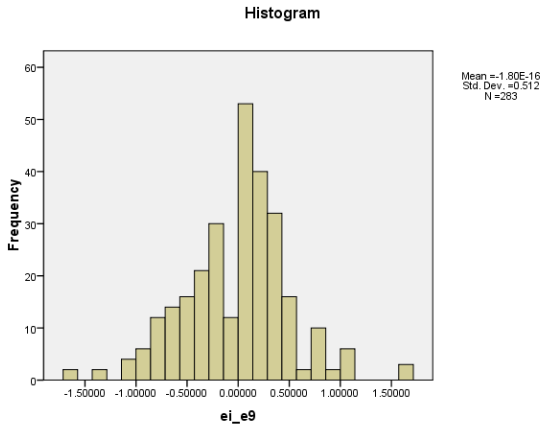


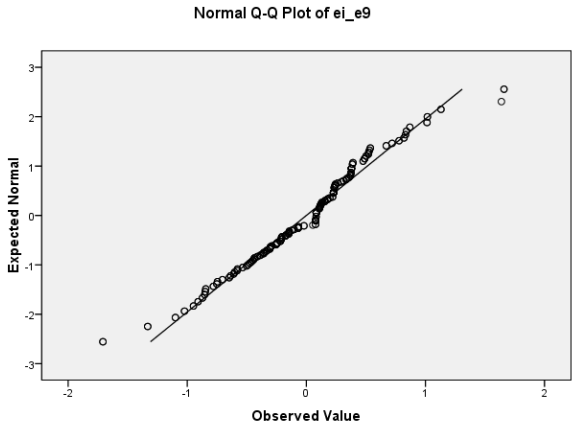
Equation 8: $BEO = \alpha_8 + \beta_{48}OPE + \beta_{49}ICQ + \beta_{50}IVI + \beta_{51}SIZ + \beta_{52}ISO + \varepsilon_8$



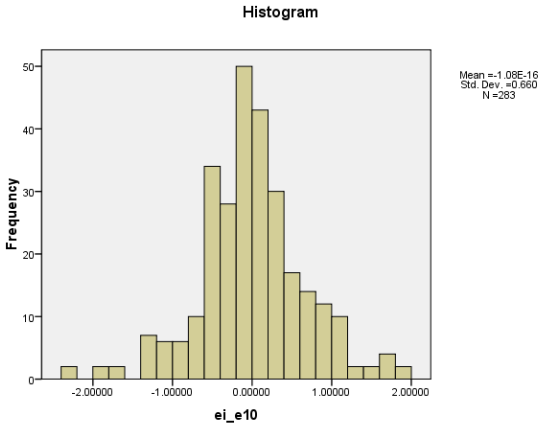


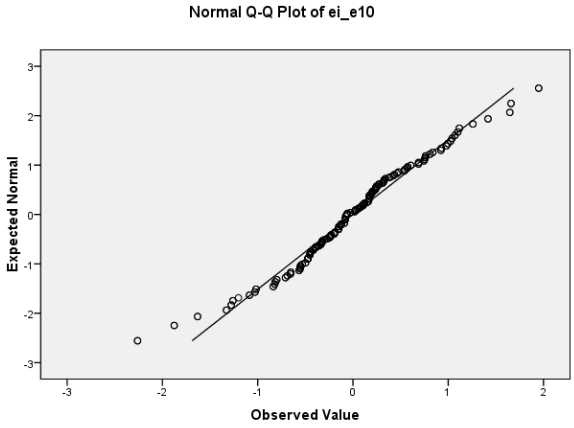
Equation 9: $BEO = \alpha_9 + \beta_{53}DMS + \beta_{54}SIZ + \beta_{55}ISO + \varepsilon_9$



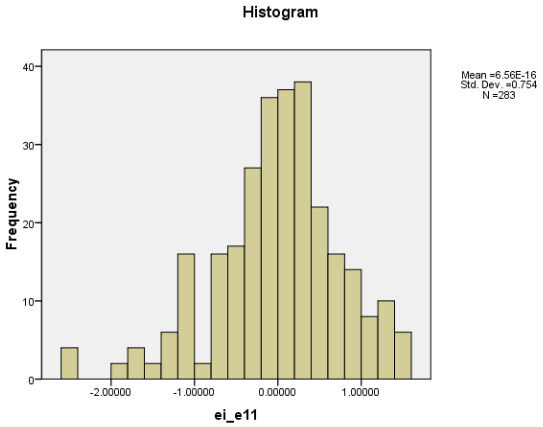


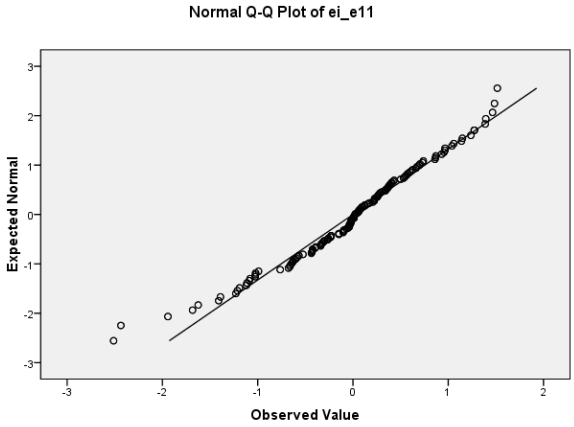
Equation 10: $SGA = \alpha_{10} + \beta_{56}DMS + \beta_{57}BEO + \beta_{58}SIZ + \beta_{59}ISO + \varepsilon_{10}$



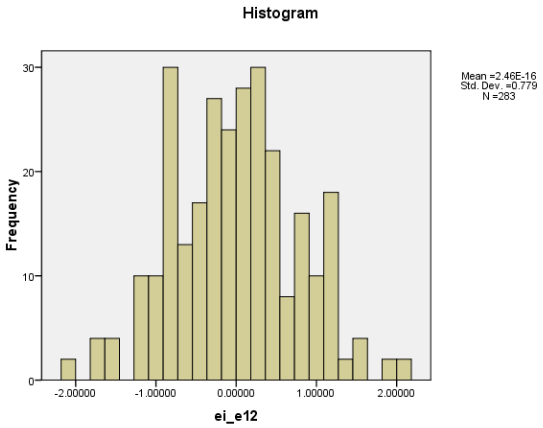


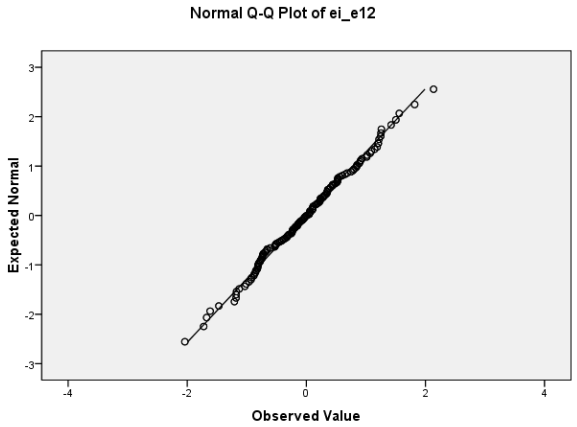
Equation 11: $CMO = \alpha_{11} + \beta_{60}TMV + \beta_{61}AKM + \beta_{62}ASQ + \beta_{63}THP + \beta_{64}SHF + \beta_{65}CPT + \beta_{66}SIZ + \beta_{67}ISO + \varepsilon_{11}$



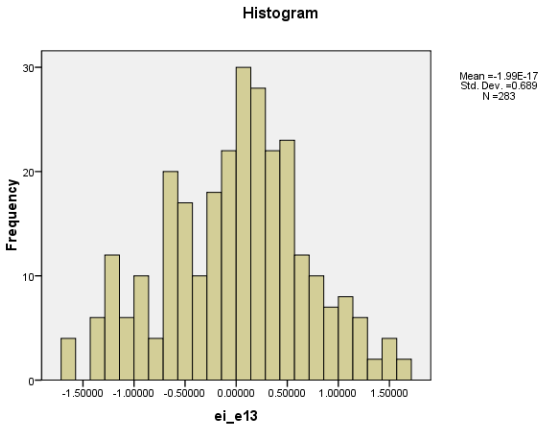


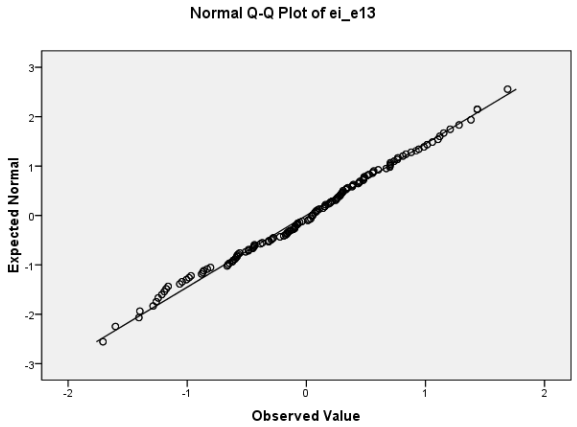
Equation 12: $RUF = \alpha_{12} + \beta_{68}TMV + \beta_{69}AKM + \beta_{70}ASQ + \beta_{71}THP + \beta_{72}SHF + \beta_{73}CPT + \beta_{74}SIZ + \beta_{75}ISO + \varepsilon_{12}$



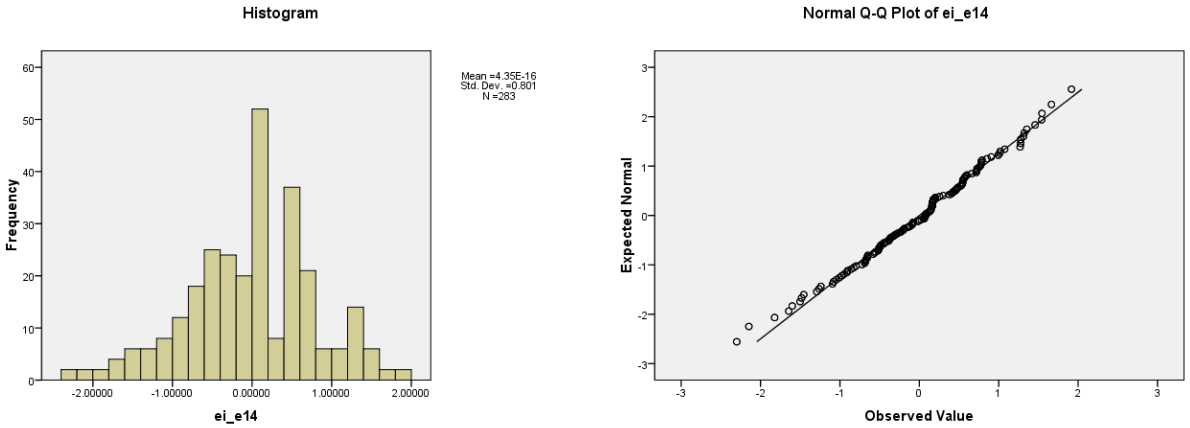


Equation 13: $PEJ = \alpha_{13} + \beta_{76}TMV + \beta_{77}AKM + \beta_{78}ASQ + \beta_{79}THP + \beta_{80}SHF + \beta_{81}CPT + \beta_{82}SIZ + \beta_{83}ISO + \varepsilon_{13}$

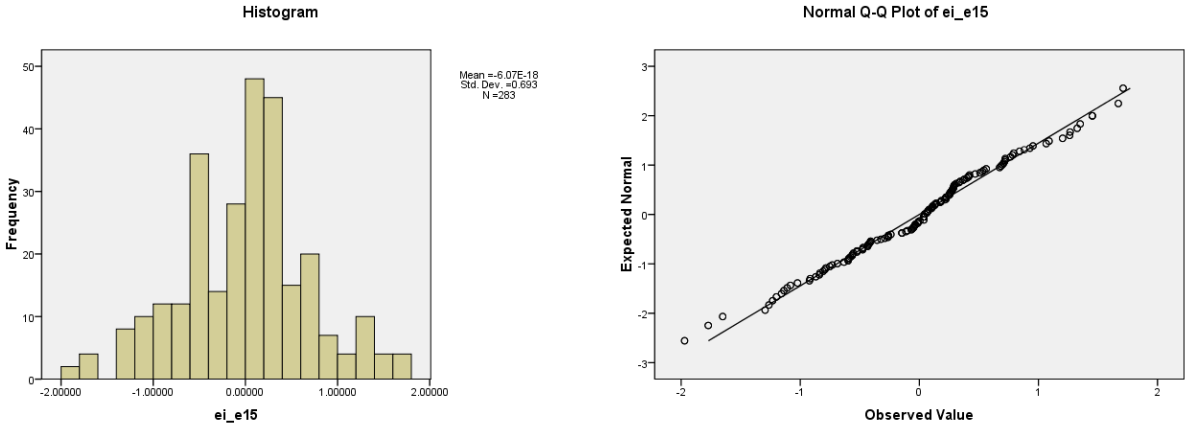




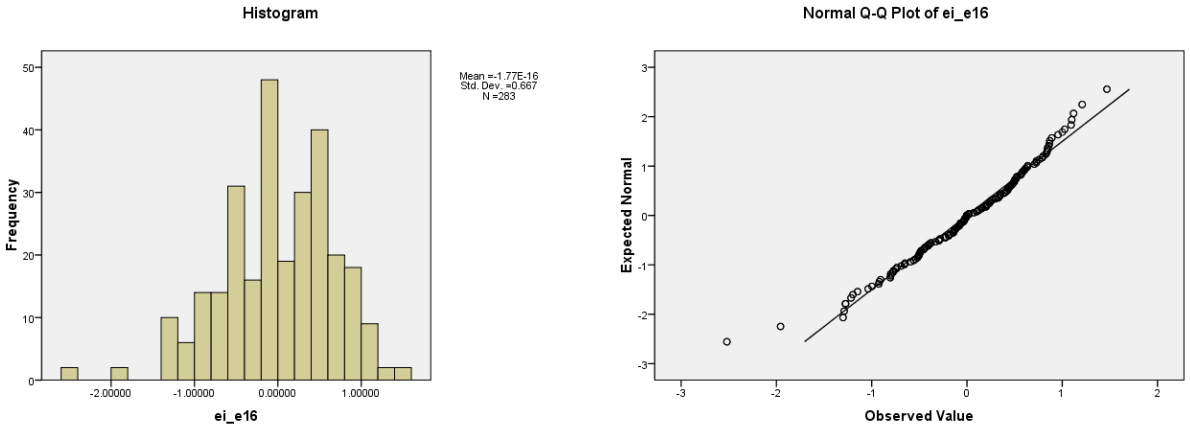
Equation 14: $IME = \alpha_{14} + \beta_{84}TMV + \beta_{85}AKM + \beta_{86}ASQ + \beta_{87}THP + \beta_{88}SHF + \beta_{89}CPT + \beta_{90}\,SIZ + \beta_{91}ISO + \varepsilon_{14}$



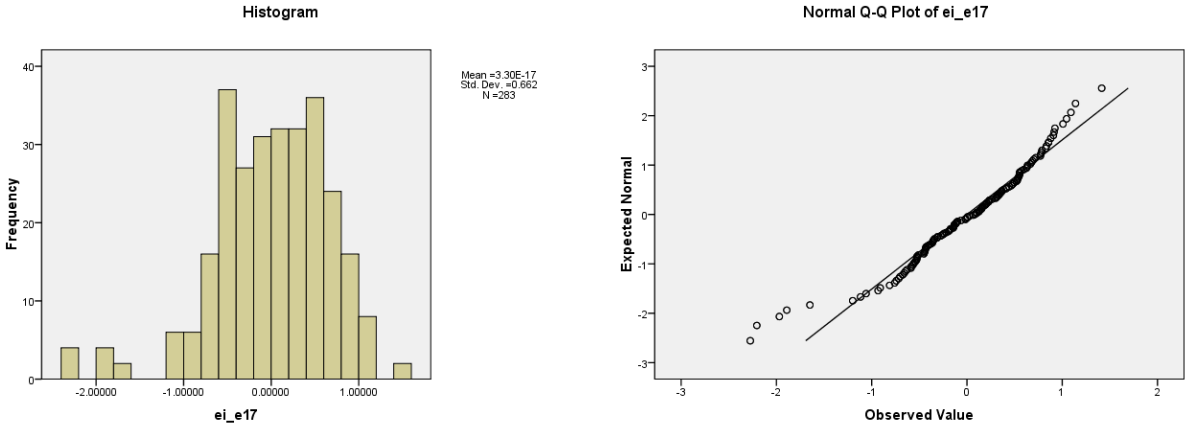
Equation 15: $BPL = \alpha_{15} + \beta_{92}TMV + \beta_{93}AKM + \beta_{94}ASQ + \beta_{95}THP + \beta_{96}SHF + \beta_{97}CPT + \beta_{98}\,SIZ + \beta_{99}ISO + \varepsilon_{15}$



