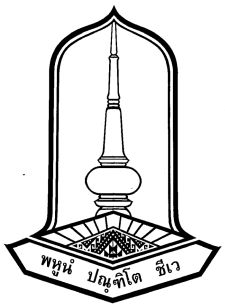

ACCOUNTING INFORMATION SYSTEM QUALITY AND BUSINESS GOAL ACHIEVEMENT: AN EMPIRICAL EVIDENCE FROM AUTO PARTS SMEs IN THAILAND

BY

NUTCHAJARIN LOHAPAN

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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The examining committee has unanimously approved this dissertation, submitted by Miss Nutchajarin Lohapan, as a partial fulfillment of the requirements for the degree of the Doctor of Philosophy in Accounting at Mahasarakham University.

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ABSTRACT

Accounting information system is one of the most effective decision making tools in dealing with this complexity and uncertainty environment. Accounting information, which gains from the effective accounting information system, may help managers to have the more clearly and reduce uncertainty before making decisions. The lack of accounting information quality will jeopardize the competitive advantage. It is not surprising that several large enterprises have adopted accounting information systems to support their businesses' operational. Furthermore, the requirements of the law determine whether small and medium enterprises are responsible for preparing the financial statements and paying taxes to the government, so, these businesses need to prepare financial reports as such as large enterprises too. Therefore, in small and medium sized enterprises this topic is very interesting. And there have quite few of empirical evidences in the area of accounting information system quality in the context of SMEs in Thailand. Hence, to bridge the gap of this research, the main research objective aims to investigate the relationships between accounting information system quality and business goal achievement. Furthermore, the effects of accounting information system quality's antecedents are investigated. Moreover, this research technology acceptance is the moderator of the relationships between antecedent variables and accounting information system quality. Data was gathered from the database of the Office of SMEs Promotion (OSMEP), and 1,093 firms are designated as population and samples. Mailed-questionnaire is operated as data collection instruments. 243 returned questionnaires are used in this analysis, and ordinary least square regression analysis is operated to test all postulated hypotheses.

The results indicate that accounting information reporting integration has a significant positive influence on valuable decision making, information usefulness effectiveness, and business goal achievement. The next sequential are accounting transaction linkage competency and best accounting practice efficiency which have a significant positive influence on accounting information advantage, valuable decision making, and business goal achievement, respectively. In addition, accounting information trust orientation and accounting information auditing capability have significantly and positively affects accounting information advantage and information usefulness effectiveness, respectively. Furthermore, accounting information advantage significantly and positively affects valuable decision making, information usefulness effectiveness, and business goal achievement. Meanwhile, information usefulness effectiveness has a positively impacted on business goal achievement, but valuable decision making does not. For the antecedents, the results demonstrated that information management leadership, information technology resource, and technology munificence growth are the top three important variables, while modern accounting knowledge, and top management support seem have problems in SMEs context. For the moderating effects, the results show that technology acceptance has two positive effects, firstly, on the relationship between information management leadership and best accounting practice efficiency, and secondly, on the relationship between information technology resource and accounting information trust orientation.

The main theoretical contribution is to expand the knowledge between IS and accounting disciplines based on the information richness theory. This research also contributes to organizations through highlighting that the higher degree of accounting information system quality lead to the more of accounting information advantage, valuable decision making, and information usefulness effectiveness, which ultimately to meet the business goal achievement. The further research should examine the effects of moderators in the different perspective or posit other moderator variables such as, level of firms' technology acceptance, and the characteristic of organizations such as defenders or prospectors should be concentrated.

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CHAPTER I

INTRODUCTION

Overview

The small and medium enterprise (SME) sectors are considered and recognized by governments and economists as the mechanism to create national growth (Ismail and Othman, 2014). The key component of SMEs, in the dynamic environmental, are flexibility and responsiveness of SMEs to response the changeable customers' demand (Hunter and Long, 2003). By the year 2016, the office of SME promotion, which is the organization of SMEs in Thailand, illustrated that the SME sector is expected to contribute a GDP SMEs 5-6%. It represents 43-44% of nationality GDP. In the year 2017, it is estimated that the GDP of SMEs will grow by at least 5.5% to 6% (The office of SME promotion (OSMEP: https://www.sme.go.th; searched on January 14, 2017). These data reveals that SMEs are the core sector which driven economics growth of Thailand. Auto parts businesses, especiallyauto parts SMEs, are expected to be an important driving factor to address the challenge of job creation, sustainable economic growth, equitable distribution of income and the overall stimulation of economic development in Thailand (https://www.sme.go.th; searched on September 15, 2017). In addition, the department of industrial promotion, have planned to accelerate the small and medium enterprises (SMEs) in the auto parts industry, hoping to increase their competitiveness to international standards, because of the auto parts of Thailand is the leading automotive manufacturing base in ASEAN, and its manufacturing standards are at a level that global automotive manufacturers recognize (https://www.dip.go.th; search on December 20, 2017). Furthermore,the nature of automotive businesses the quality of information is the key component in generating the superior performance, thus these businesses are intensively focus on cost management effectiveness (Laosirihongthong, Teh, and Adebanjo, 2013). Thus, information is very essential for the survival of all organizations including SMEs, especially in the context of highly knowledge – based economy (De Guinea et al., 2005).

Nowadays, the increasing of products, services, markets, and competition has risen and, these, lead to the more need for flexibility, quality, cost effectiveness, and timeliness in managing in this situation (Hunter and Long, 2002). Therefore, an effectively information system, especially accounting information system, is a key resource which lead to attain firms' requirements (De Guinea et al., 2005), particularly accounting information systems (Mitchell et al., 2000). Accounting information system is an essential tools to support firms' operational and can help firms, include SMEs, manage both short – term and long – term problems by providing valuable information to support, monitor and control firms' business activities. Accounting information system can help SMEs handle in the changeable and high competitive environmental to integrate operational considerations within long-term strategic plans by planning and decision-making in suitable way which lead firm to the success. Therefore, accuracy and available accessibility of financial accounting, seems to be an importance of competitive advantage characteristic, in intensively competitive conditions. Hence, valuable information is a precious resource of firms, because of it is very essential component, which lead to the firms' survival (Doinea et al., 2011).

Accounting information system is defined as a computer-based-assisted system which is comprised the functions of data – gathering, processing, categorizing, and reporting to generate the relevant information for supporting decision tasks. At the same time, accounting information system is defined as a computer- based system which collection the data across all departments, processing data, controlling, reporting, and support decision making (Nicolaou, 2000). Therefore, it seems that, the more advancement of technology, the more importance of accounting information systems. Accounting information system is one part of the management information system that gathers, classifies, and complies data for both internal and external decision-making addressed by the American Accounting Association (AAA). Hence, the accounting information system is important and widely-used in the accounting profession (Ismail, 2007; Marriot and Marriot, 2000; Riemenschneider and Mykytyn, 2000). Several firms need to employ accounting information for the organizational' success (Dastgir et al., 2003; Ismail, 2009).

Accounting information system quality reflects an approach to the process which will provide quality information for planning and decision-making, and

ultimately achieve the goals of the organization. Based on the aforementioned theories, various studies confirmed that AIS quality can contribute to the development of organizational abilities that help firms to complete their competitive advantage and performance (Bhatt and Grover, 2005; Montealegre, 2002; Tarafdar and Gordon, 2007). Accounting information system quality refers to the system that involves the collection, processing, and preparation of data by using a computer (computer-based systems) to link the accounting transaction, comprehensively reporting of accounting information, tracking and monitoring the activities of the organization, and focusing on establishing the reliability of accounting information to provide valuable information to the organization. This research develops a construct of accounting information system quality that is comprised of five dimensions including: 1) accounting transaction linkage competency, 2) accounting information reporting integration, 3) accounting information trust orientation, 4) best accounting practice efficiency and 5) accounting information auditing capability.

In the advancement of technology and high competitive environment, several organizations continue to increase spending and allocating budgets for their information system. Accounting information systems is one of the information system which generate information for both of inside and outside relevant users. Information technology is essential for accounting information system for generating quality of information. It will hinder from competitive advantage, in the firms that without the implement of accounting information system. For this reasons, several firms have focused on information system development in the areas of decision – support system, communication, and knowledge management of their firms.

An information systems, such as a point-of-sale system, electronic commerce system, and enterprise resource planning system are efficient solutions that companies apply to sustain their business information processing, and cope with environmental instability as well as global business competition. A variety of empirical research has revealed that firms with a higher degree of information system competencies will have a higher degree of firm performance and business value creation (Anderson, Jolly, and Fairhurst, 2007; Choe, 2004.;Nicolaou, 2000; 2002). Therefore, one can see that almost every business has used accounting information systems. Several firms have invested in information technology but they do not succeed in attaining the established performance

goals (Grande et al., 2011). Therefore, the success of the organization cannot be guaranteed by the accounting information system because the quality of the accounting information systems of each business is different. Conforming to the continuous development of information technology, the computer-based system is implemented business processing in most large and medium-sized enterprises. Transaction data is electronically recorded in an organization's database (Konthong, Sangboon, and Srimuangtong, 2015). So, it is not surprising that many large organizations will have to invest in accounting information systems.

The requirements of the law determine whether small and medium enterprises are responsible for preparing the financial statements and paying taxes to the government, so, these businesses need to prepare financial reports. For this reason, accounting information system is necessary and used in various businesses to assist in supporting managerial' task and lead to the effectively performance. It is not surprising that several large enterprises have adopted accounting information systems to support their businesses' operational. Comply with, the requirements of the law which determine that whether small and medium enterprises are responsible for preparing the financial statements as such as large enterprises, so, these all businesses need to prepare financial reports. Therefore, in small and medium – sized enterprises this topic is very interesting. And there have quite few of empirical evidences in the area of accounting information system quality in the context of SMEs in Thailand. Hence, to bridge the gap of this research, lead to the main research objective is to investigate the relationship between accounting information system quality and business goal achievement. Furthermore, in the highly innovative information technology era, small firms will gain the most advantage and the most competitive form the use of information technology (Pratt, 2002). Nowadays, large firms are down-sizing to micro firms, although accounting information system are used to manage their firms' operational (Lim, 2013).

The quality of information is important to help businesses succeed over competitors. The information which is provided by each accounting information system of each firm is different, because it depends on the quality of the accounting information system of each firm. Hence, in the rapidly change environmental, especially in the intensively information technology revolution, the adaptation is the most importance ability of SMEs, which lead SMEs to meet their goals. Nowadays, information

technology is an essential topic, which is considered in many SMEs. In the advancement of technology, adoption and implementation information technology, will increase firms' competitive advantage (Harash et al., 2014). Prior studies show that large companies were more likely to use accounting information system than SMEs, although most of the literature was not specific to SMEs (Ali et al., 2012; Amidu et al., 2011; Grande et al., 2011; Ismail, 2007; Ismail and King, 2005). Therefore, this research attempts to investigate the accounting information system quality of small and medium enterprises. Moreover, in the context of Thailand, the research of accounting information system quality in small and medium enterprises has a relatively small number of studies.

According to the information richness theory, information richness is defined by Daft and Lengel (1986) as the ability of information to change understanding within a time interval. The first assumption of this theory is that organizations process information to reduce uncertainty and ambiguous (Daft and Lengel, 1986). Hence, the concept of information richness in this research refers to the quality of the information that is produced by accounting information system quality. And then, if the quality of information increases, uncertainty and equivocality will decrease. Poor accounting information will decrease the management efficiency and ultimately lead to misunderstanding and inefficiency decision making (Shuhidan et al., 2015).

The contingency theory and information richness theory are used to support this research. In general, the contingency theory is employed to explain that when the internal organization design are proper alignment and congruence with external factors, these lead the firms to have the superior performance (Alberto and Sharma, 2003). The contingency theory has a wide interest in the research of management and accounting information systems, which concentrates on both of internal and external influencing factors that affect organizational management (Chenhall, 2003). Therefore, the concept of contingency theory is the suitable fit between organizational strategic and external environmental, which lead to enhance the organization performance and ultimately attains organization goals. For this reason, accounting information system quality is one of the most crucial strategies which lead organizations to attain their goals.

According to the contingency theory and information richness theory, the main hypotheses proposed that accounting information system quality has a positive effect on

business goal achievement. For the antecedents of accounting information system quality, this research assigns information management leadership, top management support, information technology resource, modern accounting knowledge, and technology munificence growth as the antecedents, and the contingency theory is applied to support this relationship. Moreover, this research assigns technology acceptance as the moderating factor affecting the relationships between the antecedents and accounting information system quality. Further, the contingency theory is applied to explain this relationship as well.

The contribution of this research is the obtaining of integration knowledge of accounting information system and accounting disciplines. This research not only investigates the relationships between accounting information system quality and business goal achievement, but also investigates influences the antecedents of accounting information system quality. Consequently, the results of this research may contribute to managerial practice concentrating on accounting information system implementation and the usefulness of accounting information system to attain business goal achievement in small and medium-sized enterprises (SMEs).

Purpose of the Research

The main purpose of the research is to examine the effects of accounting information system quality which includes accounting transaction linkage competency, accounting information reporting integration, accounting information trust orientation, best accounting practice efficiency and accounting information auditing capability on business goal achievement. In addition, the specific research purposes are as follows:

1. To investigate the effects of each dimension of accounting information system quality on accounting information advantage, valuable decision-making, information usefulness effectiveness, and business goal achievement.

2. To examine the effects of accounting information advantage on valuable decision-making and information usefulness effectiveness.

3. To scrutinize the effects of accounting information advantage, valuable decision-making and information usefulness effectiveness on business goal achievement.

4. To investigate the antecedents which include information management leadership, top management support, IT resources, modern accounting knowledge, and technology munificence growth on each dimension of accounting information system quality.

5. To examine the moderating effects of technology acceptance on the antecedents and accounting information system quality relationships.

Research Questions

The key research question of this research is, "How does accounting information system quality (accounting transaction linkage competency, accounting information reporting integration, accounting information trust orientation, best accounting practice efficiency and accounting information auditing capability) have an influence on business goal achievement?" Also, specific research questions are presented as follows:

1. How does each dimension of accounting information system quality affect accounting information advantage, valuable decision-making, information usefulness effectiveness, and business goal achievement?

2. How does accounting information advantage affect valuable decision-making and information usefulness effectiveness?

3. How do accounting information advantage, valuable decision-making and information usefulness effectiveness affect business goal achievement?

4. How do information management leadership, top management support, information technology resources, modern accounting knowledge, and technology munificence growth affect each dimension of accounting information system quality?

5. How does technology acceptance moderate information management leadership, top management support, information technology resources, modern accounting knowledge, and technology munificence growth – each of which is a dimension of accounting information system quality relationships?

Scope of the Research

This research concentrates on the accounting information system quality of the auto parts SMEs in Thailand that helps firms achieve their business goal. The heads of accounting departments of auto parts SMEs were the key informants of this research. Small and Medium Enterprises (SMEs) are important sector that generate jobs creation and stimulate economic growth. Furthermore, they play a vital role as the key driven sector which accelerate innovation and growth (Ali, Rahman, and Ismail, 2012; Harash et al., 2014). SMEs, especially in auto parts, are expected to be an important driving factor to address the challenge of job creation, sustainable economic growth, equitable distribution of income and the overall stimulation of economic development in Thailand, (https://www.sme.go.th; searched on September 15, 2017). Because of the auto pasts of Thailand is the leading automotive manufacturing base in ASEAN, and its manufacturing standards are at a level that global automotive manufacturers recognize, therefore, the department of industrial promotion, have planned to accelerate the small and medium enterprises (SMEs) in the automotive parts industry, to increase their competitiveness to international standards, (https://www.dip.go.th; search on December 20, 2017). For the aforementioned reasons, the auto parts SMEs business is suitable and is chosen as the sample of this research.

Accounting information system quality is an essential and valuable resource of the firm, which leads the firm to meet its business goal. Interestingly, this research focuses on how accounting information system quality influences on business goal achievement via the mediator variables such as accounting information advantage, valuable decision-making, and information usefulness effectiveness. Besides, the investigation of the relationship between the antecedents and accounting information system quality is included. Additionally, this research posits that technology acceptance has a moderating effect on the antecedents and accounting information system quality relationships. For the accounting information system quality construct, there are five dimensions. Figure 1 shows the relationships between accounting information system quality and business goal achievement.

First, accounting transaction linkage competency refers to the ability of the system for the collection, classification, clustering information about the accounting

information that includes the related business transaction from several functions within the organization and the correct record of a financial statement based on generally accepted accounting principles. The accounting recording is a function of gather data from day-to-day business transactions, furthermore, it may include recording of firms asset and firms liabilities. These function help the firms to evaluate their performance at the end of financial period. Accuracy and proper record- keeping will provide the evidence and ensure that all business transactions are complied with the accounting standards (Reed, 2010).

Second, accounting information reporting integration is the ability of the system to report data covering all business operations of the company in the both of the financial and non-financial information and both of the internal and external circumstance to meet all the requirements of the accounting data and the enhancement of understanding of the relevant users. The capability for aggregating and slicing information is also achieved to create an overacting value across function areas. Hence, accounting information reporting integration is able to aggregate data and represent it in a way that managers can evaluate and use the information for their decisions (O' Donnell and David, 2000). The combination of accounting information system reaches the coordination in an organization which, in turn, increases the quality of decisions

Third, accounting information trust orientation refers to the ability of system to process information by emphasizing on providing faithful information which is a representation of economic substance, free from bias, conservatism and completeness. Thus, information trust is an essential characteristics of reliability of financial report, because of there are many groups of users, who uses accounting information. Therefore, inefficiency decision making will occur, if the information trust of any firms seem to be weak.

Fourth, best accounting practice efficiency refers to the ability of system to choose the optimum way in which firms are to carry out their best function, suitable procedures, policies based on generally accepted accounting principles and comply with the accounting standards, which the aforementioned approach will help to improve the efficiency of firms' accounting functions. Accounting practice can increase trust in the system (Van der Meer and Vosselman, 2000) and at the same time, trust has the potential of ensuring proper function of the accounting system and control (Colwyn,

Jones, and Dugdale, 2001). Therefore, understanding of a manual system will help managers clearly insight the interrelationships between accounting data and report which are obtained from accounting information system.

Finally, accounting information auditing capability refers to the system proficiency in monitoring, tracking, verifying and reviewing all accounting activities to generate accounting information which helps to ensure that accounting data from various processes are accurate, transparent, and verifiable. In the advancement of technology era, the task of recording business transactions, processing data, and reporting are automated. Hence, the monitoring, and traceability process is more essential component, which to ensure the reliability of financial report, for this reason, these processes should be combined into accounting information system (Yang, Lin, and Koo, 2011). Effective accounting information auditing capability can minimize the opportunity for fraudulent activity in the firms and affect the quality of information (Dwiputrianti, 2011; Lehmann, 2010).

Based on the afore mentioned theories, this research hypothesizes that accounting information system quality has positive effects on accounting information advantage, valuable decision-making, information usefulness effectiveness and business goal achievement. For the antecedents of accounting information system quality, the investigation posits information management leadership, top management support, information technology resources, modern accounting knowledge, and technology munificence growth as the antecedents.

First, in information management leadership, the concept of information leadership can be used both for describing the activity of leading the development and using information resources and infrastructures in the organization (Huvila, 2014). Therefore in this research, information management leadership refers to the managerial ability in motivating, developing and using information resource and infrastructures to manage information to sustain their business objective achievement.

Second, top management support refers to management's participation in the action involvement to provide the ways in which organization encourages employee participation, continuously develops system, allocates of organization resources, and necessary resource provision to facilitate business process. Management support is reflected in the area of encouragement, allocating resource, and resource provision to response the vital need of the firms (Gallivian, 2001).

Third, information technology resources refers to the existed IT infrastructures and IT investment in any organization's IT budget, in terms of both monetary and intellectual resources. The competencies of accounting information system may occur when exists information system, including hardware, software, people, and data, will be retained and must be integrated with and applied to accounting information system leading to the enhancement of the quality of the accounting information system (Bradford and Florin, 2003).

Fourth, modern accounting knowledge is definedas an organizational orientation in the mixture of a new knowledge, related issued of newly relevance accounting standards, novel accounting processes and latest accounting techniques to support the management of the organization to have the ability to manage and contribute to a competitive advantage.Modern accounting knowledge is one of the organizational capabilities in surviving dynamic and competitive environments. Therefore, insight understanding of dynamic accounting knowledge, no matter, concept, structure, and techniques, these help the firms up-to-date their business operations (Moss, Klinefelter, and Gunderson, 2012).

Finally, technology munificence growth refers to the progress and forward change of technology which affect the ability of vital resources to firms that derived from the advancement of technology to support growth. Growth of information technology also supports an organization when it decides to choose the best coordination mechanisms and implement them into organizational systems. To deal with this rapid growth, firms need to continuously modify their processing systems to absorb supreme benefit from technology innovation (Auh and Mengue, 2005).

A questionnaire survey is used for collecting primary data. Statistical techniques in research, including descriptive statistics, correlation analysis, and regression analysis are used for testing the postulated hypotheses. As a result, this research hypothesizes that there are positive relationships between accounting information system quality and its mentioned antecedents. Additionally, this research postulates that technology acceptance has a moderating effect on the antecedents and AIS quality relationships.

In conclusion, the scope of this research consists of three major parts. The first is to investigate the effect of accounting information system quality on accounting

information advantage, valuable decision-making and information usefulness effectiveness. The second examines the influence of accounting information advantage, valuable decision-making and information usefulness effectiveness on business goal achievement. The third examines the relationship between the antecedents and accounting information system quality along with its moderating effects (technology acceptance).

Organization of the Dissertation

This research is organized in five chapters. Firstly, chapter 1 presents an overview and the motivation of this research, purposes of the research, research questions, and scopes of the research. Following this, chapter 2 consists of a review of the relevant literature detailed on all constructs in the conceptual model, definitions of each construct, and the relationships between constructs with the supported theoretical framework to postulate some related hypotheses for empirical testing. Next, chapter 3 demonstrates the research method, including population and sample selection, data collection procedures, variable measurements of each construct, and statistic equations to test the hypotheses. In addition, the examinations of validity and reliability and non-response bias testing are included to ensure that the results of this research are reliable. Chapter 4 explains the results of this research along with the discussions. Finally, chapter 5 explains the conclusion, limitations, implication for management, and suggestions for future research.

CHAPTER II

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Information system quality has been considerably recognized in the area of computer science and information technology research. Prior research evaluated the influences of IS quality on organizational capabilities and firm performance. The empirical results indicated that IS quality can be heightened to mark the efficiency of firm operations and firm performance. However, there is a lack of studies that specify accounting information system contexts, especially in the area of small and medium-size enterprises in Thailand. As a result, this research sheds light on how to improve the accounting outcomes, such as accounting information advantage, valuable decision-making and information usefulness effectiveness, potentially derived from accounting information system quality. Accordingly, the improvements of accounting outcomes are the drivers of attaining business goal achievement. The developed conceptual model in this research is theoretically supported by the contingency theory and information richness theory. Thus, this chapter presents a review of previous studies and relevant literatures detailed in accounting information system quality and other constructs in the conceptual model, definitions of each construct, and the authoritative theories. Also, the linkages of the constructs and hypotheses development are discussed.

Theoretical Foundation

From the prior research, the various research in the area of accounting information system quality were usually deployed resource based view (RBV) as the main theoretical to explain the relationships between accounting information system quality and its consequences. The resource-based view of the firm (RBV) is a theoretical framework that explains how firms achieve their competitive advantage and sustainability (Penrose, 1959; Barney, 1991). RBV argues that firm is understood to be a bundle of unique resources that can be acquired for its competitive advantage and sustainability. Firm resources include all assets, capabilities, organization processes, firm attributes information, technology, skill and knowledge, etc; controlled by a firm

that causes the firm to conceive of and implement strategies to improve its efficiency and effectiveness (Daft, 1983). An important firm resource is its accounting information system quality. Accounting information system quality reflects the firm's philosophy of how to conduct its accounting process through a deeply rooted set of values and beliefs that provide the information usefulness to make the best decision and achieve superior performance in the end. Therefore, information is a business resource: it is vital to the survival of contemporary business organization, (Doinea et al., 2011). However, the new perspective which is deployed to explain the relationships between accounting information system and its consequences in this research is used information richness theory as a main theoretical. Because of the quality of information which are obtained from the accounting information system quality refers to the richness of information. Therefore, the theoretical which deployed in this research are information richness theory which employs to explain the accounting information system quality and its consequences, and contingency theory, which employs to explain the antecedent's variables and accounting information system quality.

Information Richness Theory

Information richness theory is sometimes referred to as the Media Richness Theory. This framework is used to describe a communication medium's ability to reproduce the information sent over to it. The communication media has varied capacities for resolving ambiguity, negotiating varying interpretations, and facilitating understanding. Because people want to overcome equivocality and uncertainty in organizations, and a variety of media commonly used in organizations work better for certain tasks than others are the two main assumptions of this theory (Daft and Lengel, 1984).

Information richness is defined by Daft and Lengel (1986) as the ability of information to change understanding within a time interval. The first assumption of this theory is that organizations process information to reduce uncertainty and equivocality (Daft and Lengel, 1986). Uncertainty is defined as the difference between the amount of information required to perform the task and the amount of information already possessed by the organization. Equivocality caused by conflicting interpretations about a group situation or environment. Therefore, when equivocality is high, an individual

does not know what questions to ask and when uncertainty is high the group knows the question but lacks the necessary information and can summarize that information increases, uncertainty and equivocality decrease (Galbraith, 1977). Media richness or information richness theory argues that performance improves when team members use "richer" media for an equivocality task. Task performance will be improved when task-information processing requirements are matched to a medium's ability to convey information richness (Baninajarian, Abdullah, and Bolong, 2011).

Information richness is a quality of information that indicates its communication properties to its audience (Daft and Langel, 1986). Rich information enables individuals to clearly understand the information. On the contrary, low richness hinders individuals' understanding of the information. Hence, the concept of information richness in this research is defined as the acquisition, distribution and exploitation of information; and the "richness" in this context means the quality of information that is produced by accounting information system quality. Then, if the quality of information increases, uncertainty and equivocality will decrease. It is an ability to use information effectively in order to develop competitive advantage and performance. There were significant differences in unique information pooled between high and low-information richness conditions. Teams which had high information richness, had more unique information pooled and it affected decision quality (Chen, 2015). In the past, there had a concept that the more of information, will enhance the firms' performance, but, nowadays there is not totally true and out of date, because of the overload of information will decrease the firms' performance (Özkan and Tolon, 2015). The factors which caused the information overload as follows: (1) information quantity, (2) information characteristics, (3) information quality, (4) information processing capacity, (5) available time, (6) task and process parameters, and (7) personal factors, are the key factors which caused the overload of information (Eppler and Mengis, 2004). Therefore, in the fact that, the businesses which have a lot of information, the ability of retrieving the valuable of information to response their operational is the vital ability to overcome the overload of information. Therefore, the availability of information and the ability to choose the suitable information is the precious access-information-ability to enhance the information richness of the organization. Hence, the ways to reduce the overload of information which are; suitable designed of information and the properly information

architecture tools which can enhance the find-ability (Koltay, 2017). For the aforementioned reasons, the richness of the information and availability of information are important component to generate the quality of accounting information. Information richness theory is used in many fields of studies such as in marketing, communication and in the information system area. Firms with greater information richness tend to enhance their potential for collecting, transmitting and storing information via better access to relevant and current data, and facilitating more efficient usage of this data and create rapid interaction with suppliers and customers. This research has investigated the effects of information richness on competitive advantage of E-Commerce business (Ussahawanitchakit, 2012). Information richness is positively related to customer purchase intention (Yen, 2014). The results of one research show that when purchasing a product with higher task equivocality, bidders tend to choose a communication channel with higher information richness, and select a payment and product delivery channel with low risk (Lo, 2013). The nature of relationships between internal communication modes, new service development (NSD) and NSD performance revealed that rich information and rich communication are essential for new service development performance when a firm has a low development competency (Storey and Perks, 2015). Using information richness theory to study the impact of computer-mediated communication systems on decision quality and the result found that richer information can have significantly positive impacts on decision quality when the participation have the more relevant knowledge (Kahai and Cooper, 2014). Information richness can affect firm performance when business interacts in a complex environment (Vickery et al., 2004). Managers get more use of information from richness sources to make decisions and negotiate in uncertain environmental contexts (Bahmani and Farhadpoor, 2017). Poor accounting information will endanger the managerial effectiveness, which may lead to wrong decision-making and ultimately causing failure of the strategy (Shuhidan et al., 2015).Prior research shows that the richness of information can enhance the ability of competitive advantage, decision-making and performance of the firms.

Information richness theory is a framework to describe a communications medium by its ability to reproduce the information sent over to it. It was developed by Daft and Lengel, and is used to rank and evaluate the richness of certain

communication media such as phone calls, video conferencing, and email. For example, a phone call cannot reproduce visual social cues such as gestures, so it is a less rich communication medium than video conferencing, which allows users to communicate gestures to some extent. Specifically, media richness theory states that the more ambiguous and uncertain a task is, the richer the format of media that suits it. Based on contingency theory and information processing theory, it explains that richer, personal communication means are generally more effective for communication of equivocal issues than leaner, less rich media. In a strategic management perspective, the media richness theory suggests that effective managers make rational choices matching a particular communication medium to a specific task or objective and to the degree of richness required by that task (Trevino et, al., 1990).

Contingency Theory

The contingency theory is a classical concept in organizational research, which has gradually evolved since the late 1950s and has been a popular theoretical framework in management research such as in strategic management, marketing, information systems, international business, entrepreneurship, human resource management, change management, finance, and accounting. In general, the contingency theory argument is that superior organizational performance is a result of the proper alignment of endogenous organizational design variables with exogenous context variables (Alberto and Sharma, 2003). Organizational theory perspectives emphasize fits between the general business environment and an organization's structure. The strategy literature suggests that different levels of environmental variation require different degrees of decision-making comprehensiveness and strategic formality to match organizational resources with opportunities and threats in the general business environment (Aragon-Correa and Sharma, 2003; Sauser, Reilly, and Shenhar, 2009). Organizational structure refers to the strategies that can enhance organizational performance depending on internal and external contextual factors and operational management. The internal environment factors consist of organizational culture, technology, size of company; and they are all identified as environmental factors impacting the effectiveness of different organizational forms (Tran and Tian, 2013).