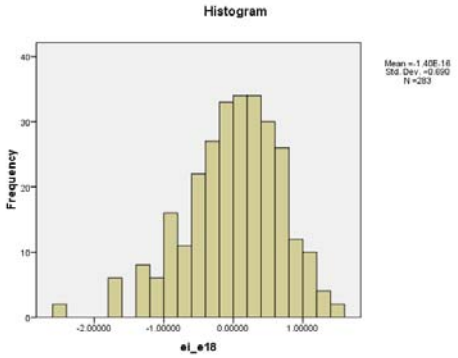
Equation 16: $OPE = \alpha_{16} + \beta_{100}CMO + \beta_{101}RUF + \beta_{102}PEJ + \beta_{103}IME + \beta_{104}BPL + \beta_{105}OLC + \beta_{106}(CMO*OLC) + \beta_{107}(RUF*OLC) + \beta_{108}(PEJ*OLC) + \beta_{109}(IME*OLC) + \beta_{110}(BPL*OLC) + \beta_{111}SIZ + \beta_{112}ISO + \varepsilon_{16}$

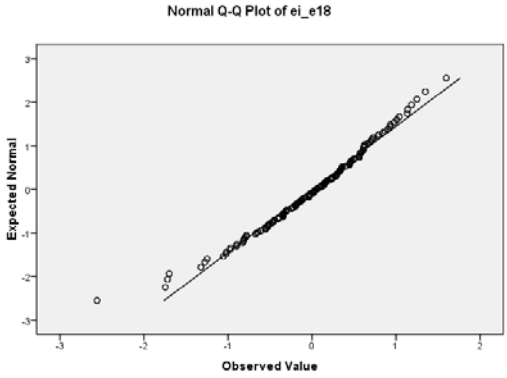


Equation 17: $ICQ = \alpha_{17} + \beta_{113}CMO + \beta_{114}RUF + \beta_{115}PEJ + \beta_{116}IME + \beta_{117}BPL + \beta_{118}OLC + \beta_{119}(CMO*OLC) + \beta_{120}(RUF*OLC) + \beta_{121}(PEJ*OLC) + \beta_{122}(IME*OLC) + \beta_{123}(BPL*OLC) + \beta_{124}SIZ + \beta_{125}ISO + \varepsilon_{17}$

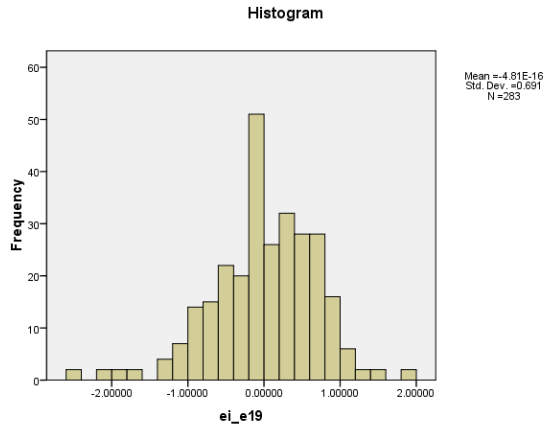


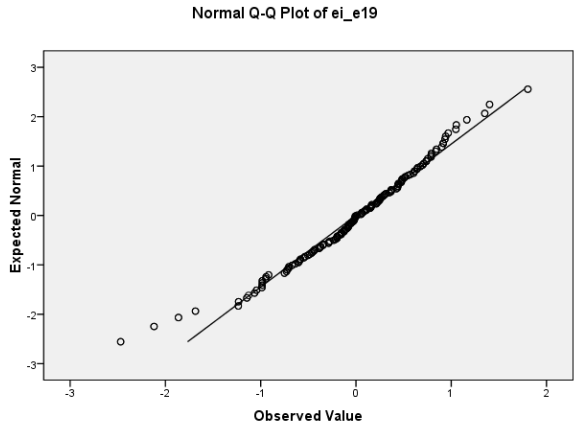
Equation 18: $IVI = \alpha_{18} + \beta_{126}CMO + \beta_{127}RUF + \beta_{128}PEJ + \beta_{129}IME + \beta_{130}BPL + \beta_{131}OLC + \beta_{132}(CMO*OLC) + \beta_{133}(RUF*OLC) + \beta_{134}(PEJ*OLC) + \beta_{135}(IME*OLC) + \beta_{136}(BPL*OLC) + \beta_{137}SIZ + \beta_{138}ISO + \varepsilon_{18}$



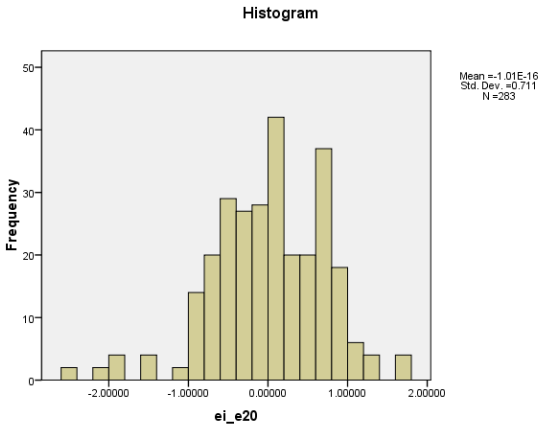


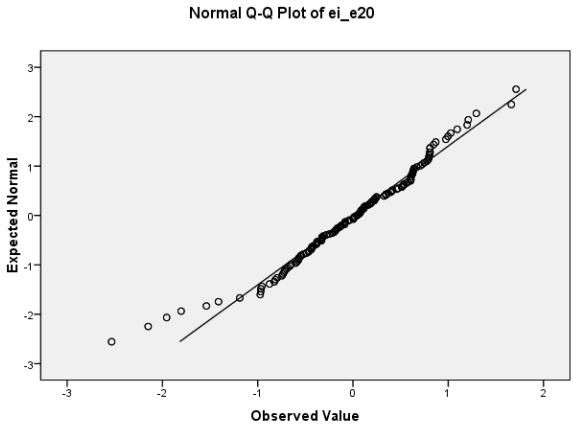
Equation 19: $DMS = \alpha_{19} + \beta_{139}CMO + \beta_{140}RUF + \beta_{141}PEJ + \beta_{142}IME + \beta_{143}BPL + \beta_{144}OLC + \beta_{145}(CMO*OLC) + \beta_{146}(RUF*OLC) + \beta_{147}(PEJ*OLC) + \beta_{148}(IME*OLC) + \beta_{149}(BPL*OLC) + \beta_{150}SIZ + \beta_{151}ISO + \varepsilon_{19}$



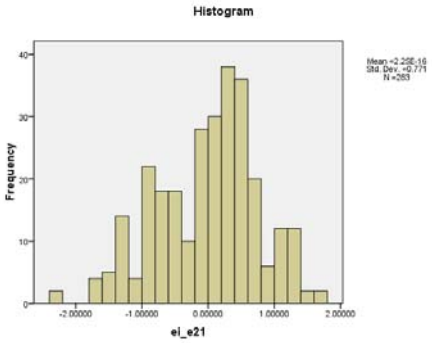


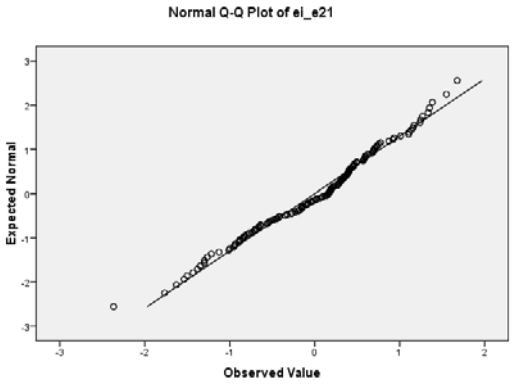
Equation 20: $BEO = \alpha_{20} + \beta_{152}CMO + \beta_{153}RUF + \beta_{154}PEJ + \beta_{155}IME + \beta_{156}BPL + \beta_{157}OLC + \beta_{158}(CMO*OLC) + \beta_{159}(RUF*OLC) + \beta_{160}(PEJ*OLC) + \beta_{161}(IME*OLC) + \beta_{162}(BPL*OLC) + \beta_{163}SIZ + \beta_{164}ISO + \varepsilon_{20}$





Equation 21: $SGA = \alpha_{21} + \beta_{165}CMO + \beta_{166}RUF + \beta_{167}PEJ + \beta_{168}IME + \beta_{169}BPL + \beta_{170}OLC + \beta_{171}(CMO*OLC) + \beta_{172}(RUF*OLC) + \beta_{173}(PEJ*OLC) + \beta_{174}(IME*OLC) + \beta_{175}(BPL*OLC) + \beta_{176}SIZ + \beta_{177}ISO + \varepsilon_{21}$





1.3 Independence of the Error Terms

In regression analysis, it is assumed that each predicted value is independent. The predicted value is not related to any other prediction; that is they are not sequenced by any variable. This research employs Durbin-Watson to test the assumption of autocorrelation. At the rule of thumb, if Durbin-Watson (d statistics) is found nearly 2 ($1.5 < d < 2.5$), it is assumed that there is no autocorrelation. The result from Table 1E demonstrates that Durbin-Watson statistics of all equations are around 2. Hence, it could be assume that the error terms are independence or no autocorrelation for all model.

Table 1E: Results of Autocorrelation Testing

Equations	**Durbin-Watson (d Statistics)**
Equation 1: $OPE = \alpha_1 + \beta_1 CMO + \beta_2 RUF + \beta_3 PEJ + \beta_4 IME + \beta_5 BPL + \beta_6 SIZ + \beta_7 ISO + \varepsilon_1$	2.158
Equation 2: $ICQ = \alpha_2 + \beta_8 CMO + \beta_9 RUF + \beta_{10} PEJ + \beta_{11} IME + \beta_{12} BPL + \beta_{13} SIZ + \beta_{14} ISO + \varepsilon_2$	1.852
Equation 3: $IVI = \alpha_3 + \beta_{15} CMO + \beta_{16} RUF + \beta_{17} PEJ + \beta 1_{81} ME + \beta_{19} BPL + \beta_{20} SIZ + \beta_{21} ISO + \varepsilon_3$	1.942
Equation 4: $DMS = \alpha_4 + \beta_{22} CMO + \beta_{23} RUF + \beta_{24} PEJ + \beta_{25} IME + \beta_{26} BPL + \beta_{27} SIZ + \beta_{28} ISO + \varepsilon_4$	2.212
Equation 5: $BEO = \alpha_5 + \beta_{29} CMO + \beta_{30} RUF + \beta_{31} PEJ + \beta_{32} IME + \beta_{33} BPL + \beta_{34} SIZ + \beta_{35} ISO + \varepsilon_5$	2.011
Equation 6: $SGA = \alpha_6 + \beta_{36} CMO + \beta_{37} RUF + \beta_{38} PEJ + \beta_{39} IME + \beta_{40} BPL + \beta_{41} SIZ + \beta_{42} ISO + \varepsilon_6$	1.999
Equation 7: $DMS = \alpha_7 + \beta_{43} OPE + \beta_{44} ICQ + \beta_{45} IVI + \beta_{46} SIZ + \beta_{47} ISO + \varepsilon_7$	2.225
Equation 8: $BEO = \alpha_8 + \beta_{48} OPE + \beta_{49} ICQ + \beta_{50} IVI + \beta_{51} SIZ + \beta_{52} ISO + \varepsilon_8$	1.856
Equation 9: $BEO = \alpha_9 + \beta_{53} DMS + \beta_{54} SIZ + \beta_{55} ISO + \varepsilon_9$	2.016
Equation 10: $SGA = \alpha_{10} + \beta_{56} DMS + \beta_{57} BEO + \beta_{58} SIZ + \beta_{59} ISO + \varepsilon_{10}$	1.874
Equation 11: $CMO = \alpha_{11} + \beta_{60} TMV + \beta_{61} AKM + \beta_{62} ASQ + \beta_{63} THP + \beta_{64} SHF + \beta_{65} CPT + \beta_{66} SIZ + \beta_{67} ISO + \varepsilon_{11}$	1.996
Equation 12: $RUF = \alpha_{12} + \beta_{68} TMV + \beta_{69} AKM + \beta_{70} ASQ + \beta_{71} THP + \beta_{72} SHF + \beta_{73} CPT + \beta_{74} SIZ + \beta_{75} ISO + \varepsilon_{12}$	1.937
Equation 13: $PEJ = \alpha_{13} + \beta_{76} TMV + \beta_{77} AKM + \beta_{78} ASQ + \beta_{79} THP + \beta_{80} SHF + \beta_{81} CPT + \beta_{82} SIZ + \beta_{83} ISO + \varepsilon_{13}$	1.940
Equation 14: $IME = \alpha_{14} + \beta_{84} TMV + \beta_{85} AKM + \beta_{86} ASQ + \beta_{87} THP + \beta_{88} SHF + \beta_{89} CPT + \beta_{90} SIZ + \beta_{91} ISO + \varepsilon_{14}$	1.911

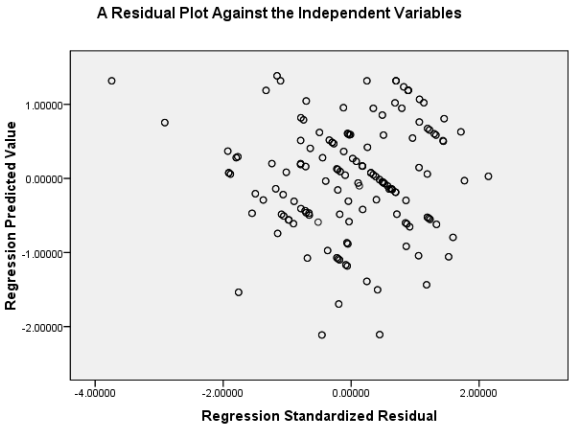
Table 1E: Results of Autocorrelation Testing (Continued)

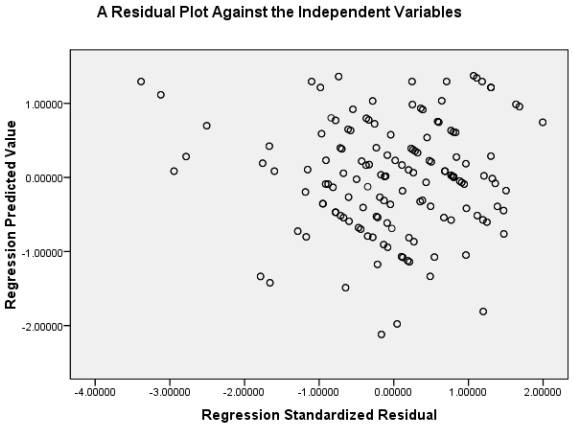
Equations	Durbin-Watson (d Statistics)
Equation 15: $BPL = \alpha_{15} + \beta_{92}TMV + \beta_{93}AKM + \beta_{94}ASQ + \beta_{95}THP + \beta_{96}SHF + \beta_{97}CPT + \beta_{98}\ SIZ + \beta_{99}ISO + \varepsilon_{15}$	2.005
Equation 16: $OPE = \alpha_{16} + \beta_{100}CMO + \beta_{101}RUF + \beta_{102}PEJ + \beta_{103}IME + \beta_{104}BPL + \beta_{105}OLC + \beta_{106}(CMO*OLC) + \beta_{107}(RUF*OLC) + \beta_{108}(PEJ*OLC) + \beta_{109}(IME*OLC) + \beta_{110}(BPL*OLC) + \beta_{111}\ SIZ + \beta_{112}ISO + \varepsilon_{16}$	2.261
Equation 17: $ICQ = \alpha_{17} + \beta_{113}CMO + \beta_{114}RUF + \beta_{115}PEJ + \beta_{116}IME + \beta_{117}BPL + \beta_{118}OLC + \beta_{119}(CMO*OLC) + \beta_{120}(RUF*OLC) + \beta_{121}(PEJ*OLC) + \beta_{122}(IME*OLC) + \beta_{123}(BPL*OLC) + \beta_{124}\ SIZ + \beta_{125}ISO + \varepsilon_{17}$	2.000
Equation 18: $IVI = \alpha_{18} + \beta_{126}CMO + \beta_{127}RUF + \beta_{128}PEJ + \beta_{129}IME + \beta_{130}BPL + \beta_{131}OLC + \beta_{132}(CMO*OLC) + \beta_{133}(RUF*OLC) + \beta_{134}(PEJ*OLC) + \beta_{135}(IME*OLC) + \beta_{136}(BPL*OLC) + \beta_{137}\ SIZ + \beta_{138}ISO + \varepsilon_{18}$	2.101
Equation 19: $DMS = \alpha_{19} + \beta_{139}CMO + \beta_{140}RUF + \beta_{141}PEJ + \beta_{142}IME + \beta_{143}BPL + \beta_{144}OLC + \beta_{145}(CMO*OLC) + \beta_{146}(RUF*OLC) + \beta_{147}(PEJ*OLC) + \beta_{148}(IME*OLC) + \beta_{149}(BPL*OLC) + \beta_{150}\ SIZ + \beta_{151}ISO + \varepsilon_{19}$	2.361
Equation 20: $BEO = \alpha_{20} + \beta_{152}CMO + \beta_{153}RUF + \beta_{154}PEJ + \beta_{155}IME + \beta_{156}BPL + \beta_{157}OLC + \beta_{158}(CMO*OLC) + \beta_{159}(RUF*OLC) + \beta_{160}(PEJ*OLC) + \beta_{161}(IME*OLC) + \beta_{162}(BPL*OLC) + \beta_{163}\ SIZ + \beta_{164}ISO + \varepsilon_{20}$	2.138
Equation 21: $SGA = \alpha_{21} + \beta_{165}CMO + \beta_{166}RUF + \beta_{167}PEJ + \beta_{168}IME + \beta_{169}BPL + \beta_{170}OLC + \beta_{171}(CMO*OLC) + \beta_{172}(RUF*OLC) + \beta_{173}(PEJ*OLC) + \beta_{174}(IME*OLC) + \beta_{175}(BPL*OLC) + \beta_{176}TYP + \beta_{177}ISO + \varepsilon_{21}$	2.159

1.4 Heteroscedasticity

ε

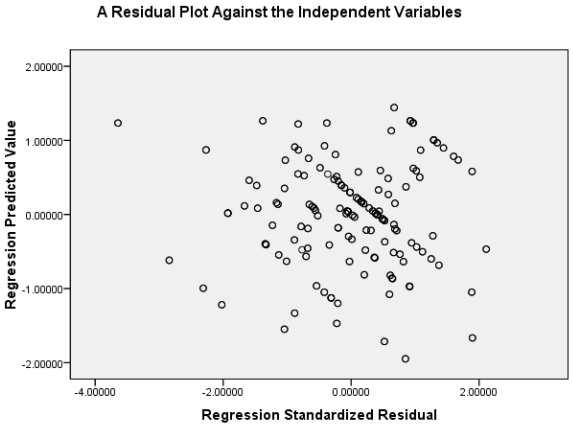
Equation 1: $OPE = \alpha 1 + \beta 1CMO + \beta 2RUF + \beta 3PEJ + \beta 4IME + \beta 5BPL + \beta 6SIZ + \beta 7ISO + \varepsilon$

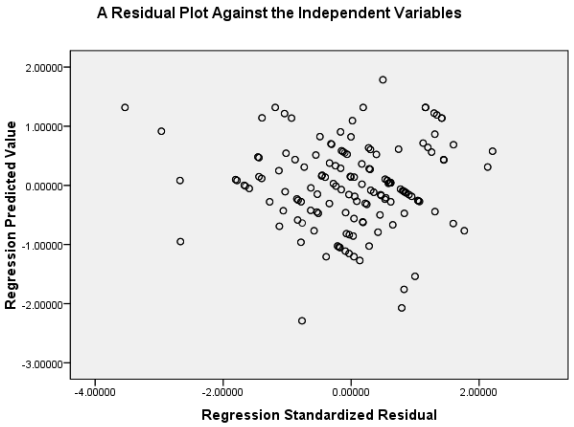




Equation 2: $ICQ = \alpha 2 + \beta 8CMO + \beta 9RUF + \beta 10PEJ + \beta 11IME + \beta 12BPL + \beta 13SIZ + \beta 14ISO +$

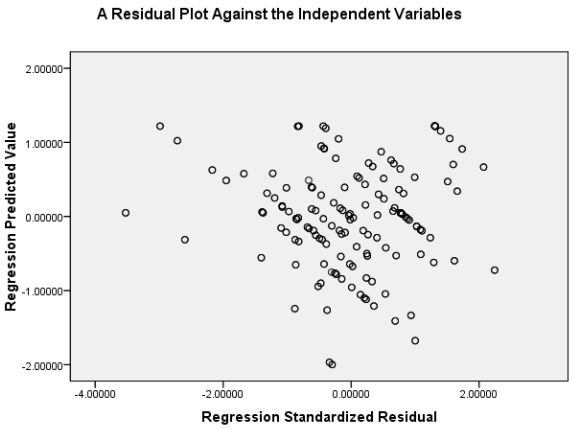
Equation 3: $IVI = \alpha 3 + \beta 15CMO + \beta 16RUF + \beta 17PEJ + \beta 18IME + \beta 19BPL + \beta 20\ SIZ + \beta 21ISO + \varepsilon$

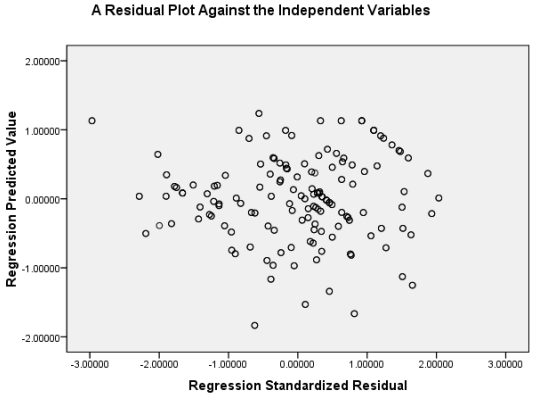




Equation 4: $DMS = \alpha 4 + \beta 22CMO + \beta 23RUF + \beta 24PEJ + \beta 25IME + \beta 26BPL + \beta 27\ SIZ + \beta 28ISO + \varepsilon$

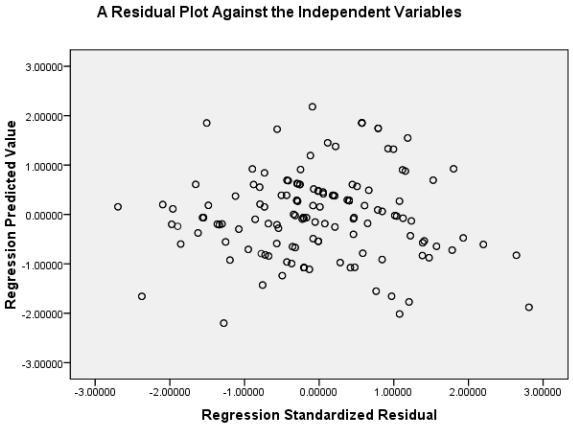
Equation 5: $BEO = \alpha 5 + \beta 29CMO + \beta 30RUF + \beta 31PEJ + \beta 32IME + \beta 33BPL + \beta 34\ SIZ + \beta 35ISO + \varepsilon$

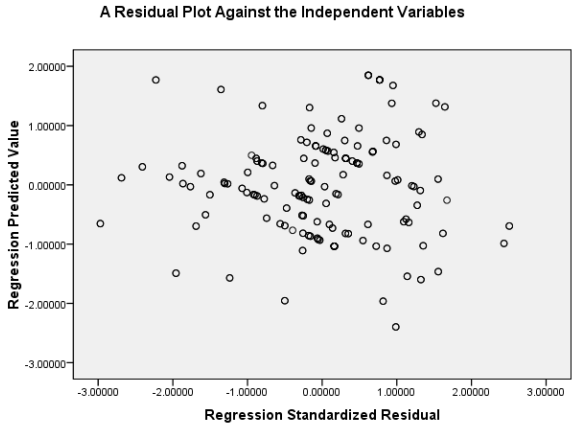




Equation 6: $SGA = \alpha\ 6 + \beta 36CMO + \beta 37RUF + \beta 38PEJ + \beta 39IME + \beta 40BPL + \beta 41\ SIZ + \beta 42ISO + \varepsilon$

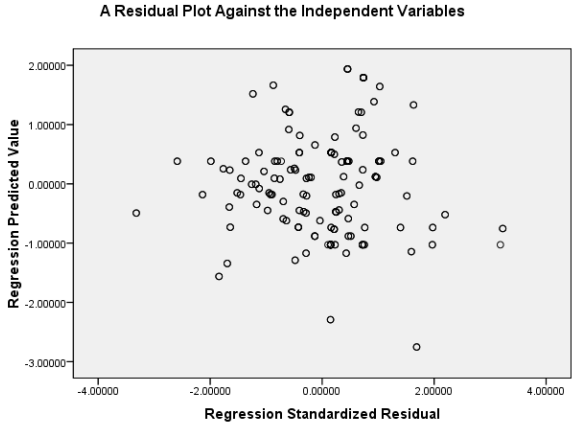
Equation 7: $DMS = \alpha\ 7 + \beta 43OPE + \beta 44ICQ + \beta 45IVI + \beta 46\ SIZ + \beta 47ISO + \varepsilon$



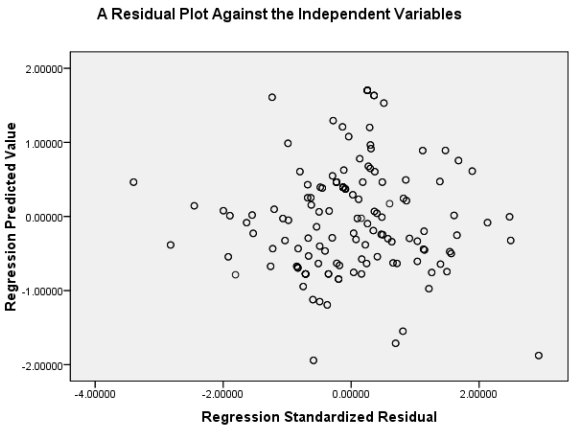


Equation 8: $BEO = \alpha\ 8 + \beta 48OPE + \beta 49ICQ + \beta 50IVI + \beta 51\ SIZ + \beta 52ISO + \varepsilon$

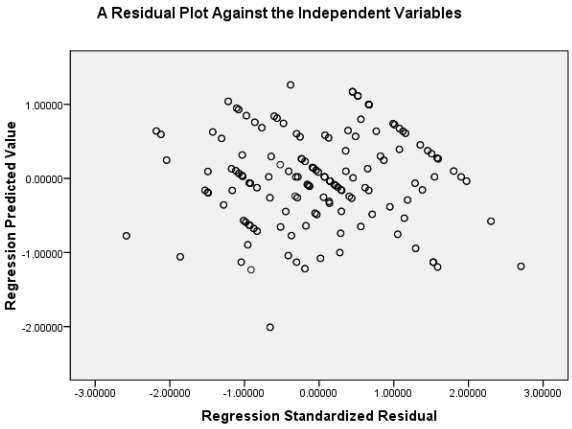
Equation 9: $BEO = \alpha\ 9 + \beta 53DMS + \beta 54\ SIZ + \beta 55ISO + \varepsilon$

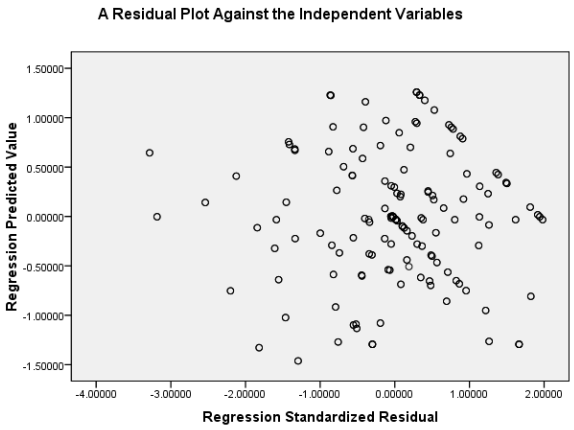


Equation 10: $SGA = \alpha 10 + \beta 56DMS + \beta 57BEO + \beta 58\ SIZ + \beta 59ISO + \varepsilon$



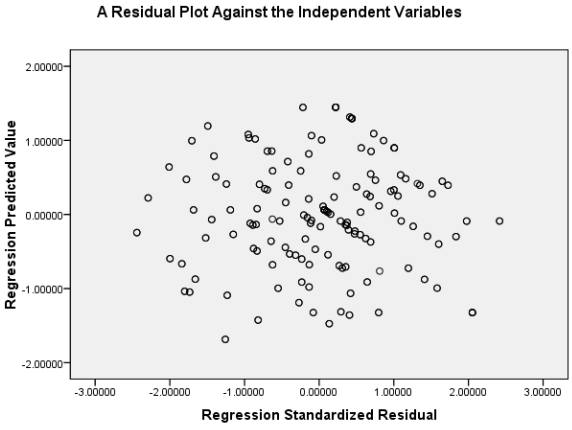
Equation 11: $CMO = \alpha 11 + \beta 60TMV + \beta 61AKM + \beta 62ASQ + \beta 63THP + \beta 64SHF + \beta 65CPT + \beta 66\ SIZ + \beta 67ISO + \varepsilon$





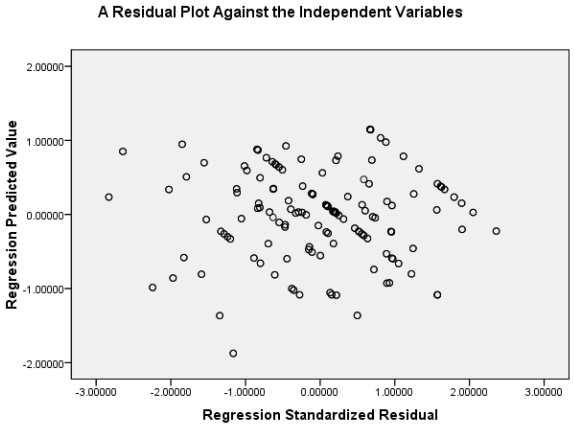
Equation 12: $RUF = A12 + \beta 68TMV + \beta 69AKM + \beta 70ASQ + \beta 71THP + \beta 72SHF + \beta 73CPT + \beta 74\ SIZ + \beta 75ISO + \varepsilon$

Equation 13: $PEJ = \alpha 13 + \beta 76TMV + \beta 77AKM + \beta 78ASQ + \beta 79THP + \beta 80SHF + \beta 81CPT + \beta 82\ SIZ + \beta 83ISO + \varepsilon$