The external environment factors such as high competitive environment, market uncertainty, advancement of technology, and economic conditions affect performance (Sauser, Reilly, and Shenhar, 2009). Based on contingency theory, the firm's outcomes could attribute to a match between its strategic behaviors and the internal or external environment situations. In other words, the firm could match the proper strategies to internal and external factors so that the firm is more likely to perform better. The contingency theory has wide interest in the research of management and accounting information systems, which considers both internal and external factors affecting the organization, the size of the organization, and managerial practice (Chenhall, 2003). Contingency scholars confirm that performance is a function of the fit between the organization and the environment and, the strategy and structure

The assumption of the contingency theory suggests that organizational structure is based on both internal and external factors. The internal factor is related to characteristics of a firm such as size, goal, and experience of the firm. The external factor is the influence of environmental change such as competition on economic uncertainty (Tran and Tian, 2013). Those are different factors leading to a set of management strategies and management techniques as results of all firm performance. In other words, the importance of the contingency theory is imposed on a manager's behavior motivation, and other factors by which they seek to improve management strategies to fit changed circumstances in order to create growth and survival of the firm in the long-term.

This theory demonstrates the ability of the organization to adjust or adapt to the environment that is necessary for consistency between the environment and the infrastructure (Sauser et al., 2009). In addition, prior research explains the link between corporate strategy, environment, technology, organizational structure, and control systems (Srikarsem and Ussahawanitchakit, 2009). Therefore, contingency maintains the appropriate fit between environment and strategy, resulting in enhanced organizational performance dependent upon firm goals. In this research, the contingency theory is applied to describe the relationship between the antecedences, variables, moderating variable, and accounting information system quality. It is the external factor of this research which is technology munificence growth; and the internal factors in this research are information management leadership, top

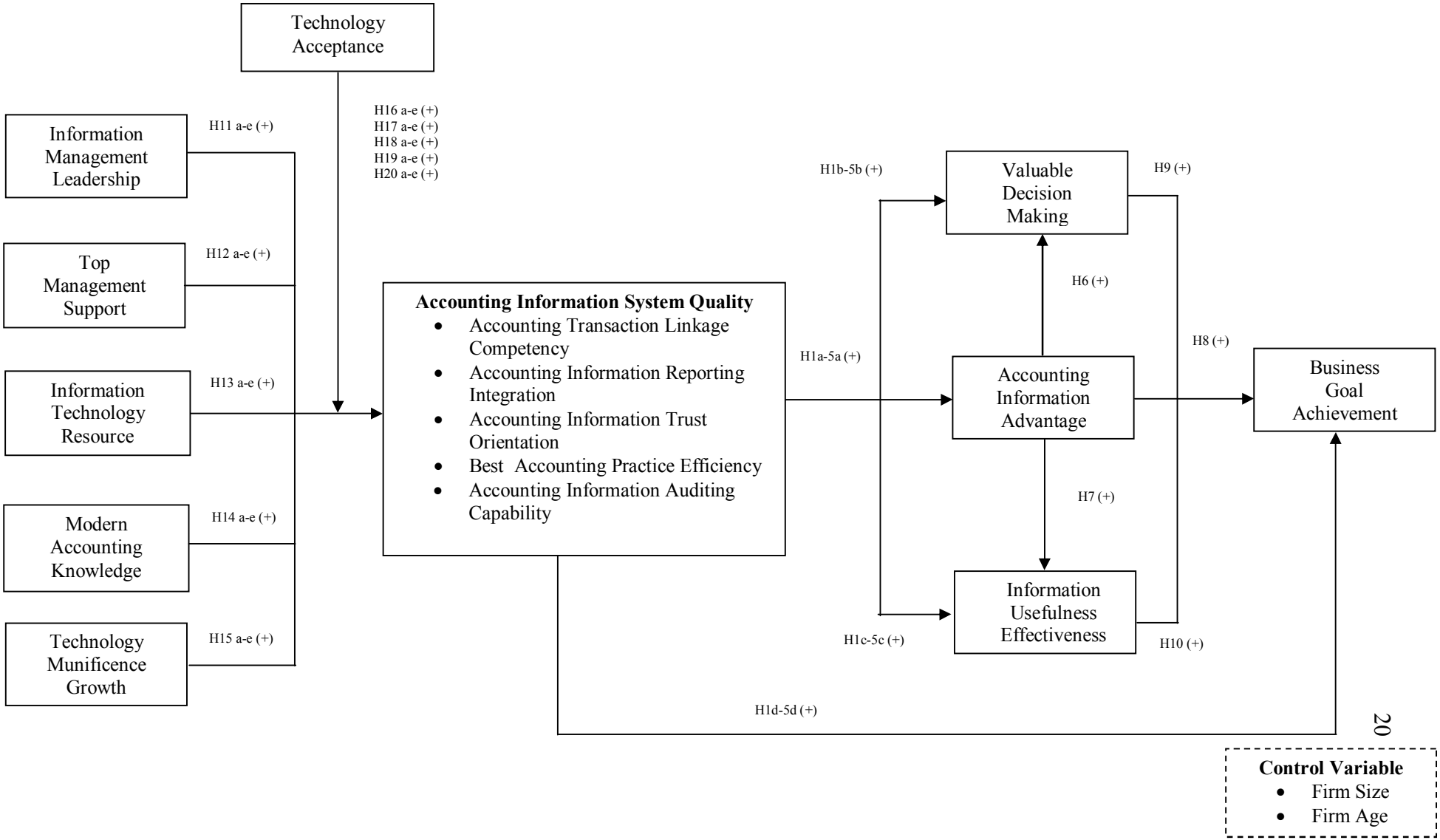
management support, information technology resource, modern accounting knowledge and technology acceptance.

Relevant Literature Reviews and Research Hypotheses

According to the theoretical foundations, accounting information system quality is assigned as the independent variables, while accounting information advantage, valuable decision-making, information usefulness effectiveness, and business goal achievement are designated as the dependent variables. For the accounting information system quality antecedents, information management leadership, top management support, information technology resources, modern accounting knowledge and technology munificence growth are addressed as determinants. In addition, this research also appoints technology acceptance to moderate the antecedents and accounting information system quality relationships.

As described earlier, this research purposes that accounting information system quality positively associates with accounting information advantage, valuable decision-making, and information usefulness effectiveness; and ultimately it positively influences business goal achievement. As mentioned above, information management leadership, top management support, information technology resources, modern accounting knowledge, and technology munificence growth are designated as the antecedents of accounting information system quality. This research postulates that such antecedents positively affect accounting information system quality. Lastly, it also supposes that technology acceptance strengthens the relationship between the antecedents and accounting information system quality. In conclusion, the developed conceptual model and the postulated hypotheses are briefly illustrated in Figure 1

Figure 1: Conceptual Model of the Relationships between Accounting Information System Quality and Business Goal Achievement



Accounting Information System Quality

Accounting information system quality is the core construct of this research. There are several studies that have examined the effect of information system quality on business operations and firm performance improvement, but the empirical studies that especially focus on accounting information system quality in the field of small and medium-size enterprise (SMEs) are inadequate. This research develops a construct of accounting information system quality and its measurement, and attempts to define how accounting information system quality influences business goal achievement. In addition, this research also explains how the antecedents influence accounting information system quality. Accounting information system is defined as a system that operates the functions of data-gathering, processing, categorizing and reporting financial events with the aim of providing relevant information for the purpose of score-keeping, attention-directing and decision-making.

Prior traditional accounting method of manually inputting and recording daily transactions has becoming inefficient. Errors such as wrong data entry, inefficient tasks performance and massive utilization of paper products have create many problems to business activities and organization's performance. These inadequacies have led to the emergence of accounting information system. Accounting information systems resolve many of above issues (Kharuddin, Ashhari, and Nassir, 2010). Therefore, accounting information system is generally a computer-based method for tracking accounting activity in conjunction with an information technology resource. Accounting information systems can support an automation of processing large amount of data and produce timely and accuracy of information. Initially, accounting information systems were predominantly developed in-house as legacy systems. Such solutions were expensive to develop and difficult to maintain.

Nowadays, information technology is a must in many businesses. It is difficult to gain competitive advantage and survive without some adoption or implementation of this advancement in technological products. Accounting information systems are more commonly sold as prebuilt software packages from large vendors such as Microsoft, Sage Group, SAP AG SAP and Oracle Corporation. In the SMEs context, there are three ways to get accounting software for SMEs which are: in-house development, purchasing a software package and outsourcing (Romney and Steinbart, 2006).

Depending on the use of the application software, SMEs can obtain accuracy and reliability of information. Therefore, almost SMEs firms choose the way of purchasing software package, which match with their firms' characteristic, to reduce the drawbacks of in-house development and outsourcing. Thus, small and medium businesses often use accounting lower costs software packages such as MYOB and QuickBooks. The requirements for updated data in supporting decision making have been increasingly essential particularly for SMEs (El Louadi, 1998). So at the present time, it cannot deny that almost firms, whatever large, medium and small have adopted accounting information system. Thus, the adoption of accounting information system is expected to provide SMEs with the right capabilities and resources in achieving these objectives (Kharuddin, Ashhari, and Nassir, 2010). In the context of Thailand, there are several accounting software packages, which current business SMEs are employed, which are; ACCPAC, ACCSTAR, Amanda, Autoflight, BCAccount for windows, Business Controller, Business Plus Account, CD ORGANIZER, DACCOUNT, Easy-ACC EasyWin, Express, Formula, iMoneys Account, Impress Professional, JANE SOFT Kingdee K/3 ERP, MAC-4 Professional, MyAccount, Nanosoft Mini Account, PDP QUICK BOOKS, Quick Office, SAP Business One, Seniorsoft, Smart Biz, SME ACCOUNT, Smile Account, SML SOFT, SOFTIMO, STRACCOUNT, and WINSpeed (Aphiwatpisan, 2012). Therefore, the firms will choose the suitable software package which congruence with their operational business based on the consideration of costs and benefits (Doherty et al., 2015). Because of, SMEs face competitive pressure not only from within the SMEs industries and other larger firms, but they also have to compete with giant multinational companies. Thus, the adoption of accounting information system is expected to provide SMEs with the right capabilities and resources in achieving these objectives.

Accounting information system is defined as a computer-based system that processes financial information and supports decision tasks in the context of coordination and control of organizational activities (Nicolaou, 2000). An accounting information system contains various elements: data storage, data output, relationship across departments, and internal controls. The characteristic of accounting information system that comprises six main parts are people, procedure and instruction, data, software, information technology infrastructure (hardware) and internal control

(Accountingedu.org, 2016). In this research, the definition of Accounting Information System Quality is defined from the two key concepts of accounting information system, and system quality. For the concept of accounting information system, there is much prior research in the area of accounting information system and accounting information effectiveness. Many researchers have defined the meaning of accounting information system, so there are many definitions of the accounting information system, and they explain the characteristic, components or the benefit of the accounting information system which then is summarized in Table 1.

Table 1: The Summary of Definition of Accounting Information System

Authors	**Definition of accounting information system**
David et al. (1999)	AIS is one that captures, stores, manipulates and presents data about an organization' value-adding activities to aid decision makers in planning, monitoring and controlling the organization
Konthong (2009)	AIS competency as the firm's specific abilities of implemented computer-based, especially at operation level. IT is embedded in firm's process and routines and productively transforms business transactions, gathering across multiple functional areas within firm into utilizable accounting information which comprehensively support the strategic administrations and help firm to complete their expected strategic objective. • Complete information collaboration • Compatible information system linkage • Accurate business information • Comprehensive accounting information presentation

Table 1: The Summary of Definition of Accounting Information System (continued)

Authors	Definition of accounting information system
Nicolaou (2000)	1. AIS is defined as a computer-based system that processes financial information and supports decision tasks in the context of coordination and control of organizational activities. 2. Defines as a system that increases the control and enhances the corporation inside the organization.
Pronpandejwittaya (2012)	Effectiveness of AIS defined as collecting, entering, processing data, storing, managing, controlling and report information of accounting. So, that organization can achieve financial statement quality. Effective AIS consists of reliability, relevance, timeliness.
Reem (2012)	The AIS must be characterized by a set of basic characteristic in order to achieve the expected goals namely • Suitability • Speed • Accuracy • Timeliness • The ability of understanding • Comparability • Objectivity • Flexibility

Table 1: The Summary of Definition of Accounting Information System (continued)

Authors	Definition of accounting information system
Sajady and Nejad (2008)	Effectiveness of accounting information system is comprised • Better decision-making • Enhance the quality of financial reports • Improve performance measures • More effective internal control • Facilitate financial transaction process.
Salehi and Mogadam (2010)	AIS is the collection and recording of data and information regarding events that have an economic impact upon organization and the maintenance, processing, and communication of information to internal and external stakeholders.
Siamak (2012)	AIS components: • Collect • Store and disseminate data for the purpose of planning • Control • Coordination • Analysis and decision-making
Sumritsakun (2012)	Accounting Information System effectiveness reflects the firm philosophy of how to conduct its accounting process through a deeply rooted set of value and benefits that provide the information usefulness to make the best decision and achieve superior performance in the end.

Table 1: The Summary of Definition of Accounting Information System (continued)

Authors	Definition of accounting information system
Wilkinson et al. (2000)	Noted that an effective Accounting Information System (AIS) performs several key functions throughout three stages such as data collection, data maintenance data Accounting Information System (AIS) and Knowledge Management data control (including security) and information generation.
Yeunyong (2007)	AIS effectiveness refers to perceiving of user information satisfaction to decision making and monitoring when organization has coordination and control with information that is produced from accounting information system.

From the definitions of accounting information systems that are shown in Table 1, the key keywords of accounting information systems are: computer-based system; controlling, storing, and processing financial and accounting data; aggregation of information, communication of information to internal and external stakeholders; data storage, data output, relationships across departments, internal control, tracking accounting activity, support decision task; collecting, entering, processing data, storing, managing, controlling, and reporting information accounting.

The characteristic of information quality and system quality are information quality that is related most closely to output of an information system. System quality reflects the information processing system required to produce that output (Nelson et al., 2005). Five dimensions of system quality as accessibility, reliability, flexibility, response time, and integration have defined as the quality of system (Nelson et al., 2005). The field of management information system (MIS) illustrated MIS as an information system which supports not only operations but also the management process by providing the 'right information' to the 'right people' at the 'right time' and at the 'right cost'. When these four rights are right, management information system is bound to be right and effective in discharging its role (Malik and Malik, 2013). System

quality was measured by four factors, namely: functionality, responsiveness, reliability, and flexibility (Islam et al., 2012). Hence, the characteristics of information system quality should generate the right information which possesses all attributes such as timeliness, accuracy and reliability, adequacy, consistency and uniformity, brevity, and economic predictive ability. Five characteristics of software quality are system reliability, maintainability, ease of use, usefulness, and relevance. For example, reliability is associated with the responsiveness of the IS department; ease of use as influenced by the capabilities of users and attitude of management; and usefulness that is impacted by capabilities of the information system department and responsiveness of the information system department (Gorla and Lin, 2010). Furthermore, the characteristics of high performance of an accounting information system are described as reliability, accuracy, and timeliness of information that is generated (Kaino, Waweru, and Omondi, 2015). So, from many researches which mentioned above, indicate that information system quality cannot be uniquely defined since they are multidimensional concept (Hu and Feng, 2005).

Therefore, the above are mentioned as the concepts of accounting information system and system quality. In this research, the definition of accounting information system quality is defined from two key concepts of accounting information system and system quality. Hence, accounting information system quality in this research is defined as a computer-based system that operates the functions of collection, storing, linking business transactions, generating the integrated accounting information, monitoring and auditing activities of organization with the aim of establishing accounting information trust to generate the valuable information for an organization.

Based on relevant research, it was found that dimensions of accounting information system quality were not explicitly defined. If only the research is close to AIS effectiveness, AIS excellence. For example, the four components of accounting information system effectiveness are accounting practice, internal control, activities linkage and uniquely information source (Sumritsakul, 2012). Accounting information system excellence is comprised of information collaboration, information linkage, accurate information interpretation, and comprehensive presentation (Thapayom and Ussahawanitchakit, 2015). Accounting information system is comprised of information form, process, information transformation point, control procedure, and output (Kaplan

et al., 1998). The components of quality of information system are people, data, information, technology and work practice (Hellen, 1997). First, identify and record all valid transactions; Secondly, describe on a timely basis the transactions in sufficient detail to permit proper classification of transactions for financial reporting; Thirdly, measure the value of transactions for financial reporting their proper monetary value in the financial statements; Forth, determine the time period in which transactions occurred to permit recording of transactions in the proper accounting period; and fifth, present properly the transactions and related disclosures in the financial statement are the five components of an efficient accounting information (Whittington and Pany, 2004).

From the above prior research, it is possible to summarize the key components of the characteristics of efficiency or excellence of AIS are; information linkage (Sumritsakul, 2012; Thapayom and Ussahawanitchakit, 2015), reporting or an output from accounting information system (Kaplan et al., 1998; Thapayom and Ussahawanitchakit, 2015; Whittington and Pany, 2004), accurate information (Nelson et al., 2005; Thapayom and Ussahawanitchakit, 2015), accounting practice (Hellen, 1997; Sumritsakul, 2012), and control procedure (Kaplan et al.,1998; Sumritsakul, 2012).

Firstly, information linkage, the one importance component, which collection, recording, classification, and clustering business transaction from actual accounting activities within the organization, based on generally accepted accounting principles. Secondly, reporting or outputs, are the outcomes of the approach of combination, and summarizing all relevant information and generates the valuable reporting to support decision tasks. Thirdly, accurate information, is one essential common component, that focusing on the reliability of accounting information, and these ultimately generates the quality of accounting information. Fourthly, accounting practice, accounting practice is one component which ensure that financial information are adequately presented, which based on the generally accepted accounting principles. Finally, control procedure, is the means to ensure that all actual business transactions from several of accounting activities are verified, monitored, and checked in the area of accuracy and existence.

Form the concept of accounting of accounting information system and the key characteristic of system quality, which have the common components from the related research, thus, the constructs of accounting information system quality in this research

is consisted of five dimensions; accounting transaction linkage competency, accounting information reporting integration, accounting information trust orientation, best accounting practice efficiency and accounting information auditing capability that are combined in this construct.

Prior research indicated that accounting information system quality directly influences firm performance, both financial and non-financial performance. However, several studies investigated the influences on accounting outcomes, such as management accounting effectiveness, internal control capability, and accounting practice improvement (Hunton, Lippincott, and Reck, 2003; Nicolaou, 2000).

The combination of accounting information system, such as enterprise resource planning, allows a firm to concentrate on expanded global competition and restructuring of business processes. Therefore, accounting practices are radically changed (Sutton, 2006). The effectiveness of enterprise resource planning systems can enhance the performance of the accounting information system through reliability, accuracy and timeliness of the information generated (Kaino, Waweru, and Omondi, 2015). As accounting information processing is executed and performed by the rules embedded in accounting information system, accounting processes are automatically integrated and generated financial reports. Additionally, accounting information system promotes information interpretation and reporting integration competencies. Thus, the delivery of beneficial, timely accounting information to decision-makers enables the firm to improve the abilities of decision-making and accomplishing business goals. Integrated and enterprise-wide accounting information system facilitates firms to change in management practices, organizational structure, accountability, and business process reengineering initiatives, resulting in the improvement of management accounting and control systems, and the management accountant's work (Granlund and Malmi, 2002).

Prior research indicated that integrated accounting information system positively impacts information quality and managerial performance (Chapman and Kihn, 2009; Ismail and King, 2005; Konthong and Ussahawanitchakit, 2009; O' Donnell and David, 2000). Moreover, based on computerized accounting information processing, continuous auditing is possible and internal audit methodology can reach transactional data at the source and in various areas to achieve more efficient internal controls (Alles et al., 2006; Sutton, 2006).

Table 2: The Summary of Key Literature Reviews on Accounting Information System and Consequences

Authors	Title	Independent Variables	Dependent Variables	Results
O' Donnell and David (2000)	How Information Systems Influence User Decisions	• Information presentation • Availability of DSS or ESS • Aggregation and load • Interaction and feedback	Decision making and problem solving skill	Change in decision process is initiated by implementation AIS such as ERP, data warehouse, and online financial reporting.
Mndzebele (2013)	The Usage of Accounting Information Systems for Effective Internal Control in Hotel.	• Usage accounting information system	Internal control system and achieve operational goals	The AIS which includes policies, procedure, organizational design and physical barriers contribute to the internal control structure. As a result of better internal controls hotel, are able to achieve goals.
Ismail and King (2005)	Firm Performance and AIS Alignment in Malaysian SMEs	• Scope of information • Aggregation of information • Integration • Timeliness	Organizational performance	AIS alignment and understanding of the requirements for accounting information and the use of IT are important to support organizational performance.

Table 2: Summary of Key Literature Reviews on Accounting Information System and Consequences (continued)

Authors	Title	Independent Variables	Dependent Variables	Results
Chapman and Kihn (2009)	Information System Integration, Enabling Control and Performance	• Information system integration	Perceived system success and firm performance	IS integration positively impacts perceived system success and firm performance through management operations (budget repair, transparency, and flexibility) as mediators.
Granlund and Malmi (2002)	Moderate Impact of ERPS on Management Accounting: a Lag or Permanent Outcome?	• Integrated information system • Enterprise-wide system	Management accounting practices and accountants' work	The ERP projects have led to relatively small changes in management accounting and control procedures. ERP has in some cases left more time for analysis instead of routine tasks.

Table 2: Summary of Key Literature Reviews on Accounting Information System and Consequences (continued)

Authors	Title	Independent Variables	Dependent Variables	Results
Onaolapo and Odetaya (2012)	Effect of Accounting Information System on Organizational Effectiveness: A Case Study of Selected Construction Companies in Ibadan, Nigeria.	Accounting Information System	Quality of financial reporting and decision-making	This research examined the effect of accounting information system on organization effectiveness. The result showed that accounting information system influences the quality of financial report and then affects the decision making of their organization.
Qamruzzaman (2014)	Accounting Information System (AIS) Enhance Efficiency Level of the Organization: Evidence From Insurance Industry in Bangladesh.	Accounting information systems	Operational performance and effective internal control	AIS enhances operational performance by providing desired service to customer with efficiency and ensures effective and efficient internal control system of organization.

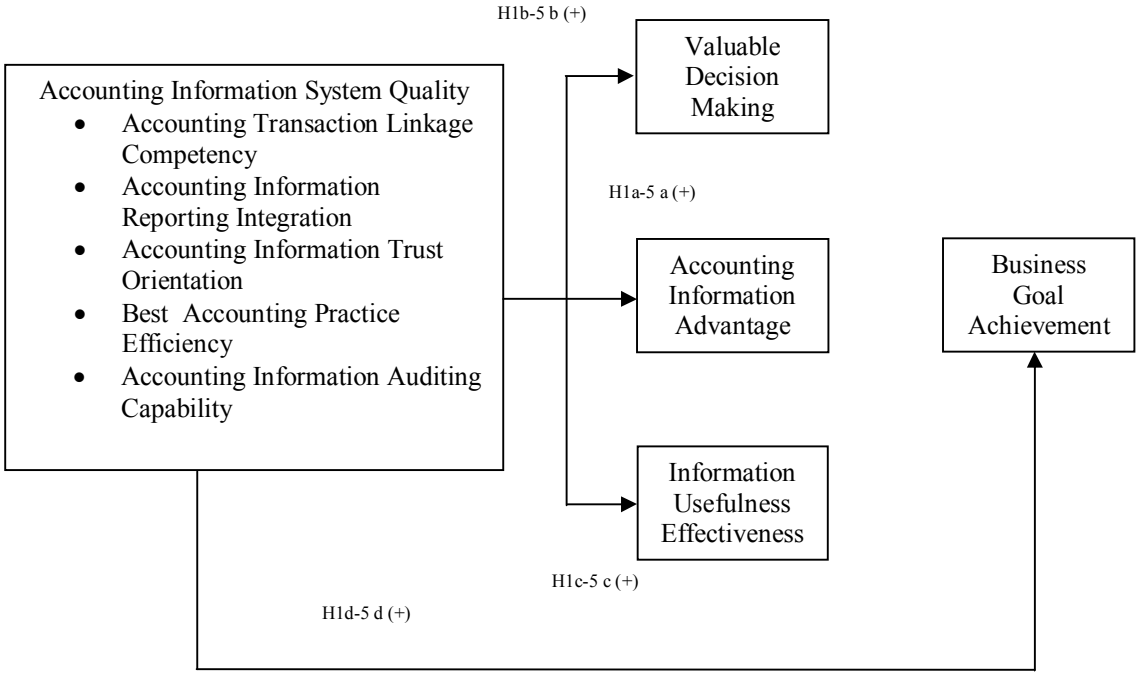
Table 2: Summary of Key Literature Reviews on Accounting Information System and Consequences (continued)

Authors	Title	Independent Variables	Dependent Variables	Results
Sumritsakun (2012)	The Effect of Accounting Information System Effectiveness on Accounting Information Usefulness via Information Trust and Information Timeliness as Mediators: Case Study of Thai-Listed Companies	Accounting information effectiveness	• Information trust • Information timeliness • Accounting information usefulness	The finding reveled that accounting information system effectiveness influence on the information trust and information timeliness and leads to enhance accounting information usefulness of the organization.
Harash et al. (2014)	The Influence on Accounting Information System (AIS) on Performance of SMEs in Iraq	Characteristic of AIS : Reliability, Relevance, Timeliness	Performance of SMEs : Financial measurement and Non-financial measurement	The result of this research and modern literature shows that AIS characteristics enjoyed by the accounting information such as: reliability, relevance, and timeliness have significant effects on the use of AIS and SMEs' performance.

The Relationships Among Accounting Information System Quality and Its Consequences

This section shows the investigation of the relationships among accounting information system quality, which consists of five purposed dimensions: accounting transaction linkage competency, accounting information reporting integration, accounting information trust orientation, best accounting practice efficiency, and accounting information auditing capability; and four critical consequences which are accounting information advantage, valuable decision-making, information usefulness effectiveness, and business goal achievement. These relationships are presented as below:

Figure 2: The Relationships Among Accounting Information System Quality, Accounting Information Advantage, Valuable Decision-Making, Information Usefulness Effectiveness, and Business Goal Achievement



Accounting Transaction Linkage Competency

The beginning of accounting process is a transaction recording and the last step is completed the preparation of a financial statement. Documentation is related to a transaction procession that has one main purpose: to communicate the elements and procedures to those who are to use, design or evaluate the transaction processing system (Teru and Hla, 2015). Accounting records include entries from day-to-day transactions of business; for example, transactions of receipts and expenditures. Records may include a list of organizational assets and liabilities. These help the enterprise to evaluate its performance in a particular period of time, usually at the end of a financial period. Proper record-keeping provides evidence of how the transaction was handled and verified the steps that were taken in order to comply with business standards (Reed, 2010). Accounting transaction linkage is the proficiency of the system for the collection, classification, and clustering of information about the transaction from several functions within the organization, based on generally accepted accounting principles (GAAP) (Ademola et al., 2012).

Accounting data is a business transaction that is done through the procedure of recording data. Therefore, accounting transaction linkage competency is important for collecting and recording business documentation required by the accounting practice process. The procedure of classifying accounting data is a part of the accounting practice process following the AICPA (1999) which noted that accounting is the recording, classifying and summarizing, in a significant manner and in terms of money, transactions and events which are, in part, at least of financial in character and interpreting the result thereof. The prior research noted that the data linkage for the recording of business transactions is a procedure of accounting practice process on ledgers, papers, and spreadsheets among departments that have been interpreted and presented for financial transactions and reported by the user.

Accounting information is the universal language by which each disparate management system must be linked, and that having all management personnel use and understand the accounting system will lead to success for the firm. When production, sales, accounting and information from another department are linked by information technology, it will maximize competitive advantage. The linkage occurs through shared

management personnel, procedural documentation, and dissemination of operational and financial audit information (Liebesman, 2011).

Conforming to the continuous development of information technology, a computer-based system is implemented into business processing in most large and medium-sized enterprises. Transaction data was electronically recorded in an organization database (Konthong, Sangboon, and Srimuangtong, 2015). Thus, accounting transaction linkage is the process of an accounting practice process that classifies grouping records into a ledger. To enhance the performance of firms, it is important to properly and accurately focus on the development of business transactions (Yeboah et al., 2014). Moreover, the linkage of business transactions into a record, completely and accurately, is an important factor that results in accuracy and leads to accounting information quality (Assenso-Okofo, Ali, and Ahmed, 2011). Firm systematically collects business transactions, records accounting data, and can recall checking as the user needs (Abdel-Kader and Luther, 2008). Accounting practice process brings about quality which leads to timeless in the financial report. An accounting function manages the financial information resource of the firm. In this regard, it plays two important roles in the transaction process. First, accounting captures and records the financial effects of the firm's transaction. Second, the accounting function distributes transaction information to operations personnel to coordinate many of their tasks (Hall, 2008). Furthermore, exchange information and linked information are governed in such a way as to better manage coordinated tasks and enhance the overall quality of information (Nicolaou, 2010).

In the above literature review, accounting transaction linkage competency refers to the ability of the system for the collection, classification, clustering information about the accounting informationthat includes the related business transaction from several functions within the organization and the correct record of a financial statement based on generally accepted accounting principles.

Accounting transaction linkage can be used as the management of the complete and accurate accounting practice process. The accounting transaction linkage to record in the ledger is a procedure of the accounting practice process. Accounting practice can present adequate financial information; it will benefit greater, effective, and strategic planning, leading to enhanced performance (Hanpuwadal and Ussahawanitchakit,

2010). The linkage of financial information across product lines and organizational units is a necessary process to generate the high performance of the firm (Anni et al., 2017). Transaction linkage processing has increased the ability of information from each departments, and has ensured a consistency of information across all departments of firm. So, the standardization and automation of transaction linkage processing has reduced the amount of data entry done (Rodriguez and Spraakman, 2012). Moreover, health research illustrates the importance of data linkage that has an increasing interest in using data linked from multiple sources that can support the measurement of clinical performance (Bohensky et al., 2010). Information flow is central to firms' interaction, internally and externally, to facilitate delivery of reliable information that contributes to the competitiveness of the firm (Durugbo, Tiwari, and Alcock, 2014). Based on these arguments, the following hypotheses are postulated:

Hypothesis 1a: The higher accounting transaction linkage competency is, the more likely that firms will gain greater accounting information advantage.

Hypothesis 1b: The higher accounting transaction linkage competency is, the more likely that firms will gain greater valuable decision-making.

Hypothesis 1c: The higher accounting transaction linkage competency is, the more likely that firms will gain greater information usefulness effectiveness.

Hypothesis 1d: The higher accounting transaction linkage competency is, the more likely that firms will gain greater business goal achievement.

Accounting Information Reporting Integration

Information systems have traditionally been designed so that each department or section of a company generates and maintains its own data files. Some drawbacks of this method are obvious: data are at times replicated through several departments. It may be difficult to accumulate common data accurately from departments, and it would be hinder for other people in management to access quickly some particular data from any individual department. There are other inconveniences of each department to

maintain its own data files, including the need for individualized programs to process the data that may enter the system in varied formats. The concept of the common data base brings together all these data into one central set of files, a set which eliminates the duplication of data that allows for quick and easy access to any item. A belief in the importance of available and relevant information to managers and stakeholders has driven significant accounting changes, motivated the development of new forms of reporting argued to provide more usefulness of accounting information. However, accounting is not inherently useful. Accounting information is a heterogeneous agglomeration that is made useful in practice (Andon, Bexter, and Chua, 2015).