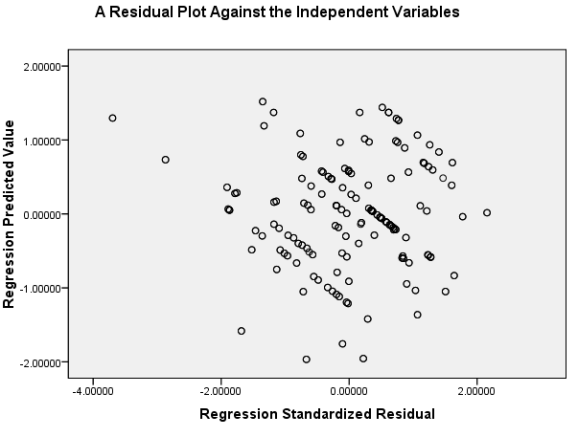


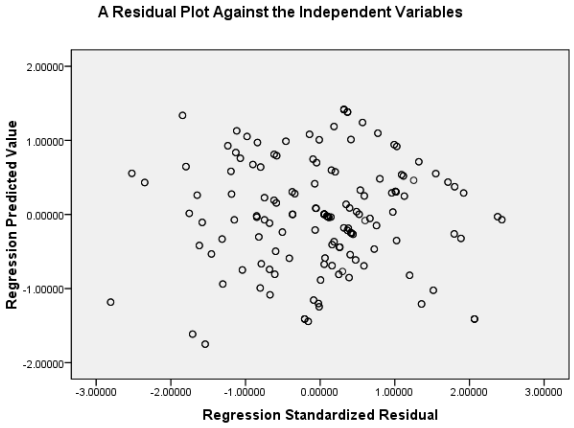
Equation 14: $IME = \alpha 14 + \beta 84TMV + \beta 85AKM + \beta 86ASQ +$

$\beta 87THP + \beta 88SHF + \beta 89CPT + \beta 90\ SIZ + \beta 91ISO + \varepsilon$



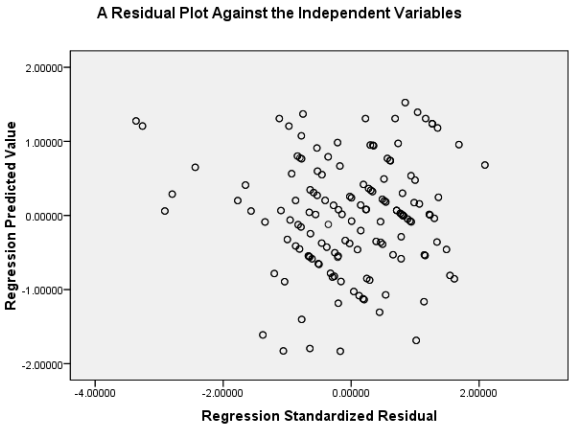
Equation 15: $BPL = \alpha 15 + \beta 92TMV + \beta 93AKM + \beta 94ASQ + \beta 95THP + \beta 96SHF + \beta 97CPT + \beta 98\ SIZ + \beta 99ISO + \varepsilon$

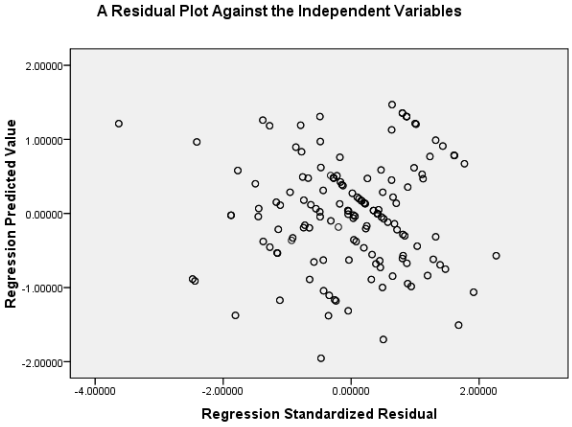




Equation 16: $OPE = \alpha_{16} + \beta_{100}CMO + \beta_{101}RUF + \beta_{102}PEJ + \beta_{103}IME + \beta_{104}BPL + \beta_{105}OLC + \beta_{106}(CMO*OLC) + \beta_{107}(RUF*OLC) + \beta_{108}(PEJ*OLC) + \beta_{109}(IME*OLC) + \beta_{110}(BPL*OLC) + \beta_{111}\ SIZ + \beta_{112}ISO + \varepsilon$

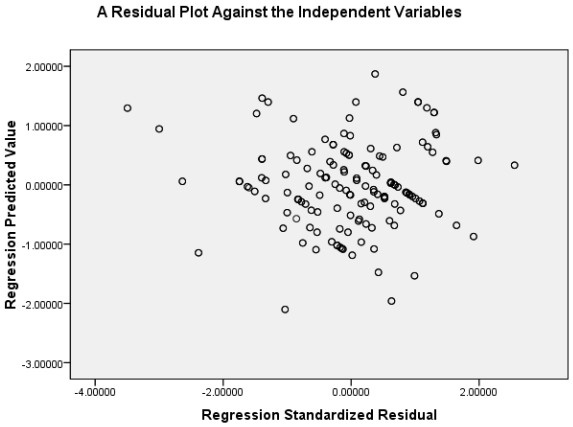
Equation 17: $ICQ = \alpha_{17} + \beta_{113}CMO + \beta_{114}RUF + \beta_{115}PEJ + \beta_{116}IME + \beta_{117}BPL + \beta_{118}OLC + \beta_{119}(CMO*OLC) + \beta_{120}(RUF*OLC) + \beta_{121}(PEJ*OLC) + \beta_{122}(IME*OLC) + \beta_{123}(BPL*OLC) + \beta_{124}SIZ + \beta_{125}ISO + \varepsilon$



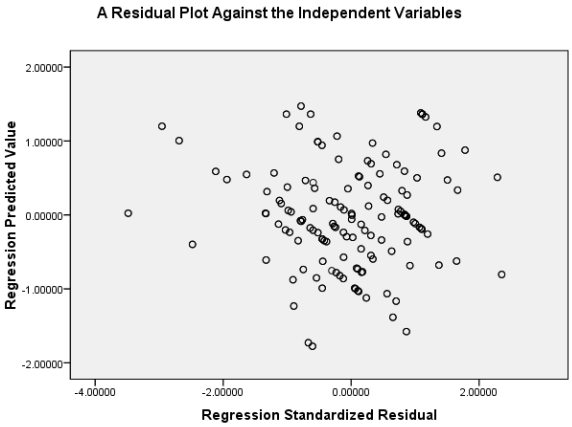


Equation 18: $IVI = \alpha_{18} + \beta_{126}CMO + \beta_{127}RUF + \beta_{128}PEJ + \beta_{129}IME + \beta_{130}BPL + \beta_{131}OLC + \beta_{132}(CMO*OLC) + \beta_{133}(RUF*OLC) + \beta_{134}(PEJ*OLC) + \beta_{135}(IME*OLC) + \beta_{136}(BPL*OLC) + \beta_{137}SIZ + \beta_{138}ISO + \varepsilon$

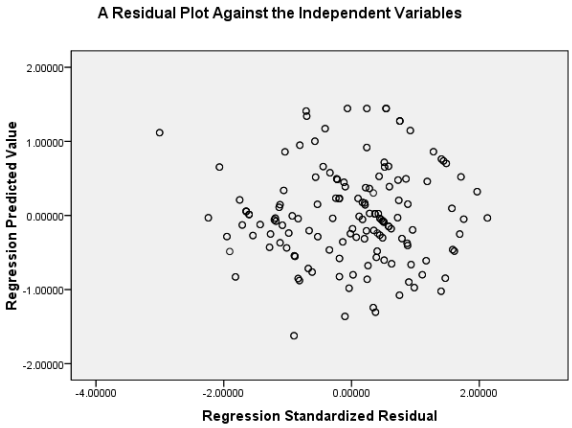
Equation 19: $DMS = \alpha_{19} + \beta_{139}CMO + \beta_{140}RUF + \beta_{141}PEJ + \beta_{142}IME + \beta_{143}BPL + \beta_{144}OLC + \beta_{145}(CMO*OLC) + \beta_{146}(RUF*OLC) + \beta_{147}(PEJ*OLC) + \beta_{148}(IME*OLC) + \beta_{149}(BPL*OLC) + \beta_{150}SIZ + \beta_{151}ISO + \varepsilon$



Equation 20: $BEO = \alpha_{20} + \beta_{152}CMO + \beta_{153}RUF + \beta_{154}PEJ + \beta_{155}IME + \beta_{156}BPL + \beta_{157}OLC + \beta_{158}(CMO*OLC) + \beta_{159}(RUF*OLC) + \beta_{160}(PEJ*OLC) + \beta_{161}(IME*OLC) + \beta_{162}(BPL*OLC) + \beta_{163}SIZ + \beta_{164}ISO + \varepsilon$



Equation 21: $SGA = \alpha_{21} + \beta_{165}CMO + \beta_{166}RUF + \beta_{167}PEJ + \beta_{168}IME + \beta_{169}BPL + \beta_{170}OLC + \beta_{171}(CMO*OLC) + \beta_{172}(RUF*OLC) + \beta_{173}(PEJ*OLC) + \beta_{174}(IME*OLC) + \beta_{175}(BPL*OLC) + \beta_{176}SIZ + \beta_{177}ISO + \varepsilon$



1.5 Test of Multicollinearity

The ideal situation for research would have a number of independent variables highly correlated with the dependent variable, but with little correlation among themselves. Multicollinearity will occur when any single independent variable is highly correlated with other independent variables. If the independent variables have highly correlated with themselves, it impacts to result of regression analysis. Consequently, the result of regression analysis is not believable. In order to multicollinearity, this research uses Variance Inflation Factor (VIF). Nunnally (1978) explain if VIF value greater than 10, it has multicollinearity. The VIF of each equation model is less than 10 implying that there is no multicollinearity.

Table 2E: Variance Inflation Factor and Tolerance of each Equation Model

Independent Variables	Dependent Variables																							
	Equation 1: OPE		Equation 2: ICQ		Equation 3: IVI		Equation 4 : DMS		Equation 5: BEO		Equation 6: SGQ		Equation 16: OPE		Equation 17: ICQ		Equation 18: IVI		Equation 19: DMS		Equation 20: BEO		Equation 21: SGA	
	Tole-rance	VIF	Tole-rance	VIF	Tole-rance	VIF	Tole-rance	VIF	Tole-rance	VIF	Tole-rance	VIF	Tole-rance	VIF	Tole-rance	VIF	Tole-rance	VIF	Tole-rance	VIF	Tole-rance	VIF	Tole-rance	VIF
CMO	.381	2.624	.381	2.624	.381	2.624	.381	2.624	.381	2.624	.381	2.624	.364	2.745	.364	2.745	.364	2.745	.364	2.745	.364	2.745	.364	2.745
RUF	.360	2.774	.360	2.774	.360	2.774	.360	2.774	.360	2.774	.360	2.774	.331	3.024	.331	3.024	.331	3.024	.331	3.024	.331	3.024	.331	3.024
PEJ	.251	3.991	.251	3.991	.251	3.991	.251	3.991	.251	3.991	.251	3.991	.239	4.185	.239	4.185	.239	4.185	.239	4.185	.239	4.185	.239	4.185
IME	.321	3.111	.321	3.111	.321	3.111	.321	3.111	.321	3.111	.321	3.111	.311	3.211	.311	3.211	.311	3.211	.311	3.211	.311	3.211	.311	3.211
BPL	.244	4.103	.244	4.103	.244	4.103	.244	4.103	.244	4.103	.244	4.103	.227	4.409	.227	4.409	.227	4.409	.227	4.409	.227	4.409	.227	4.409
OLC													.502	1.990	.502	1.990	.502	1.990	.502	1.990	.502	1.990	.502	1.990
CMO*OLC													.145	6.876	.145	6.876	.145	6.876	.145	6.876	.145	6.876	.145	6.876
RUF*OLC													.208	4.805	.208	4.805	.208	4.805	.208	4.805	.208	4.805	.208	4.805
PEJ*OLC													.166	6.025	.166	6.025	.166	6.025	.166	6.025	.166	6.025	.166	6.025
IME*OLC													.165	6.069	.165	6.069	.165	6.069	.165	6.069	.165	6.069	.165	6.069
BPL*OLC													.145	6.911	.145	6.911	.145	6.911	.145	6.911	.145	6.911	.145	6.911
SIZ	.888	1.126	.888	1.126	.888	1.126	.888	1.126	.888	1.126	.888	1.126	.873	1.146	.873	1.146	.873	1.146	.873	1.146	.873	1.146	.873	1.146
ISO	.927	1.079	.927	1.079	.927	1.079	.927	1.079	.927	1.079	.927	1.079	.879	1.138	.879	1.138	.879	1.138	.879	1.138	.879	1.138	.879	1.138

Table 2E: Variance Inflation Factor and Tolerance of each Equation Model (Continued)

Independent Variables	Dependent Variables																	
	Euqation 7: DMS		Equation 8: BEO		Equation 9: BEO		Equation 10: SGA		Equation 11: CMO		Equation 12: RUF		Equation 13: PEJ		Equation 14: IME		Equation 15: BPL	
	Tole-rance	VIF	Tole-rance	VIF	Tole-rance	VIF	Tole-rance	VIF	Tole-rance	VIF	Tole-rance	VIF	Tole-rance	VIF	Tole-rance	VIF	Tole-rance	VIF
OPE	.279	3.585	.279	3.585	.998	1.002												
ICQ	.243	4.112	.243	4.112														
IVI	.258	3.872	.258	3.872														
DMS							.272	3.682										
BEO							.272	3.682										
TMV									.303	3.300	.303	3.300	.303	3.300	.303	3.300	.303	3.300
AKM									.297	3.365	.297	3.365	.297	3.365	.297	3.365	.297	3.365
ASQ									.276	3.627	.276	3.627	.276	3.627	.276	3.627	.276	3.627
THP									.436	2.295	.436	2.295	.436	2.295	.436	2.295	.436	2.295
SHF									.301	3.317	.301	3.317	.301	3.317	.301	3.317	.301	3.317
CPT									.318	3.143	.318	3.143	.318	3.143	.318	3.143	.318	3.143
SIZ	.915	1.093	.915	1.093	.941	1.062	.940	1.064	.917	1.091	.917	1.091	.917	1.091	.917	1.091	.917	1.091
SO	.930	1.076	.930	1.076	.940	1.064	.925	1.082	.912	1.096	.912	1.096	.912	1.096	.912	1.096	.912	1.096

APPENDIX F

Cover Letter and Questionnaire: Thai Version

ที่ ศธ 0530.10/347

คณะการบัญชีและการจัดการ
มหาวิทยาลัยมหาสารคาม
อำเภอกันทรวิชัย จังหวัดมหาสารคาม
44150

20 มีนาคม 2557

เรื่อง ขอความอนุเคราะห์กรอกแบบสอบถาม

เรียน ผู้จัดการฝ่ายบัญชี

ด้วย นางสาวชลธิชา ธรรมวิญญู นิสิตระดับปริญญาเอก คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม กำลังศึกษาวิทยานิพนธ์ เรื่อง "ศักยภาพการบัญชีบริหารเชิงกลยุทธ์และการบรรลุเป้าหมายอย่างยั่งยืน: หลักฐานเชิงประจักษ์จากธุรกิจผลิตสินค้าที่ได้รับ ISO9001 ในประเทศไทย" ซึ่งเป็นส่วนหนึ่งของการทำวิทยานิพนธ์หลักสูตรปรัชญาดุษฎีบัณฑิต (ปร.ด.) สาขาวิชาการบัญชี และการศึกษาในครั้งนี้ได้เน้นให้นิสิตศึกษาข้อมูลด้วยตนเอง ดังนั้น เพื่อให้การจัดทำวิทยานิพนธ์ เป็นไปด้วยความเรียบร้อยและบรรลุวัตถุประสงค์ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม จึงใคร่ขออนุญาตให้ นางสาวชลธิชา ธรรมวิญญู ศึกษาและเก็บรวบรวมในรายละเอียดตามแบบสอบถามที่แนบมาพร้อมนี้

คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม หวังเป็นอย่างยิ่งว่าคงได้รับความอนุเคราะห์จากท่านในการให้ข้อมูลในครั้งนี้เป็นอย่างยิ่ง และขอขอบคุณมา ณ โอกาสนี้

ขอแสดงความนับถือ

(รองศาสตราจารย์ ดร.ปพฤกษ์บารมี อุตสาหะวาณิชกิจ)
คณบดีคณะการบัญชีและการจัดการ
มหาวิทยาลัยมหาสารคาม

สำนักบริหารหลักสูตรระดับบัณฑิตศึกษาและวิจัย
คณะการบัญชีและการจัดการ โทรศัพท์ (043) 754333 ต่อ 3410

แบบสอบถามเพื่อการวิจัย

เรื่อง: ศักยภาพการบัญชีบริหารเชิงกลยุทธ์และการบรรลุเป้าหมายอย่างยั่งยืน:

หลักฐานเชิงประจักษ์จากธุรกิจผลิตสินค้าที่ได้รับ ISO9001 ในประเทศไทย

<u>คำชี้แจง</u>

โครงการวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาวิจัยเรื่อง “ศักยภาพการบัญชีบริหารเชิงกลยุทธ์และการบรรลุเป้าหมายอย่างยั่งยืน: หลักฐานเชิงประจักษ์จากธุรกิจผลิตสินค้าที่ได้รับ ISO9001 ในประเทศไทย” เพื่อใช้เป็นข้อมูลในการจัดทำวิทยานิพนธ์ในระดับปริญญาเอกของผู้วิจัยในหลักสูตรปรัชญาดุษฎีบัณฑิต คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม โทรศัพท์ 043-754-333 ต่อ 3408

ข้าพเจ้าใคร่ขอความอนุเคราะห์จากท่านผู้ตอบแบบสอบถาม ได้โปรดให้ข้อเท็จจริงในการตอบแบบสอบถามชุดนี้ โดยรายละเอียดของแบบสอบถามประกอบด้วยส่วนคำถาม 7 ตอน ดังนี้

ตอนที่ 1 ข้อมูลเกี่ยวกับผู้บริหารฝ่ายบัญชีธุรกิจผลิตสินค้าที่ได้รับ ISO9001

ตอนที่ 2 ข้อมูลทั่วไปเกี่ยวกับธุรกิจผลิตสินค้าที่ได้รับ ISO9001

ตอนที่ 3 ความคิดเห็นเกี่ยวกับศักยภาพการบัญชีบริหารเชิงกลยุทธ์ของธุรกิจผลิตสินค้าที่ได้รับ ISO9001

ตอนที่ 4 ความคิดเห็นเกี่ยวกับผลการดำเนินงานของธุรกิจผลิตสินค้าที่ได้รับ ISO9001

ตอนที่ 5 ความคิดเห็นเกี่ยวกับปัจจัยภายในที่ส่งผลต่อศักยภาพการบัญชีบริหารเชิงกลยุทธ์ของธุรกิจผลิตสินค้าที่ได้รับ ISO9001

ตอนที่ 6 ความคิดเห็นเกี่ยวกับปัจจัยภายนอกที่ส่งผลต่อศักยภาพการบัญชีบริหารเชิงกลยุทธ์ของธุรกิจผลิตสินค้าที่ได้รับ ISO9001

ตอนที่ 7 ข้อเสนอแนะและข้อคิดเห็น

คำตอบของท่านจะถูกเก็บรักษาเป็นความลับ และจะไม่มีการใช้ข้อมูลใด ๆ ที่เปิดเผยเกี่ยวกับธุรกิจของท่านในการรายงานข้อมูล อีกทั้งจะไม่มีการร่วมใช้ข้อมูลดังกล่าวกับบุคคลภายนอกโดยไม่ได้รับอนุญาตจากท่าน

ท่านต้องการรายงานสรุปผลการวิจัยหรือไม่

( ) ต้องการ e-mail…… ( ) ไม่ต้องการ

หากท่านต้องการสรุปผลการวิจัยโปรดระบุ e-mail Address ของท่าน หรือแนบนามบัตรของท่านมาพร้อมกับแบบสอบถามชุดนี้

ผู้วิจัยขอขอบพระคุณที่ท่านได้กรุณาเสียสละเวลาในการตอบแบบสอบถามชุดนี้อย่างถูกต้องครบถ้วน และหวังเป็นอย่างยิ่งว่าข้อมูลที่ได้รับจากท่านจะเป็นประโยชน์อย่างยิ่งต่อการวิจัย และขอขอบพระคุณอย่างสูงมา ณ โอกาสนี้ หากท่านมีข้อสงสัยประการใดเกี่ยวกับแบบสอบถาม โปรดติดต่อนางสาวชลธิชา ธรรมวิญญ ซึ่งเป็นผู้วิจัยในครั้งนี้ โทรศัพท์ 089-535-0110 หรือ e-mail: chon.th11@gmail.com

ขอขอบพระคุณที่ให้ข้อมูลไว้ ณ โอกาสนี้

(น.ส.ชลธิชา ธรรมวิญญ)

นิสิตปริญญาเอก สาขาวิชาการบัญชี

คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม

<u>ตอนที่ 1</u> ข้อมูลเกี่ยวกับผู้บริหารฝ่ายบัญชีธุรกิจผลิตสินค้าที่ได้รับ ISO9001 ในประเทศไทย

1. เพศ

( ) ชาย ( ) หญิง

2. อายุ

( ) น้อยกว่า 30 ปี ( ) 30 - 40 ปี

( ) 41 – 50 ปี ( ) มากกว่า 50 ปี

3. สถานภาพ

( ) โสด ( ) สมรส

( ) หม้าย/หย่าร้าง

4. ระดับการศึกษา

( ) ปริญญาตรีหรือต่ำกว่า ( ) สูงกว่าปริญญาตรี

5. ประสบการณ์ในการทำงาน

( ) น้อยกว่า 5 ปี ( ) 5 - 10 ปี

( ) 11 - 15 ปี ( ) มากกว่า 15 ปี

6. รายได้เฉลี่ยต่อเดือน

( ) ต่ำกว่า 75,000 บาท ( ) 75,000 - 100,000 บาท

( ) 100,001 - 125,000 บาท ( ) มากกว่า 125,000 บาท

7. ตำแหน่งงานในปัจจุบัน

( ) ผู้อำนวยการฝ่ายบัญชี ( ) ผู้จัดการฝ่ายบัญชี

( ) อื่นๆ (โปรดระบุ).....

<u>ตอนที่ 2</u> ข้อมูลทั่วไปเกี่ยวกับธุรกิจผลิตสินค้าที่ได้รับ ISO9001

1. รูปแบบธุรกิจ

( ) บริษัทจำกัด ( ) บริษัทมหาชน จำกัด

2. ประเภทธุรกิจ

( ) กลุ่มเกษตรและอุตสาหกรรมอาหาร ( ) กลุ่มสินค้าอุปโภคบริโภค

( ) กลุ่มสินค้าอุตสาหกรรม ( ) กลุ่มอสังหาริมทรัพย์และก่อสร้าง

( ) กลุ่มทรัพยากร ( ) กลุ่มเทคโนโลยี

( ) อื่นๆ โปรดระบุ.....

3. ทุนจดทะเบียน

( ) ต่ำกว่า 50,000,000 บาท ( ) 50,000,000-100,000,000 บาท

( ) 100,000,001-150,000,000 บาท ( ) มากกว่า 150,000,000 บาท

4. มูลค่าสินทรัพย์รวมของกิจการในปัจจุบัน

( ) ต่ำกว่า 50,000,000 บาท ( ) 50,000,000-100,000,000 บาท

( ) 100,000,001-150,000,000 บาท ( ) มากกว่า 150,000,000 บาท

5. รายได้ของธุรกิจเฉลี่ยต่อปี

( ) ต่ำกว่า 50,000,000 บาท ( ) 50,000,000-100,000,000 บาท

( ) 100,000,001-150,000,000 บาท ( ) มากกว่า 150,000,000 บาท

6. ระยะเวลาในการดำเนินงาน

( ) น้อยกว่า 5 ปี ( ) 5-10 ปี

( ) 11-15 ปี ( ) มากกว่า 15 ปี

7. จำนวนพนักงานทั้งหมดในปัจจุบัน

( ) น้อยกว่า 50 คน ( ) 50 - 100 คน

( ) 101 - 150 คน ( ) มากกว่า 150 คน

8. ลูกค้าหลักของกิจการ

( ) ในประเทศ ( ) นอกประเทศ

9. ระยะเวลาในการได้รับการรับรองคุณภาพ ISO9001

( ) น้อยกว่า 5 ปี ( ) 5-10 ปี

( ) 11-15 ปี ( ) มากกว่า 15 ปี

ตอนที่ 3 ความคิดเห็นเกี่ยวกับศักยภาพการบัญชีบริหารเชิงกลยุทธ์ของบริษัทผลิตสินค้าที่ได้รับ ISO9001

ศักยภาพการบัญชีบริหารเชิงกลยุทธ์	ระดับความคิดเห็น				
	มากที่สุด (5)	มาก (4)	ปานกลาง (3)	น้อย (2)	น้อยที่สุด (1)
การมุ่งเน้นการบริหารต้นทุน (Cost Management Orientation)					
1. กิจการมุ่งเน้นให้มีการนำเทคนิคเกี่ยวกับการบริหารต้นทุนมาใช้ในการจัดทำและนำเสนอข้อมูลทางการบัญชีบริหาร เพื่อนำมาใช้เป็นข้อมูลในการกำหนดต้นทุน การตั้งราคาผลิตภัณฑ์และการวางแผนกลยุทธ์ให้มีความเหมาะสมและถูกต้องมากยิ่งขึ้น	5	4	3	2	1
2. กิจการมุ่งมั่นในการพัฒนาระบบ หลักเกณฑ์ และวิธีการในการปันส่วนต้นทุนที่ชัดเจน เพื่อให้ข้อมูลทางการบัญชีบริหารสามารถนำไปประเมินและสนับสนุนการตัดสินใจให้มีคุณภาพมากยิ่งขึ้น	5	4	3	2	1
3. กิจการมุ่งเน้นให้มีการพัฒนาศักยภาพและความสามารถขององค์กรในการเชื่อมโยงเทคนิคต่างๆ ในการบริหารต้นทุนให้สอดคล้องกับเป้าหมายเชิงกลยุทธ์เพื่อก่อให้เกิดความได้เปรียบเชิงการแข่งขัน	5	4	3	2	1
4. กิจการให้ความสำคัญกับการจัดระบบการบริหารจัดการต้นทุนที่สามารถวิเคราะห์พฤติกรรมต้นทุนและความต้องการของลูกค้าเพื่อให้สามารถตัดสินใจและบริหารงานต่างๆ ให้เกิดประโยชน์สูงสุด สอดคล้องกับความต้องการของลูกค้า	5	4	3	2	1
5. กิจการเชื่อมั่นว่าการคำนวณต้นทุนได้อย่างถูกต้องและการบริหารต้นทุนอย่างเหมาะสม จะส่งผลให้กิจการสามารถดำเนินงานภายใต้สถานการณ์ต่างๆ ได้อย่างมีประสิทธิภาพสูงสุด	5	4	3	2	1
การเน้นการใช้ทรัพยากรให้เกิดประโยชน์ (Resource Utilization Focus)					
6. กิจการมุ่งเน้นให้มีการวิเคราะห์สถานการณ์ความต้องการใช้ทรัพยากรของแต่ละหน่วยงาน เพื่อให้เกิดการใช้ทรัพยากรให้เหมาะสม	5	4	3	2	1
7. กิจการให้ความสำคัญกับการจัดสรรทรัพยากรให้แต่ละหน่วยงานอย่างเพียงพอ เพื่อให้การดำเนินงานของหน่วยงานบรรลุผลสำเร็จได้อย่างมีประสิทธิภาพ	5	4	3	2	1
8. กิจการมุ่งมั่นในการพัฒนาระบบการจัดสรรและแนวปฏิบัติการใช้ประโยชน์จากทรัพยากรที่ได้รับอย่างคุ้มค่า เพื่อให้เกิดประโยชน์สูงสุดต่อองค์กร	5	4	3	2	1
9. กิจการสนับสนุนให้มีการวางแผนการใช้ทรัพยากรร่วมกันทั้งหน่วยงานภายในและภายนอกอย่างมีระบบและเป็นรูปธรรม เพื่อให้หน่วยงานต่างๆ สามารถดำเนินงานได้บรรลุตามวัตถุประสงค์ที่กำหนดไว้	5	4	3	2	1

ตอนที่ 3 (ต่อ)

ศักยภาพการบัญชีบริหารเชิงกลยุทธ์	ระดับความคิดเห็น				
	มากที่สุด (5)	มาก (4)	ปานกลาง (3)	น้อย (2)	น้อยที่สุด (1)
10. กิจการมุ่งเน้นให้มีการวิเคราะห์ศักยภาพและประโยชน์ของทรัพยากรที่มีอยู่ของแต่ละหน่วยงาน สำหรับนำมาใช้เป็นแนวทางในการกำหนดงบประมาณเพื่อให้เกิดประสิทธิผลสูงสุดในการดำเนินงาน	5	4	3	2	1
การตระหนักถึงการประเมินผลงานที่เป็นธรรม (Performance Evaluation Justice Awareness)					
11. กิจการมุ่งเน้นให้มีการนำกฎเกณฑ์ต่างๆ ในการประเมินผลการปฏิบัติงานที่สามารถวัดได้อย่างชัดเจนมาเป็นแนวทางในการประเมินผลงาน และเปิดเผยต่อบุคคลที่เกี่ยวข้อง เพื่อให้เกิดการยอมรับและนำไปสู่ความสำเร็จของกิจการทั้งในปัจจุบันและอนาคต	5	4	3	2	1
12. กิจการเชื่อมั่นว่าการบัญชีบริหารเข้ามาช่วยเก็บรวบรวมข้อมูลตัววัดผลการดำเนินงานทั้งที่เป็นตัววัดผลทางการเงินและตัววัดที่ไม่ใช่การเงิน ส่งผลให้การรายงานผลการปฏิบัติงานมีความถูกต้องและเป็นธรรม	5	4	3	2	1
13. กิจการให้ความสำคัญกับการจัดทำและนำเสนอข้อมูลทางการบัญชีบริหารที่นำมาใช้ประเมินผลงานอย่างถูกต้องและโปร่งใส ทำให้เกิดการยอมรับจากบุคลากรในองค์กรเป็นอย่างดี	5	4	3	2	1
14. กิจการสนับสนุนให้มีการจัดทำรายงานที่เกี่ยวข้องกับการประเมินผลงานหลากหลายรูปแบบที่สอดคล้องกับการปฏิบัติงานของบุคลากรภายในองค์กร ทำให้เกิดความยุติธรรมและมีความพึงพอใจในการประเมินผลการปฏิบัติงาน	5	4	3	2	1
15. กิจการมุ่งเน้นให้มีการประยุกต์ใช้การประเมินผลการดำเนินงานที่มีความยุติธรรม เพื่อเป็นการสร้างแรงจูงใจในการปฏิบัติงาน ซึ่งส่งผลต่อความสำเร็จในการดำเนินงานของกิจการ	5	4	3	2	1
ประสิทธิภาพการจัดเก็บสารสนเทศ (Information Mining Effectiveness)					
16. กิจการมุ่งมั่นในการพัฒนาระบบการเก็บรวบรวมข้อมูลลูกค้าในทุกๆ ด้าน ตั้งแต่อดีต ปัจจุบันและในอนาคตอย่างมีประสิทธิภาพ เพื่อให้กิจการสามารถพัฒนาผลิตภัณฑ์ใหม่ได้ตรงตามความต้องการของลูกค้าและสร้างความสำเร็จในระยะยาว	5	4	3	2	1