Accounting information reporting integration is the ability of the system to report data covering all business operations (financial and non-financial information) that responds to the needs of all relevant users (O' Donnell and David, 2000). Therefore, accounting information reporting integration can provide accounting information responding to decision-makers' requirements because the competition in the business has various patterns of decision-making that emerge. Hence, accounting information system should be presenting information that is comprehensive, flexible, and available to support the different decision forms. Furthermore, integrated accounting information reporting should generate information about economic events that decision-makers use for planning, controlling, and monitoring their organizations (O' Donnell and Davis, 2000).

Modern managers need both financial and nonfinancial information in a format and at a level of aggregation that the traditional GAAP-based accounting system generally fails to provide. The response within many organizations to the dominant single view of accounting information has been to create a separate information system to support each user's view (Doinea et al., 2011). The research of the perception of internet financial reporting indicates that there are four characteristics of internet financial reporting which are: reliability, creditability, usefulness and sufficiency; and usefulness is the first, important, prior characteristic of internet financial reporting (Dolinsek, Tominc, and Skerbinjek, 2014). The capability for aggregating and slicing information are also achieved to create an overacting value across functional areas. Hence, accounting information reporting integration is able to aggregate data and represents it in the way that managers can value and use information for their decisions.

Analysts make larger forecast revisions when other information is included and then can help analysts to formulate better earning predictions (Blouin, 2012). Integration of an accounting information system leads to coordination in organizations which, in turn, increases the quality of decisions. High usefulness for the decision-making of municipal financial reporting, in its current form and content, is generally useful for decision-making. However, this usefulness would increase if information, other than what is mandatory, were introduced (Nogueira, Jorge, and Oliver, 2013). Therefore economic events are the critical information elements of the accounting system (Hall, 2008). The trend in information systems is toward implementing highly integrated enterprise-oriented systems (Doinea et al., 2011). For example, enterprise mergers and acquisition activities require accountants to provide some accounting information, such as the basic structure of enterprise resources, enterprise value, comprehensive income and the change of core ability. Nevertheless, the existing financial reporting system could only provide information for the composition of tangible and intangible assets, including the enterprise's operating results. This information is far from satisfying the demand of mergers and acquisitions. In order to improve accounting information supply, a financial reporting system based on financial resources should be built (Li et al., 2016). Therefore, this research defines accounting information reporting integration as the ability of the system to report data covering all business operations of the company in the both of financial and non-financial information and both of internal and external circumstance to meet all the requirements of the accounting data and the enhancement of understanding of the relevant users.

Accounting information system effectiveness is measured by the satisfaction of the decision-makers on the information quality produced by the accounting information system (Nicolaou, 2000). There has been a positive relationship between accounting information presentation and financial reporting quality, information reliability, and information usefulness (Wimoonard and Ussahawanitchakit, 2014). The reporting of business, which is supported by integrated information technologies, will enhance transparency in shared informationand will contribute effective information to relevant users (Nicolaou, 2010). Information secrecy disclosure, that is, a component in information reporting integration, is one of the essential apprehensions for business and has a substantial effect on generating accurate, effective, and efficient business

decisions (Karim, 2013). Respectively, the related hypotheses are postulated as the following:

Hypothesis 2a: The higher accounting information reporting integration is, the more likely that firms will gain greater accounting information advantage.

Hypothesis 2b: The higher accounting information reporting integration is, the more likely that firms will gain greater valuable decision-making.

Hypothesis 2c: The higher accounting information reporting integration is, the more likely that firms will gain greater information usefulness effectiveness.

Hypothesis 2d: The higher accounting information reporting integration is, the more likely that firms will gain greater business goal achievement.

Accounting Information Trust Orientation

Accounting information trust orientation refers to the ability to process information by focusing on providing accounting information as fact without bias that is neutral, conservative and a complete representation of the economic events (Sumritsakun, 2012). Additionally, it has long been intuitively appealing to believe in the decision usefulness of more relevant and reliable orientation of the accounting information. Hence, relevance and reliability are valued by the market (Bricker and Chandar, 2012). Therefore, this research accounting information trust orientation refers to the ability of system to process information by emphasizing on providing faithful information which is a representation of economic substance, free from bias, conservatism and completeness.

The importance of trusting information from a financial report is that the information is presented in the report because the accounting information is used by many groups of people such as managers, investors and governance. For example, accounting data such as earnings is commonly used in compensation arrangements and in debt agreements. Thus, trust in it is very necessary. Information trust orientation is the means to concentrate on the process to produce information reliability. Reliability is

a crucial attribute for accounting information to be useful for decision-making (Maines and Wahlen, 2006).

The development of financial markets and of high competitive pressure will urge both investors and managers looking for reliable information on the financial position and performance of the entity, respect to the relationship between the quality of information and the quality of the decision (Radu, Bordeianu, and Paraschivescu, 2012). Moreover, unreliable financial reports lead a firm to capital difficultly. Investors use financial reports as information to make decisions for investment or reinvestment, and lenders use financial reports to evaluate the solvency of a firm in order to make lending decisions (Schipper and Vincent, 2003). Furthermore, missing financial report information leads a manager to make decisions inefficiently. As a result, it reduces firm growth by causing capital to be misallocated. Information trust, namely, accuracy and completeness, significantly affect decision quality (Ge and Helfert, 2013). Therefore, information trust orientation is essential for businesses. Because a business transaction is prepared between two or more interested parties, it is crucial for the parties to operate successfully only in an environment where mutual trust and information security are guaranteed and respected. Hence, SMEs or large organizations are concerned about information security and mutual trust as the key factors which lead to those firms' success (Shittu, Ahlan, and Osman, 2012). Based on these arguments, the following hypotheses are postulated

Hypothesis 3a: The higher accounting information trust orientation is, the more likely that firms will gain greater accounting information advantage.

Hypothesis 3b: The higher accounting information trust orientation is, the more likely that firms will gain greater valuable decision-making.

Hypothesis 3c: The higher accounting information trust orientation is, the more likely that firms will gain greater information usefulness effectiveness.

Hypothesis 3d: The higher accounting information trust orientation is, the more likely that firms will gain greater business goal achievement.

Best Accounting Practice Efficiency

Accounting practice is the accounting procedure of gathering information for the report, comprising the financial information to the relevant users (Hakansson and Lind, 2004). The reliability and accuracy of financial reporting is a result of good accounting practices in accordance with GAAP. Accounting practice helps to protect business from the effect of wrongdoing such as negligence, opportunism, and malfeasance (Stansbuury, Stansbury, and Snyder, 2015). Best accounting practice efficiency refers to methods, policies and procedures that comply with generally accepted accounting principles and accounting standards to optimize the performance (Byington and Chrisensen, 2006; Nilniyom and Kunsrison, 2011). In this research, best accounting practice efficiency refers to the ability of system to choose the optimum way in which firms are to carry out their best function, suitable methods, policies, and procedures in accordance with generally accepted accounting principles and accounting standards, of which the above method can be improved or enhanced in the accounting function.

The accounting practices must be according to the generally accepted accounting principles and accounting standards. Accounting practices have a significant role in the arrangement of financial reporting and financial information in that the relevant users once evaluated the firm's financial position and performance (Hongsombud and Ussahawanitchakit, 2012). Someone may think of accounting and the reports it produces as mere legal requirements, but a good accounting system can point to the accomplishment of the goals of the organization. So, adopting International Standard Organization, International Accounting Standard, or Sarbanes Oxley Acts compliance as a basis, assures that an accounting system not only fulfills legal obligation, but it also complies with current best practices. For that information to be of the greatest value, is essential that managerial must understand accounting terminology and reports so that their actions are quantifiable and relatable by others (Liebesman, 2011). For example, corporate governance reports, which is one of the best efficient accounting practices, is referred to as the means to provide users with a complete set of information regarding the effective ability of an entity to achieve oversight objectives by compliance with corporate governance practices required by a specific law or

industry code (Regoliosi and D'Eri, 2014). Therefore, the firm which complies best with accounting practice will better attain its business goals

Prior research indicated that accounting practice improvement has a positive relationship with financial reporting quality (Konthong and Ussahawanitchakit, 2010). Moreover, the performance of accounting practice has a positive relationship with the quality of work (Iskander and Lowe, 2013). Best accounting practices can increase trust in the system (Van der Meer and Vosselman, 2000), and at the same time, trust has the potential of ensuring proper functioning of the accounting systems and controls. So, trust plays a very vital role in the accounting processes (Colwyn, Jones, and Dugdale, 2001).

Moreover, best practice which is illustrated in the accounting field that can adapt the concept of business intelligence (Herritz, 2016). In research titled Applying Accounting Best Practices to Business Intelligence, six best practices are provided that are applicable to BI solution design. Auditability, balance, and control are key tenets of both accounting and data governance. Applying them to a data warehouse implementation allows for better data quality and cleanliness, as well as the identification and control of nonstandard data. In previous research, best accounting practices includemaintaining records, efficient accounting systems and constant monitoring. The importance of maintaining records in accounting is bookkeeping in which bookkeepers should ensure that financial records are kept safely along with a back-up, and is easily accessible. One research that studied the impact of financial management practices and competitive advantage found that robust financial management practices are associated with better loan performance of microfinance institutions, and the researcher suggested that the firms which match suitable accounting practices will enhance their competitive advantage over rivals (Korutaro et al., 2017).

The best accounting practices for firms include frequently monitoring and periodic assessment of the accounts. Moreover, contact encouragement that focuses on accountant communication both inside and outside, develops reciprocity and cooperation that is related to the encouragement of in-depth learning for accountants. Therefore, understanding the core of accounting practice content, and encouragement in active learning ,that involvespast accounting experience, and developing new knowledge, all of which is important to develop the best accounting practice (Byington

and Christensen, 2006; Nilniyom and Kunsrison, 2011). However, the accounting practices which is characterized of unclear, unsuitable and mismatch of the nature of businesses will obstacle the efficiency of firms operations. Congruence with the prior research which revealed that in the SMEs Vietnam context still have the problems of best accounting practice efficiency. The lack of the relevance accounting standards of SMEs poses a call named "designed to fit" in the issuance of accounting standards to remove inappropriate disclosure requirements for SMEs (Dong-Duc, 2011). According to the Institute for small and Medium Enterprises Development (ISMED) identified about the problems of Thailand SMEs for examples; lack of entrepreneurship, lack of efficiency in management and administration, lack of professional or expert in SMEs business, lack of skilled workers, and lack of government support. Therefore, it seems that in the context of SMEs in Thailand, the main problems of accounting skills lacking and lack of infrastructure to implement accounting regulations and standards will hinder the efficiency of works. Congruence with the prior research which conducted an interview survey on investment readiness with 158 SMEs in Thailand and found that, several investors are not rely on SMEs' financial reports, because these investors perceive that the accounting system of SMEs are not transparent enough for making investment. For this reason, these lead several SMEs' firms to face with the difficult of financial provision (Sarapaivanich and Kotey, 2006). Thus, for the aforementioned research, it reveals that best accounting practice efficiency is a core component, which generates the suitable practices and enhances firms' performance. Therefore, the associations are hypothesized as follows:

Hypothesis 4a: The higher best accounting practice efficiency is, the more likely that firms will gain greater accounting information advantage.

Hypothesis 4b: The higher best accounting practice efficiency is, the more likely that firms will gain greater valuable decision-making.

Hypothesis 4c: The higher best accounting practice efficiency is, the more likely that firms will gain greater information usefulness effectiveness.

Hypothesis 4d: The higher best accounting practice efficiency is, the more likely that firms will gain greater business goal achievement.

Accounting Information Auditing Capability

In the advancement of technology, the development and application of information technology makes it possible to automate the task of approving, recording, processing and reporting of transactions. To ensure operational performance, financial reporting reliability, and internal control mechanisms should be gradually constructed into the information system (Yang, Lin, and Koo, 2011). The difference between accounting and information system that information system discipline is most concerned with technical aspects of incorporating Information Communication Technology (ICT) into organizations; whereas, the accounting discipline is most interested in leveraging ICT to improve business performance while simultaneously maintaining effective internal control (Hunton, 2002). Therefore, accounting information auditing capability helps to insure that sound internal controls are developed and integrated into information systems, such as tracking the integrity of information throughout processing, storages and retrieval activities. For example, the implementation of enterprise resource planning systems can enhance the performance of the accounting information system. These improved controls and security of data which enhance accuracy and timeliness of information can ultimately lead to enhance the quality of accounting information (Kaino, Waweru, and Omondi, 2015).

Accounting information auditing capability is the output of the internal control efficiency of the firm. The importance of a strong, internal control system is a critical theme in auditing and accounting information system courses (Lehmann, 2010). So, internal control efficiency is also a main component of accounting information system quality. Effective internal control capability can minimize the opportunity for fraudulent activity in the firms and affect the quality of information (Dwiputrianti, 2011; Lehmann, 2010). The benefits of internal control are to help a firm reduce risk in business operations, to protect the organization from fraud and malfeasance, and to enhance the efficiency and effectiveness of employee work (Ditkeaw and Ussahawanitchakit, 2010). Internal control has an impact on profitability (in return on assets and return on

equities), helps in safeguarding the interests of all interest groups, and improves the society's well-being (Al-Thuneibat, Al-Rehaily, and Basodan, 2015).

Internal control is one of the critical success factors and has a positive and significant relationship with data quality in accounting information systems (Saleh, 2013). Internal control adaptability has an impact on internal control efficiency and operating performance (Yang, Lin, and Koo, 2011). Furthermore, strong internal auditing can improve process performance, internal control structure, and a company's management of risk, and these lead to enhance firm performance (Lelis and Pinheiro, 2012). Furthermore, there is research on the perceived usefulness for municipal decision-making. The result reveals that internal decision-makers must consider financial and budgetary information as very useful for decision-making, and the different types of internal control applicable to that information as very important. The results showed significant and positive relationship between the internal controls (including internal auditing) to which financial and budgetary information is subject (Nogueira and Jorge, 2017). Hence, in this research, accounting information auditing capability refers to the system proficiency in monitoring, tracking, verifying and reviewing all accounting activities to generate accounting information which helps to ensure that accounting data from various processes are accurate, transparent, and verifiable.

Continuous auditing is concentrated in continuous data retrieval, continuous data analysis, continuous data control, and continuous data monitoring. If continuous auditing system is reinforced, it enhances business assurance by monitoring a business system and its procedures, activities, transaction, and events in a real-time manner, and helps many corporations that face various types of corruption (Shin, Lee, and Park, 2013; Yeh and Shen, 2010).The concept of continuous auditing and continuous monitoring can enhance internal audit capability in finding the way to provide more value to an organization and can facilitate both internal auditors and external auditors to achieve the audit objectives efficiently and effectively (Shin, Lee, and Park, 2013; Tysiac, 2015).

Collaboration across the organization is critical to the success of continuous auditing and continuous monitoring. Information technology must be prepared to provide the technology tools (Tysiac, 2015). Therefore, information technology has

influence on the internal audit process in an organization. This is because the adoption of an information technology system (software/hardware) produces a more controlled environment in delivering the auditing process. It also contributes to effective internal control in the arena of control environment, risk assessment, control activities, information and communication, and monitoring; and provides a guideline and best practice to effectively perform an audit task (Moorthy et al., 2011). Information technology can improve planning, internal control, investigation and reporting performance, and lead to higher validity to perform business' duties (Salehi and Husini, 2011). The integration strategies of traceability can enhance the process of delivery information flow in the firm. Thus, the traceability process generates reliable information and contributes to firm competitiveness (Durugbo, Tiwari, and Alcock, 2014).

In a highly competitive environmental, the increasing provision of timely financial information through web-based technology is expected to improve the quality of communication between a company and stakeholder. However, the information asymmetry problem still exists since, in almost all web-based releases, continuous auditing would be the most appropriate approach for web-based-releasing assurance (Chou and Chang, 2010). The concept of continuous auditing and continuous monitoring are very essential for all business, such as in Hewlett-Packard (HP). HP adopted a continuous auditing and continuous monitoring approach to identify the root cause of such transactions and to enable better decisions through standardized entries made under improved controls (Tysiac, 2015). The implementation of continuous auditing can offset the challenges facing the quality of internet-reported financial information (Amin and Mohamed, 2016). Applying the general controls of information systems auditing has an impact on information system performance (Alraja and Alomiam, 2013). Based on these arguments, the following hypotheses are postulated

Hypothesis 5a: The higher accounting information auditing capability is, the more likely that firms will gain greater accounting information advantage.

Hypothesis 5b: The higher accounting information auditing capability is, the more likely that firms will gain greater valuable decision-making.

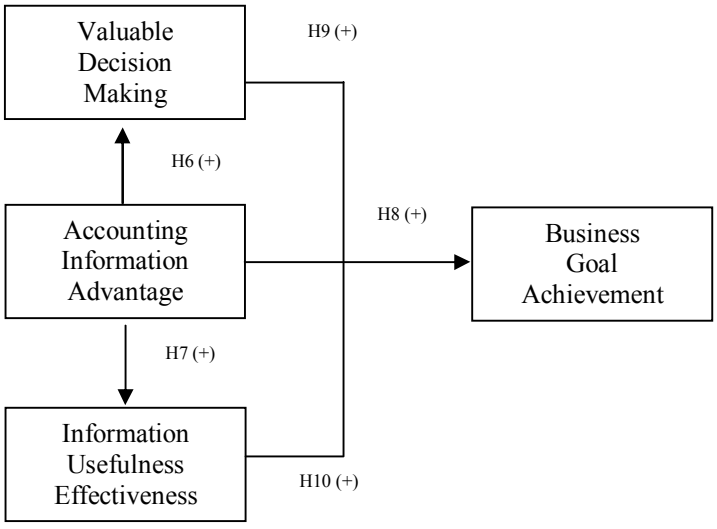
Hypothesis 5c: The higher accounting information auditing capability is, the more likely that firms will gain greater information usefulness effectiveness.

Hypothesis 5d: The higher accounting information auditing capability is, the more likely that firms will gain greater business goal achievement.

The Relationships Among the Consequences of Accounting Information System Quality

In this research, the consequence of accounting information system quality is comprised of accounting information advantage, valuable decision-making, information usefulness effectiveness and business goal achievement. Also, this research assigns the direct effect by accounting information system quality and it has a positive influence on each construct of the consequence variables. Therefore, the aforementioned relationships are illustrated in Figure 3.

Figure 3: The Relationships Among Accounting Information Advantage, Valuable Decision-Making, Information Usefulness Effectiveness and Business Goal Achievement



Accounting Information Advantage

Information advantage occurred when the quality of information on one side is improved, such quality increases the ability to analyze, evaluate, and predict the economic events are increase too (Pricewaterhousecoopers, 2010). Accounting information advantage is refers to information that can empower completeness among competitors. It will support and predict economic events in the future accurately and clearly, fulfilling the objectives of the site and decide on the activities of various options better than the competition (Nelson et al., 2005). So, the aforementioned researches have influence on the continuously success of the organization. And the characteristic of accounting information advantage is comprised of accuracy, completeness, currency and format.

Information quality is one of the crucial characteristics of accounting information advantage. In the perspective of information quality, it is assessed by the degree to which it is helpful in completing a particular task (Lee, 2003; Pipino et al, 2002). For example, this might be assessed abstractly in terms of the usefulness of the information in aiding decision-making. The context view expands the dimensions of information quality beyond accuracy to include dimensions such as relevance, completeness, and currency of the information that shape perceptions of quality in the context of use. Information quality can lead to a better organizational image. Specifically, usability and usefulness attribute of information quality that are the key influencers of both strategic benefits and organizational value (Alenezi et al., 2015). Accuracy refers to the degree to which information is correct, unambiguous, meaningful, believable and consistent. Completeness refers to the degree to which all possible states relevant to the user population are represented in the stored information (Fisher and Kingma, 2001). Currency refers to the degree to which information is up-to-date, or the degree to which the information precisely reflects the current state of the world that it represents (Cappiello et al., 2003). Format refers to the degree to which information is presented in a manner that is understandable and interpretable to the user and thus aids in the completion of task (Lee et al., 2002). Firms that use information effectively can take advantage of reviews of their opportunities and gain ground on their competitors (Wilkinson et al., 2000). The three fundamental objectives are, however, common to all organizations (Hall, 2013): (a) to support the stewardship function of management;

stewardship refers to managers' responsibility to properly manage the resources of the firm and to report on their activities; (b) to support management decision-making. (Managers use information to assist them in planning and control decisions related to reviews of their areas of responsibility); and (c) to support the firm's day-to-day operations. Therefore, in this research accounting information advantage refers to the superior qualitative characteristics of accounting information increasing the quality of decisions to analyze, evaluate, and predict the economic events on-time, accurately and clearly.

Furthermore, information advantage enables managers to make decisions more effectively because it relates to the activities of various departments which result in the integration of complete and accurate information from the variety of sources collected for use in decision-making (Heidmann et al., 2008). The information from a rich source is used to make a decision (Bahmani and Farhadpoor, 2017). The development of financial markets and of the competition will stimulate both investors and managers looking for reliable information on their financial position and performance of the entity, recognizing the relationship between the quality of information and the quality of the decision. In other words, information quality is the premise of quality decisions. As a result, the entity's accounting tends to become integrated accounting, and a supplier of high quality accounting information that lead to enhance management performance (Radu, Bordeianu, and Paraschivescu, 2012). Thus, the related hypotheses are proposed as follows:

Hypothesis 6: The higher accounting information advantage is, the more likely that firms will gain greater valuable decision-making.

Hypothesis 7: The higher accounting information advantage is, the more likely that firms will gain greater information usefulness effectiveness.

Hypothesis 8: The higher accounting information advantage is, the more likely that firms will gain greater business goal achievement.

Valuable Decision-Making

In practice, decision-making is a very challenging managerial skill, so organizations must focus on goal achievement setting. The fact of decision-making effectiveness is important for managers who are required to adapt in a dynamic environments (O' Donnell and David, 2000). A core of global accounting regulators, the IASB and the FASB, has accorded much importance to the concept of decision-usefulness, particularly in the context of the investors as a specific user class (Akmal, Syed, and Shaikh, 2012). Decision-making is rightly performed by a decision maker who selects choices from quality information which is timely, accurate and reliable. A valuable decision-making process develops following identification of the problem, generating diverse ideas and solutions and appraising them, collecting and sharing relevant information, then selecting the option that is most appropriate to the problem and that can satisfy the expectations (Parmigiani, 2012). Managers making strategic decisions require information that supports forecasting. Budget information becomes increasingly detailed as it moves to lower levels of management. Information overload causes managers to disregard their formal information, (Doinea et al., 2011). Valuable decision-making refers to the success of choices between many alternative ways to support the company to achieve its objective or set goals.

Accounting information system has created new information alternatives that may affect the way its users make decisions (Badri, Davis, and Davis, 2000). Prior research indicated that information which obtained from accounting information system responding to a decision maker's information requirements can enhance firms' performance through decision-making success (Dull, Graham, and Baldwin, 2003; Hunton, Lippincott, and Reck, 2003; O' Donnell and David, 2000). At the same time, reliable, accurate information leads to the firm's strategic decision-making process which is a vital challenge for executives (Hitt and Collins, 2007). Accounting information system prosperously expected to enlargedecision-making success by providing accurate and timely enterprise-wide information. Thus, these effects should be related with the improvement offirm performance (Poston and Grabski, 2001). An investigation of the effect of accounting information system on the quality of financial reports and decision-making shows an accounting information system has an effect on organizational effectiveness (Onaolapo and Odetaya, 2012). On the other

hand, the Institute for small and Medium Enterprises Development explained that SMEs in Thailand still have some limitations as follows; 1) lack of entrepreneurship, 2) lack of efficiency in management and administration, 3) lack of professional or expert in SMEs business, 4) lack of skilled workers, 5) lack of technology to reduce cost and support business, 6) high competition, 7) lack of efficiency and effectiveness of production management, and 8) lack of government support. Furthermore, some SMEs might face difficulty in accessing finance and higher costs because of several investors are not rely on financial reports of SMEs, because they perceived that accounting systems of SMEs were not transparent enough of making investment' decision (Sarapaivanich and Kotey, 2006). Therefore, SMEs businesses are faced with many of hinders whereas the problems arising from poor financial management are reported as the major causes of business failures in SMEs. Hence, for the aforementioned evidences seems that SMEs are still having ineffective information management, and poor of system control (Karadag, 2015). Based on these arguments, the following hypothesis is postulated.

Hypothesis 9: The higher valuable decision-making is, the more likely that firms will gain greater business goal achievement.

Information Usefulness Effectiveness

Organization and management scholars have long advocated that the efficient use of information is critical for firms to compete successfully in the modern marketplace (Foss and Rodgers, 2011). Accounting information system acts as the provider of quality information that represents accounting information advantage to related users. Quality of accounting information system significantly heightens the efficiency of business administration, such as in the efficiency of planning, directing, and evaluating, through meaningful, furnished information (Ismail and King, 2005; Konthong and Ussahawanitchakit, 2009; O' Donnell and David, 2000). A more realistic key objective of accounting should be to provide factual economic and financial information, by which, since it presents any users with information in a unique company specific content, can be considered judgment-useful, rather than decision-useful (Akmal, Syed, and Shaikh, 2012). Accounting information system captures and supplies information about economic events, and generates the advantage of information that managers

utilize for planning, monitoring, and controlling their organizations. There is a research which studied the usage of accounting information system in the hotel business and the results explain that if the usage of accounting information system has improved the internal control system in hotels (Mndzebele, 2013). The result revealed that there is a relationship between accounting information systems and internal controls. Accounting information system contributes significantly to enhancing operational performance by providing desired service to customers with efficiency, and ensuring effective and efficient internal control systems of organization (Qamruzzaman, 2014). Implementation accounting information system will increase a firm's performance, profitability and operation efficiency (Siamak, 2012). Marketing research found that providing more information, whether about product or price, leads to increasing trust among consumers and enhancing consumers' willingness to pay price premiums (Huang, Zhu, and Zhou, 2013). Hence, accounting information system functions are not solely for the purpose of producing financial reports, but it goes beyond the traditional perspective of producing only the numeric in financial report. Accounting information system should be utilized to include planning and managing business activities. It could also be used as a controlling mechanism such as budgeting (Kharuddin, Ashhari, and Nassir, 2010).
In this research information usefulness effectiveness refers to the benefit from the use of information for effectively planning, controlling, directing, and forecasting firms' operational in order to help achieve the corporate objectives that are set. The performance of SMEs is determined by their general competitive strategy, which in turn, is explained by the ability of the business to acquire and manage market information. Also, various information presentation features of accounting information system have illustrated the apparent alternatives that are beneficial for planning and controlling processes and lead to attain the goals of the business (Julien and Ramangalahy, 2003). The use of managerial cross-unit involvement in an organization enhances managers' propensities to employ useful information provided by a functionally-related unit in the organization. And the result shows that managers' cross-unit involvements positively influence their assessment of information from a corporation Audit, in a way, influences their propensity to use information from that unit (Foss and Rodgers, 2011).

Hence, the efficient use of information is crucial for firms to compete successfully in the high competitive markets. Information usefulness effectiveness can

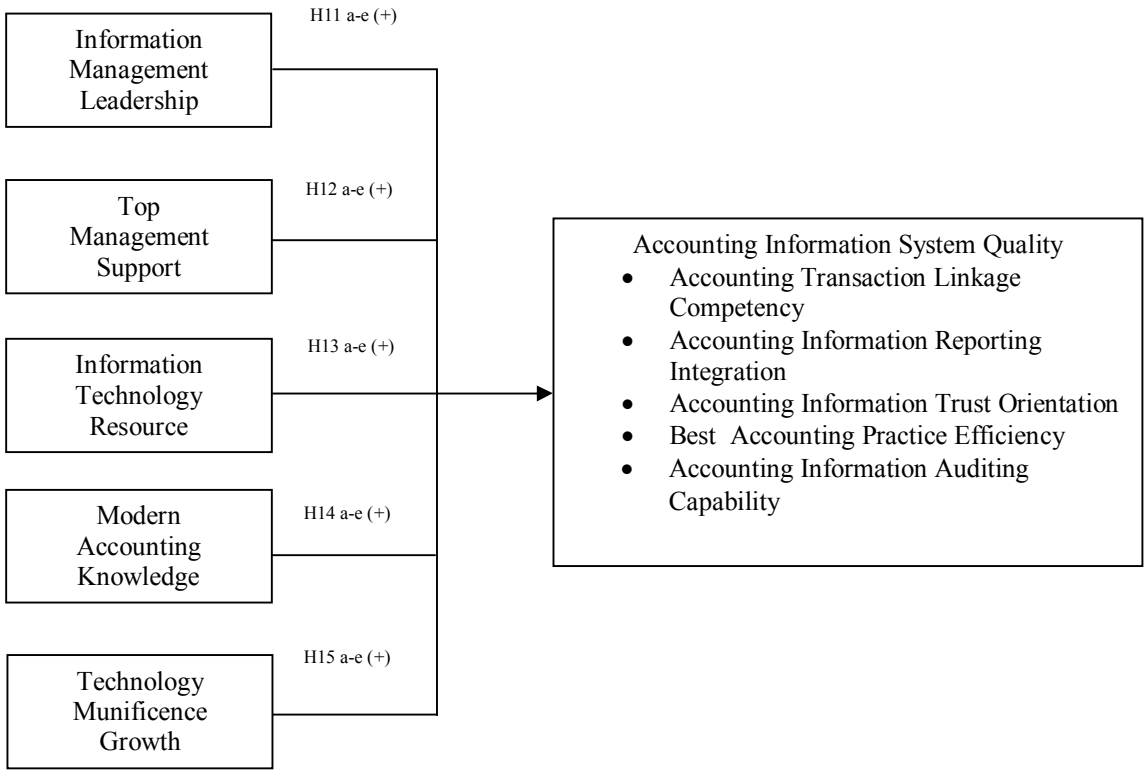
be used to explain earning prediction. The results revealed that analysts will enhance better predictions such as in management earnings forecasts, cash flow forecasts, and other information that is included. This information may be useful to the market if they are able to use the other information in management forecasts to improve their prediction for their firms (Blouin, 2012). The one example of information usefulness effectiveness indicates that accounting estimates and projection, potentially improve the relevance of financial information by providing managers to be able to convey to investors forward-looking, inside information. The contribution of accounting estimates embedded in accruals to the quality of financial information, is reflected by their usefulness in the prediction of enterprise cash flow and earnings (Lev, Li, and Sougiannis, 2010). Based on these arguments, the following hypothesis is postulated.

Hypothesis 10: The higher information usefulness effectiveness is, the more likely that firms will gain greater business goal achievement.