ตอนที่ 3 (ต่อ)

ศักยภาพการบัญชีบริหารเชิงกลยุทธ์	ระดับความคิดเห็น				
	มากที่สุด (5)	มาก (4)	ปานกลาง (3)	น้อย (2)	น้อยที่สุด (1)
17. กิจการมุ่งเน้นให้มีการจัดทำระบบข้อมูลสารสนเทศที่มีการผสมผสานข้อมูลระหว่างหน่วยงานต่างๆ ภายในกิจการ ทำให้ได้มาซึ่งสารสนเทศที่มีความสมบูรณ์ ครบถ้วน ส่งผลให้กิจการตัดสินใจได้มีประสิทธิภาพมากยิ่งขึ้น	5	4	3	2	1
18. กิจการสนับสนุนให้มีกระบวนการในการจัดหา การใช้ และการบำรุงรักษาข้อมูลข่าวสารจากทั้งภายในและภายนอกหน่วยงาน เพื่อให้ได้ข้อมูลที่มีความครบถ้วน ถูกต้อง และรวดเร็ว สามารถตอบสนองต่อการเปลี่ยนแปลงทางธุรกิจได้ดียิ่งขึ้น	5	4	3	2	1
19. กิจการมุ่งเน้นให้มีการผสมผสานเชื่อมโยงข้อมูลต่างๆ ที่เกี่ยวข้องเข้าไว้ด้วยกัน ส่งผลให้การตัดสินสินใจมีคุณภาพมากขึ้น	5	4	3	2	1
ความเอาใจใส่ในการเชื่อมโยงกระบวนการทางธุรกิจ (Business Process Linkage Interest)					
20. กิจการเชื่อมั่นว่าการบัญชีบริหารที่ดีจะเชื่อมโยงระบบกระบวนการทางธุรกิจเข้าด้วยกัน ทำให้การดำเนินงานของกิจการบรรลุผลสำเร็จอย่างยั่งยืน	5	4	3	2	1
21. กิจการมุ่งมั่นให้มีการเชื่อมโยงกระบวนการทางธุรกิจที่สามารถผลักดันให้กิจการเกิดการมีส่วนร่วมของทุกหน่วย/แผนกงาน เพื่อให้เกิดผลการดำเนินงานที่มีประสิทธิภาพและประสิทธิผล ทั้งในปัจจุบันและอนาคต	5	4	3	2	1
22. กิจการสนับสนุนให้มีการปรึกษาหารือ แลกเปลี่ยนความคิดเห็นระหว่างหน่วยงาน สร้างความเข้าใจในการดำเนินงานให้เป็นไปในทิศทางเดียวกัน ซึ่งจะทำให้กระบวนการทำงานของกิจการมีประสิทธิภาพมากขึ้น	5	4	3	2	1
23. กิจการมุ่งเน้นให้มีการพัฒนาระบบการสื่อสารระหว่างหน่วยงานในองค์กร ซึ่งจะทำให้การจัดทำและการรายงานการบัญชีบริหารได้ข้อมูลที่มีความถูกต้องและรวดเร็ว ก่อให้เกิดประโยชน์สูงสุดต่อกิจการ	5	4	3	2	1
24. กิจการตระหนักถึงการสร้างเครือข่ายพันธมิตรร่วมกันในการวิเคราะห์ แลกเปลี่ยน สร้างสรรค์ความรู้และนวัตกรรมร่วมกัน ซึ่งสามารถช่วยให้กิจการมีความได้เปรียบเชิงการแข่งขันและมีผลการดำเนินงานที่เหนือกว่าคู่แข่ง	5	4	3	2	1

<u>ตอนที่ 4</u> ความคิดเห็นเกี่ยวกับผลการดำเนินงานของธุรกิจผลิตสินค้าที่ได้รับ ISO9001

ผลการดำเนินงาน	ระดับความคิดเห็น				
	มากที่สุด (5)	มาก (4)	ปานกลาง (3)	น้อย (2)	น้อยที่สุด (1)
ประสิทธิภาพการวางแผนการดำเนินงาน (Operational Planning Efficiency)					
1. กิจการสามารถนำข้อมูลทางการบัญชีบริหารไปใช้ประกอบการวางแผนการดำเนินงานและการกำหนดงบประมาณได้อย่างมีประสิทธิภาพ	5	4	3	2	1
2. กิจการสามารถควบคุมการดำเนินงานให้เป็นไปตามเป้าหมายหรือตามงบประมาณที่กำหนดไว้ได้อย่างมีศักยภาพ โดยใช้ข้อมูลการบัญชีบริหาร	5	4	3	2	1
3. กิจการสามารถวางแผนการปฏิบัติงานอย่างมีคุณภาพ ช่วยทำให้กิจการเกิดประโยชน์ เกิดความคุ้มค่าและได้เปรียบทางการแข่งขัน	5	4	3	2	1
4. กิจการสามารถดำเนินงานได้อย่างเป็นระบบ โดยมีการวางแผนไว้อย่างสอดคล้องกับเป้าหมายของกิจการอย่างแท้จริง	5	4	3	2	1
5. กิจการสามารถวางแผนการปฏิบัติงานได้อย่างเหมาะสมและสอดคล้องกับสถานการณ์ต่างๆ ที่เกิดขึ้นจริง	5	4	3	2	1
คุณภาพการควบคุมภายใน (Internal Control Quality)					
6. กิจการมีกระบวนการตรวจจับข้อผิดพลาดในการดำเนินงานที่เป็นไปตามแผนการควบคุมภายในอย่างมีประสิทธิภาพ	5	4	3	2	1
7. กิจการสามารถประเมินผลการควบคุมภายในได้อย่างน่าเชื่อถือ	5	4	3	2	1
8. กิจการมีแนวทางกระบวนการควบคุมภายในที่ดี สามารถป้องกันการทุจริต ลดความสูญเปล่าและประหยัดค่าใช้จ่ายในการบริหารจัดการกระบวนการทำงาน	5	4	3	2	1
9. กิจการสามารถบูรณาการวิธีการและแนวทางในการควบคุมการบริหารให้สอดคล้องกับการวางแผนและนโยบายที่กำหนดไว้อย่างมีประสิทธิภาพ	5	4	3	2	1
10. กิจการสามารถแก้ไขและวางแผนป้องกันความเสี่ยงที่อาจเกิดขึ้นได้อย่างดีเยี่ยม	5	4	3	2	1
การเพิ่มคุณค่าสารสนเทศ (Information Value Increase)					
11. กิจการมีข้อมูลที่มีความครบถ้วน ถูกต้อง และครอบคลุมทุกกิจกรรมที่เกี่ยวข้องกับการดำเนินงานของกิจการ	5	4	3	2	1
12. กิจการมีข้อมูลที่มีความแตกต่างและหลากหลาย สอดคล้องกับวัตถุประสงค์การใช้งานได้ทุกสถานการณ์	5	4	3	2	1

ตอนที่ 4 (ต่อ)

ผลการดำเนินงาน	ระดับความคิดเห็น				
	มากที่สุด (5)	มาก (4)	ปานกลาง (3)	น้อย (2)	น้อยที่สุด (1)
13. กิจการมีการเก็บรวบรวมข้อมูลทางการบัญชีบริหารไว้ในฐานข้อมูลอย่างเป็นระบบ และสามารถนำข้อมูลที่เก็บไว้มาใช้ในการดำเนินงานของกิจการทั้งในปัจจุบันและอนาคต	5	4	3	2	1
14. กิจการสามารถนำเสนอข้อมูลทางการบัญชีบริหารที่ช่วยในการตัดสินใจของผู้บริหารได้เป็นอย่างดี	5	4	3	2	1
15. กิจการสามารถนำเสนอข้อมูลการบัญชีบริหารให้ผู้มีส่วนเกี่ยวข้องได้ทันเวลาที่กำหนดและตรงกับความต้องการใช้ทุกครั้ง	5	4	3	2	1
ความสำเร็จของการตัดสินใจ (Decision Making Success) 16. กิจการสามารถวิเคราะห์และออกแบบทางเลือกในสถานการณ์ต่างๆ ได้อย่างมีประสิทธิภาพภายใต้สถานการณ์ที่มีการแข่งขันที่รุนแรงและไม่แน่นอน	5	4	3	2	1
17. กิจการสามารถเปรียบเทียบประโยชน์ที่จะได้รับในแต่ละทางเลือกซึ่งใช้ทักษะและประสบการณ์ที่มีอยู่ โดยได้รับผลประโยชน์สูงสุดและบรรลุผลสำเร็จตามเป้าหมาย	5	4	3	2	1
18. กิจการสามารถพิจารณาและทำการตัดสินใจได้อย่างมีประสิทธิภาพและประสบความสำเร็จ สอดคล้องกับวัตถุประสงค์ขององค์กร	5	4	3	2	1
19. กิจการมีศักยภาพในการพิจารณาตัดสินใจในการวางแผนการดำเนินธุรกิจได้อย่างดีเยี่ยม	5	4	3	2	1
20. กิจการสามารถวินิจฉัยปัจจัยและเหตุผลในประเด็นปัญหาต่างๆ ได้อย่างสมเหตุสมผล	5	4	3	2	1
ความโดดเด่นของธุรกิจที่เป็นเลิศ (Business Excellence Outstanding) 21. กิจการสามารถลดกระบวนการที่ไม่สามารถสร้างมูลค่าให้กับงานในกระบวนการต่างๆ ได้อย่างต่อเนื่อง	5	4	3	2	1
22. กิจการมีการบริหารงานที่เป็นไปตามเป้าหมายและบรรลุผลสำเร็จขององค์กรอย่างโดดเด่นกว่าคู่แข่งขันในอุตสาหกรรมเดียวกัน	5	4	3	2	1
23. กิจการมีศักยภาพและความสามารถในการดำเนินงานทุกด้านที่ดีเยี่ยมและแตกต่างจากคู่แข่งขัน	5	4	3	2	1
24. กิจการสามารถผลิตสินค้าได้อย่างรวดเร็วและสามารถดำเนินงานตามแผนการผลิตที่กำหนดไว้ได้เป็นอย่างดี	5	4	3	2	1

ตอนที่ 4 (ต่อ)

ผลการดำเนินงาน	ระดับความคิดเห็น				
	มากที่สุด (5)	มาก (4)	ปานกลาง (3)	น้อย (2)	น้อยที่สุด (1)
25. กิจการมีระบบข้อมูลในการดำเนินงานด้านต่างๆ อย่างเป็นระบบ และรูปธรรม มีความถูกต้องชัดเจนและเชื่อถือได้ ซึ่งผลักดันให้การดำเนินงานขององค์กรประสบผลสำเร็จมากยิ่งขึ้น	5	4	3	2	1
การบรรลุเป้าหมายความสำเร็จที่ยั่งยืน (Sustainable Goal Achievement)					
26. กิจการมีฐานะทางการเงินและผลการดำเนินงานที่มั่นคงและมีเสถียรภาพ สามารถดำเนินกิจการต่อไปได้อย่างต่อเนื่องในระยะยาว	5	4	3	2	1
27. กิจการมีผลการดำเนินงานที่เพิ่มขึ้นอย่างต่อเนื่องเมื่อเทียบกับผลการดำเนินงานในปีที่ผ่านมา	5	4	3	2	1
28. กิจการมีชื่อเสียงเป็นที่ยอมรับของชุมชนและสังคมในด้านคุณภาพของผลิตภัณฑ์อย่างต่อเนื่อง	5	4	3	2	1
29. กิจการมีอัตราการเจริญเติบโตของส่วนแบ่งการตลาดเพิ่มขึ้น และมีแนวโน้มเพิ่มขึ้นอย่างต่อเนื่องในระยะยาว	5	4	3	2	1
30. กิจการสามารถคิดค้นนวัตกรรมในการผลิตสินค้าใหม่ๆ อย่างต่อเนื่อง ทำให้กิจการดำเนินธุรกิจได้อย่างมั่นคง	5	4	3	2	1
31. กิจการมีความสามารถและศักยภาพเพียงพอที่จะรักษาระดับการเติบโตและอยู่รอดในธุรกิจในอนาคต ในสภาวะวิกฤติทางเศรษฐกิจในปัจจุบันและอนาคต	5	4	3	2	1

ตอนที่ 5 ความคิดเห็นเกี่ยวกับปัจจัยภายในที่ส่งผลต่อศักยภาพการบัญชีบริหารเชิงกลยุทธ์ของธุรกิจผลิตสินค้าที่ได้รับ ISO 9001

ปัจจัยภายในที่ส่งผลต่อศักยภาพการบัญชีบริหารเชิงกลยุทธ์	ระดับความคิดเห็น				
	มากที่สุด (5)	มาก (4)	ปานกลาง (3)	น้อย (2)	น้อยที่สุด (1)
วิสัยทัศน์ระยะยาวของผู้บริหาร (Top Management Long-term Vision)					
1. ผู้บริหารของกิจการเชื่อมั่นว่าการปรับกลยุทธ์และนโยบายของกิจการให้เหมาะสมกับสภาพแวดล้อมที่มีการเปลี่ยนแปลงทำให้องค์กรเจริญเติบโตอย่างยั่งยืน	5	4	3	2	1

ตอนที่ 5 (ต่อ)

ปัจจัยภายในที่ส่งผลต่อศักยภาพการบัญชีบริหารเชิงกลยุทธ์	ระดับความคิดเห็น				
	มากที่สุด (5)	มาก (4)	ปานกลาง (3)	น้อย (2)	น้อยที่สุด (1)
2. ผู้บริหารของกิจการสนับสนุนให้บุคลากรมีการศึกษาทำความเข้าใจกระบวนการและวิธีการทำงานใหม่ๆ เพื่อนำมาใช้เป็นแนวทางในการปรับปรุงการปฏิบัติงานให้ทันสมัยและมีประสิทธิภาพมากยิ่งขึ้น	5	4	3	2	1
3. ผู้บริหารของกิจการเชื่อมั่นว่าการทำงานเป็นทีมช่วยทำให้องค์กรสามารถเจริญเติบโตอยู่รอดมั่นคงได้ทั้งในปัจจุบันและอนาคต	5	4	3	2	1
4. ผู้บริหารของกิจการส่งเสริมบุคลากรให้มีส่วนร่วมในการกำหนดนโยบายและแนวทางในการดำเนินงานขององค์กร เพื่อสร้างเป้าหมายในการดำเนินงานร่วมกันมุ่งสู่ความสำเร็จอย่างต่อเนื่อง	5	4	3	2	1
การจัดการความรู้ทางบัญชี (Accounting Knowledge Management) 5. กิจการให้ความสำคัญกับการพัฒนาศักยภาพและความสามารถของบุคลากรทางการบัญชีในการบูรณาการความรู้ด้านการดำเนินงานทางการบัญชีจากหลายมิติ เพื่อสร้างสรรค์ความรู้ใหม่ๆ ในการกำหนดวิธีการดำเนินงานที่เกิดประโยชน์สูงสุดต่อกิจการ	5	4	3	2	1
6. กิจการสนับสนุนให้บุคลากรทางการบัญชีเข้าร่วมการฝึกอบรมเพื่อพัฒนาความรู้และทักษะทางด้านการบัญชีและการปฏิบัติงานอย่างต่อเนื่อง	5	4	3	2	1
7. กิจการเชื่อมั่นว่าประสบการณ์ทางการบัญชีที่ดีในอดีตจะเป็นแนวทางและพื้นฐานให้สามารถปฏิบัติงานบัญชีได้อย่างดีมีประสิทธิภาพ	5	4	3	2	1
8. กิจการสนับสนุนให้บุคลากรทางการบัญชีมีความคิดริเริ่มและสร้างสรรค์สิ่งใหม่ๆ ที่สามารถนำมาพัฒนาการปฏิบัติงานทางบัญชีให้เกิดศักยภาพสูงสุด	5	4	3	2	1
คุณภาพของระบบบัญชี (Accounting System Quality) 9. กิจการสนับสนุนให้มีการจัดทำคู่มือการบันทึกรายการทางบัญชีที่สอดคล้องกับความเป็นจริง และเป็นไปตามมาตรฐานการบัญชีที่กำหนด เพื่อให้เห็นถึงขั้นตอนในการจัดทำบัญชีของกิจการ	5	4	3	2	1
10. กิจการให้ความสำคัญกับคุณภาพของการจัดทำระบบบัญชี เพื่อให้สามารถกำหนดแนวทาง นโยบาย และวิธีการดำเนินงานทางบัญชีได้อย่างมีประสิทธิภาพมากยิ่งขึ้น	5	4	3	2	1

ตอนที่ 5 (ต่อ)

ปัจจัยภายในที่ส่งผลต่อศักยภาพการบัญชีบริหารเชิงกลยุทธ์	ระดับความคิดเห็น				
	มากที่สุด (5)	มาก (4)	ปานกลาง (3)	น้อย (2)	น้อยที่สุด (1)
11. กิจการเชื่อมั่นว่าการมีข้อมูลทางบัญชีที่มีคุณภาพซึ่งได้มาจากระบบบัญชีที่มีประสิทธิภาพ สามารถช่วยให้กิจการวางแผนการดำเนินงานได้มีประสิทธิภาพมากยิ่งขึ้น	5	4	3	2	1
12. กิจการมุ่งเน้นให้มีการจัดทำรายงานทางการเงินสำหรับผู้บริหารและผู้มีส่วนได้เสียได้เป็นอย่างดีผ่านระบบบัญชีที่มีประสิทธิภาพจะสะท้อนให้เห็นถึงผลการดำเนินงานขององค์กรอย่างเต็มที่	5	4	3	2	1
ความสามารถในการเรียนรู้ขององค์กร (Organizational Learning Capability)					
13. กิจการมุ่งเน้นให้ความสำคัญกับการรับรู้และการเรียนรู้ประเด็นหรือหัวข้อใหม่ที่เกิดขึ้นในการดำเนินงาน เพื่อนำมาใช้ในการปรับปรุงพัฒนาการดำเนินงานให้ดียิ่งขึ้น	5	4	3	2	1
14. กิจการสนับสนุนให้มีความแลกเปลี่ยนความรู้ เพื่อพัฒนาการดำเนินงานให้มีประสิทธิภาพมากยิ่งขึ้น	5	4	3	2	1
15. กิจการส่งเสริมให้มีการบูรณาการความรู้เดิมกับความรู้ใหม่ ซึ่งจะทำให้การดำเนินงานมีประสิทธิภาพดียิ่งขึ้น	5	4	3	2	1
16. กิจการสนับสนุนให้มีการเรียนรู้สิ่งใหม่ๆ อย่างต่อเนื่อง เพื่อพัฒนาการดำเนินงานอย่างมีประสิทธิภาพ ทั้งในระยะสั้นและระยะยาว	5	4	3	2	1
17. กิจการเชื่อมั่นว่าการเรียนรู้ในองค์กรเป็นสิ่งจำเป็น ที่รับประกันได้ว่ากิจการจะอยู่รอดในระยะยาวได้	5	4	3	2	1

ตอนที่ 6 ความคิดเห็นเกี่ยวกับปัจจัยภายนอกที่ส่งผลต่อศักยภาพการบัญชีบริหารเชิงกลยุทธ์ของธุรกิจผลิตสินค้าที่ได้รับ ISO9001

ปัจจัยภายนอกที่ส่งผลต่อศักยภาพการบัญชีบริหารเชิงกลยุทธ์	ระดับความคิดเห็น				
	มากที่สุด (5)	มาก (4)	ปานกลาง (3)	น้อย (2)	น้อยที่สุด (1)
ความกดดันของเทคโนโลยี (Technology Pressure)					
1. เทคโนโลยีสารสนเทศมีการเปลี่ยนแปลงอย่างต่อเนื่อง ทำให้กิจการต่างๆ ต้องมีการเรียนรู้ ปรับตัว และใช้ประโยชน์จากเทคโนโลยีดังกล่าวให้มีประสิทธิภาพมากที่สุด	5	4	3	2	1
2. ระบบเทคโนโลยีสารสนเทศในปัจจุบันมีการพัฒนาอย่างต่อเนื่อง ช่วยให้กิจการต่างๆ สามารถทำงานได้อย่างมีประสิทธิภาพและประสิทธิผลและบรรลุเป้าหมายที่วางไว้	5	4	3	2	1

ตอนที่ 6 (ต่อ)

ปัจจัยภายนอกที่ส่งผลต่อศักยภาพการบัญชีบริหารเชิงกลยุทธ์	ระดับความคิดเห็น				
	มากที่สุด (5)	มาก (4)	ปานกลาง (3)	น้อย (2)	น้อยที่สุด (1)
3. การเปลี่ยนแปลงอย่างรวดเร็วของเทคโนโลยีสารสนเทศ ส่งผลให้กิจการต่างๆ ต้องเรียนรู้และพัฒนาระบบสารสนเทศภายในองค์กรเพื่อเพิ่มความได้เปรียบในการแข่งขันอยู่เสมอ	5	4	3	2	1
4. ความก้าวหน้าของการพัฒนาเทคโนโลยีสารสนเทศ ส่งผลให้กิจการต่างๆ ต้องพัฒนาความสามารถของตนเองในการประยุกต์ใช้สารสนเทศนั้น เพื่อเพิ่มประสิทธิภาพในการปฏิบัติงานให้มากขึ้น	5	4	3	2	1
แรงผลักดันของผู้มีส่วนได้เสีย (Stakeholder Force) 5. ในปัจจุบันผู้มีส่วนได้เสียได้มีความคาดหวังอย่างมากในการดำเนินงานของธุรกิจ ทำให้กิจการต่างๆ ต้องทำความเข้าใจความต้องการของผู้มีส่วนได้เสีย เพื่อนำมาปรับปรุงวิธีการปฏิบัติงานให้มีประสิทธิภาพยิ่งขึ้น	5	4	3	2	1
6. หน่วยงานกำกับดูแลต่างๆ ได้มีการออกกฎ ระเบียบ ข้อบังคับที่เกี่ยวข้องมากขึ้น จึงทำให้กิจการต่างๆ ต้องมีการกำหนดแนวทางการปฏิบัติงานให้มีความชัดเจนมากขึ้น	5	4	3	2	1
7. ลูกค้าและมีผู้ส่วนเกี่ยวข้องอื่นๆ ต่างให้ความสำคัญกับการดำเนินงานของกิจการ ทำให้กิจการต่างๆ ต้องมีการพัฒนาและกำหนดแนวปฏิบัติงานที่นำไปสู่ความเป็นเลิศ	5	4	3	2	1
8. คู่ค้าทางธุรกิจได้ให้ความสำคัญกับการใช้สารสนเทศร่วมกัน ทำให้กิจการต่างๆ ต้องให้ความสำคัญกับคุณภาพของสารสนเทศมากขึ้น	5	4	3	2	1
ความวุ่นวายของการแข่งขัน (Competitive Turbulence) 9. สภาพการแข่งขันที่รุนแรงในปัจจุบัน ทำให้กิจการต่างๆ มุ่งมั่นในการสร้างแนวทางการดำเนินงานที่เป็นเลิศเพื่อความสามารถในการแข่งขัน	5	4	3	2	1
10. ปัจจุบันมีผลิตภัณฑ์ที่หลากหลายให้ลูกค้าเลือกสรร ทำให้กิจการต่างๆ ผลักดันให้มีการพัฒนาผลิตภัณฑ์ให้โดดเด่นเพื่อดึงดูดลูกค้า	5	4	3	2	1
11. คู่แข่งขันรายเก่าที่มีศักยภาพในการดำเนินงานมากขึ้น ส่งผลให้กิจการต่างๆ ติดตามการดำเนินงานของคู่แข่งเพื่อสร้างกลยุทธ์การแข่งขันที่เหนือกว่าได้	5	4	3	2	1

ตอนที่ 6 (ต่อ)

ปัจจัยภายนอกที่ส่งผลต่อศักยภาพการบัญชีบริหารเชิงกลยุทธ์	ระดับความคิดเห็น				
	มากที่สุด (5)	มาก (4)	ปานกลาง (3)	น้อย (2)	น้อยที่สุด (1)
12. คู่แข่งขันรายใหม่เพิ่มขึ้นจำนวนมาก ทำให้กิจการต่างๆ ต้องพยายามปรับปรุงการดำเนินงานอย่างต่อเนื่องในทุกๆ ด้าน เพื่อให้สามารถอยู่รอดได้ในระยะยาว	5	4	3	2	1
13. ความต้องการของลูกค้าที่มีการเปลี่ยนแปลงอย่างต่อเนื่อง ทำให้กิจการต่างๆ ตระหนักถึงความสำคัญของศักยภาพการบัญชีบริหารเชิงกลยุทธ์เพื่อตอบสนองความต้องการของลูกค้า	5	4	3	2	1

ตอนที่ 7 ข้อเสนอแนะและข้อคิดเห็นเพิ่มเติม

หากท่านมีข้อเสนอแนะเพิ่มเติมเกี่ยวกับการบริหารงานของธุรกิจผลิตสินค้าที่ได้รับ ISO9001 ในประเทศไทย เพื่อให้สามารถตอบสนองการเปลี่ยนแปลงของสภาพแวดล้อมทั้งภายในและภายนอกกิจการ หรือมีข้อเสนอแนะเกี่ยวกับแบบสอบถาม ได้โปรดเสนอแนะในช่องว่างข้างล่างนี้

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ขอขอบพระคุณเป็นอย่างสูงที่ท่านกรุณาสละเวลาตอบแบบสอบถามทุกข้อ
และได้โปรดพับแบบสอบถามและใส่ซองที่แนบมาพร้อมกันนี้ ส่งคืนผู้วิจัยตามที่อยู่ที่ได้ระบุ
หากท่านต้องการรายงานสรุปผลการสำรวจครั้งนี้โปรดแนบนามบัตรของท่านมาพร้อมกับแบบสอบถาม
ข้าพเจ้ายินดีจัดส่งรายงานสรุปให้แก่ท่านในภายหลัง

APPENDIX G

Cover Letter and Questionnaire: English Version

Questionnaire to the Ph.D. Dissertation Research
"Strategic Managerial Accounting Capability for Sustainable Goal Achievement: Empirical Evidence from ISO9001 Manufacturing Firms in Thailand"

Directions

This Research is a part of doctoral dissertation of Miss Chonthicha Thammavinyu at the Mahasarakham Business School, Mahasarakham University, Thailand. The objective of this research is to examine strategic managerial accounting capability for sustainable goal achievement of ISO9001 manufacturing firms in Thailand. The questionnaire is divided into 7 parts.

Part 1	Personal information about head of accounting department of ISO9001 manufacturing firms,
Part 2	General information about ISO9001 manufacturing firms,
Part 3	Opinion on strategic managerial accounting capability for sustainable goal achievement of ISO9001 manufacturing firms,
Part 4	Opinion on business outcomes of ISO9001 manufacturing firms,
Part 5	Opinion on internal environmental operation of strategic managerial accounting capability ISO9001 manufacturing firms,
Part 6	Opinion on external environmental operation of strategic managerial accounting capability ISO9001 manufacturing firms, and
Part 7	Recommendations and suggestions in strategic managerial accounting capability of ISO9001 manufacturing 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.

Do you want a summary of the results?
( ) Yes e-mail…… ( ) No

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, cell phone: 089-535-0110, or e-mail: chon.th11@gmail.com.

Sincerely yours,

(Chonthicha Thammavinyu)
Ph.D. Student
Mahasarakham Business School
Mahasarakham University, Thailand

<u>Part 1</u> Personal information about head of accounting department of ISO9001 manufacturing firms in Thailand

1. Gender

( ) Male ( ) Female

2. Age

( ) Less than 30 years old ( ) 30 - 40 years old
( ) 41 – 50 years old ( ) More than 50 years old

3. Marital status

( ) Single ( ) Married
( ) Divorced

4. Educational level

( ) Lower than bachelor's degree or equal
( ) Higher than bachelor's degree

5. Working experience

( ) Less than 5 years ( ) 5 - 10 years
( ) 11 - 15 years ( ) More than 15 years

6. Average monthly income at present

( ) Less than 75,000 Baht ( ) 75,000 - 100,000 Baht
( ) 100,001 - 125,000 Baht ( ) More than 125,000 Baht

7. Working position at present

( ) Accounting executive ( ) Accounting manager
( ) Other (Please specify).....

Part 2 General information about ISO9001 manufacturing firms in Thailand

10. Form of business

( ) Company limited ( ) Public limited company

11. Industrial category

( ) Agro and Food Industry ( ) Consumer Products
( ) Industrials ( ) Property and Construction
( ) Resources ( ) Technology
( ) Other (Please specify)…….....

12. Authorized capital of the firm

( ) Less than 50,000,000 Baht ( ) 50,000,000-100,000,000 Baht
( ) 100,000,001-150,000,000 Baht ( ) More than 150,000,000 Baht

13. Total assets of the firm

( ) Less than 50,000,000 Baht ( ) 50,000,000-100,000,000 Baht
( ) 100,000,001-150,000,000 Baht ( ) More than 150,000,000 Baht

14. Average sales revenue per year

( ) Less than 50,000,000 Baht ( ) 50,000,000-100,000,000 Baht
( ) 100,000,001-150,000,000 Baht ( ) More than 150,000,000 Baht

15. The period of time in operation

( ) Less than 5 years ( ) 5-10 years
( ) 11-15 years ( ) More than 15 years

16. Number of employees

( ) Less than 50 employees ( ) 50 - 100 employees
( ) 101 - 150 employees ( ) More than 150 employees

17. The main customers group of the business

( ) Domestic ( ) Overseas

18. The period of time in ISO9001 of business

( ) Less than 5 years ( ) 5-10 years
( ) 11-15 years ( ) More than 15 years

Part 3 Opinions on strategic managerial accounting capability of ISO9001 manufacturing firms

Strategic Managerial Accounting Capability	Level of Agreement				
	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
Cost Management Orientation					
1. Firm emphasizes to implement cost management techniques in preparation and presentation of managerial accounting information for cost estimation, pricing, and strategic planning.	5	4	3	2	1
2. Firm commit in develop cost allocation method and cost system for accurate costs, to be able to support decision-making efficiency.	5	4	3	2	1
3. Firm focus on the development of organizational capacity and capability to link the modern cost accounting techniques in accordance with strategic goal for competitive advantage.	5	4	3	2	1
4. Firm focus on the cost management system that can analyze cost behavior and customers need for maximize customer need and decision-making quality.	5	4	3	2	1
5. Firm believe that accurate cost and appropriate cost management system result on firm performance.	5	4	3	2	1
Resource Utilization Focus					
6. Firm focus on the analysis of the demands for resource management to achieve the optimal use of resources.	5	4	3	2	1
7. Firm concentrates on adequately resource allocation for each department to ensure the department's goal achievement.	5	4	3	2	1
8. Firm commit to develop guidelines for the allocation and resources uses to ensure maximum benefit of organization.	5	4	3	2	1
9. Firm encourage planning and sharing resource for internal and external organization to achieve business goals.	5	4	3	2	1
10. Firm focuses on analysis capacity and resource benefit of each department as a guideline for preparing budget to maximize firm performance.	5	4	3	2	1
Performance Evaluation Justice Awareness					
11. Firm focuses on the adoption of rules in performance evaluation that measure explicitly and disclosure to relevant person, to acceptance and success in short term and long term.	5	4	3	2	1

Part 3 (Continued)