The Relationships Between Accounting Information System Quality and Its Antecedents

This section presents the influence of purposed antecedents of accounting information system quality. With regard to the contingency theory, this research purposes information management leadership, top management support, information technology resource, modern accounting knowledge and technology munificence growth as the significant antecedents of accounting information system quality dimensions: accounting transaction linkage competency, accounting information reporting integration, accounting information trust orientation, best accounting practice efficiency, and accounting information auditing capability. Therefore, the aforementioned relationships are illustrated in Figure 4.

Figure 4: The Relationships Between Information Management Leadership, Top Management Support, Information Technology (IT) Resource, Best Accounting Practice Efficiency, Accounting Information Auditing Capability, and Accounting Information System Quality



Information Management Leadership

Information is a set of classified and interpreted data used in decision making and it has also been defined as some tangible or intangible entity, which serves to reduce uncertainty about future state or events (Lucas, 1978). The power of technology has transformed the role of information in a business firm. Now information has become recognized as the crucial resource of an organization and without information is one of the obstacle factor to achieving the goal of the modern company (Bachmid, 2016). Information management refers to the planning, organizing, directing and controlling of the information available within the organization and use of technologies and techniques for effective management of information and knowledge resources. Besides, information management includes assets both inside and outside the organization to gain a competitive advantage. Information management is related to

the evaluation of information needs within the organization and understanding the needs and requirements as an important step in the strategy. This will promote the quality of an accounting information system. (Booth and Philip, 2005; Maceviciute and Wilson, 2002).

The concept of information leadership can be used both for describing the activity of leading the development and using information resources and infrastructures in organizations, and for articulating the influence and consequences of making decisions about the use, organization and management of information resources and information infrastructures (Huvila, 2014). Information management is the collection, storage, dissemination, archiving and destruction of information. It enables teams and stakeholders to use their time, resources and expertise effectively to make decisions, and to fulfill their roles. (http://knowledge.apm.org.uk/bok/information-management).

Environmental uncertainty is the rate of change or fluctuation in the organization's external environment, including customers, competitors, government regulations, and labor unions (Habib, Hossain, and Jiang, 2011). The changing in a set of political, economic, social and technological forces that are largely outside the control, and these potentially has both a positive and negative impact on the business (Laonamtha, Ussahawanitchakit, and Boonlua, 2013; Lissack and Gunz, 2005). Everyday business is saturated with uncertainty, ability to survive, sustainability and success in a hazardous time is an increasingly important for management. Uncertainty business environment creates challenges, turbulence, risks, stress, and uncertainty in organizations. Therefore, the firm needs to respond appropriately to the opportunities and threats in the competitive environment (Mia and Clarke, 1999). This is generating problems for those firms that do not respect to the uncertainty environmental. Thus, the external environment is a primary source of uncertainty for managers to be responsible for identifying opportunities and threats. In order to achieve the goal, companies and organization are forced to continuously improve the effectiveness information management in order to have the more competitive advantage in global business environment change. At this point, the managers' perception of business environment uncertainty is more importance in the dynamic environment (Pothong and Ussahawanitchakit, 2011). Furthermore, under the high environmental uncertainty, firms should increase the more quality of information in order to reduce the risk (Wang and Chen, 2010).

The integration of information technology strategy with firm strategy and information technology competence has an influence on the quality of performance. Rather, one needs complementary with leadership to be greater in the presence of leadership practice. Thus, information management leadership is an essential factor to lead the firm to have more quality performance (Arostegui, Amado, and Torres, 2012). The leadership of organizations which is concerned about the quality of management practice, such as in the automotive industry, considers quality information as the drivers of process management (Laosirihongthong, Teh, and Adebanjo, 2013). For this reason, leadership is much more important for the successful implementation of information management strategy such as in a quality management system (Yu, To, and Lee, 2012). Information management strategy which is derived from the leaders is a key factor of organization's performance (Purnendu and Kallol, 2016).

Companies that are aware of the importance of handling quality information when making decisions will concentrate in managing the information in an efficient way; i.e., they have developed information capability, and a set of practices, and implement them in order to achieve excellent performance based on the use and management of information (Zarraga and Alvarez, 2016). In order to generate a suitable fit between business process and information technology infrastructure to the extent of alignment, development, sourcing, re-engineering, or integration, there are necessary components that lead to effective implementation. These will be derived from the performance of information managements' leaders (Al-Mashari and Zairi, 2000).

Thus, information management leadership is a company's ability to manage information, the use of information in support of coordination and control, tactical problem solving, and strategic decision-making (Kettinger et al., 2011). The key factors that affect the usage or implementation of accounting information systems in small and medium sized enterprises are compatibility, owner/manager commitment, readiness of organization, and competitive pressure, Hence, these results indicate that the firm which has a high level of information management leadership characteristics will have a more managing information' intensity firm (Lutfi, Idris, and Mohamad, 2016). Therefore in this research, information management leadership refers the managerial ability in motivating, developing, and using information resource and infrastructures to manage information to sustain their business objective achievement.

The implementation about information technology strategy is determined by a management team, and then the quality of information technology implementation strategy will affect business performance (Yeh, Lee, and Pai, 2012). The efficient use and management of information can be considered as a capacity of a company, and the company which is committed to quality management has developed the information capability that is related to the firms' practices (Rodriguez et al., 2014). Competitive advantage does not arise from a replicable information technology resource, but the firm must merge information system integration with the right complementary organizational resource. Further, it takes place in the firm which has high information management leadership intensity (Morabito, Themistocleous, and Serrano, 2010). Firms which have more flexibility of information technology strategic and business-information technology partnerships will have more competitive advantage while business-information technology alignments have an indirect impact on competitive advantage. For this reason, the topic about how to develop information technology deployment capabilities and how to generate business value from information technology investment are important in management tasks (Tian et al., 2010). However, in Thailand context, SMEs still have some problems such as, the loss in the ability to compete in terms of comparative advantages of labor and resources, lack of corporate governance, know-how both in utilization and adaptation of technology, insufficient research on product development and production techniques, are obstacles of SMEs development in Thailand (the Office of Small and Medium Enterprises Promotion: OSMEP, 2002).Furthermore, the limitation of access to information is one importance problem which Thai SMEs are facing (Rojsurakiti, 2015). Therefore, the ability of management information of the firms is an essential proficiency, because, the awareness the importance of handling quality information will lead to the more concentrate in managing the information in an efficient way including; developing information capability, making a set of practices, and implementing these ways in order to achieve superior performance. Accordingly, the related hypotheses are postulated as follows:

Hypothesis 11a: The higher information management leadership is, the more likely that firms will gain greater accounting transaction linkage competency.

Hypothesis 11b: The higher information management leadership is, the more likely that firms will gain greater accounting information reporting integration.

Hypothesis 11c: The higher information management leadership is, the more likely that firms will gain greater accounting information trust orientation.

Hypothesis 11d: The higher information management leadership is, the more likely that firms will gain greater best accounting practice efficiency.

Hypothesis 11e: The higher information management leadership is, the more likely that firms will gain greater accounting information auditing capability.

Top Management Support

Top management support refers to the ways in which organizations encourage information technology usage and the degree to which they provide necessary resources to facilitate information technology implementation. These activities bear important implications for employees' acceptance and application of information technologies, as substantial resources are required for successful information technology implementation (Bhattacherjee, 2001). Top management support involves various functions such as setting policies and goal, and system development planning. The encouragement, resources, support, and training from top management will fertilize employees' usage and stimulates employees to apply technologies in novel ways (Wang et al., 2008).
In accordance with complicated accounting information system adaptation, staff relationship alteration may occur. Employees may need to create new working experiences, such as information communication and sharing, acquirement of new skills, and supposition of additional responsibilities (Grabski and Leech, 2007).
In this research, top management support refers to management's participation in the action involvement to provide the ways in which organization encourages employee's participation, continuously developing system, allocation of organization resources, and necessary resource provision to facilitate business process.

Top management provides adequate financial, material, and human resources to ensure successful completion of the project. Top management plays a critical role in

achieving project objectives where the project champion is the top management. Top management working directly in an organizational structure can share resources more effectively for projects than a matrix or pure project matrix (Dwivedi et al., 2013). Top management needs to clarify the various parts of organizations about the importance of IS usage. The support of top management enhances organizational advantage, and leads functional managers responsible for information system implementation and use (Bradford and Florin, 2003). Moreover, top management needs to perform serviceable change-agent roles and conduct the range of personal, business, and technological competencies to improve the abilities of an organization's information system (Rose and Kræmmergaard, 2006). They must have a concern about skills training and innovation while learning to enhance individual abilities of information system users and reduce resistance (Bedard et al., 2003; Bradford and Florin, 2003). Top management support comprises three critical components: resource provision, participation, and involvement (Dong et al., 2009). On the other hand, the prior research revealed that in Thailand context SMEs businesses still have some problems are as follows: 1) limited access to financial resources, 2) lack of qualified human resources, 3) insufficient production or manufacturing technology, 4) insufficient marketing skills, 5) family style management, 6) limited use of government support, and 7) limited access to information (Rojsurakiti, 2015). Furthermore, the role of institutional factors such as mimetic and cohesive factors will affect the perception of top managers in making supporting policies. Congruence with the prior research that examined the role of institutional factors in a top management team's decision to adopt cloud computing services. The results suggest that mimetic and coercive pressures influence a top management team's belief in the benefits and then these beliefs drive a top management team's participation, which in turn, affect the intention to increase the adoption (Yigibasioglu, 2015). Therefore, if top management does not insightfully understanding in the importance of the supporting, resource provision, and supporting an essential needs of their firms, then, the business will only have to make policy which imitate other businesses and ultimately lead to an inefficiency of firms' management. The examples for the aforementioned such as, in Australia, the leadership support is an important factor for sustaining business excellence amongst award-winning companies (Brown, 2013). Support from the top management for the internal audits can help to

improve the ethic, efficiency and effectiveness in an organization (Ma'ayan and Carmeli, 2016).Accordingly, the related hypotheses are postulated as follows:

Hypothesis 12a: The higher top management support is, the more likely that firms will gain greater accounting transaction linkage competency.

Hypothesis 12b: The higher top management support is, the more likely that firms will gain greater accounting information reporting integration.

Hypothesis 12c: The higher top management support is, the more likely that firms will gain greater accounting information trust orientation.

Hypothesis 12d: The higher top management support is, the more likely that firms will gain greater best accounting practice efficiency.

Hypothesis 12e: The higher top management support is, the more likely that firms will gain greater accounting information auditing capability.

Information Technology Resource

Information technology plays a vital role in various organizational activities. How well the information system is perceived and integrated into organizational processes, is the primary factor that influences the level of effectiveness that exists in information technology use, especially at different organizations. To optimize the use of information technology, the appropriate information system level must match the type of technology used in each organization (Ibrahim and Leong, 2012). Organizational resources including physical, financial, experiential, and human are the sources of organizational competencies such as informational competency, product development, and relationship building (Rose et al., 2009). The existence of an information technology competence, namely, IT infrastructure has an impact on improvement in quality performance (Arostegui, Amado, and Torres, 2012). Information technology resources or IT-enabling can enhance the right information processing capability and ultimately affects operational agility (Huang, Pan, and

Ouyang, 2014). This research focuses on IT resources available for the increasing of accounting information system quality. Information technology resources refer to the existed information technology' infrastructures and information technology's investment in any organization's information technology budget, in terms of both monetary and intellectual resources.

Prior research indicated that information technology resources of firms lead to the ability of an organization's information processing (Jantarajaturapath and Ussahawanitchakit, 2009; Jennex, Amoroso, and Adelakun, 2004). Resource provision is one of the components of top management support (Parr and Shanks, 2000). Information technology projects, especially enterprise information technology projects, require resources in the form of money, personnel and equipment Top management is responsible for allocating funds, assigning personnel and equipment to a project, and building a context that facilitates the flow of resources. Infrastructure resource and information technology human relation have a significant impact on information security and then lead to enhance the quality of the system (Chang and Wang, 2011).

The quality of accounting information system may occur when an organization's information technology resources, including hardware, software, people, network system, and data, will be integrated with the applied accounting information system (Bradford and Florin, 2003). Previous information technology infrastructures and investments should be flexible and admit for upcoming systems to sustain the success of new accounting information system implementation and usage. The congruence between retained information technology resources and approaching accounting information system is conducted to the improvement accounting information system quality. The effect of information technology capability and quality of management accounting information with technology uncertainty revealed that there is a positive effect of information technology capability toward the quality of management accounting information (Herwiyanti, 2015). The examination of capabilities matter for successful business process change shows that information technology capabilities have a positive impact on both business process change projects and process performance. (Jurisch et al., 2014)

In accordance with the congruence, accounting information system can be completely connected to various departments, collected transactional data, and

effectively transferred accounting information to related users via existing communication and network systems. Besides, IT staff and related hardware usages between accounting information system and organization-owned systems can be integrated. Consequently, these congruencies signify that for accounting information system processing and its other requirements, the competencies and quality of accounting information system can be enhanced (Bradford and Florin, 2003). The key factors that affect the usage of accounting information systems in small and medium-sized (SMEs) enterprises are compatibility, owner/manager commitment, readiness of an organization, competitive pressure, and government support. So, the firm which has more readiness of information technology facilities such as hardware, software and databases, will increase the readiness of an organization and then lead to enhance the quality of accounting information system (Lutfi, Idris, and Mohamad, 2016). Nowadays, there are many information technology resources such as electronic data exchange, computer-aided design and manufacturing, and enterprise resource planning systems that are related to quality management capabilities and affect a firm's quality performance (Rodriguez and Lorente, 2011). Thus, the related hypotheses are proposed as follows:

Hypothesis 13a: The higher information technology resource is, the more likely that firms will gain greater accounting transaction linkage competency.

Hypothesis 13b: The higher information technology resource is, the more likely that firms will gain greater accounting information reporting integration.

Hypothesis 13c: The higher information technology resource is, the more likely that firms will gain greater accounting information trust orientation.

Hypothesis 13d: The higher information technology resource is, the more likely that firms will gain greater best accounting practice efficiency.

Hypothesis 13e: The higher information technology resource is, the more likely that firms will gain greater accounting information auditing capability.

Modern Accounting Knowledge

Modern accounting knowledge is one of the organizational capabilities in surviving dynamic and competitive environments. Accounting knowledge is a strategic resource for management. Thus, 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). In addition, organizations are able to build a suitable practices that draw on various bases of expertise and this has been identified as a key organizational capability, a strategic management (Eisenhardt and Martin, 2000) and information systems development (Levina and Vaast, 2005; Mitchell, 2006; Patnayakuni, Rai, and Tiwana, 2007).

In rapid change and a dynamic business environment, it depends on meeting the expectations of the business world. This is true for the accounting discipline as well as others that should have continuous improvement concerning the effect of a dynamic environment. The traditional role of accountants is no longer sufficient in modern global business models (Lange, Jackling, and Gut, 2006). In the fast-pace world of modern business, accounting tools and accounting knowledge have changed due largely to the advent of computerized accounting programs. While business and accounting principles remain the same, the methods through which they are accomplished have been simplified and organized with the use of modern accounting knowledge such as, accounting software. Because of businesses expand and grow to include more out of state clients, international operations, government pressure and online services, so too has accounting become more complicated. The more of modern business emergence is, the more essential of accuracy, and security exchange of financial data are. Hence, the XBRL is a vital role for the transparent interchange of financial and business reporting data that promises to revolutionize the financial industry (Bergeron, 2003). The growing information needs of stakeholders in and around enterprises and by the mandatory reporting requirements of public entities by recent tax laws also require businesses to maintain standardized financial records for governmental or public review

such as, eXtensible Business Reporting Language (XBRL), the financial statements which are prepared by XBRL are more reliant (Liu, Luo, and Wang, 2017). In order to gain knowledge and an understanding of this topicfirms must concern about the training in the computerized accounting topic to response in the recent need (Felden, 2011).

This reality forces managers to be equipped with modern accounting knowledge to perform better in a judgment task that requires complex evaluations of the management. On the other hand, firms need to have diverse knowledge to analyze the competitor. The value of relevant modern accounting knowledge leads to managers using information more accurately in decision-making (Stone, Hunton, and Wier, 2000). For example, in the new online era, real-time business reporting, and the increased provision of timely financial information by web-based releases are more essential. The adaptation of modern accounting knowledge is more considered for the fittest and most suitable practice in each firm (Chou and Chang, 2010). Focusing on, and concern with the new accounting standard is an essential factor leading to excellence management. For example, concern and understanding in accounting for complex organizations, such as agricultural resource entities, in the topic of data collection and consolidation methods will provide valuable information for the decision-makers (Moss, Klinefelter, and Gunderson, 2012). Hence, modern accounting knowledge can help managers make decisions about economic efficiency and trust-building through reliable reporting.

Based on the literature reviewed in this research, modern accounting knowledge refers toan organizational orientation in the mixture of a new knowledge, related issued of newly relevance accounting standards, novel accounting processes and latest accounting techniques to support the management of the organization to have the ability to manage and contribute to a competitive advantage. Therefore, modern accounting knowledge concerns accounting standards, regulations, and accounting information technology that are developed under uncertain environmental conditions. Consistently, the prior research suggested that dynamic accounting knowledge affects the level of the ability of decision-makers to use cost accounting information for managerial success and the determinants of judgment performance (Hunton, Wier, and Stone, 2000). The research of implications for management accounting of connectivity amongst modern enterprises illustrate how practical guidance for management

accountants who work in business networks can be gleaned from analogies out of traditional management accounting. The research shows how a tool kit might be developed to provide methods for decision support and management control for each stage of a business network's development (Brady, 2006). The new approach in the development of accounting information systems can enhance enable better data management and information creation (Nagano and Moraes, 2013).On the other hand, the overwhelming of knowledge and unsuitable knowledge of the users environmental will affect the effectiveness of practitioners' performance. Because of the gap between the world of academia and practice is a major cause, the prior finding indicated that the two most significant barriers to research utilization by practitioners are identified as: difficulties in understanding academic research paper; and limited access to research finding. So, professional bodies have an important role to play by demonstrating the mutual value to both academics and practitioners (Tucker and Lowe, 2014). According to a prior study which compares and contrasts perception about the research-practice gap between professional bodies and practitioners view in Australia and Germany. The finding finds that common to both countries is the perception that the communication of research represents a major barrier. In Australia, practitioner's access to academic research is seen to be a principal obstacle; in Germany, the relevance of topic of modern knowledge by academics is perceived to represent a significant barrier to academic research informing practice (Tucker and Schaltegger, 2016). Therefore, the balance and fit of the modern accounting knowledge, will enhance the proficiency of firm performance. Hence, the hypotheses are proposed as follows:

Hypothesis 14a: The higher modern accounting knowledge is, the more likely that firms will gain greater accounting transaction linkage competency.

Hypothesis 14b: The higher modern accounting knowledge is, the more likely that firms will gain greater accounting information reporting integration.

Hypothesis 14c: The higher modern accounting knowledge is, the more likely that firms will gain greater accounting information trust orientation.

Hypothesis 14d: The higher modern accounting knowledge is, the more likely that firms will gain greater best accounting practice efficiency.

Hypothesis 14e: The higher modern accounting knowledge is, the more likely that firms will gain greater accounting information auditing capability.

Technology Munificence Growth

The meaning of munificence refers to the availability of critical resources which derived from environment, so in the situation of technology, the more advanced it is, the more support a firm has from the valuable resources in the firm (Chen and Lin, 2004). Environmental munificence is as the scarcity or abundance of critical resources needed for the firm's operation (Sener, 2012). An abundant environment influences the survival and growth of a firm sharing in which the environment provides more opportunities for competitive activity to occur, and ease in access to necessary resources (Tang, 2008). Technology growth refers to the speed of forward change of a technology associated with new technology products that impact on a firm's operational procedures (Auh and Mengue, 2005).

Therefore, technology munificence growth refers to the progress and forward change of technology which affect the ability of vital resources to firms that derived from the advancement of technology to support growth. The growth of information technology also supports an organization when it decides to choose the best coordination mechanisms and implement them into organizational systems. To deal with this rapid growth, firms need to continuously modify their processing systems and develop innovation to absorb the supreme benefit from technology innovation (Auh and Mengue, 2005). The largest or the most significant top five IT investments in year 2013 are Analytic/Business Intelligence, Customer Relationship Management, Cloud Computing, Enterprise Resource Planning, and Big Data, which are all designed to respond to the organizations' needs and enhance the competency of the firms (Kappelman et al., 2013). Business intelligence systems are considered a potential source of competitive advantage and the key factors which boost the transition to the embedding of business intelligence systems into worker routines are; personal innovativeness and readiness for change (Grubljesic and Jaklic, 2015). Furthermore,

information technology innovativeness, which is the result of technology munificence growth, can create value in the accounting domain through its role in improving efficiencies associated with the audit process by reducing overall inherent risks and business risks (Lee, Whitworth, and Hermanson, 2015).

The advancement of technology affects computing power, relational databases, and state-of-the-art transaction processes; and these lead to more accurate information and ultimately affect the performance of each firm (Rodriguez and Spraakman, 2012). With the advancement in information technology, many companies have become heavily dependent on computer-assisted systems, and implemented various computer-based business activities and document systems (Lin and Wang, 2011). Hence, technology sophistication can enhance decision-making, provide broader knowledge, and competitiveness of the firm (Mukherji and Mukherji, 2016; Zanello and Srinivasan, 2014). Nowadays, technology has rapid growth and appropriate business intelligence (BI) that can customize and serve each decision style's requirement of each firm (Mohammadi and Hajiheydari, 2012). On the other hand, in the context of SMEs in Thailand, is still have some problems such as follows; lack of efficiency in management and administration, lack of professional or expert in SMEs business, lack of skilled workers, lack of technology to reduce cost and support business, and lack of efficiency and effectiveness of production management (the Institute for small and Medium Enterprises Development: ISMED). Hence, in SMEs businesses context should pay the more concentrated in the suitable and fit of technology, because of changing accounting systems to fit new technology can be a very difficult task: data needs to be converted from the existing system to new system, accounting staff and all users need to be retrained and sometimes source documents and reports need to be redesigned (Amidu, Effan, and Abor, 2011). Therefore, in the technology munificence growth environmental, if the firms can harvest the benefit of the advancement of technology and choose the suitable technology of their firms, these will lead to the more competitive advantage of the firms. Hence, the related hypotheses are postulated as follows:

Hypothesis 15a: The higher technology munificence growth is, the more likely that firms will gain greater accounting transaction linkage competency.

Hypothesis 15b: The higher technology munificence growth is, the more likely that firms will gain greater accounting information reporting integration.

Hypothesis 15c: The higher technology munificence growth is, the more likely that firms will gain greater accounting information trust orientation.

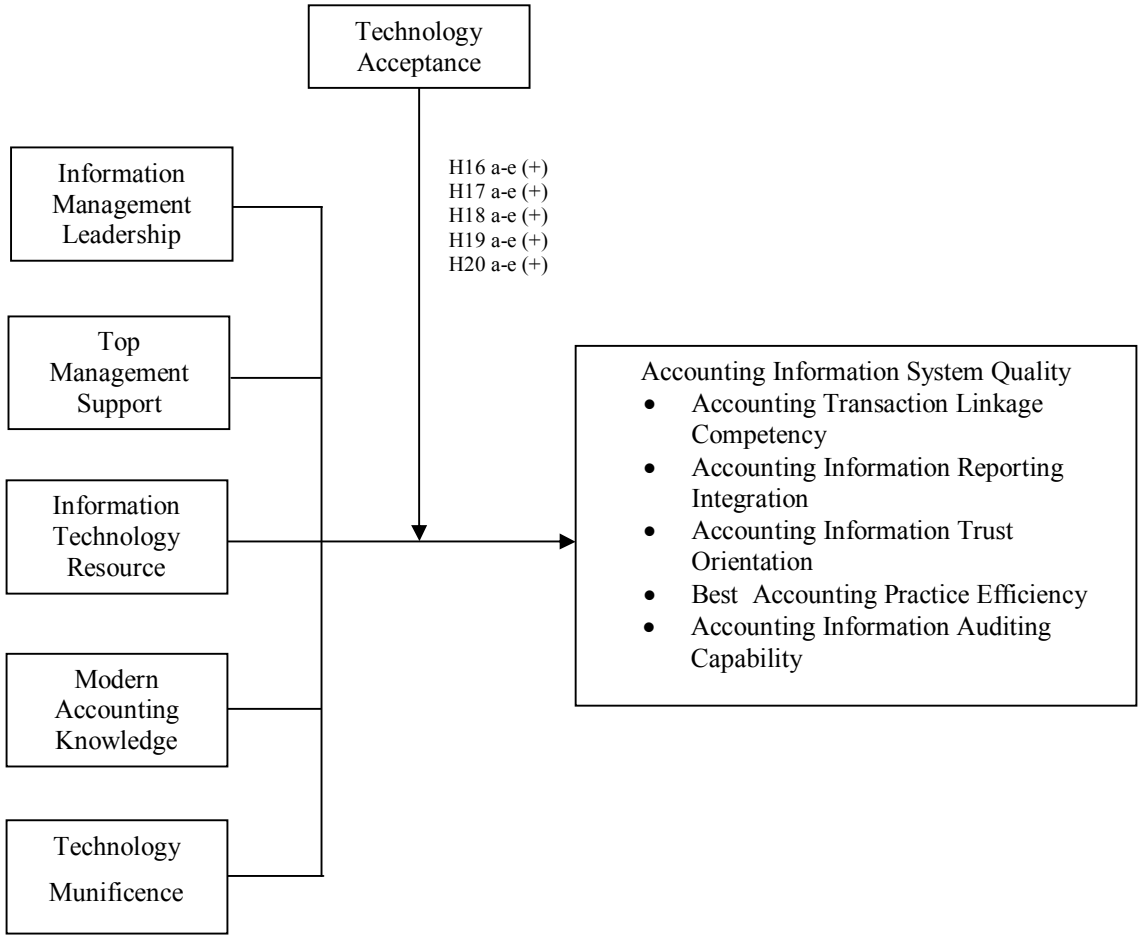
Hypothesis 15d: The higher technology munificence growth is, the more likely that firms will gain greater best accounting practice efficiency.

Hypothesis 15e: The higher technology munificence growth is, the more likely that firms will gain greater accounting information auditing capability.

The Moderator of Accounting Information System Quality

This section illustrates the moderating effect of technology acceptance on the influence of accounting information system quality antecedents that are in Figure 5.

Figure 5: The Moderating Role of Technology Acceptance on the Relationships Among Accounting Information System Quality, Information Management Leadership, Top Management Support, Information Technology (IT) Resource, Modern Accounting Knowledge, and Technology Munificence Growth



Technology Acceptance

In the world where information technology evolves at a rapid pace, the slightest lapses of acceptance of the latest development could mean a drawback for an organization. Information technology plays a vital role in various organizational activities. How well the information system is perceived and integrated into organizational processes, is the primary factor that influences the level of effectiveness that exists in information technology use, especially at different organizations (Ibrahin and Leong, 2012). In the advancement of information technology, many companies have become

heavily dependent on computer-assisted systems, and have implemented various computer-based business activities and documentation system (Lin and Wang, 2011). For example, there is strong consensus that the internet has the potential to positively impact firms, and SMEs in particular; however, not all firms have realized benefits from adoption (Celuch et al., 2011). In this circumstance, firms must develop and use new technologies in order to adapt to new environmental opportunities (Karim and Mitchell, 2000). To survive and achieve the goals of a firm, new ways of operation are becoming more interesting. Especially, technological learning and technology acceptance have an important role in enabling organizations to generate new knowledge, improvement of capabilities, and skills that can lead to accomplishment. Technology learning process as a process that is directed towards helping a firm learn, accumulate, and leverage management know-how and best practices to use technology for operations and lead to technology acceptance. The organizational capabilities such as collective intelligence, knowledge management and innovation have a positive association with effective decision-making and superior value creation (Boulesnane and Bouzidi, 2013).

The technology acceptance model (TAM) is an information systems theory that models how users come to accept and use a technology. The model suggests that when users are presented with a new technology, a number of factors influence their decision about how and when they will use it, notably: Perceived usefulness (PU) – This was defined by Fred Davis as the degree to which a person believes that using a particular system would enhance his or her job performance. Perceived ease-of-use (PEOU) – Davis defined this as the degree to which a person believes that using a particular system would be free from effort (Davis, 1989). The applicability of the technology acceptance model in the United Kingdom indicated that perceived usefulness has the largest influence on IT acceptance followed by users' attitudes toward IT (Said, 2001). The impact of the perceived usefulness of information and communication technology on the digital divides between disabled and non-disabled people in South Korea revealed that people who perceive that adopting of information communication technology can improve their competitive advantage, benefit other business practices and improve relationships with their business partners who willingly adopt information communication technology more actively (Doh and Stough, 2010).

In addition, perceived benefits or relative advantage of information technology as attributes of the information have been addressed most frequently in technological innovation studies (Lin, 2003) because information communication technology provides a supportive role for human activities to enhance personnel or organizational efficiency and effectiveness (Byrd and Davidson, 2003; Cohen et al., 2002; Pokharel, 2005). The important one driven and barriers factor of SMEs in Ireland of adoption cloud computing is the cost and benefits for the firms (Doherty et al., 2015). In order to promote the popularization and application of cloud or new technology in any enterprise requires the joint efforts of enterprises, suppliers and the government (Zhang, 2014). The intention to adopt new systems such as a cloud computing system, is dependent upon on the mimetic and coercive pressure, which affects top management team's beliefs in the benefit of cloud computing (Yigibasioglu, 2015). The intention to use the internet for supplier information management in SMEs is affected by the behavioral norm, market and learning orientation, and strategic perspective. These influence internet-related cognitions and contribute to effectively leveraging the internet as an important area for SMEs (Celuch et al., 2011).

Moreover, a factor which affects the acceptance of technology (such as ERP and e-billing) is the cognitive factor, perceived information quality, organizational readiness and perceived strategic value of adoption (Abdillah, 2013; Ram, Corkindale, and Wu, 2013). The most important factor of implementation of new technology software, such as auditing software; namely computer-assisted auditing tools and techniques, is cost and system stability, followed by data processing accuracy, technical support, and purchase cost (Lin and Wang, 2011). Technological readiness and user acceptance is increasingly being used as a guide in the process of new technologies implementation (Larasati and Santosa, 2017). Acceptance of new technology, in other fields, reveals that behavioral intention is one factor which influences acceptance of new technology such as e-library services as an e-information service for information research (Chokri, 2016).

Therefore, in this research, technology acceptance refers to the firms proficiency in learning, adopting and adapting the newly technology knowledge and using the latest technological knowledge to enhance competitive advantage. Hence, the related hypotheses are postulated as follows:

Hypothesis 16a: Technology acceptance will positively moderate the relationship between information management leadership and accounting transaction linkage competency.

Hypothesis 16b: Technology acceptance will positively moderate the relationship between information management leadership and accounting information reporting integration.

Hypothesis 16c: Technology acceptance will positively moderate the relationship between information management leadership and accounting information trust orientation.

Hypothesis 16d: Technology acceptance will positively moderate the relationship between information management leadership and best accounting practice efficiency.

Hypothesis 16e: Technology acceptance will positively moderate the relationship between information management leadership and accounting information auditing capability.

Hypothesis 17a: Technology acceptance will positively moderate the relationship between top management support and accounting transaction linkage competency.

Hypothesis 17b: Technology acceptance will positively moderate the relationship between top management support and accounting information reporting integration.

Hypothesis 17c: Technology acceptance will positively moderate the relationship between top management support and accounting information trust orientation.

Hypothesis 17d: Technology acceptance will positively moderate the relationship between top management support and best accounting practice efficiency.

Hypothesis 17e: Technology acceptance will positively moderate the relationship between top management support and accounting information auditing capability.

Hypothesis 18a: Technology acceptance will positively moderate the relationship between top information technology resource and accounting transaction linkage competency.

Hypothesis 18b: Technology acceptance will positively moderate the relationship between information technology resource and accounting information reporting integration.

Hypothesis 18c: Technology acceptance will positively moderate the relationship between information technology resource and accounting information trust orientation.

Hypothesis 18d: Technology acceptance will positively moderate the relationship between information technology resource and best accounting practice efficiency.

Hypothesis 18e: Technology acceptance will positively moderate the relationship between information technology resource and accounting information auditing capability.

Hypothesis 19a: Technology acceptance will positively moderate the relationship between modern accounting knowledge and accounting transaction linkage competency.

Hypothesis 19b: Technology acceptance will positively moderate the relationship between modern accounting knowledge and accounting information reporting integration.

Hypothesis 19c: Technology acceptance will positively moderate the relationship between modern accounting knowledge and accounting information trust orientation.

Hypothesis 19d: Technology acceptance will positively moderate the relationship between modern accounting knowledge and best accounting practice efficiency.

Hypothesis 19e: Technology acceptance will positively moderate the relationship between modern accounting knowledge and accounting information auditing capability.

Hypothesis 20a: Technology acceptance will positively moderate the relationship between technology munificence growth and accounting transaction linkage competency.

Hypothesis 20b: Technology acceptance will positively moderate the relationship between technology munificence growth and accounting information reporting integration.

Hypothesis 20c: Technology acceptance will positively moderate the relationship between technology munificence growth and accounting information trust orientation.

Hypothesis 20d: Technology acceptance will positively moderate the relationship between technology munificence growth and best accounting practice efficiency.

Hypothesis 20e: Technology acceptance will positively moderate the relationship between technology munificence growth and accounting information auditing capability.

Summary

This chapter presents the theoretical foundation, relevant literature review, and hypothesis development. The conceptual model of the relationship between the antecedents and AIS quality, the relationship between AIS quality and accounting information advantage, valuable decision-making, information usefulness effectiveness and business goal achievement are also included. This research derives the conceptual framework from the contingency theory and information richness theory that explain whether AIS quality influences accounting information advantage, valuable decision-making, and information usefulness effectiveness resulting in the increase of business goal achievement and the influence of AIS quality antecedents. Therefore, the related hypotheses are postulated and are presented in the summary of all hypotheses in Table 3 below.

Table 3: The Summary of Hypothesized Relationships

Hypothesis	Description of Hypothesized Relationships
H1a	The higher accounting transaction linkage competency is, the more likely that firms will gain greater accounting information advantage
H1b	The higher accounting transaction linkage competency is, the more likely that firms will gain greater valuable decision-making.
H1c	The higher accounting transaction linkage competency is, the more likely that firms will gain greater information usefulness effectiveness.
H1d	The higher accounting transaction linkage competency is, the more likely that firms will gain greater business goal achievement.
H2a	The higher accounting information reporting integration is, the more likely that firms will gain greater accounting information advantage.

Table 3: The Summary of Hypothesized Relationships (continued)

Hypothesis	Description of Hypothesized Relationships
H2b	The higher accounting information reporting integration is, the more likely that firms will gain greater valuable decision-making.
H2c	The higher accounting information reporting integration is, the more likely that firms will gain greater information usefulness effectiveness.
H2d	The higher accounting information reporting integration is, the more likely that firms will gain greater business goal achievement.
H3a	The higher accounting information trust orientation is, the more likely that firms will gain greater accounting information advantage.
H3b	The higher accounting information trust orientation is, the more likely that firms will gain greater valuable decision-making.
H3c	The higher accounting information trust orientation is, the more likely that firms will gain greater information usefulness effectiveness.
H3d	The higher accounting information trust orientation is, the more likely that firms will gain greater business goal achievement.
H4a	The higher best accounting practice efficiency is, the more likely that firms will gain greater accounting information advantage.
H4b	The higher best accounting practice efficiency is, the more likely that firms will gain greater valuable decision-making.
H4c	: The higher best accounting practice efficiency is, the more likely that firms will gain greater information usefulness effectiveness.
H4d	The higher best accounting practice efficiency is, the more likely that firms will gain greater business goal achievement
H5a	The higher accounting information auditing capability is, the more likely that firms will gain greater accounting information advantage.
H5b	The higher accounting information auditing capability is, the more likely that firms will gain greater valuable decision-making.
H5c	The higher accounting information auditing capability is, the more likely that firms will gain greater information usefulness effectiveness.

Table 3: The Summary of Hypothesized Relationships (continued)

Hypothesis	Description of Hypothesized Relationships
H5d	The higher accounting information auditing capability is, the more likely that firms will gain greater business goal achievement.
H6	The higher accounting information advantage is, the more likely that firms will gain greater valuable decision-making.
H7	The higher accounting information advantage is, the more likely that firms will gain greater information usefulness effectiveness.
H8	The higher accounting information advantage is, the more likely that firms will gain greater business goal achievement.
H9	The higher valuable decision-making is, the more likely that firms will gain greater business goal achievement
H10	The higher information usefulness effectiveness is, the more likely that firms will gain greater business goal achievement.
H11a	The higher information management leadership is, the more likely that firms will gain greater accounting transaction linkage competency.
H11b	The higher information management leadership is, the more likely that firms will gain greater accounting information reporting integration.
H11c	The higher information management leadership is, the more likely that firms will gain greater accounting information trust orientation.
H11d	The higher information management leadership is, the more likely that firms will gain greater best accounting practice efficiency.
H11e	The higher information management leadership is, the more likely that firms will gain greater accounting information auditing capability.
H12a	The higher top management support is, the more likely that firms will gain greater accounting transaction linkage competency.
H12b	The higher top management support is, the more likely that firms will gain greater accounting information reporting integration.
H12c	The higher top management support is, the more likely that firms will gain greater accounting information trust orientation.

Table 3: The Summary of Hypothesized Relationships (continued)

Hypothesis	Description of Hypothesized Relationships
H12d	The higher top management support is, the more likely that firms will gain greater best accounting practice efficiency.
H12e	The higher top management support is, the more likely that firms will gain greater accounting information auditing capability.
H13a	The higher information technology resource is, the more likely that firms will gain greater accounting transaction linkage competency.
H13b	The higher information technology resource is, the more likely that firms will gain greater accounting information reporting integration
H13c	The higher information technology resource is, the more likely that firms will gain greater accounting information trust orientation.
H13d	The higher information technology resource is, the more likely that firms will gain greater best accounting practice efficiency.
H13e	The higher information technology resource is, the more likely that firms will gain greater accounting information auditing capability.
H14a	The higher modern accounting knowledge is, the more likely that firms will gain greater accounting transaction linkage competency.
H14b	The higher modern accounting knowledge is, the more likely that firms will gain greater accounting information reporting integration.
H14c	The higher modern accounting knowledge is, the more likely that firms will gain greater accounting information trust orientation.
H14d	The higher modern accounting knowledge is, the more likely that firms will gain greater best accounting practice efficiency.
H14e	The higher modern accounting knowledge is, the more likely that firms will gain greater accounting information auditing capability.
H15a	The higher technology munificence growth is, the more likely that firms will gain greater accounting transaction linkage competency.
H15b	The higher technology munificence growth is, the more likely that firms will gain greater accounting information reporting integration.

Table 3: The Summary of Hypothesized Relationships (continued)

Hypothesis	Description of Hypothesized Relationships
H15c	The higher technology munificence growth is, the more likely that firms will gain greater accounting information trust orientation.
H15d	The higher technology munificence growth is, the more likely that firms will gain greater best accounting practice efficiency.
H15e	The higher technology munificence growth is, the more likely that firms will gain greater accounting information auditing capability.
H16a	Technology acceptance will positively moderate the relationship between information management leadership and accounting transaction linkage competency.
H16b	Technology acceptance will positively moderate the relationship between information management leadership and accounting information reporting integration.
H16c	Technology acceptance will positively moderate the relationship between information management leadership and accounting information trust orientation.
H16d	Technology acceptance will positively moderate the relationship between information management leadership and best accounting practice efficiency.
H16e	Technology acceptance will positively moderate the relationship between information management leadership and accounting information auditing capability.
H17a	Technology acceptance will positively moderate the relationship between top management support and accounting transaction linkage competency.
H17b	Technology acceptance will positively moderate the relationship between top management support and accounting information reporting integration.

Table 3: The Summary of Hypothesized Relationships (continued)

Hypothesis	Description of Hypothesized Relationships
H17c	Technology acceptance will positively moderate the relationship between top management support and accounting information trust orientation.
H17d	Technology acceptance will positively moderate the relationship between top management support and best accounting practice efficiency.
H17e	Technology acceptance will positively moderate the relationship between top management support and accounting information auditing capability.
H18a	Technology acceptance will positively moderate the relationship between top information technology resource and accounting transaction linkage competency.
H18b	Technology acceptance will positively moderate the relationship between information technology resource and accounting information reporting integration.
H18c	Technology acceptance will positively moderate the relationship between information technology resource and accounting information trust orientation.
H18d	Technology acceptance will positively moderate the relationship between information technology resource and best accounting practice efficiency.
H18e	Technology acceptance will positively moderate the relationship between information technology resource and accounting information auditing capability.
H19a	Technology acceptance will positively moderate the relationship between modern accounting knowledge and accounting transaction linkage competency.

Table 3: The Summary of Hypothesized Relationships (continued)

Hypothesis	Description of Hypothesized Relationships
H19b	Technology acceptance will positively moderate the relationship between modern accounting knowledge and accounting information reporting integration.
H19c	Technology acceptance will positively moderate the relationship between modern accounting knowledge and accounting information trust orientation.
H19d	Technology acceptance will positively moderate the relationship between modern accounting knowledge and best accounting practice efficiency.
H19e	Technology acceptance will positively moderate the relationship between modern accounting knowledge and accounting information auditing capability.
H20a	Technology acceptance will positively moderate the relationship between technology munificence growth and accounting transaction linkage competency.
H20b	Technology acceptance will positively moderate the relationship between technology munificence growth and accounting information reporting integration.
H20c	Technology acceptance will positively moderate the relationship between technology munificence growth and accounting information trust orientation.
H20d	Technology acceptance will positively moderate the relationship between technology munificence growth and best accounting practice efficiency.
H20e	Technology acceptance will positively moderate the relationship between technology munificence growth and accounting information auditing capability.

CHAPTER III

RESEARCH METHODS

This chapter presents the research methods which are organized as follows. Firstly, the sample selection and data collection procedure part include population and sample, data collection, and the test of non-response bias. Next, the variable measurements are delineated. Thirdly, the method part, including the test of validity and reliability, and analytical statistics, are detailed. Also, the related equations of regression analysis are depicted in this part. Finally, the table that presents the summary of definitions and operational variables of constructs are included.

Sample Selection and Data Collection Procedure

Population and Sample

The population of this research is auto parts SMEs in Thailand. Auto parts SMEs in Thailand are selected as the unit of analysis because quality information which is produced from the accounting information system is significant for the associated users to support their business operations, and the accounting information system quality of each firm is different. Small and Medium-sized Enterprises (SMEs) are the key sector which stimulate the innovation and economic growth, so they play a vital role as economic accelerators (Ali, Rahman, and Ismail, 2012; Harash et al., 2014). SMEs, especially in auto parts SMEs, are expected to be a key driven factors which, generates job employment, destitution income to all level of workers, and impulse economic growth of Thailand (www.sme.go.th: search on September 15, 2017).

In the information technology revolution, the way to achieve the goal of all businesses includes SMEs, is a promptly response to the environmental instability. Nowadays, information technology is intensively focused by several firms including SMEs. The main obstacles of a competitive advantage and firms' survival is the without of implementation and adoption information technology to support firms' operational (Harash et al., 2014). Therefore, in the high competitive environment, small and

medium enterprises must allocate funds to effectively invest in AIS development projects for the enhancement of their effective operational performance.

Also, auto parts SMEs in Thailand are selected as the unit of analysis in this research for three reasons. Firstly, auto parts SMEs in Thailand is as a part of the business community, which will help the economic welfare of the people. It has produced as many as half of all goods and services. Economic benefits of small and medium businesses are the key factors in generating revenue for the community and the country for providing new jobs, encouraging innovation, stimulating competition, and enhancing product and service quality. The interests of small and medium-sized businesses are as follows: 1) creating new jobs, 2) generating new products or innovation, 3) stimulating economic competitiveness 4) supporting large business to produce goods and services more efficiently, 5) producing goods and services efficiently, 6) distributing to developing countries, and 7) increasing funding. All of the above-mentioned explain the benefits of small and medium-sized enterprises. http://www.sme.go.th (searched on December 23, 2016). Hence, Thai auto parts SMEs is a suitable population for this research.

Secondly, the nature of automotive businesses are intensively focus on cost management effectiveness (Laosirihongthong, Teh, and Adebanjo, 2013).Therefore, the concepts of activity based management, activity based costing, target cost, kaizen cost, life cycle cost, lean manufacturing, just-in-time, are the keys approaches to the development of the organizational processes which lead to enhance the excellence of performance. Thus, cost management tools are also effectively used to improve supplier development activities, and add value for the customer (Ellram and Stanley, 2008). Whatever, large, medium, or small auto parts businesses, cost management is an essential topic because the main objective of automotive industrial is the cost reduction. Therefore, the ways which can reduce cost and remain the quality of production is more concentrated in the context of this businesses, for examples, transfer factories with cheap labor can help companies reduce labor costs, standardization of materials can help companies to directly reduce material costs. Additionally, the logistics management and supply chain management play vital roles in cost reduction in automotive companies (Xu and Zhou, 2012). Furthermore, the concept of activity-based management (ABM), which well-known in automotive businesses, are focused on

managing activities to reduce costs and improve customer value. Operational ABM is about doing things right, using activity based costing (ABC) information to improve efficiency. The activities which add value to the product can be identified and improved, meanwhile, the activities which do not create the value added, are need to be remove to cut costs without reducing product value (Van Vliet, 2010). Furthermore, the requirements of the law determine, whether small and medium enterprises, are responsible for preparing the financial statements and paying taxes to the government, so, these businesses need to prepare financial reports. For this reason, accounting information system is necessary and employed in these businesses to assist in supporting managerial' task and lead to the effectively performance. For the aforementioned reasons, auto parts SMEs is the most interesting business and are chosen as the population of this research.

Finally, based on the literature review in the topic of accounting information system quality in SMEs, there is a few research about accounting information system quality in SMEs as an empirical research. Therefore, it is the inspiration of the researcher to interest this topic by using auto parts SMEs in Thailand as the populations.

In quantitative research, the key informant is a considerable factor affecting the reality of information for the analysis, and consigns the true understanding of its business. The key informant of this research is the head of the accounting department of each auto parts SME in Thailand who supposedly understands about accounting information system usage and outcomes, including accounting information advantage, valuable decision-making, information usefulness effectiveness, and attainting of the businesses' goals. Likewise, the head of the accounting department is involved in accounting information system implementation projects; thus, they also conceive the antecedents of accounting information system quality.

Data Collection

The data of auto parts in Thailand are classified in the categories of TSIC 2930 in the database of the Office of SMEs Promotion (OSMEP). There are 1,093 auto parts SMEs in Thailand. The population data collected from the database of the Office of SMEs Promotion (http://www.sme.go.th), and the overview of businesses characteristic at the period of this research are comprised of the limited company, which are the

majority of the whole businesses and partnerships, which are the minority. Determined by using Krejcie and Morgan procedure under the confidential 95 %. Following Krejcie and Morgan (1970), the appropriated sample size for this analysis is 285 cases. However, Aaker, Kumar, and Day (2001) suggested that 20% response rate for the questionnaires mail survey is sufficient, and then 1,425 cases are calculated by 20% of response rate. However, the amount of calculation is more than the whole of auto parts SMEs' population. Hence, the 1,093 firms are appropriated sample size for distribution in this dissertation. This research will be employed a mail-questionnaire as the instrument for collecting data. In this research, the questionnaire will directly distribute to the key informants: the head of the accounting department of the auto parts SMEs in Thailand. Then, the completed questionnaires will directly send back to the researcher by the prepared return envelopes in order to ensure confidentiality.

In this research, a valid and reliable self-administered questionnaire comprises seven sections. In the first section, respondents are requested to provide their personal information such as gender, age, education level, work experience, and current position. The second section questions the organizational characteristics; for example, business type, number of employees, and annual revenues. For the third to sixth section, respondents are canvassed on their perceptions toward accounting information system quality, its consequences, antecedents, and other influences. Moreover, a Likert five-point interval scale, ranging from 1 = strongly disagree, to 5 = strongly agree, is employed.

To be more specific, the third section collects the key concepts of accounting information system quality dimensions: accounting transaction linkage competency, accounting information reporting integration, accounting information trust orientation, best accounting practice, and accounting information auditing capability. The fourth section presents questions concerning the consequences of accounting information system quality, including accounting information advantage, valuable decision-making, information usefulness effectiveness, and business goal achievement. The fifth section includes questions regarding the internal factor which affects accounting information system quality, including information management leadership, top management support, information technology resource, modern accounting knowledge, and technology acceptance. The sixth section consists of a set of questions relating to external factors

which affect accounting information system quality, including technology munificence growth. Finally, the seventh section provides an open-ended question to gather key respondent suggestions and opinions. This questionnaire is also attached in Appendix E (Thai version) and Appendix F (English version).

With respect to the questionnaire mailing, 1,093 mailed-questionnaires are sent and 17 were returned due to there were no recipient at the address. Removing the undelivered mails and invalided mail from the original 1,093 mails, the valid mailing is 1,076 surveys. After four weeks, 257 mails are received. There are 9 incomplete questionnaires because some questions are left out and 5 invalid mail are deducted because the business are going to close their business. Of the surveys completed, only 243 are usable. The effective response rate is approximately 22.58 percent (243/1,076*100). According to Aaker, Kumar, and Day (2001), 20% response rate for a mail survey, without an appropriate follow-up procedure, is sufficient. Therefore, the response rate of this research is regarded acceptable. The detail of questionnaires are shown in Table 4

Table 4 Details of Questionnaires Mailing

Details	Numbers
Mailed Questionnaires	1,093
Undelivered Questionnaires	17
Valid Questionnaires	1,076
Received Questionnaires	257
Unusable Questionnaires	14
Usable Questionnaires	243
Response Rate (243/1,076) × 100	22.58%

Test of Non-Response Bias

To detect and consider possible problems with non-response errors, the assessment and investigation, the survey non-response bias (Armstrong and Overton, 1977) has evaluated the questionnaires mailing. Regarding to Armstrong and Overton (1977), a t-test comparison of demographics information (i.e. working capital, average revenue, total assets, number of employees, and firms' year) between early and late

respondents is tested to prevent and assure possible response bias problems. By extrapolation methods—the assumption that subjects who answer later, or require more prodding to answer—the subjects are more likely to be treated as non-respondents. If there are no statistically significant differences between early and late respondents, then there is no non-response bias between respondents and non-respondents (Rogelberg and Stanton, 2007; Lewis, Hardy, and Snaith, 2013).

In this research, all 243 usable questionnaires are split into two groups. The 122 first half respondents are in the first group and another 121 questionnaires are in the second group. To test non-response bias, t-test was used to compare demographics in both groups of respondents. The result of t-test should shows that there do not have any statistically significant difference between first group and second group respondents. The results of non-response bias testing in this research are as follows: the working capital ($t = 0.844$, $p > 0.05$), the average revenue ($t = 1.257$, $p > 0.05$), the total asset ($t = 0.905$, $p > 0.05$), the number of employees ($t = 1.300$, $p > 0.05$) and the period of time in business or firm age ($t = 0.895$, $p > 0.05$). These results provide the evidence that there were no statistically significant differences between the two groups at a 95% confidence level. It can be confidently mentioned that non-response bias is not a serious problem in this research (Armstrong and Overton, 1977). The results of the nonresponse bias test are presented in Appendix B.

Measurements

In measuring each construct in the conceptual model, multiple item measurement processes will be developed. Constructs are abstractions that cannot be directly measured or observed and should be measured by multiple items. Moreover, using multiple items provides a wider range of the content of conceptual definition and improvement of reliability (Neuman, 2006). In this research, all constructs are transformed into operational variables to gain more accuracy in measuring research constructs. All variables are derived from the definition and previous literature by a five-point Likert scale, ranging from 1 (strongly disagree), to 5 (strongly agree). In summary, all operational definitions of each construct which are

comprised of the dependent variable, the independent variables, the antecedent variables, the moderating variables, and the controlled variables, are described below.

Dependent Variable

Business goal Achievement. Business goal achievement is measured by the perception of the objectives' achievement in both of financial and non-financial performance (Ninlaphay, Ussahawanitchakit, and Boonlua, 2012).

Independent Variables

The core construct of this research is accounting information system quality. This variable is measured using five dimensions: accounting transaction linkage competency, accounting information reporting integration, accounting information trust orientation, best accounting practice efficiency, and accounting information auditing capability. The measure of each dimension as to its definition is detailed below.

Accounting transaction linkage competency. Accounting transaction linkage competency refers to the ability of the system for the collection, classification, clustering information about the accounting informationthat includes the related business transaction from several functions within the organization and the correct record of a financial statement based on generally accepted accounting principles. This construct is measured by the perceptions of the accuracy of data collection, transaction analysis, processing, coordinating, and sharing information among departments. (Yeboach et al., 2014).

Accounting information reporting integration. Accounting information reporting integration is measured by the perception of comprehensive, completeness, relevance circumstance and information in the reporting for relevant user (O' Donnell and David, 2000).

Accounting information trust orientation. Accounting information trust orientation is measured by the perception of the information that is focusing on

providing accounting information as fact without bias neutral, conservatism and complete representation of economic events (Sumritsakun, 2012).

Best accounting practice efficiency. Best accounting practice efficiency refers to the ability of system to choose the optimal way in which firms to fulfill their suitable accounting functions, procedures and policies, based on generally accepted accounting principles and accounting standards. By the aforementioned approaches will help it enhance effectiveness of accounting functions. Best accounting practice efficiency is measured by the perception of an efficient accounting process, procedure by complying with rules, regulations and accounting standards (Nilniyom and Kunsrison, 2011).

Accounting information auditing capability. Accounting information auditing capability is the perception of monitoring and controlling performance in the providing of accounting information regarding; transaction's reconciliation, checking and re-checking accounting transaction in all business process. (Sumritsakun, 2012).

Antecedent Variables

For this research, information management leadership, top management support, information technology resources, modern accounting knowledge and technology munificence growth are the antecedents of accounting information system quality. The measure of each variable is in its definition to be discussed as follows.

Information management leadership. Information management leadership is measured by the perception of the managing information, applying technology, and developing information system to generate quality of information and earn the benefit from them. (Kettinger, Zhang, and Marchand, 2011).

Top management support. Top management support is measured by the perceptions of the support from executives in resource provision, employee participation, and continuous improvement of working system (Konthong and Ussahawanitchakit, 2010).

Information technology resource. Information technology resource is measured by the perceptions of the readiness of information technology resource, IT investment in people, hardware, software, database, and computer-network to support business process (Jennex, Amoroso, and Adelakun, 2004).

Modern accounting knowledge. Modern accounting knowledge refers to organizational orientation in the mixture of a new knowledge, related issued of newly relevance accounting standards, novel accounting processes and latest accounting techniques to support the management of the organization to have the ability to manage and contribute to a competitive advantage. Therefore, modern accounting knowledge is measured by the perceptions of organization's intention to concern about newly accounting standards, accounting technique, regulations and newly related issue of accounting that are developed under dynamic environmental conditions (Moss, Klinefelter, and Gunderson, 2012).

Technology munificence growth. Technology munificence growth refers to the progress and forward change of technology which affect the ability of vital resources to firms that derived from the advancement of technology to support growth. These items ask for the perceptions of technology advancement environment, and innovation which support the firm' opportunities in the area of choosing the suitable technology and communication system (Auh and Mengue, 2005).

Consequential Variables

Accounting information advantage. Accounting information advantagerefers to the superior qualitative characteristics of accounting information increasing the quality of decisions to analyze, evaluate, and predict the economic events on-time, accurately and clearly. Accounting information advantage is measured by the perceptions of user acceptance in the quality of information; in the area of differentiate, on-time, accuracy, completeness information for all aspects of the business (Nelson, Tood, and Wixom, 2005).

Valuable decision-making. Valuable decision-making refers to the best and suitable choosing among various alternatives ways, which lead the firms to attain their set goals. It is measured by the users' perceptions of the efficiency evaluating between the many alternative choices of the organization and choosing the best alternative under a crisis situation (Badri, Davis, and Davis, 2000).

Information usefulness effectiveness. Information usefulness effectiveness is measured by the users' perceptions of effective planning, controlling and directing, evaluating the opportunities of the firm (Fisher and Kingma, 2009).

Moderating Variable

Technology acceptance. Technology acceptance refers to the firms proficiency in learning, adopting and adapting the newly technology knowledge and using the latest technological knowledge to enhance competitive advantage. Technology acceptance is measured by the perceptions of motivate and encourage learning and adopting technology application in the organization (Boulesnane and Bouzidi, 2013).

Control Variables

Firm size. Firm size is defined as the total assets of the firm (Joshi, 2001). Firm size is a determinant of organizational success and explains the value of firm performance (Serrano-Cinca, Fuertes-Callen, and Mar-Molinero, 2005). Firm size is the important variable which significantly influences the performance of accounting information system (Choe, 2015). Prior research indicated that firm size is one of essential component which affect the performance of firms (Boateng and Glaister, 2002; Pan and Li, 2000). In this research, firm size is represented by a dummy variable in which "0" means a firm has total assets less than 50 million baht, and "1" means a firm has total assets more than 50 million baht.

Firm age. Firm age is normally associated with business experience, competitiveness and capability. Firm age will influence firm performance, sustainability and quality in managing. Older firms will gain benefit from accumulated experience (Leiblein, Reuer, and Dalsace, 2002). Therefore, the quality of process in management

and firms' performance are affected by their age. Firm age is the period of time the firm has been in business (Biddle, Hilary, and Verdi, 2009), and can be measured by the length from the establishment year to the current year of the research. According to the research of, Delmotte and Sels (2008), firm age is a dummy variable in which 0 means the firm has been in business less than or equal to 10 years, and 1means the firm has been in business for more than 10 years.

Methods

The method demonstrates the test of appropriateness of data collection instrument and the credibility of developed constructs. In this research, the tests of validity and reliability will be considered. The method also presents the statistical techniques that are utilized in the analysis.

Validity and Reliability

Validity reflects the accuracy of the measurement that evinces the concept of consideration (Hair et al., 2010). In order to verify the research instrument accuracy and validity, this research examines content and constructs validity of the questionnaire.

Firstly, content validity is the extent to which the items of the scales are sufficiently reflected in the interrelated theoretical domains. It refers to the degree to which the essence of the scale represents the construct being measured (Thoumrungroje, 2013). With regard to relevant theory and the literature review, each of the items in a questionnaire will be subjectively assessed by a specialist and related academic expert. The detail of expertise are shown in Appendix H.

Secondly, construct validity refers to a set of measured items that actually reflects the theoretical latent construct that those items are designed to measure (Hair et al., 2006). If the scale really reflects and indicates its designated construct, then convergent validity and discriminant validities should be established. Convergent validity demonstrates items that are indicators of a specific construct convergence or share a high proportion of variance in common (Hair et al., 2010). It is the accuracy of a scale in correlating with other scales that are designed to measure the same construct (Thoumrungroje, 2013). Discriminant validity is the extent to which a construct is truly

distinct from other constructs (Hair et al., 2010). It is the accuracy of a scale in distinguishing itself from other scales to measure a different construct (Thoumrungroje, 2013). In short, this validity also means that individually-measured items should represent only one construct. Therefore, confirmatory factor analysis is used to examine the construct validity of the data in the questionnaire. Moreover, to ensure the construct validity, the size of factor-loading must be greater than the 0.40 cut-off and be statistically significant (Nunnally and Berstein, 1994).

Table 5 shows factor loading of each construct that presents a value higher than 0.40 which is cut-off score recommended by Nunnally and Berstein (1994). The factor loading ranging from 0.585 – 0.955 the lowest factor loading is in business goal achievementand the highest factor loading is in accounting information reporting integration. Thus, construct validity of this research is tapped by items in the measure as theorized.

Reliability. Reliability is the degree to which the measurement is trustworthy and error-free (Hair et al., 2010). In this research, Cronbach's alpha coefficient is used to test the internal consistency of each construct. Internal consistency is an approach to evaluate the consistency or reliability within a collection of multiple items that represent the scale (Thoumrungroje, 2013). The Cronbach's alpha should be greater than 0.70 to ensure the internal consistency of each construct (Nunnally and Bernstein 1994; Hair et al., 2006).

According to the results from Table 5, Cronbach's alpha coefficients are ranging from 0.806 – 0.934. The lowest coefficient is for accounting information advantage and the highest coefficient is for accounting information auditing capability. That is, internal consistency of the measures used in this research must be considered good for all constructs. (See also Appendix C)

Table 5: Results of Validity and Reliability Testing

Variables	Factor Loadings	Cronbach's Alpha
Accounting transaction linkage competency (ATL)	0.779-0.818	0.814
Accounting information reporting integration (ARI)	0.791-0.955	0.910
Accounting information trust orientation (ATO)	0.788-0.862	0.886
Best accounting practice efficiency (BAP)	0.873-0.921	0.910
Accounting information auditing capability (AAC)	0.885-0.948	0.934
Accounting information advantage (AIA)	0.777-0.900	0.806
Valuable decision making (VDM)	0.742-0.878	0.833
Information usefulness effectiveness (IUE)	0.812-0.910	0.881
Business goal achievement (BGA)	0.585-0.885	0.808
Information management leadership (IML)	0.701-0.850	0.830
Top management support (TMS)	0.830-0.918	0.901
Information technology resource (ITR)	0.858-0.931	0.907
Modern accounting knowledge (MAK)	0.826-0.936	0.914
Technology munificence growth (TMG)	0.857-0.935	0.927
Technology acceptance (TAC)	0.715-0.888	0.854

Statistical Techniques

Before hypotheses testing, all of raw data will be checked, encoded, and recorded in a data file. Then, the basis assumption of regression analysis, such as the outlier, missing data, normality, linearity, and multicollinearity are tested.