Strategic Managerial Accounting Capability	Level of Agreement				
	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)
12. Firm believes that managerial accounting collect data on key performance measure, both financial and nonfinancial measures, result to accurate and fairness performance evaluation report.	5	4	3	2	1
13. Firm focus on the preparation and presentation of managerial accounting information to assess accuracy, transparency, and recognition from the employees.	5	4	3	2	1
14. Firm support the preparation of numerous performance evaluation report that congruence with working practice of firm for fairness and satisfaction to performance evaluation system.	5	4	3	2	1
15. Firm focuses on the application to evaluate the performance of justice in order to create incentives and successful firm's operational.	5	4	3	2	1
Information Mining Effectiveness 16. Firm commit to develop customer information collected information in the past, present, and future, that meet the customer need and support to long-term success.	5	4	3	2	1
17. Firm focuses on providing information system with a compound information between departments of the firm, providing complete information to efficiency decision-making.	5	4	3	2	1
18. Firm support the process of procurement, implement, and maintenance of information from internal and external company in order to obtain completely, accurately, and timely information in uncertainty environment.	5	4	3	2	1
19. Firm emphasizes on integration and link relevant information to support decision-making quality.	5	4	3	2	1
Business Process Linkage Interest 20. Firm believes that managerial accounting system linked business processes can support firm to sustainable goal achievement.	5	4	3	2	1
21. Firm commits to link business processes and the participation of all departments to achieve operational efficiency and effectiveness in short term and long-term operations.	5	4	3	2	1
22. Firm support to participation and consultation between departments to operate in the same way for efficient business operations.	5	4	3	2	1

Part 3 (Continued)

Operational Outcomes	Level of Agreement				
	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)
23. Firm focuses on the development of communication between departments. This will make the preparation and reporting of accounting information is accurately and timely, contributes to the benefit of the firm.	5	4	3	2	1
24. Firm emphasizes that business alliance and networking in the creative exchange of knowledge and innovation are help firm to gain the competitive advantage and best performance.	5	4	3	2	1

Part 4 Opinions on operational outcomes of ISO9001 manufacturing firms

Operational Planning Efficiency					
1. Managerial accounting information of the firm used for the implementation plan and budget effectively. Management accounting information to be used for the planning and budgeting effectively.	5	4	3	2	1
2. Firm use managerial accounting information for control operations as projected by the budget.	5	4	3	2	1
3. Firm has a quality planning, improving business benefit, value of the firm and competitive advantage.	5	4	3	2	1
4. Firm was planned in accordance with the goals and operate as the system.	5	4	3	2	1
5. Firm can plan their work properly and in accordance with the actual circumstances.	5	4	3	2	1
Internal Control Quality					
6. The process detecting errors in the operation of the firm was planned and controlled efficiently.	5	4	3	2	1
7. Firm evaluate internal controls reliably.	5	4	3	2	1
8. Firm has good internal control practices, prevent fraud, reduce waste, and cost savings in the management process.	5	4	3	2	1
9. Firm can integrate the methods and guidelines for management control in accordance with the planning and policy effectively.	5	4	3	2	1
10. Firm can prevent potential risks excellence.	5	4	3	2	1
Information Value Increase					
11. Firm has information in accurate and covers all activities related to the operations of the firm.	5	4	3	2	1
12. Firm has information that is different and varied, consistent with the objectives of every situation.	5	4	3	2	1

Part 4 (Continued)

Operational Outcomes	Level of Agreement				
	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)
13. Firm has database management to collected data, stored, and used in the operation of firm in present and future.	5	4	3	2	1
14. Firm can provide managerial accounting information for management decision-making as well.	5	4	3	2	1
15. Firm can provide managerial accounting information to stakeholders in a timely that meets the requirements defined and used.	5	4	3	2	1
Decision Making Success 16. Firm can analyze alternative solutions in competitive environment.	5	4	3	2	1
17. Firm can trade-off for maximize firm's value.	5	4	3	2	1
18. Firm can consider and make decisions effectively conducing the achievement of objective.	5	4	3	2	1
19. Firm has the potential business planning.	5	4	3	2	1
20. Firm can reasonable recognize the business problems.	5	4	3	2	1
Business Excellence Outstanding 21. Firm has continuous of organizational process improvement and continuous development, which can respond the environment as well.	5	4	3	2	1
22. Firm has management in accordance with goals achievement and prominent than competitors in the same industry.	5	4	3	2	1
23. Firm has potential and ability to operate in organizations with excellence and is difference from competitors.	5	4	3	2	1
24. Firm can produce quickly and can be defined by the plan as well.	5	4	3	2	1
25. Firm has information system to operate with a concrete systematic that lead to enhance accuracy, trustworthiness of information, and it will bring increase success to operations.	5	4	3	2	1
Sustainable Goal Achievement 26. Financial position and performance of firm are strong and stable and can perform continuously in the long-run.	5	4	3	2	1
27. Firm has the operating results increasing continued compared with results in recent years.	5	4	3	2	1
28. Firm has been recognized and well-known of business community about the continuous improvement for product quality.	5	4	3	2	1

Part 4 (Continued)

Operational Outcomes	Level of Agreement				
	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)
29. Firm has the growth rate or market share increasingly and trend to enhance steadily in the long-run.	5	4	3	2	1
30. Firm can innovate to produce new products, continued the business operate steadily.	5	4	3	2	1
31. Firm has the ability and potential to maintain growth and survive in the future under the current economic crisis and the future.	5	4	3	2	1

Part 5 Opinions on internal factor that influence to operational outcomes of ISO9001 manufacturing firms

Internal Environmental Operation	Level of Agreement				
	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)
Top Management Long-term Vision					
1. Firm executive believes in changing strategy and policy to match environmental change that will make sustainable growth.	5	4	3	2	1
2. Firm executive facilitates employees to learn and understand new procedure of doing work to use as guideline for improving moderns and efficiency of work process.	5	4	3	2	1
3. Firm executive believes in teamwork that can help business row and survive both in the present and future.	5	4	3	2	1
4. Firm executive encourages employees to participate in policy setting and operating direction of business to generate common goal toward sustainable achievement.	5	4	3	2	1
Accounting Knowledge Management					
5. Firm focus on the development and capabilities of the accounting personnel in the integrating knowledge of multiple dimensions in order to create new knowledge, determining how to maximize the performance of the firm.	5	4	3	2	1
6. Firm supporting activities for accounting personnel attend training to develop knowledge and skills in accounting and operations continued.	5	4	3	2	1
7. Firm believes that accounting experience in the past is a guide and basic accounting practices that could very well be effective.	5	4	3	2	1
8. Firm encourages accounting personnel to initiate ideas and innovate, that can be used to improve accounting operational.	5	4	3	2	1

Part 5 (Continued)

Internal Environmental Operation	Level of Agreement				
	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)
Accounting System Quality					
9. Firm support the preparation of accounting records in accordance with reality and accounting standard set out the procedure for the preparation of the accounts of the company.	5	4	3	2	1
10. Firm focuses on the quality of the preparation of the accounting system in order to determine the accounting policies and methods of operation more efficiency.	5	4	3	2	1
11. Firm believe that the quality of accounting information, which is derived from an accounting system that can effectively help businesses plan their operations more efficient.	5	4	3	2	1
12. Firm focuses on the preparation of financial reports for management and stakeholders as well through effective accounting system reflect the results of operations of the organization fully.	5	4	3	2	1
Organizational Learning Capability					
13. Firm focus on perceiving and learning new issues while working so as to improve its works.	5	4	3	2	1
14. Firm encourage sharing in order to work more effectively.	5	4	3	2	1
15. Firm support to integration of prior knowledge and new knowledge in order to work more effectively.	5	4	3	2	1
16. Firm promotes learning continuously to develop their work to be more effective both in short term and long term.	5	4	3	2	1
17. Firm believes that organizational learning is important for assure sustainable goal.	5	4	3	2	1

Part 6 Opinions on external factor that influence to operational outcomes of ISO9001 manufacturing firms

External Environmental Operation	Level of Agreement				
	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)
Technology Pressure					
1. The change in technology has an effect on firm's learning, understands, and adaptation of new know-how.	5	4	3	2	1
2. The current information technology systems are constantly evolving to help firm to work efficiently, effectively, and achieve goals.	5	4	3	2	1

Part 6 (Continued)

External Environmental Operation	Level of Agreement				
	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)	Strongly Agree (5)
3. The rapid change of information technology effect firm to learn and develop information system within organization to maximize the competitive advantage.	5	4	3	2	1
4. The advancement of information technology effect firm to develop their skill and implement information technology to improve performance and increase efficiency.	5	4	3	2	1
Stakeholder Force 5. Stakeholders have expectations for the operation of the business sector to understand the needs of the stakeholders to improve accounting practices to be more effective.	5	4	3	2	1
6. Regulatory agencies have issued regulations that make firm setup activities of the managerial accounting proactive to be more accurate.	5	4	3	2	1
7. Customer and other stakeholders focus on firm performance that increase operational practice to best performance.	5	4	3	2	1
8. Business partners and suppliers focus on sharing information then firm more focus on information quality.	5	4	3	2	1
Competitive Turbulence 9. Competitive environment in the present which is changed continuously leads firms to seek the business excellence practice in order to competitive advantage.	5	4	3	2	1
10. A variety of products in present leads firms to developing products that stand out to customers.	5	4	3	2	1
11. Competitors have the best performance, firm can follow the implementation of the competition to create a superior competitive strategy.	5	4	3	2	1
12. Increasing in new competitors leads firms to improve operation for sustainability.	5	4	3	2	1
13. Change in various customers requirement and uncertainty environment leads firm to emphasize the quality of managerial accounting capability.	5	4	3	2	1

<u>Part 7</u> Recommendations and suggestions in strategic managerial accounting capability for sustainable goal achievement of ISO9001 manufacturing firms in Thailand

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Thank you for your time and attention to this matter. Please fold and return in provided envelope and return to me. If you desire a summary report of this study, please supply with this questionnaire. The summary will be mailed to you upon the completion of data analysis.

APPENDIX H

Letters to the Experts

บันทึกข้อความ

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

ที่ ศธ.0530.10/ **วันที่** 20 มีนาคม 2557

เรื่อง ขอเรียนเชิญเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัย

เรียน อาจารย์ ดร.ศรัญญา รักสงฆ์

ด้วย นางสาวชลธิชา ธรรมวิญญู นิสิตระดับปริญญาเอก หลักสูตรปรัชญาดุษฎีบัณฑิต (ปร.ด.) สาขาวิชาการบัญชี คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม กำลังศึกษาวิทยานิพนธ์ เรื่อง "ศักยภาพการบัญชีบริหารเชิงกลยุทธ์และการบรรลุเป้าหมายอย่างยั่งยืน: หลักฐานเชิงประจักษ์จากธุรกิจผลิตสินค้าที่ได้รับ ISO 9001 ในประเทศไทย" ซึ่งเป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปรัชญาดุษฎีบัณฑิต ดังนั้น เพื่อให้การดำเนินการเป็นไปด้วยความเรียบร้อยและบรรลุตามวัตถุประสงค์ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม จึงใคร่ขอความอนุเคราะห์จากท่านเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัยและข้อเสนอแนะเพื่อนำข้อมูลที่ได้ไปดำเนินการทำวิทยานิพนธ์ต่อไป ตามเอกสารแนบท้าย

จึงเรียนมาเพื่อโปรดพิจารณา

(รองศาสตราจารย์ ดร.ปพฤกษ์บารมี อุตสาหะวาณิชกิจ)
คณบดีคณะการบัญชีและการจัดการ

บันทึกข้อความ

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

ที่ ศธ.0530.10/ **วันที่** 20 มีนาคม 2557

เรื่อง ขอเรียนเชิญเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัย

เรียน อาจารย์ ดร.เกสินี หมื่นไธสง

ด้วย นางสาวชลธิชา ธรรมวิญญู นิสิตระดับปริญญาเอก หลักสูตรปรัชญาดุษฎีบัณฑิต (ปร.ด.) สาขาวิชาการบัญชี คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม กำลังศึกษาวิทยานิพนธ์ เรื่อง "ศักยภาพการบัญชีบริหารเชิงกลยุทธ์และการบรรลุเป้าหมายอย่างยั่งยืน: หลักฐานเชิงประจักษ์จากธุรกิจผลิตสินค้าที่ได้รับ ISO 9001 ในประเทศไทย" ซึ่งเป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปรัชญาดุษฎีบัณฑิต ดังนั้น เพื่อให้การดำเนินการเป็นไปด้วยความเรียบร้อยและบรรลุตามวัตถุประสงค์ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม จึงใคร่ขอความอนุเคราะห์จากท่านเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัยและข้อเสนอแนะเพื่อนำข้อมูลที่ได้ไปดำเนินการทำวิทยานิพนธ์ต่อไป ตามเอกสารแนบท้าย

จึงเรียนมาเพื่อโปรดพิจารณา

(รองศาสตราจารย์ ดร.ปพนกษ์บารมี อุตสาหะวาณิชกิจ)
คณบดีคณะการบัญชีและการจัดการ

APPENDIX I

The Acceptance Letter for Publication from International Academy of Business and Economics (IABE)

IABE® International Academy of Business and Economics®
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Admin@iabe.org

Date: JULY, 28 , 2014 **JIBE-2014 LAS VEGAS**

To: Chonthicha Thammavinyu, Phaprukbaramee Ussahawanitchakit, Sutana Boonlua

Re: Paper:

STRATEGIC MANAGERIAL ACCOUNTING CAPABILITY FOR SUSTAINABLE GOAL ACHIEVEMENT: A CONCEPTUAL FRAMEWORK

Dear Authors,

Congratulations! On conclusion of the double-blind review process, your paper is accepted for publication in ***Journal of International Business and Economics***® (JIBE). The JIBE is a refereed publication listed in Cabell's Directories 2004-14 Editions and in Ulrich's International Periodicals Directory since 2003. The JIBE is sponsored by the Mahasarakham Business School, Mahasarakham University, Thailand. The JIBE is available online at the EBSCO Publishing in the Business Complete Listing and at the Gale/ Cengage Publishing. The journal will soon be available with the SCOPUS.

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Please feel free to contact me at admin@iabe.org , mgavriletea@yahoo.com

Best Regards,

Marius Gavriletea
Marius Gavriletea, Ph.D.
IABE Vice President
LAS VEGAS Program Chair

CURRICULUM VITAE

CURRICULUM VITAE

NAME	Miss Chonthicha Thammavinyu
DATE OF BIRTH	November 11, 1975
PLACE OF BIRTH	Phranakorn Sri Ayutthaya, Thailand
ADDRESS	57/4 Soi Sucharit, Rama V Road, Suan Chittralada Sub-District, Dusit District, Bangkok Province, Thailand, 10300
POSITION	Lecturer
PLACE OF WORK	Mahasarakham Business School, Mahasarakham University Khamriang Sub-District, Kantarawichai District, Maha Sarakham, Thailand, 44150.

EDUCATION

1998	Bachelor of Business Administration (Accounting), Rajamangala Institute of Technology, Bangkok, Thailand
2002	Master of Accountancy (Managerial Accounting), Chulalongkorn University, Bangkok, Thailand
2004	Bachelor of Education (Educational Technology and Communications), Sukhothai Thammathirat Open University, Nonthaburi, Thailand
2013	Master of Science (Information Technology), King Mongkut's University of Technology Thonburi, Bangkok, Thailand
2014	Doctor of Philosophy (Accounting), Mahasarakham University, Maha Sarakham, Thailand

RESEARCH

2013	Thammavinyu, C. and Ussahawanitchakit, P., "Best Management Control System and Firm Excellence: Electrical Appliances and Electronic Parts Business in Thailand", International Journal of Business Strategy, 13(3), p.107-126, 2013.

Table 15: Summary of the Results of Hypotheses Testing (Continued)

Hypothesis	Description of Hypothesized Relationships	Results
H24c	Organizational learning capability will positively moderate the relationship between performance evaluation justice awareness and sustainable goal achievement.	Supported
H24d	Organizational learning capability will positively moderate the relationship between information mining effectiveness and sustainable goal achievement.	Not Supported
H24e	Organizational learning capability will positively moderate the relationship between business process linkage interest and sustainable goal achievement.	Not Supported