Variance inflation factor. To deal with the multicollinearity problem, this research will employ a variance inflation factor (VIF) and a tolerance value as indicators to indicate a high degree of multicollinearity among the independent variables. When a tolerance value must be greater than 0.10 and the VIF should be less than 10, then multicollinearity is not occurred (Hair et al., 2010). All VIF values should be smaller than 10 to be considered that the associations among independent variables are not problematic (Neter, Wasserman, and Kutner, 1985; Hair et al., 2006). The

results of regression analysis provide evidence that VIF of each regression is ranging from 1.015 to 4.593, indicating that this research has not multicollinearity problems (See Table D2 to D5 in Appendix D for more details).

Correlation analysis. Correlation analysis is illustrated to test the correlation among all variables, and a correlation matrix will be provided to show the intercorrelations among all variables for the initial analysis. The correlation between independent variables and dependent variables should have high correlate, but the correlation between independent variables and independent variables should have low correlate. If the variables become highly correlated, the correlation coefficient is greater than 0.8 and shows significance, then multicollinearity may occur (Hair et al., 2010; Homberg, Artz, and Wieseke, 2012).

Multiple regression analysis. Multiple regression analysis is used to test all hypotheses following the conceptual model. The ordinary least squares (OLS) regression is appropriate for examining the relationships between dependent variables and independent variables because both dependent and independent variables in this research are categorical and interval data (Hair et al., 2010). Thus, all hypotheses in this research are transformed into seventeen equations. Each equation consists of the main variables related to the hypotheses testing as described in the previous chapter. Moreover, two control variables, firm size and firm age, are included in all of those equations for hypotheses testing. The detail of each equation is presented as the following.

The investigation of the relationships between five dimensions of accounting information system quality consists of accounting transaction linkage competency, accounting information reporting integration, accounting information trust orientation, best accounting practice efficiency, and accounting information auditing capability – accounting information advantage, valuable decision-making, information usefulness effectiveness and business goal achievement is presented in Equations 1 - 4 as follows:

$$\textit{Equation 1: } AIA = \alpha_1 + \beta_1 ATL + \beta_2 ARI + \beta_3 ATO + \beta_4 BAP + \beta_5 AAC + \beta_6 SIZ + \beta_7 AGE + \varepsilon$$

$$Equation\ 2: VDM = \alpha_2 + \beta_8 ATL + \beta_9 ARI + \beta_{10} ATO + \beta_{11} BAP + \beta_{12} AAC + \beta_{13} SIZ + \beta_{14} AGE + \varepsilon$$

$$Equation\ 3: IUE = \alpha_3 + \beta_{15} ATL + \beta_{16} ARI + \beta_{17} ATO + \beta_{18} BAP + \beta_{19} AAC + \beta_{20} SIZ + \beta_{21} AGE + \varepsilon$$

$$Equation\ 4: BGA = \alpha_4 + \beta_{22} ATL + \beta_{23} ARI + \beta_{24} ATO + \beta_{25} BAP + \beta_{26} AAC + \beta_{27} SIZ + \beta_{28} AGE + \varepsilon$$

The investigation of the relationships of consequences of accounting information system quality among accounting information advantage, valuable decision-making and information usefulness effectiveness – business goal achievement is presented in Equations 5 - 7 as follows:

$$Equation\ 5: VDM = \alpha_5 + \beta_{29} AIA + \beta_{30} SIZ + \beta_{31} AGE + \varepsilon$$

$$Equation\ 6: IUE = \alpha_6 + \beta_{32} AIA + \beta_{33} SIZ + \beta_{34} AGE + \varepsilon$$

$$Equation\ 7: BGA = \alpha_7 + \beta_{35} AIA + \beta_{36} VDM + \beta_{37} IUE + \beta_{38} SIZ + \beta_{39} AGE + \varepsilon$$

The investigation of the relationships among five antecedents, namely, information management leadership, top management support, information technology resource, modern accounting knowledge and technology munificence growth and each dimension of accounting information system quality consist of accounting transaction linkage competency, accounting information reporting integration, accounting information trust orientation, best accounting practice efficiency, and accounting information auditing capability is presented in Equations 8 - 12 as follows:

$$Equation\ 8: ATL = \alpha_8 + \beta_{40} IML + \beta_{41} TMS + \beta_{42} ITR + \beta_{43} MAK + \beta_{44} TMG + \beta_{45} SIZ + \beta_{46} AGE + \varepsilon$$

$$Equation\ 9: ARI = \alpha_9 + \beta_{47} IML + \beta_{48} TMS + \beta_{49} ITR + \beta_{50} MAK + \beta_{51} TMG + \beta_{52} SIZ + \beta_{53} AGE + \varepsilon$$

$$Equation\ 10: ATO = \alpha_{10} + \beta_{54} IML + \beta_{55} TMS + \beta_{56} ITR + \beta_{57} MAK + \beta_{58} TMG + \beta_{59} SIZ + \beta_{60} AGE + \varepsilon$$

$$\text{Equation 11: } BAP = \alpha_{811} + \beta_{61}IML + \beta_{62}TMS + \beta_{63}ITR + \beta_{64}MAK + \beta_{65}TMG + \beta_{66}SIZ + \beta_{67}AGE + \varepsilon$$

$$\text{Equation 12: } AAC = \alpha_{12} + \beta_{68}IML + \beta_{69}TMS + \beta_{70}ITR + \beta_{71}MAK + \beta_{72}TMG + \beta_{73}SIZ + \beta_{74}AGE + \varepsilon$$

The investigation of the role of the moderators, namely technology acceptance, which moderates among antecedents (information management leadership, top management support, information technology resource, modern accounting knowledge and technology munificence growth) – accounting transaction linkage competency, accounting information reporting integration, accounting information trust orientation, best accounting practice efficiency, and accounting information auditing capability relationship, respectively, is presented in Equations 13 - 17 as follows:

$$\text{Equation 13: } ATL = \alpha_{13} + \beta_{75}IML + \beta_{76}TMS + \beta_{77}ITR + \beta_{78}MAK + \beta_{79}TMG + \beta_{80}TAC + \beta_{81}(IML*TAC) + \beta_{82}(TMS*TAC) + \beta_{83}(ITR*TAC) + \beta_{84}(MAK*TAC) + \beta_{85}(TMG*TAC) + \beta_{86}SIZ + \beta_{87}AGE + \varepsilon$$

$$\text{Equation 14: } ARI = \alpha_{14} + \beta_{88}IML + \beta_{89}TMS + \beta_{90}ITR + \beta_{91}MAK + \beta_{92}TMG + \beta_{93}TAC + \beta_{94}(IML*TAC) + \beta_{95}(TMS*TAC) + \beta_{96}(ITR*TAC) + \beta_{97}(MAK*TAC) + \beta_{98}(TMG*TAC) + \beta_{99}SIZ + \beta_{100}AGE + \varepsilon$$

$$\text{Equation 15: } ATO = \alpha_{15} + \beta_{101}IML + \beta_{102}TMS + \beta_{103}ITR + \beta_{104}MAK + \beta_{105}TMG + \beta_{106}TAC + \beta_{107}(IML*TAC) + \beta_{108}(TMS*TAC) + \beta_{109}(ITR*TAC) + \beta_{110}(MAK*TAC) + \beta_{111}(TMG*TAC) + \beta_{112}SIZ + \beta_{113}AGE + \varepsilon$$

$$\text{Equation 16: } BAP = \alpha_{16} + \beta_{114}IML + \beta_{115}TMS + \beta_{116}ITR + \beta_{117}MAK + \beta_{118}TMG + \beta_{119}TAC + \beta_{120}(IML*TAC) + \beta_{121}(TMS*TAC) + \beta_{122}(ITR*TAC) + \beta_{123}(MAK*TAC) + \beta_{1124}(TMG*TAC) + \beta_{125}SIZ + \beta_{126}AGE + \varepsilon$$

$$Equation\ 17: AAC = \alpha_{17} + \beta_{127}IML + \beta_{128}TMS + \beta_{129}ITR + \beta_{130}MAK + \beta_{131}TMG + \beta_{132}TAC + \beta_{132}(IML*TAC) + \beta_{134}(TMS*TAC) + \beta_{135}(ITR*TAC) + \beta_{136}(MAK*TAC) + \beta_{137}(TMG*TAC) + \beta_{138}SIZ + \beta_{139}AGE + \varepsilon$$

Where;

ATL = *Accounting transaction linkage competency*
ARI = *Accounting information reporting integration*
ATO = *Accounting information trust orientation*
BAP = *Best accounting practice efficiency*
AAC = *Accounting information auditing capability*
AIA = *Accounting information advantage*
VDM = *Valuable decision-making*
IUE = *Information usefulness effectiveness*
BGA = *Business goal achievement*
IML = *Information management leadership*
TMS = *Top management support*
ITR = *Information technology resource*
MAK = *Modern accounting knowledge*
TMG = *Technology munificence growth*
TAC = *Technology acceptance*
SIZ = *firm size*
AGE = *firm age*
ε = *Error term*
α = *Constant*
β = *coefficient*

Summary

This chapter summarizes the research methods will be used in the investigation for this research, from simple selection to data-gathering, examining all constructs purposed in the conceptual model, and to answer the research questions. To be specific, there are four main parts in this chapter: (1) sample selection and data collection procedures, (2) measurement of variables, (3) verification of instruments, and (4) statistical techniques. A total list of 1,093 Thai auto parts SMEs firms were provided by the Office of SMEs Promotion database (http://www.sme.go.th). The key informants completing the questionnaires are that the heads of accounting departments. Moreover, a valid and reliable questionnaire is the primary instrument of data collection. This chapter also provides the measurements of each construct in the model, which are based on the existing literature. For multiple regression analysis, testable seventeen statistical equations are formulated. Finally, a summary of the constructs' definitions and the operational explanation is given in Table 6.

Table 6: Definitions and Operational Variables of Constructs

Construct	Definition	Operational Variables	Scale Source
	Dependent variable		
Business goal achievement (BGA)	The operational outcome or acquired results which enable the firm to achieve the objectives set by linking both the organization's missions, visions, and strategies and procedures with their goals	Business goal achievement is measured by the perception of the objectives' achievement in both of financial and non-financial performance.	Ninlaphay, Ussahawanitchakit, and Boonlua (2012)
	Independent variables		
Accounting transaction linkage competency (ATL)	The ability of the system for the collection, classification, clustering information about the accounting informationthat includes the related business transaction from several functions within the organization and the correct record of a financial statement based on generally accepted accounting principles	Measure by the perceptions of the accuracy of data collection, transaction analysis, processing, coordinating, and sharing information among departments.	New Scale

Table 6: Definitions and Operational Variables of Constructs (continued)

Construct	Definition	Operational Variables	Scale Source
Independent variables (Con.)			
Accounting information reporting integration (ARI)	The data gathering covering all business operations of the company in the both of financial and non-financial information and both of internal and external circumstance to meet all the requirements of the accounting data and the enhancement of understanding of the relevant users	The items require the perception of comprehensive, completeness, relevance circumstance and information in the reporting for relevant user	New Scale
Accounting information trust orientation (ATO)	The focusing on providing faithful information which is a representation of economic substance, free from bias, conservatism and completeness	The perception of the information that is focusing on providing accounting information as fact without bias neutral, conservatism and complete representation of economic events	New Scale

Table 6: Definitions and Operational Variables of Constructs (continued)

Construct	Definition	Operational Variables	Scale Source
	Independent variables (Con.)		
Best accounting practice efficiency (BAP)	The ability of system to choose the optimal way in which firms to fulfill their suitable accounting functions, procedures and policies, based on generally accepted accounting principles and accounting standards. By the aforementioned approaches will help ti enhance effectiveness of accounting functions	The perception of an efficient accounting process, procedure by complying with rules, regulations and accounting standards.	Nilniyom and Kunsrison (2011)
Accounting information auditing capability (AAC)	The system proficiency in monitoring, tracking, verifying and reviewing all accounting activities to generate accounting information which helps to ensure that accounting data from various processes are accurate, transparent, and verifiable.	In this research, respondents are asked to indicate their perception of monitoring and controlling performance in the providing of accounting information regarding; transaction's reconciliation, checking and re-checking accounting transaction in all business process.	New Scale

Table 6: Definitions and Operational Variables of Constructs (continued)

Construct	Definition	Operational Variables	Scale Source
	Mediating variables		
Accounting information advantage (AIA)	The superior qualitative characteristics of accounting information increase the quality of decisions to analyze, evaluate, and predict the economic events on-time, accurately and clearly	The items question for the perceptions of user acceptance in the quality of information; in the area of differentiate, on-time, accuracy, completeness information for all aspects of the business.	Nelson, Tood, and Wixom (2005)
Valuable decision-making (VDM)	The best and suitable choosing among various alternatives ways, which lead the firms to attain their set goals	It is measured by the users' perceptions of the efficiency evaluating between many alternative choices of the organization and choosing the best alternative under a crisis situation.	New Scale

Table 6: Definitions and Operational Variables of Constructs (continued)

Construct	Definition	Operational Variables	Scale Source
	Mediating variables (Con.)		
Information usefulness effectiveness (IUE)	The benefit from the use of information for effectively planning, controlling, directing, and forecasting firms' operational in order to help achieve the corporate objectives that are set	It is measured by the users' perceptions of effective planning, controlling and directing, evaluating the opportunities of the firm.	Fisher and Kingma (2009)
	Antecedent variables		
Information management leadership (IML)	The managerial ability in motivating, developing and using information resource and infrastructures to manage information to sustain their business objective achievement	The perception of the managing information, applying technology, and developing information system to generate quality of information and earn the benefit from them.	New Scale

Table 6: Definitions and Operational Variables of Constructs (continued)

Construct	Definition	Operational Variables	Scale Source
	Antecedent variables (Con.)		
Top management support (TMS)	Management's participation in the action to provide the way in organization to encourage employee participation, continuously developing system, allocation of organization resources, and necessary resource provision to facilitate business process	The items enquire the perceptions of the support from executives in resource provision, employee participation, and continuous improvement of working system.	Konthong and Ussahawanitchakit (2010)
Information technology resource (ITR)	The existed IT infrastructures and IT investment in any organization's IT budget, in terms of both monetary and intellectual resources.	The items question for the perceptions of the readiness of information technology resource, IT investment in people, hardware, software, database, and computer-network to support business process	Ibrahim and Leong, (2012)

Table 6: Definitions and Operational Variables of Constructs (continued)

Construct	Definition	Operational Variables	Scale Source
	Antecedent variables (Con.)		
Modern accounting knowledge (MAK)	The focusing of organizational in the mixture of a new knowledge, related issued of newly relevance accounting standards, novel accounting processes and latest accounting techniques to support the management of the organization to have the ability to manage and contribute to a competitive advantage.	The items ask for the perceptions of organization's intention to concern about newly accounting standards, accounting technique, regulations and newly related issue of accounting that are developed under dynamic environmental conditions.	Moss, Klinefelter, and Gunderson (2012)
Technology munificence growth (TMG)	The progress and forward change of technology which affect the ability of vital resources to firms that derived from the advancement of technology to support growth.	The items ask for the perceptions of technology advancement environment, and innovation which support the firm' opportunities in the area of choosing the suitable technology and communication system.	New Scale

Table 6: Definitions and Operational Variables of Constructs (continued)

Construct	Definition	Operational Variables	Scale Source
	Moderating variable		
Technology acceptance (TAC)	The firms proficiency in learning, adopting and adapting the newly technology knowledge and using the latest technological knowledge to enhance competitive advantage.	The items ask for the perceptions of motivation and encourage learning and adopting technology application in the organization	New Scale
	Control variable		
Firm size (SIZ)	The total assets of the firm.	Dummy variable 0 = below and equal to 50 million baht, 1 = higher than 50 million baht	Joshi (2001)
Firm Age (AGE)	Numbers of years that firm operates in business.	Dummy variable 0 = below and equal to 10 years, 1 = more than 10 years	Delmotte and Sels (2008)

CHAPTER IV

RESULTS AND DISCUSSION

The previous chapter presented the research methods which include the sample selection and data collection procedure containing population and sample selection, data collection, and the test of non-response bias. Moreover, data analysis and hypotheses testing are described. This chapter is organized as follows. Firstly, this chapter presents the respondent characteristics, the sample characteristics, and correlation analysis. Secondly, the hypothesis testing and the results are detailed. Finally, the summary of all hypotheses testing and conclusions is included in Table 16.

Respondent Characteristics and Descriptive Statistics

Participants and Respondent Characteristics

In this research, the participant is the accounting executive of each auto parts SMEs firms. The details of key participants are described by gender, age, marital status, education level, work experience, average monthly income, and working position. The results show that 31.28% of participants are male and 68.72% are female. The most of participants are between 30 and 40 years old (40.74%) and the most of participants are married (64.20%). Approximately, 23.05% of participants obtained higher than bachelor degree. The majority of participants has more than 15 years of working experience (42.80%). Furthermore, most of participants receive the average monthly income less than 50,000 Baht (57.20%), and between 50,000 - 70,000 Baht (18.11%), respectively. Finally, the majority of the respondents holds a position as accounting manager (61.32%). For more details, see Table A1 in Appendix A.

Firm Characteristics

The results of demographic characteristics of 243 auto parts SMEs businesses indicate that the majority of the firm respondents has registered as a limited company (96.71%) and the major ownership pattern are single business (71.61 %). The results of auto parts type indicate that original equipment manufacturer (OEM), replacement

equipment manufacturer (REM) and both type of them are 65.43%, 21.81%, and 12.76 % respectively. The major customer is domestic customers (80.25%) and business is located in the central region of Thailand (43.62%). The majority of the firm respondents has working capital less than 25,000,000 to 50, 000,000 baht (79.84%). The average revenue per year of the firm respondent less than 40,000,000 baht is 52.68%, and the major of firm respondent has total asset less than 50,000,000 baht (50.21%). Approximately 32.51 % of firm respondents have been operating in the auto parts industry over15 years. In addition, half of the firm respondents employ less than 50 full-time employees (51.03%). Lastly, accounting software of the firm indicates that 51.03% of the firm respondents use Express. (See Table A2 in Appendix A for more details).

Correlation Analysis

This research employs a bivariate correlation analysis of Pearson's correlation on all variables for two purposes. The first purpose is to explore the relationships among variables. Another purpose is to verify the multicollinearity problem. The multicollinearity problem exists when inter-correlation between independent variables exceeds 0.80 (Hair et al., 2010). In this research, the bivariate correlation procedure is subject to a two-tailed test of statistical significance at two levels as $p < 0.05$, and $p < 0.01$. The results of the correlation analysis of all variables in this research are shown in Table 7.

Accordingly, Table 7 shows that the Pearson Correlation Coefficient of the five dimensions of accounting information system quality; including 1) accounting transaction linkage competency, 2) accounting information reporting integration, 3) accounting information trust orientation, 4) best accounting practices efficiency, and 5) accounting information auditing capability, is between 0.465 – 0.846, $p < 0.01$. The result seems that the multicollinearlity problem occurs when inter-correlation analysis between independent variables exceeds 0.80 (Hair et al., 2010), but correlation analysis is employed to initially investigate. Meanwhile, VIF is employed to test the interrelationship among independent variables in each equation. The maximum value of VIF in equation 1 - 4 is 4.380 and less than 10, thus multicollinearity problem is not concerned.

The five dimensions of accounting information system quality (independent variables) have significant positive relationships with dependent variable including;

accounting information advantage, valuable decision making, information usefulness effectiveness, and business goal achievement ($r = 0.230 - 0.589$, $p < 0.01$). For the antecedents, these variables are significantly related to all dimensions of accounting information system quality ($r = 0.332 - 0.566$, $p < 0.01$). The moderating effects of technology acceptance have correlations with all variables between 0.361 and 0.743, $p < 0.01$. In addition to the relationships among variables, the correlations among all variables in the conceptual model are in the range of 0.230 – 0.846 at $p < 0.01$, there are two variables which show correlation coefficient more than 0.8, but the rest are lower than 0.8 (Hair et al., 2010). Furthermore, VIF is employed to concern about the multicollinearlity problem and in this research the VIF of all equation are less than 10, thus, the results indicate that there is -no multicollinearity problems in this research.

Table 7: Descriptive Statistics and Correlation Matrix of Accounting Information System Quality and All Constructs

Variables	ATL	ARI	ATO	BAP	AAC	AIA	VDM	IUE	BGA	IML	TMS	ITR	MAK	TMG	TAC	SIZ	AGE
Mean	4.18	4.16	4.19	4.09	4.20	3.96	3.96	4.02	3.98	4.13	4.21	4.16	4.16	4.21	4.15	n/a	n/a
S.D.	.479	.502	.499	.569	.517	.517	.478	.503	.585	.488	.495	.525	.529	.493	.540	n/a	n/a
ARI	.667***																
ATO	.694***	.846***															
BAP	.465***	.573***	.561***														
AAC	.590***	.678***	. 713***	.651***													
AIA	.526***	.558***	.589***	.329***	.496***												
VDM	.418***	.418***	.374***	.230***	.380***	. 680***											
IUE	.401***	.473***	.413***	.295***	.476***	. 672***	.801***										
BGA	.379***	.548***	.522***	.319***	.420***	.631***	. 611***	. 684***									
IML	.427***	.545***	.556***	.441***	. 517***	.640***	. 472***	. 509***	. 546***								
TMS	.332***	.477***	.451***	.415***	.459***	.465***	. 407***	. 487***	. 510***	. 735***							
ITR	.404***	.574***	.566***	.406***	.509***	.570***	. 373***	. 445***	. 521***	.719***	725***						
MAK	.480***	507***	. 490***	.360***	.407***	.604***	. 470***	. 441***	. 595***	.714***	. 657***	. 714***					
TMG	.464***	.510***	.514***	. 472***	. 525**	.546***	. 357***	. 423***	. 447***	.635***	. 612***	. 668***	. 620***				
TAC	.418***	.501***	.470***	.361***	. 438***	.567***	. 421***	. 416***	. 522***	.735***	. 697***	. 743***	. 743***	. 674***			
SIZ	.146**	-.031	.040	.672	.062	.089	.026	. 060	-.034	.071	-.036	-.055	. 060	.025	-.031		
AGE	-.026	-.018	.000	. 082	064	-.061	.015	-.016	-.092	-.029	-.110	-.061	-.034	-.081	-.089	.226***	

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

Hypothesis Testing and Results

This research employs the ordinary least squares (OLS) regression to investigate the hypothesized relationships. Also, the regression equation is a linear combination of the independent variables that best explains and predicts the dependent variable. Furthermore, two dummy variables of firm size and firm age are also included in the equation. There are seventeen statistical equations in this research. The results of descriptive statistics and hypotheses testing are discussed according to regression equations as follows:

The Relationships among Each Dimension of Accounting Information System Quality and Its Consequences

Figure 6 shows the relationships among accounting information system quality and its consequences which are proposed in Hypotheses 1(a-d) -5(a-d). The relationship in each hypothesis is proposed to be in a positive direction. These hypotheses can be transformed into the regression equation in Models 1, 2, 3, and 4.

Figure 6: The Relationships among Each Dimension of Accounting Information System Quality and Its Consequences

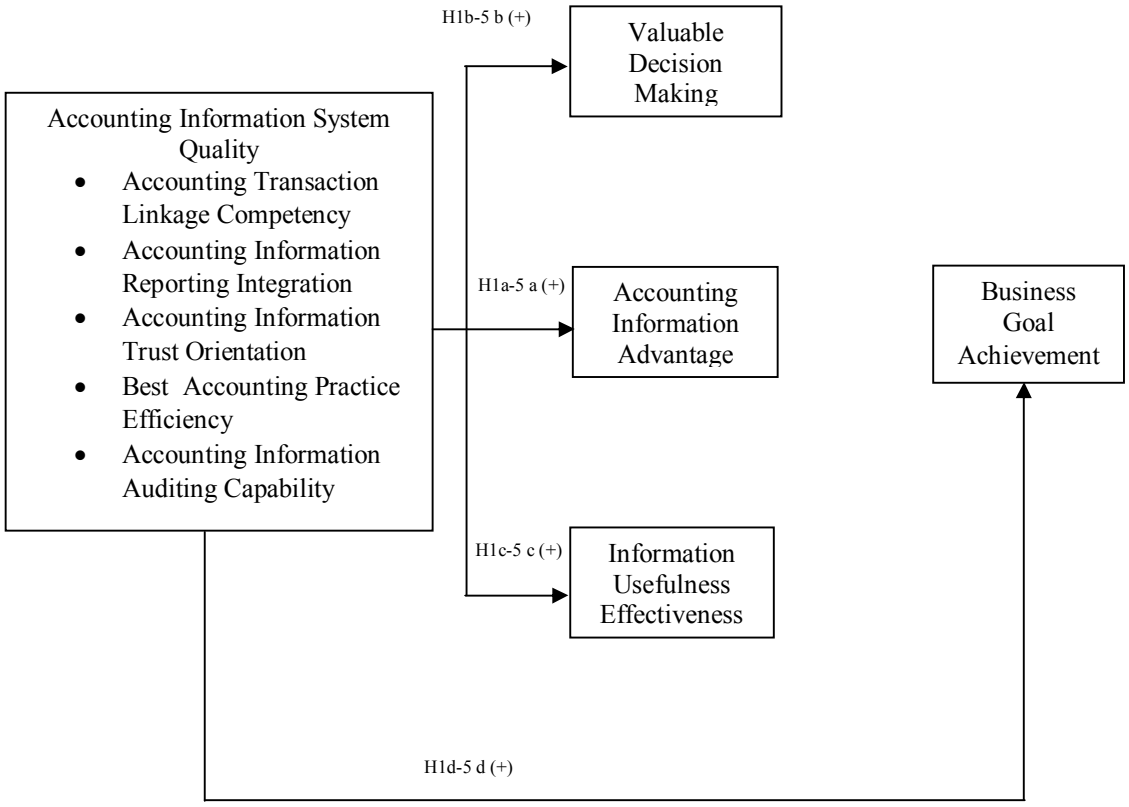


Table 8 shows the correlation coefficients among each dimension of the accounting information system quality and its consequences, including accounting information advantage, valuable decision making, information usefulness effectiveness and business goal achievement. For the first dimension of accounting information system quality; namely accounting transaction linkage competency, the results indicate the significant and positive correlation between accounting information advantage ($r = 0.526$, $p < 0.01$), valuable decision making ($r = 0.418$, $p < 0.01$), information usefulness effectiveness ($r = 0.401$, $p < 0.01$), and business goal achievement ($r = 0.379$, $p < 0.01$) respectively. For the second dimension namely; accounting information reporting integration, is significantly and positively correlated to accounting information advantage ($r = 0.558$, $p < 0.01$), valuable decision making ($r = 0.418$, $p < 0.01$), information usefulness effectiveness ($r = 0.473$, $p < 0.01$), and business goal achievement ($r = 0.548$, $p < 0.01$). The third dimension of accounting information

system quality is accounting trust orientation, which is the significantly and positively correlated to accounting information advantage ($r = 0.589$, $p < 0.01$), valuable decision making ($r = 0.374$, $p < 0.01$), information usefulness effectiveness ($r = 0.413$, $p < 0.01$), and business goal achievement ($r = 0.522$, $p < 0.01$).

Best accounting practice efficiency is the fourth dimension, and it indicates the positive and significant correlation with accounting information advantage ($r = 0.329$, $p < 0.01$), valuable decision making ($r = 0.230$, $p < 0.01$), information usefulness effectiveness ($r = 0.295$, $p < 0.01$), and business goal achievement ($r = 0.319$, $p < 0.01$). And the last dimension of accounting information system quality namely; accounting information auditing capability has a positively significant correlation with accounting information advantage ($r = 0.496$, $p < 0.01$), valuable decision making ($r = 0.380$, $p < 0.01$), information usefulness effectiveness ($r = 0.476$, $p < 0.01$), and business goal achievement ($r = 0.420$, $p < 0.01$). From the findings that are shown in Table 8 all correlation is less than 0.80 as recommended by Hair et al. (2010). In addition to the correlations, Table 8 reveals the maximum value of VIF (Equation 1 – 4) is 4.380 which is lower than cutoff score of 10 (Hair et al., 2010). Both correlation and variance inflation factor (VIF) assure that the multicollinearity problems is not occurred.

Table 8: Descriptive Statistics and Correlation Matrix of Each Dimension of Accounting Information System Quality and Its Consequences

Variables	ATL	ARI	ATO	BAP	AAC	AIA	VDM	IUE	BGA	SIZ	AGE
Mean	4.18	4.16	4.19	4.09	4.20	3.96	3.96	4.02	3.98	n/a	n/a
S.D.	.479	.502	.499	.569	.517	.517	.478	.503	.585	n/a	n/a
ARI	.667***										
ATO	.694***	.846***									
BAP	.465***	.573***	.561***								
AAC	.590***	.678***	. 713***	.651***							
AIA	.526***	.558***	.589***	.329***	.496**						
VDM	.418***	.418***	.374***	.230**	.380***	. 680***					
IUE	.401***	.473***	.413***	.295***	.476***	. 672***	.801***				
BGA	.379***	.548***	.522***	.319***	.420***	.631***	. 611***	. 684***			
SIZ	.146**	-.031	.040	.672	.062	.089	.026	. 060	-.034		
AGE	-.026	-.018	.000	. 082	064	-.061	.015	-.016	-.092	.226***	

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

The results of OLS regression analysis are explained in Table 9. Firstly, the result indicates that accounting transaction linkage competency positively influences on accounting information advantage ($\beta_1 = 0.182$, $p < 0.05$), and valuable decision making ($\beta_8 = 0.247$, $p < 0.01$). Completeness and accuracy of accounting recording are important components which generates the accounting information quality. These quality obtains from the efficiency of business transaction linkage into recording process (Assenso-Okofo, Ali, and Ahmed, 2011). Furthermore, exchange information and linked information are essential approaches to generate better coordinated tasks across departments and increase the quality of accounting information (Nicolaou, 2010). ***Thus, Hypothesis 1a, 1b are supported.*** However, the results do not find the significant effects of accounting transaction linkage competency on information usefulness effectiveness ($\beta_{15} = 0.105$, $p > 0.10$), and business goal achievement ($\beta_{22} = - 0.017$, $p > 0.10$). Even though, the recently research revealed that several SMEs firms complied with the accounting standards and have interested in the use of accounting software to prepare financial statements. However, SMEs are still have some problems such as lack of professional or expert in SMEs businesses, hence, it seems that the financial reports which are obtained from SMEs are still inefficiency in the investors'

perception (Purwati, Suparlinah, and Putri, 2014). ***Thus, Hypothesis 1c and 1d are not supported.***

Secondly, the result indicates that accounting information reporting integration (the second dimension) has positive influence on three outcomes: accounting, valuable decision making ($\beta_9 = 0.252$, $p < 0.05$), information usefulness effectiveness ($\beta_{16} = 0.336$, $p < 0.01$), and business goal achievement ($\beta_{23} = 0.359$, $p < 0.01$). Accounting information reporting integration is able to aggregate data and represents it in the way that managers can value and use information for their decisions. Analysts make larger forecast revisions when other information is included and then can help analysts to formulate better predictions (Blouin, 2012). Combination of accounting information system will increase the organizational coordination which ultimately enhance the quality of making decision. High usefulness for the decision-making of municipal financial reporting, in its current form and content, is generally useful for decision-making. However, this usefulness would increase if information, other than what is mandatory, were introduced (Nogueira, Jorge, and Oliver, 2013). ***Thus, Hypothesis 2b, 2c and 2d are supported.*** Meanwhile, the results show that accounting information reporting integration does not have a significant effect on information advantage ($\beta_2 = 0.144$, $p > 0.10$). One possible reason is that when several firms include SMEs, comply with the accounting standard, so, information, which are generated by financial reports, are based on the same basis and lead to comparable ability. For this reason, these information are have the minimum requirements characteristics, and do not have any obviously difference from another firms. (Purwati, Suparlinah, and Putri, 2014). With the assumption of if all SMEs firms comply with the accounting standard, in the minimum requirement, the information which are generated by several firms are not different. For the aforementioned reason, under the SMEs problems' constrains, there are not obviously evidence of accounting information advantage. Therefore, to generate the higher accounting information advantage than competitors, the other information, which not only the mandatory information, should be integrated to increase the advantage of information (Nogueira, Jorge, and Oliver, 2013). ***Thus, Hypothesis 2a is not supported***.

Thirdly, OLS regression results indicate that accounting information trust orientation (the third dimension) has a positive effect on only consequences as

accounting information advantage (β_3 = 0.253, p < 0.05), The importance of trusting information from a financial report is that the information is presented in the report because the accounting information is used by many groups of people such as managers, investors and governance. Information trust orientation is the means to concentrate on the process to produce information reliability. Reliability is a crucial attribution for accounting information which leads to the difference of accounting information advantage of each firm (Maines and Wahlen, 2006). ***Thus, Hypothesis 3a is supported.*** However, the results do not find the significant effects of accounting information trust orientation on valuable decision making (β_{10} = - 0.115, p > 0.10), information usefulness effectiveness (β_{17} = - 0.162, p > 0.10), and business goal achievement (β_{24} = 0.175, p > 0.10). According to the interview survey on investment readiness with 158 SMEs in Thailand, found that if the SMEs' accounting systems were not transparent enough for potential investors to rely on in making an investment, they might face difficulty in accessing finance and higher costs (Sarapaivanich and Kotey, 2006). ***Thus, Hypothesis 3b, 3c, and 3d are not supported***

Fourthly, the results reveal that best accounting practice efficiency has positive influence on two outcomes: accounting information advantage (β_4 = 0.112, p < 0.50), and business goal achievement (β_{25} = 0.117, p < 0.50). Accounting practice can present adequate financial information; it will benefit greater, effective, strategic planning, leading to enhanced performance (Hanpuwadal and Ussahawanitchakit, 2010). ***Thus, Hypotheses 4a, and 4d are supported***. On the other hand, best accounting practice efficiency do not have significant effects on two outcomes: valuable decision making (β_{11}= 0.113, p > 0.10), information usefulness effectiveness (β_{18} = 0.028, p > 0.10).According to the prior research, which conducted in Vietnam, found that SMEs' compliance with accounting standards is limited (Dang-Duc, 2011). From the prior empirical research, indicated that the compliance with accounting standards was a largely issue and it has a little benefits than costs in the SMEs' perception. Therefore, legal requirements and perceptions of external uses of accounting information were the main drivers of the companies' compliance with accounting standards. The perception of cost-benefit relationship and the management and accounting skills had a limited impact on SMEs' compliance with accounting standards. However, in the case of

smaller firms, the access to skilled accountants who can understand and apply the standards tends to be limited (Martin, 2005).

In the context of Thailand, SMEs still faced several problems which are identified as follows; 1) lack of entrepreneurship, 2) lack of efficiency in management and administration, 3) lack of professional or expert in SMEs business, 4) lack of skilled workers, 5) lack of technology to reduce cost and support business, 6) high competition, 7) lack of efficiency and effectiveness of production management, and 8) lack of government support (Institute for small and Medium Enterprises Development : ISMED). Moreover, the context of SMEs in Thailand, one possible reason is SMEs lacked accounting skills and infrastructure to implement accounting regulations and standards. For example, in an interview survey on investment readiness with 158 SMEs in Thailand, found that investors are not rely on SMEs' financial reports, because several investors perceive that the accounting system of SMEs are not transparent enough for making investment (Sarapaivanich and Kotey, 2006). For this reason, these lead several SMEs' firms to face with the difficult of financial provision. However, in the case of smaller firms, the access to skilled accountants who can understand and apply the standards tends to be limited (Martin, 2005). The users' perceptions of low quality financial information have been evidenced by Dang et al. (2006). ***Therefore, Hypotheses 4b, and 4c are not supported***.

Finally, the results indicate that accounting information auditing capability (the fifth dimension) has a positive effect on information usefulness effectiveness ($\beta_{19} = 0.291$, $p < 0.01$). The integration strategies of traceability in the namely; accounting information auditing capability, can enhance the process of delivery information to flow in the firm. Thus, the traceability process generates reliable and useful information and ultimately affects the effectively information use (Durugbo, Tiwari, and Alcock, 2014). ***Thus, Hypothesis 5c is supported.*** However, the results do not find the significant effects of accounting information auditing capability on accounting information advantage ($\beta_5 = 0.074$, $p > 0.10$), valuable decision making ($\beta_{12} = 0.140$, $p > 0.10$), and business goal achievement ($\beta_{26} = 0.028$, $p > 0.10$). According to the finding of interview survey on investment readiness with 158 SMEs in Thailand, found that several investors are not rely on financial reports of SMEs, because they perceived that accounting systems of SMEs were not transparent enough of making

investment' decision (Sarapaivanich and Kotey, 2006). One possible reason is in the context of SMEs in Thailand, is lack of efficiency in management and administration, so the accounting information auditing capability' climate seems to be weak. ***Thus, Hypotheses 5a, 5b, and 5d is not supported***.

Additionally, the results of control variables indicate that firm size and firm age do not have a significant effect on all four consequences of accounting information system quality. Results can be interpreted that the higher total asset of the firm and the long firms' period of working business do not significantly affect the level of accounting information advantage, valuable decision making, information usefulness effectiveness and business goal achievement.

Table 9: Results of Regression Analysis for the Effects Dimension of Accounting Information System Quality on Its Consequences

Independent Variables	**Dependent Variables**			
	AIA	**VDM**	**IUE**	**BGA**
	H1-5a	**H1-5b**	**H1-5c**	**H1-5d**
	Equation 1	**Equation 2**	**Equation 3**	**Equation4**
Accounting Transaction Linkage Competency (ATL)	**.182**** **(.075)**	**.247***** **(.085)**	.105 (.082)	-.017 (.079)
Accounting Information Reporting Integration (ARI)	.144 (.100)	**.252**** **(.114)**	**.336***** **(.109)**	**.359***** **(.105)**
Accounting Information Trust Orientation (ATO)	**.253**** **(.105)**	-.115 (.121)	-.162 (.166)	.175 (.111)
Best Accounting Practice Efficiency (BAP)	**.112**** **(.054)**	.013 (.062)	.028 (.060)	**.117**** **(.057)**
Accounting Information Auditing Capability (AAC)	.074 (.076)	.140 (.087)	**.291***** **(.084)**	.028 (.081)
Firm Size (SIZ)	.141 (.106)	-.022 (.122)	.105 (.117)	-.015 (.112)
Firm Age (AGE)	-.152 (.104)	.038 (.119)	-.075 (.114)	-.174 (.110)
Adjusted R^2	.379	.204	.265	.302
Maximum VIF	4.380	4.380	4.380	4.380
Durbin-Watson	1.805	1.979	1.846	1.930
Beta coefficient with standard errors in parenthesis, ** p < 0.05, *** p< 0.01				

The Relationships among Accounting Information Advantage, Valuable Decision Making, Information Usefulness Effectiveness, and Business Goal Achievement

According to Figure 7 the relationship among accounting information advantage, valuable decision making, information usefulness effectiveness, and business goal achievement are shown. This research proposes the positive relationship among the aforementioned relationships, in hypotheses 6 - 10. These hypotheses are transformed to regression equations 5 to 7. Moreover, correlation matrix and the results of regression analyses are presented in Table 10 and Table 11 below.

Figure 7: The Relationships among Accounting Information Advantage, Valuable Decision Making, Information Usefulness Effectiveness, and Business Goal Achievement

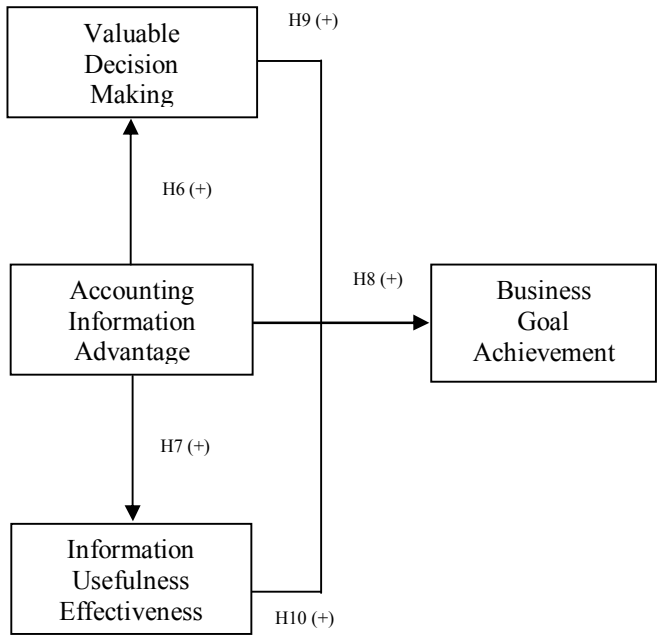


Table 10 illustrates correlation among accounting information advantage, valuable decision making, information usefulness effectiveness and business goal achievement. The result shows that accounting information advantage has the positive correlation with valuable decision making ($r = 0.680$, $p < 0.01$), information usefulness effectiveness ($r = 0.672$, $p < 0.01$), and business goal achievement ($r = 0.631$, $p < 0.01$).

Valuable decision making has a positive correlation with information usefulness effectiveness ($r = 0.801$, $p < 0.01$), and business goal achievement ($r = 0.611$, $p < 0.01$). Similarly, the results show the positive correlation between information usefulness effectiveness and business goal achievement ($r = 0.684$, $p < 0.01$). From the findings in Table 10, the correlation are less than 0.80 as recommended by Hair et al. (2010), except the correlation between valuable decision making and information usefulness effectiveness. In addition to the correlations, Table 11 also suggests the maximum value of the VIF is 1.066, 1.066 and 3.146 in Equation 5, Equation 6, and Equation 7 respectively, which is lower than the cutoff score of 10, thus the multicollinearlity problems does not occur (Hair et al., 2010).

Table 10: Descriptive Statistics and Correlation Matrix of Accounting Information System Quality Consequence and Business Goal Achievement

Variables	AIA	VDM	IUE	BGA	SIZ	AGE
Mean	3.96	3.96	4.02	3.98	n/a	n/a
S.D.	.517	.478	.503	.585	n/a	n/a
VDM	. 680***					
IUE	. 672***	.801***				
BGA	.631**	. 611***	. 684***			
SIZ	.089	.026	. 060	-.034		
AGE	-.061	.015	-.016	-.092	.226***	

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

For the hypothesis testing, the results of OLS regression analysis are shown in Table 11. The results indicate that accounting information advantage has a significant positive influence on valuable decision making ($\beta_{29} = 0.688$, $p < 0.01$). Furthermore, the results reveals that accounting information advantage has a significant and positive effect on information usefulness effectiveness ($\beta_{32} = 0.674$, $p < 0.01$) and business goal achievement ($\beta_{35} = 0.301$, $p < 0.01$). Therefore, information quality is one of the crucial characteristics of accounting information advantage. In the perspective of information quality, it is assessed by the degree to which it is helpful in completing a particular task

(Lee, 2003; Pipino et al., 2002). Hence, the three fundamental objectives of accounting information advantage are common to all organizations which includes; (a) to support the stewardship function of management (b) to support management decision-making, and (c) to support the firm's day-to-day operations (Hall, 2013). ***Thus, Hypothesis 6, 7 and 8 are strongly supported.***

In addition, the finding shows that information usefulness effectiveness has a positive significant influence on business goal achievement (β_{37} = 0.440, p < 0.01). The efficient use of information is crucial for firms to compete successfully in the high competitive markets. Information usefulness effectiveness can be used to explain earning prediction. This information may be useful to the market if they are able to use the other information in management forecasts to improve their prediction for their firms (Blouin, 2012). Information usefulness effectiveness significantly heightens the efficiency of business administration, such as in the efficiency of planning, directing, and evaluating, through meaningful, furnished information (Konthong and Ussahawanitchakit, 2009). ***Thus, Hypothesis 10 is strongly supported***. Moreover, the result reveals that valuable decision making does not significantly affect business goal achievement (β_{36} = 0.056, p > 0.10).In the context of SMEs in Thailand, one possible reason is SMEs lacked accounting skills and infrastructure to implement accounting regulations and standards, hence, investors are not rely on SMEs' financial reports, because several investors perceive that the accounting system of SMEs are not transparent enough for making investment. For this reason, these lead several SMEs' firms to face with the difficult of financial resource provision (Sarapaivanich and Kotey, 2006). Furthermore, the prior research in Turkey revealed that, small and medium-sized companies are faced the problems arising from poor financial management, which is the major causes of business failures in SMEs. Hence, it seems that SMEs are still having ineffective information management, poor system control (Karadag, 2015). So, for the aforementioned problems of SMEs, it seems that the valuable decision making in the SMEs context is quite poor, because of the problems of SMEs will affect the quality of information and ultimately lead to inefficient decision making. ***Thus, Hypothesis 9 is not supported***.

Additionally, the results of control variables indicate that firm size and firm age do not have a significant effect on valuable decision making, information usefulness

effectiveness and business goal achievement. Results can be interpreted both low and high total asset of the firm and both short and long firms' period of working business do not significantly affect the level of valuable decision making, information usefulness effectiveness and business goal achievement.

Table 11: Results of Regression Analysis of the Effects among Accounting
- Information Advantage, Valuable Decision Making, Information
- Usefulness Effectiveness, and Business Goal Achievement

Independent Variables	**Dependent Variables**		
	VDM	**IUE**	**BGA**
	H6	**H7**	**H8, 9, 10**
	Equation 5	**Equation 6**	**Equation 7**
Accounting Information Advantage (AIA)	**.688*** (.048)**	**.674*** (.048)**	**.301*** (.064)**
Valuable Decision Making (VDM)			.056 (.079)
Information Usefulness Effectiveness (IUE)			**.440*** (.078)**
Firm Size (SIZ)	-.101 (.097)	-.011 (.099)	-.154 (.092)
Firm Age (AGE)	.137 (.097)	.054 (.098)	-.099 (.092)
Adjusted R^2	.461	.445	.523
Maximum VIF	1.066	1.066	3.146
Durbin-Watson	1.800	1.721	1.718
Beta coefficient with standard errors in parenthesis, *** p< 0.01			

The Relationships among the Accounting Information System Quality and Its Antecedents

Figure 8 illustrates the relationships among five antecedent constructs: information management leadership, top management support, information technology resource, modern accounting knowledge, and technology munificence growth which are proposed in hypotheses 11a-e to 15a-e. The relationships in each hypothesis are all proposed in a positive direction. These hypotheses can be transformed into the regression models 8, 9, 10, 11, and 12.

Figure 8: The Relationships among Accounting Information system Quality and Its Antecedents

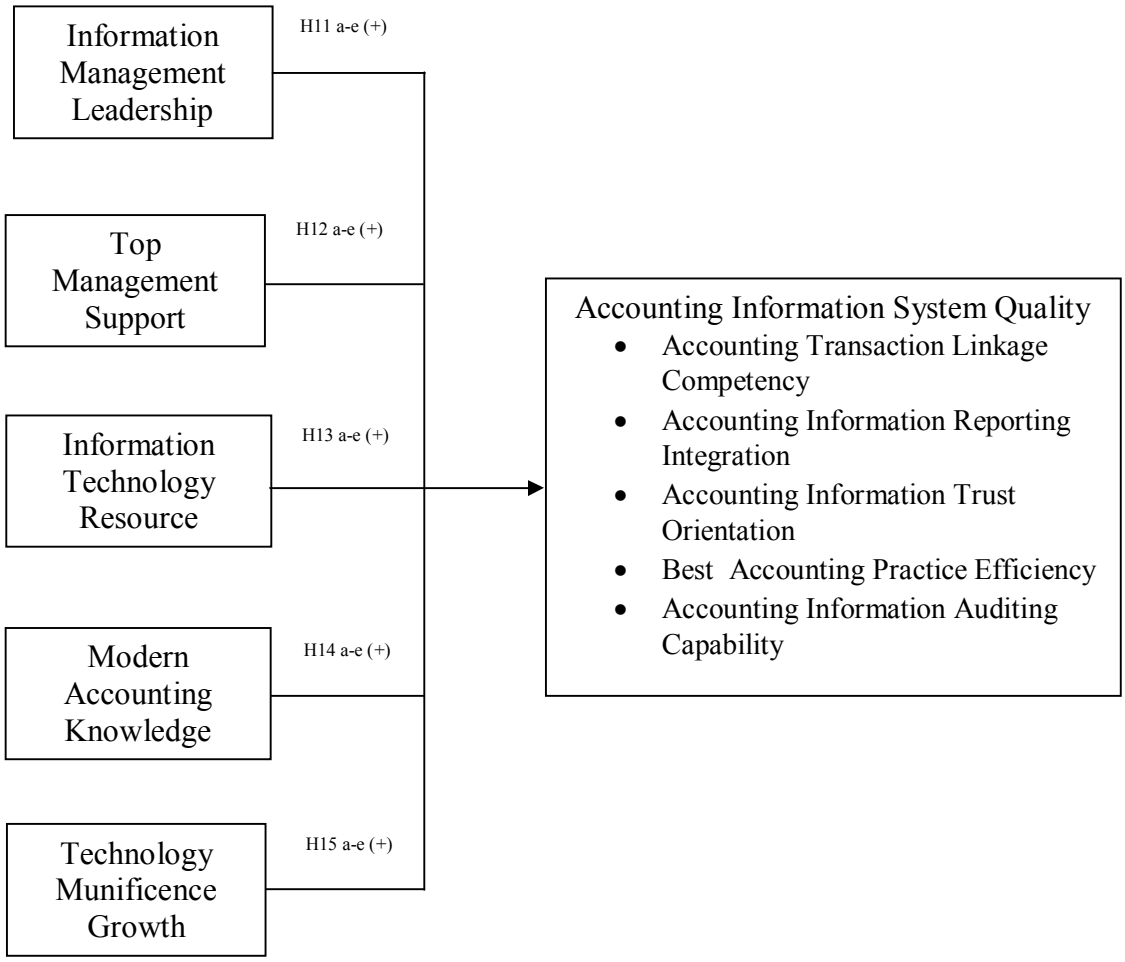


Table 12 is shown to describe the correlation among information management leadership, top management support, information technology resource, modern accounting knowledge, technology munificence growth, and each dimension of accounting information system quality. In details, it seems that all antecedents have a positive correlation with all dimensions of accounting information system quality. Firstly, information management leadership has a positive correlation with accounting transaction linkage competency ($r = 0.427$, $p < 0.01$), accounting information reporting integration ($r = 0.545$, $p < 0.01$), accounting information trust orientation ($r = 0.556$, $p < 0.01$), best accounting practice efficiency ($r = 0.441$, $p < 0.01$), and accounting information auditing capability ($r = 0.517$, $p < 0.01$).

Secondly, the results show the correlation between top management support and accounting transaction linkage competency ($r = 0.332$, $p < 0.01$), accounting information reporting integration ($r = 0.477$, $p < 0.01$), accounting information trust orientation ($r = 0.451$, $p < 0.01$), best accounting practice efficiency ($r = 0.415$, $p < 0.01$), and accounting information auditing capability ($r = 0.459$, $p < 0.01$) respectively.

Thirdly, information technology resource has a positive correlation with accounting transaction linkage competency ($r = 0.404$, $p < 0.01$), accounting information reporting integration ($r = 0.574$, $p < 0.01$), accounting information trust orientation ($r = 0.566$, $p < 0.01$), best accounting practice efficiency ($r = 0.406$, $p < 0.01$), and accounting information auditing capability ($r = 0.509$, $p < 0.01$).

Fourthly, the correlation results reveal that modern accounting knowledge has a positive correlation with accounting transaction linkage competency ($r = 0.480$, $p < 0.01$), accounting information reporting integration ($r = 0.507$, $p < 0.01$), accounting information trust orientation ($r = 0.490$, $p < 0.01$), best accounting practice efficiency ($r = 0.360$, $p < 0.01$), and accounting information auditing capability ($r = 0.407$, $p < 0.01$) respectively.

Finally, technology munificence growth has a positive correlation with each dimension of accounting information system quality: accounting transaction linkage competency ($r = 0.464$, $p < 0.01$), accounting information reporting integration ($r = 0.510$, $p < 0.01$), accounting information trust orientation ($r = 0.514$, $p < 0.01$), best accounting practice efficiency ($r = 0.472$, $p < 0.01$), and accounting information auditing capability ($r = 0.525$, $p < 0.01$) respectively. The overview of the correlations is less than 0.80, which is recommended by Hair et al., (2010). Furthermore, Table 13 shows that the maximum value of VIF (Equation 8 - 12 is 3.095), thus the multicollinearity problems is not existent.

Table 12: Descriptive Statistics and Correlation Matrix of Each Dimension of Accounting Information System Quality, Its Antecedents, and Technology Acceptance

Variables	ATL	ARI	ATO	BAP	AAC	IML	TMS	ITR	MAK	TMG	TAC	SIZ	AGE
Mean	4.18	4.16	4.19	4.09	4.20	4.13	4.21	4.16	4.16	4.21	4.15	n/a	n/a
S.D.	.479	.502	.499	.569	.517	.488	.495	.525	.529	.493	.540	n/a	n/a
ARI	.667***												
ATO	.694***	.846***											
BAP	.465***	.573***	.561***										
AAC	.590***	.678***	. 713***	.651***									
IML	.427***	.545***	.556***	.441***	. 517***								
TMS	.332***	.477***	.451***	.415***	.459***	. 735***							
ITR	.404***	.574***	.566***	.406***	.509***	.719***	725***						
MAK	.480***	507***	. 490***	.360***	.407***	.714***	. 657***	. 714***					
TMG	.464***	.510***	.514***	. 472***	. 525***	.635***	. 612***	. 668***	. 620***				
TAC	.418***	.501***	.470***	.361***	. 438***	.735***	. 697***	. 743***	. 743***	. 674***			
SIZ	.146**	-.031	.040	.672	.062	.071	-.036	-.055	. 060	.025	-.031		
AGE	-.026	-.018	.000	. 082	064	-.029	-.110	-.061	-.034	-.081	-.089	.226***	

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

The results of OLS regression analysis are explained in Table 13. Firstly, the results indicate that information management leadership has a significant positive effect on four dimensions of accounting information system quality which are: accounting information reporting integration (β_{47} = 0.210, p < 0.05), accounting information trust orientation (β_{54} = 0.272, p < 0.01), best accounting practice efficiency (β_{61} = 0.209, p < 0.05), and accounting information auditing capability (β_{68} = 0.232, p < 0.05). The leadership of organizations which is concerned about the quality of management practice, such as in the automotive industry, considers quality information as the drivers of process management (Laosirihongthong, Teh, and Adebanjo, 2013). For this reason, leadership is much more important for the successful implementation of information management strategy such as in a quality management system (Yu, To, and Lee, 2012). Companies that are aware of the importance of handling quality information when making decisions will concentrate in managing the information in an efficient way; i.e., they have developed information capability, and a set of practices, and implement them in order to achieve excellent performance based on the use and management of information (Zarraga and Alvarez, 2016). The efficient use and management of information can be considered as a capacity of a company, and the company which is committed to quality management has developed the information capability that is related to the firms' practices (Rodriguez et al., 2014). The results indicate that information management leadership affects the accounting information system quality. ***Thus, Hypothesis 11b, 11c, 11d, and 11e are supported.***

Nevertheless, information management leadership does not have a significant positive effect on accounting transaction linkage competency (β_{40} = 0.112, p > 0.10). The possible reason, that the limited access to information is one problem of SMEs in the context of Thailand. So, for this reason it seems that in the SMEs' context in Thailand an accounting transaction linkage competency is weak (Rojsurakiti, 2015).***Thus, Hypothesis 11a is not supported.***

Secondly, the findings reveal that top management support has no significant relationship with all five dimensions which are: accounting transaction linkage competency (β_{41} = - 0.125, p > 0.10), accounting information reporting integration (β_{48} = - 0.029, p > 0.10), accounting information trust orientation (β_{55} = - 0.091, p > 0.10), best accounting practice efficiency (β_{62} = 0.018, p > 0.10), and accounting

information auditing capability (β_{69} = 0.055, p > 0.10). In accordance with the finding of prior research, revealed that top management support does not directly influence the competency of accounting information system. However, the interaction term of top management support and other variables, such as change management, alignment of business with the new system, and consultant activities, positively impacts the competency of accounting information system (Grabski and Leech, 2007). The three critical components of top management support comprises: resource provision, participation, and involvement (Dong et al., 2009). Therefore, one possible reason, top management support involves in the supporting for user skills and experiences in information technology (IT) and innovations. It does not specifically involve in the development and implementation process of information system that is enhancing the quality of accounting information system.***Therefore, Hypothesis 12a, 12b, 12c, 12d, and 12e are not supported.***

Thirdly, the finding from this research indicates that an information technology resource positively affects three dimensions of accounting information system quality which are: accounting information reporting integration (β_{49} = 0.277, p < 0.01), accounting information trust orientation (β_{56} = 0.295, p < 0.01), and accounting information auditing capability (β_{70} = 0.199, p < 0.05). According to previous evidences, organizational resources are the sources of organizational competencies such as informational competency, product development, and relationship building (Rose et al., 2009).) Furthermore, information technology resources of firms lead to the competence of organization's information system processing (Jantarajaturapath and Ussahawanitchakit, 2009; Jennex, Amoroso, and Adelakun, 2004). Moreover, the competencies of accounting information system may occur when organization's information technology resources will be integrated with the applied accounting information system (Bradford and Florin, 2003). The congruence between retained IT resources and approaching accounting information system conduces to enhance the quality of accounting information system. The sufficient resources facilitate organization activity, competitiveness, and business growth (Bruton and Rubanik, 2002). In summary, the evidences indicate that the higher degree of information technology resources lead to the higher degree of accounting information system quality. ***Thus, Hypothesis 13b, 13c, and 13e are supported.*** However, the information

technology resource does not have significant effect on accounting transaction linkage competency (β_{42} = 0.045, p > 0.10), and best accounting practice efficiency (β_{63} = 0.163, p > 0.10). According to the SME survey shows that even though, several SMEs firms complied with the accounting standards and have interested in the use of accounting software to prepare financial statements. However, SMEs are still have some problems such as lack of professional or expert in SMEs businesses, hence, it seems that the financial reports which are obtained from SMEs are still inefficiency in the investors' perception (Purwati, Suparlinah, and Putri, 2014). ***Thus, Hypothesis 13a, and 13d are not supported.***

Fourthly, the results reveal that modern accounting knowledge has a positive significant effect on only one dimension of accounting information system quality which is accounting transaction linkage competency (β_{43} = 0.281, p < 0.01). The growing information needs of stakeholders in and around enterprises and by the mandatory reporting requirements of public entities by recent tax laws also require businesses to maintain standardized financial records for governmental or public review such as, eXtensible Business Reporting Language (XBRL), the financial statements which are prepared by XBRL are more reliant (Liu, Luo, and Wang, 2017). Hence, it seems that modern accounting knowledge affects accounting transaction linkage competency. ***Thus, Hypothesis 14a is supported.*** Nevertheless, modern accounting knowledge does not have a significant effect on the rest of accounting information system quality' dimensions: accounting information reporting integration (β_{50} = 0.081, p > 0.10), accounting information trust orientation (β_{57} = 0.032, p > 0.10), and accounting information auditing capability (β_{71} = - 0.117, p > 0.10). Interestingly, modern accounting knowledge shows a negatively significant on best accounting practice efficiency (β_{64} = - 0.257, p < 0.01). Even though, the prior research revealed that several SMEs firms intended to comply with the accounting standards and have interested in the use of accounting software to prepare financial statements. However, SMEs are still have some problems such as lack of professional or expert in SMEs businesses, hence, it seems that the financial reports which are obtained from SMEs are still inefficiency in the investors' perception (Purwati, Suparlinah, and Purit, 2014). For example, modern accounting knowledge which particularly for SMEs, is not objective and complete, such as IFRS for SMEs in Thailand has postponed because it is not

congruence and incomplete process in Thailand context (http://www.fap.or.th; search on September 5, 2017). The lack of practitioners concerning is one of possible reasons which indicate the non-significant of modern accounting knowledge. The gap between the world of academia and practice is a major cause, the prior finding indicated that the two most significant barriers to research utilization by practitioners are identified as: difficulties in understanding academic research paper; and limited access to research finding. So, professional bodies have an important role to play by demonstrating the mutual value to both academics and practitioners (Tucker and Lowe, 2014). For the aforementioned, it may be caused by the profession, who regulate the latest regulations or newly knowledge, are those who do not work in the real situation. Therefore, it may cause a gap of understanding. Therefore, these findings, seem that the overlap of knowledge and the mismatch of practitioners' environmental will obstacle the best accounting practice efficiency in auto part SMEs in Thailand context. ***Thus, Hypotheses 14b, 14c, 14d, and 14e are not supported.***

Finally, the findings from this research indicate that technology munificence growth has a positive significant effect on all dimensions of accounting information system quality which are: accounting transaction linkage competency (β_{44} = 0.260, $p < 0.01$), accounting information reporting integration (β_{51} = 0.164, $p < 0.05$), accounting information trust orientation (β_{58} = 0.182, $p < 0.05$), best accounting practice efficiency (β_{65} = 0.193, $p < 0.05$), and accounting information auditing capability (β_{72} = 0.291, $p < 0.01$). The technology munificence growth can support the firm to be applied to the new IT development and innovation. This congruence affects the quality of accounting information system (Bradford and Florin, 2003). To deal with the technology munificence growth, firms need to continuously modify their processing systems and develop innovation to absorb supreme benefit from technology innovation (Auh and Mengue, 2005). The results imply that an appropriate level of technologies is required in order to fulfill corporate vision, mission and strategy (Wydra, 2015). This finding facilitates the notion that technology munificence growth provides the possibility, of developing new resources and subsequent skills for the firms (Ireland, Hitt, and Vaidyanath, 2002), enhancing business growth, and sustaining competitive advantages (Harrison et al., 2001). ***Thus, Hypothesis 15a, 15b, 15c, 15d, and 15e are supported.***

Additionally, the results of control variable indicate that firm size and firm age are not related to five dimensions of accounting information system quality. Excluding, Equation 8 firm size positively influences accounting information linkage competency (β_{45} = 0.239, p < 0.05) meaning that firms with the higher total assets, will have more accounting transaction linkage competency. Conforming to the continuous development of information technology, a computer-based system is implemented into business processing in most large and medium-sized enterprises. Transaction data was electronically recorded in an organization database (Konthong, Sangboon, and Srimuangtong, 2015).

Table 13: Result of Regression Analysis for the Effects of Accounting Information System Quality and Its Antecedents

Independent Variables	**Dependent Variables**				
	ATL	**ARI**	**ATO**	**BAP**	**AAC**
	H11-15a	**H11-15b**	**H11-15c**	**H11-15d**	**H11-15e**
	Equation8	**Equation9**	**Equation10**	**Equation11**	**Equation12**
Information Management Leadership (IML)	.112 (.095)	**.210** (.089)**	**.272*** (.089)**	**.209** (.106)**	**.232** (.091)**
Top Management Support (TMS)	-.125 (.091)	-.029 (.085)	-.091 (.085)	.018 (.101)	.055 (.087)
Information Technology Resource (ITR)	.045 (.096)	**.277*** (.090)**	**.295*** (.090)**	.163 (.107)	**.199** (.092)**
Modern Accounting Knowledge (MAK)	**.281*** (.088)**	.081 (.082)	.032 (.082)	**-.257*** (.098)**	-.117 (.084)
Technology Munificence Growth (TMG)	**.260*** (.079)**	**.164** (.074)**	**.182** (.074)**	**.193** (.088)**	**.291*** (.108)**
Firm Size (SIZ)	**.239** (.114)**	-.095 (.107)	.042 (.107)	-0.38 (.128)	.071 (.109)
Firm Age (AGE)	-.061 (.113)	.057 (.106)	.054 (.106)	.085 (.126)	.200 (.108)
Adjusted R^2	.277	.366	.369	.257	.342
Maximum VIF	3.095	3.095	3.095	3.095	3.095
Durbin-Watson	2.135	2.057	2.053	1.841	2.045

Beta coefficients with standard in parenthesis. ***p<0.01, **p<0.05,

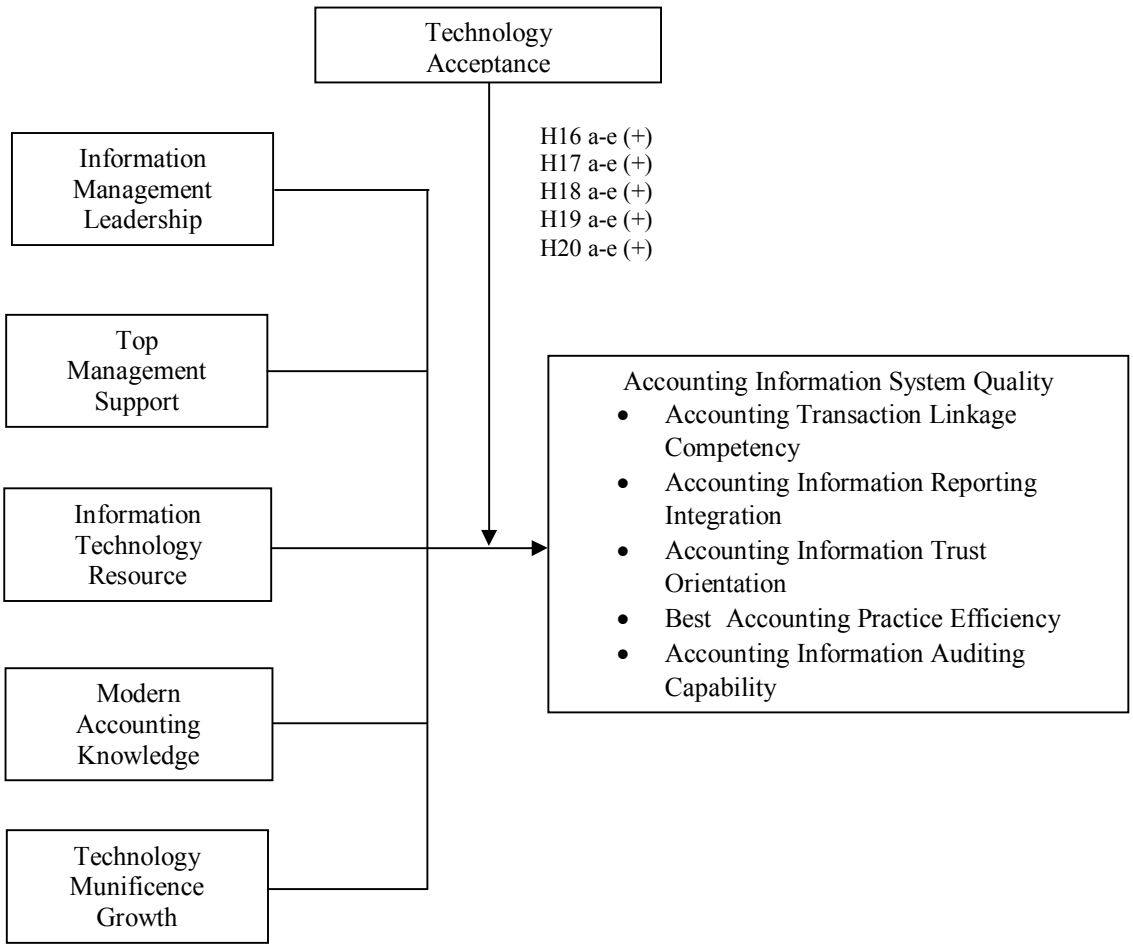
The Relationships among the Antecedent of Accounting Information System Quality, and Moderating Role of Technology Acceptance

Figure 9 illustrates the moderating role of technology acceptance is proposed to positively moderate the relationships among antecedents and each of five dimensions of accounting information system quality. The aforementioned relationships are presented in hypotheses 16a-e to 20a-e. According to these hypotheses, the regression equations in models 13, 14, 15, 16, and 17 are developed.

The correlation coefficients between technology acceptance and five dimensions of accounting information system (accounting transaction linkage competency, accounting information reporting integration, accounting information trust orientation, best accounting practice efficiency, and accounting information auditing capability) are 0.481, 0.501, 0.470, 0.361, and 0.438, respectively and are shown in Table 12. All pairs of technology acceptance and all dimensions of accounting information system quality are significant and less than 0.80 as recommended by Hair et al. (2010).

The correlation with five antecedence variables, information management leadership ($r = 0.735$, $p < 0.01$), top management support ($r = 0.697$, $p < 0.01$), information technology resource ($r = 0.743$, $p < 0.01$), modern accounting knowledge ($r = 0.743$, $p < 0.01$), and technology munificence growth ($r = 0.674$, $p < 0.01$). All pairs of technology acceptance and five antecedence variables are significant and less than 0.80 as recommended by Hair et al. (2010). Furthermore, the maximum value of VIF (Equation 13 -17) is 4.593, as shown in Table 14, is lower than the cut-off value of 10. Thus, the multicollinearity is not occurred.

Figure 9: The Relationships among Antecedent of Accounting information System Quality and Moderating Role of Technology Acceptance



From the finding in Table 14, the moderating effect of technology acceptance on the relationship among five antecedents and each of five dimensions of accounting information system quality are as follows. It can be seen that technology acceptance has a significant, moderating effect on in the relationship between information management leadership and best accounting practice efficiency ($\beta_{120} = 0.377$, $p < 0.01$). The integration of information technology strategy with firm strategy and information technology competence has an influence on the quality of performance. Rather, one needs complementary with leadership to be greater in the presence of leadership practice. Thus, information management leadership is an essential factor to lead the firm to have more quality performance (Arostegui, Amado, and Torres, 2012). Thus, companies that are aware of the importance of handling quality information when

making decisions will concentrate in managing the information in an efficient way; i.e., they have developed information capability, and a set of practices, and implement them in order to achieve excellent performance based on the use and management of information (Zarraga and Alvarez, 2016). Thus, in the auto part SMEs in Thailand, it seems that technology acceptance moderates the relationship between information management leadership and best accounting practice efficiency. ***Therefore, Hypothesis 16d is supported***.

These findings reveal that technology acceptance can increase the manner of information management leadership for leading to support of the quality of accounting information system in the best accounting practice efficiency arena. Moreover, this research does not find the significant intervening effect of technology acceptance on the relationships among information management leadership and four dimensions of accounting information system quality which are accounting transaction linkage competency (β_{81} = - 0.046, p > 0.10), accounting information reporting integration (β_{94} = 0.119, p > 0.10), accounting information trust orientation (β_{107} = 0.119, p > 0.10), and accounting information auditing capability (β_{133} = 0.035, p > 0.10). In Thailand context, SMEs also faced the loss in the ability to compete in terms of comparative advantages of labor and resources. Second, it is reported that lack of corporate governance, know-how both in utilization and adaptation of technology, insufficient research on product development and production techniques are obstacles of SMEs development in Thailand (the Office of Small and Medium Enterprises Promotion: OSMEP, 2002). These findings reveal that technology acceptance does not increase the manner of information management leadership for leading to support of the quality of accounting information system, one possible reason because of their management system is not sufficiently sophisticated. ***Thus, Hypotheses, 16a, 16b, 16c, and 16e are not supported.***

Furthermore, it can be seen that technology acceptance has a significant, moderating effect on the relationship between information technology resource and accounting information trust orientation (β_{109} = 0.161, p < 0.10). Congruence with the prior finding indicated that a factor which affects the acceptance of technology is the cognitive factor, perceived information quality, organizational readiness and perceived strategic value of adoption (Abdillah, 2013; Ram, Corkindale, and Wu, 2013).

Technological readiness and user acceptance is increasingly being used as a guide in the process of new technologies implementation (Larasati and Santosa, 2017). And one possible reason because of the nature such as an automotive industry, the leadership of organizations which is concerned about the quality of management practice, considers quality information as the drivers of process management (Laosirihongthong, Teh, and Adebanjo, 2013). Therefore, it seems that technology acceptance has a moderating effect on the relationship between information technology resource and accounting information trust orientation in the auto parts SMEs in Thailand context. ***Thus. Hypothesis 18c is supported.*** On the other hand, technology acceptance does not moderate the relationships between information technology resource and accounting transaction linkage competency (β_{83} = - 0.057, p > 0.10), accounting information reporting integration (β_{96} = 0.008, p >0 .10), best accounting practice efficiency (β_{122} = - 0.100, p > 0.10), and accounting information auditing capability (β_{135} = 0.084, p > 0.10). According to data from ISMED, (www.ismed.or.th)) revealed that Thai SMEs still faced several problems as follows: 1) limited access to financial resources, 2) lack of qualified human resources, 3) insufficient production or manufacturing technology, 4) insufficient marketing skills, 5) family style management, 6) limited use of government support, and 7) limited access to information (Rojsurakiti, 2015). For this reason, the finding shows that for the auto parts SMEs in Thailand context, technology acceptance does not have the moderating effect on all dimensions of accounting information system quality except accounting information trust orientation dimension. ***Thus, Hypothesis 18a, 18b, 18d, and 18e are not supported.***

Likewise, technology acceptance does not moderate the relationships between top management support and accounting transaction linkage competency (β_{82} = -0.035, p > 0.10), best accounting practice efficiency (β_{121} = - 0.050, p > 0.10), and accounting information auditing capability (β_{134} = - 0.057, p > 0.10). Interestingly, the research indicates that technology acceptance has a negative significant moderating effect on the relationship between top management support and accounting information reporting integration (β_{95} = - 0.180, p < 0.05), and accounting information trust orientation (β_{108} = - 0.176, p < 0.10). As described earlier, top management support involves in the sustaining in resource provision and innovation learning of users of accounting information system. However, it does not involve the development process of quality

of accounting information system. Besides, the results do not support the influence of top management support on accounting information system quality. One possible reason is the role of institutional suggest that mimetic and coercive pressures influence a top management team's belief in the benefits and then these beliefs drive a top management team's participation, which in turn, affect the intention to increase the quality of accounting information system (Yigibasioglu, 2015). Therefore in the Thai SMEs business context, another one possible reason is that, if top management does not insightfully understand the importance of increasing the quality of the accounting system. The business will only have to adopt accounting information systems to imitate other businesses.Therefore, technology acceptance does not strengthen the relationship between top management support and accounting information system quality. ***Thus, Hypotheses 17a, 17b, 17c 17d, 17e are not support***.

In addition, the results also present the non-significance of the moderating effects of technology acceptance on the relationship between modern accounting knowledge and five dimensions of accounting information system quality accounting transaction linkage competency (β_{84} = 0.000, p > 0.10), accounting information reporting integration (β_{97} = - 0.028, p > 0.10), accounting information trust orientation (β_{110} = - 0.107, p > 0.10), best accounting practice efficiency (β_{123} = 0.028, p > 0.10) and accounting information auditing capability (β_{136} = 0.018, p > 0.10). These findings show that technology acceptance does not enhance better modern accounting knowledge. According to a prior research which compares and contrasts perception about the research-practice gap between professional bodies and practitioners view in Australia and Germany. The finding finds that common to both countries is the perception that the communication of research represents a major barrier. In Australia, practitioner's access to academic research is seen to be a principal obstacle; in Germany, the relevance of topic of modern knowledge by academics is perceived to represent a significant barrier to academic research informing practice (Tucker and Schaltegger, 2016). The lack of the accounting standards' relevance to SMEs poses a call named "designed to fit" in the issuance of accounting standards to remove inappropriate disclosure requirements for SMEs (Dong-Duc, 2011). One possible reason is modern accounting knowledge which is particular for SMEs, is not objective and complete, such as IFRS for SMEs in Thailand has postponed because it is not

congruence and incomplete process in Thailand context (http://www.fap.or.th, search on September, 9, 2017). ***Thus, Hypotheses 19a, 19b, 19c, 19d, and 19e are not supported.***

Likewise, technology acceptance does not moderate the relationships between technology munificence growth and five dimensions of accounting information system accounting transaction linkage competency (β_{85} = 0.019, p > 0.10), accounting information reporting integration (β_{98} = 0.026, p > 0.10), accounting information trust orientation (β_{111} = 0.048, p > 0.10), best accounting practice efficiency (β_{124} = - 0.030, p > 0.10) and accounting information auditing capability (β_{137} = -0.042, p > 0.10). The results indicate that technology acceptance and technology munificence growth do not lead to support of the quality of accounting information system. Consistence with the prior finding which indicated that several companies used computers for the preparation of management accounting information, but usually not for their full potential (Marriott and Marriott, 2000). Meanwhile, experimenting with new technologies at the expense of the accounting data can be a risky proposition (Preston, 1993). Consistence with the prior findings, which imply that the successful implementation and the effective usage of ERP system can contribute toward enhancing supply chain management performance in many ways such as, integration of internal business processes, enhancement of information flows among different departments inside the company, improvement of the company's relationships and collaboration with outsourcing suppliers, customers, and supply chain partners (Ahmed and Zulkifli, 2012). But in the context of SMEs in Thailand, is still have some problems such as follows; lack of efficiency in management and administration, lack of professional or expert in SMEs business, lack of skilled workers, lack of technology to reduce cost and support business, and lack of efficiency and effectiveness of production management (the Institute for small and Medium Enterprises Development: ISMED). Furthermore, in SMEs context, changing accounting systems to fit new technology can be a very difficult task: data needs to be converted from the existing system to new system, accounting staff and all users need to be retrained and sometimes source documents and reports need to be redesigned (Amidu, Effan, and Abor, 2011). Therefore, it seems that although the advancement of technology is growth and the more of technology acceptance is, these problems will obstacle the accounting information system quality of the SMEs firms. ***Thus, Hypothesis 20a, 20b, 20c, 20d and 20e are not supported.***

For the control variables, firm size also illustrates no significant influences on the moderating effect of technology acceptance on the relationship among accounting information system quality's antecedents, accounting information reporting integration (β_{99}= - 0.064, p > 0.10), accounting information trust orientation (β_{112}= 0.091, p > 0.10), best accounting practice efficiency (β_{125}= - 0.043, p > 0.10), and accounting information auditing capability (β_{138}= 0.091, p > 0.10). However, firm size has a positive influence on the relationship between accounting information system quality's antecedents and accounting transaction linkage competency (β_{86}= 0.252, p < 0.05). Therefore, the moderating effect of technology acceptance on the relationship between accounting information system quality's antecedents and accounting transaction linkage competency is affected by firm size. Congruence with the finding, which explained that a computer-based system is implemented into business processing in most large and medium-sized enterprises. Transaction data was electronically recorded in an organization database (Konthong, Sangboon, and Srimuangtong, 2015). Therefore, the larger the firm is, the higher the firm's ability to have accounting transaction linkage competency is.

Moreover, firm age has no significant influences on the moderating effect of technology acceptance on the relationship among accounting information system quality's antecedents, accounting transaction linkage competency (β_{87}= - 0.108, p > 0.10), accounting information reporting integration (β_{100}= 0.048, p > 0.10), accounting information trust orientation (β_{113}= 0.029, p > 0.10), and technology munificence growth (β_{139}= 0.147, p > 0.10). Thus, the moderating effect of technology acceptance on the relationship among accounting information system quality's dimensions and its antecedent are not influenced by firm age. On the other hand, firm age has a significant influence on the moderating effect of technology acceptance on the relationship among accounting information system quality's antecedents, best accounting practice efficiency (β_{126}= 0.232, p < 0.10). The prior finding indicated that the long established firms have the more focus on the regulatory framework for corporate financial reporting (Peng et al., 2008). Therefore, the moderating effect of technology acceptance on the relationship between accounting information system quality's antecedents and best accounting practice efficiency is affected by firm age.

The more of business working time period is, the higher best accounting practice efficiency is.

Table 14: Result of Regression Analysis for the Effects of Moderator of Relationship between Accounting Information System Quality and Its Antecedents

Independent Variables	Dependent Variables				
	ATL	**ARI**	**ATO**	**BAP**	**AAC**
	H16-20a	**H16-20b**	**H16-20c**	**H16-20d**	**H16-20e**
	Equation13	**Equation14**	**Equation15**	**Equation16**	**Equation17**
Information Management Leadership (IML)	.102 (.103)	**.177*** (.096)	**.281***** **(.094)**	.079 (.109)	**.253***** **(.096)**
Top Management Support (TMS)	-.118 (.094)	-.007 (.088)	-.053 (.086)	.011 (.099)	.050 (.087)
Information Technology Resource (ITR)	.025 (.101)	**.307***** **(.094)**	**.330***** **(.093)**	**.244**** **(.107)**	**.217**** **(.094)**
Modern Accounting Knowledge (MAK)	**.266***** **(.094)**	.103 (.088)	.097 (.087)	**-.288***** **(.100)**	-.093 (.088)
Technology Munificence Growth (TMG)	**.260***** **(.081)**	**.150*** **(.076)**	**.171**** **(.075)**	.142 (.086)	**.285***** **(.076)**
Technology Acceptance (TAC)	.040 (.102)	-.024 (.096)	-.132 (.094)	.138 (.109)	-.038 (.096)
IML × TAC	-.046 (.096)	.119 (.090)	.119 (.088)	**.377***** **(.102)**	.035 (.090)
TMS × TAC	-.035 (.096)	**-.180**** **(.090)**	**-.176*** **(.096)**	-.050 (.102)	-.057 (.090)
ITR × TAC	-.057 (.094)	.008 (.088)	**.161*** **(.086)**	-.100 (.100)	.084 (.088)
MAK × TAC	.000 (.082)	-028 (.077)	-.107 (.076)	.028 (.087)	.018 (.077)
TMG × TAC	.019 (.070)	.026 (.066)	.048 (.056)	-.030 (.075)	-.042 (.066)
Firm Size (SIZ)	**.252**** **(.117)**	-.064 (.109)	.091 (.107)	-.043 (.124)	.091 (.109)
Firm Age (AGE)	-.108 (.116)	.048 (.106)	.029 (.106)	**.232*** **(.123)**	.147 (.108)
Adjusted R^2	.278	.367	.391	.250	.370
Maximum VIF	4.593	4.593	4.593	4.593	4.593
Durbin-Watson	2.102	2.092	2.031	1.911	2.116

Beta coefficients with standard in parenthesis. ***p<0.01, **p<0.05, * p<0.1

Table 15: Results of Regression Analysis for the Effects of Antecedent and Moderator on Accounting Information System Quality

Independent Variables	Dependent Variables									
	ATL		ARI		ATO		BAP		AAC	
	H11-15a	H16-20a	H11-15b	H16-20b	H11-15c	H16-20c	H11-15d	H16-20d	H11-15e	H16-20e
	Equation 8	Equation 13	Equation 9	Equation 14	Equation 10	Equation 15	Equation 11	Equation 16	Equation 12	Equation 17
Information Management Leadership (IML)	.112 (.095)	.102 (.103)	**.210** (.089)**	**.177** (.096)**	**.272*** (.089)**	**.281*** (.094)**	**.209** (.106)**	.079 (.109)	**.232** (.091)**	**.253*** (.096)**
Top Management Support (TMS)	-.125 (.091)	-.118 (.094)	-.029 (.085)	-.007 (.088)	-.091 (.085)	-.053 (.086)	.018 (.101)	.011 (.099)	.055 (.087)	.050 (.087)
Information Technology Resource (ITR)	.045 (.096)	.025 (.101)	**.277*** (.090)**	**.307*** (.094)**	**.295*** (.090)**	**.330*** (.093)**	.163 (.107)	**.244** (.107)**	**.199** (.092)**	**.217** (.094)**
Modern Accounting Knowledge (MAK)	**.281*** (.088)**	**.266*** (.094)**	.081 (.082)	.103 (.088)	.032 (.082)	.097 (.087)	**-.257*** (.098)**	**-.288*** (.100)**	-.117 (.084)	-.093 (.088)
Technology Munificence Growth (TMG)	**.260*** (.079)**	**.260*** (.081)**	**.164** (.074)**	**.150** (.076)**	**.182** (.074)**	**.171** (.075)**	**.193** (.088)**	.142 (.086)	**.291*** (.108)**	**.285*** (.076)**
Technology Acceptance (TAC)		.040 (.102)		-.024 (.096)		-.132 (.094)		.138 (.109)		-.038 (.096)
IML × TAC		-.046 (.096)		.119 (.090)		.119 (.088)		**.377*** (.102)**		.035 (.090)
TMS × TAC		-.035 (.096)		**-.180** (.090)**		**-.176** (.096)**		-.050 (.102)		-.057 (.090)
ITR × TAC		-.057 (.094)		.008 (.088)		**.161** (.086)**		-.100 (.100)		.084 (.088)
MAK × TAC		.000 (.082)		-028 (.077)		-.107 (.076)		.028 (.087)		.018 (.077)
TMG × TAC		.019 (.070)		.026 (.066)		.048 (.056)		-.030 (.075)		-.042 (.066)
Firm Size (SIZ)	**.239** (.114)**	**.252** (.117)**	-.095 (.107)	-.064 (.109)	.042 (.107)	.091 (.107)	-0.38 (.128)	-.043 (.124)	.071 (.109)	.091 (.109)
Firm Age (AGE)	-.061 (.113)	-.108 (.116)	.057 (.106)	.048 (.106)	.054 (.106)	.029 (.106)	.085 (.126)	**.232** (.123)**	.200 (.108)	.147 (.108)
Adjusted R^2	.277	.278	.366	.367	.369	.391	.257	.250	.342	.370
Maximum VIF	3.095	4.593	3.095	4.593	3.095	4.593	3.095	4.593	3.095	4.593
Durbin-Watson	2.135	2.102	2.057	2.092	2.053	2.031	1.841	1.911	2.045	2.116

Beta coefficient with standard errors in parenthesis, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Summary

This chapter presents ordinary regression analysis in this research which consisted of two main sections. The first section indicates the respondent and sample characteristics in frequency and percentage. The correlations among all variables are analyzed and are presented as a correlation matrix. The descriptive statistics, mean and standard deviation are exhibited in this section. Another section highlights the results and discussions of hypotheses testing. The results reveal that accounting transaction linkage competency, accounting information reporting integration and best accounting practice efficiency (dimensions 1, 2 and 4 successively) are essential determinants to yield accounting information advantage, valuable decision making, information usefulness effectiveness, and business goal achievement. Interestingly, accounting information trust orientation on the outcomes is only meaningful to accounting information advantage. Additionally, accounting information auditing capability is only meaningful to information usefulness effectiveness. Furthermore, accounting information advantage is essential determinants to yield superior valuable decision making, information usefulness effectiveness and business goal achievement. In addition, valuable decision making shows no significant results on business goal achievement while the other does.

As to antecedents, information management leadership, information technology resource, and technology munificence growth are the top three most influential determinants of accounting information system quality. Modern accounting knowledge is only meaningful to accounting transaction linkage competency. Interestingly, top management support failed to promote all dimensions of accounting information system quality.

The moderating role of technology acceptance shows two significant influences on 1) the relationships among information management leadership, and some best accounting practice efficiency, 2) the relationships among information technology resource, and accounting information trust orientation. It moderates the best in the relationship between the antecedents and best accounting practice efficiency. However, instead of moderating the aforementioned relationship, technology acceptance illustrates partially significant effects on accounting information system quality.

In conclusion, the results of 20 hypotheses testing showed five fully supported hypotheses (hypotheses 6, 7, 8, 10, and 15), ten partially-supported hypotheses (hypotheses 1, 2, 3, 4, 5, 11, 13, 14, 16, and 18) and five unsupported hypotheses (hypotheses 9, 12, 17, 19, and 20). The summary of the results of hypotheses testing are presented in Table 16 below.

Table 16: Summary of the Results of Hypothesis Testing

Hypothesis	Description of Hypothesized Relationships	Results
H1a	The higher accounting transaction linkage competency is, the more likely that firms will gain greater accounting information advantage	Supported
H1b	The higher accounting transaction linkage competency is, the more likely that firms will gain greater valuable decision-making.	Supported
H1c	The higher accounting transaction linkage competency is, the more likely that firms will gain greater information usefulness effectiveness.	Not Supported
H1d	The higher accounting transaction linkage competency is, the more likely that firms will gain greater business goal achievement.	Not Supported
H2a	The higher accounting information reporting integration is, the more likely that firms will gain greater accounting information advantage.	Not Supported
H2b	The higher accounting information reporting integration is, the more likely that firms will gain greater valuable decision-making.	Supported
H2c	The higher accounting information reporting integration is, the more likely that firms will gain greater information usefulness effectiveness.	Supported

Table 16: Summary of the Results of Hypothesis Testing (continued)

Hypothesis	Description of Hypothesized Relationships	Results
H2d	The higher accounting information reporting integration is, the more likely that firms will gain greater business goal achievement.	Supported
H3a	The higher accounting information trust orientation is, the more likely that firms will gain greater accounting information advantage.	Supported
H3b	The higher accounting information trust orientation is, the more likely that firms will gain greater valuable decision-making.	Not Supported
H3c	The higher accounting information trust orientation is, the more likely that firms will gain greater information usefulness effectiveness.	Not Supported
H3d	The higher accounting information trust orientation is, the more likely that firms will gain greater business goal achievement.	Not Supported
H4a	The higher best accounting practice efficiency is, the more likely that firms will gain greater accounting information advantage.	Supported
H4b	The higher best accounting practice efficiency is, the more likely that firms will gain greater valuable decision-making.	Not Supported
H4c	: The higher best accounting practice efficiency is, the more likely that firms will gain greater information usefulness effectiveness.	Not Supported
H4d	The higher best accounting practice efficiency is, the more likely that firms will gain greater business goal achievement	Supported

Table 16: Summary of the Results of Hypothesis Testing (continued)

Hypothesis	Description of Hypothesized Relationships	Results
H5a	The higher accounting information auditing capability is, the more likely that firms will gain greater accounting information advantage.	Not Supported
H5b	The higher accounting information auditing capability is, the more likely that firms will gain greater valuable decision-making.	Not Supported
H5c	The higher accounting information auditing capability is, the more likely that firms will gain greater information usefulness effectiveness.	Supported
H5d	The higher accounting information auditing capability is, the more likely that firms will gain greater business goal achievement.	Not Supported
H6	The higher accounting information advantage is, the more likely that firms will gain greater valuable decision-making.	Supported
H7	The higher accounting information advantage is, the more likely that firms will gain greater information usefulness effectiveness.	Supported
H8	The higher accounting information advantage is, the more likely that firms will gain greater business goal achievement.	Supported
H9	The higher valuable decision-making is, the more likely that firms will gain greater business goal achievement	Not Supported
H10	The higher information usefulness effectiveness is, the more likely that firms will gain greater business goal achievement.	Supported

Table 16: Summary of the Results of Hypothesis Testing (continued)

Hypothesis	Description of Hypothesized Relationships	Results
H11a	The higher information management leadership is, the more likely that firms will gain greater accounting transaction linkage competency.	Not Supported
H11b	The higher information management leadership is, the more likely that firms will gain greater accounting information reporting integration.	Supported
H11c	The higher information management leadership is, the more likely that firms will gain greater accounting information trust orientation.	Supported
H11d	The higher information management leadership is, the more likely that firms will gain greater best accounting practice efficiency.	Supported
H11e	The higher information management leadership is, the more likely that firms will gain greater accounting information auditing capability.	Supported
H12a	The higher top management support is, the more likely that firms will gain greater accounting transaction linkage competency.	Not Supported
H12b	The higher top management support is, the more likely that firms will gain greater accounting information reporting integration.	Not Supported
H12c	The higher top management support is, the more likely that firms will gain greater accounting information trust orientation.	Not Supported
H12d	The higher top management support is, the more likely that firms will gain greater best accounting practice efficiency.	Not Supported

Table 16: Summary of the Results of Hypothesis Testing (continued)

Hypothesis	Description of Hypothesized Relationships	Results
H12e	The higher top management support is, the more likely that firms will gain greater accounting information auditing capability.	Not Supported
H13a	The higher information technology resource is, the more likely that firms will gain greater accounting transaction linkage competency.	Not Supported
H13b	The higher information technology resource is, the more likely that firms will gain greater accounting information reporting integration	Supported
H13c	The higher information technology resource is, the more likely that firms will gain greater accounting information trust orientation.	Supported
H13d	The higher information technology resource is, the more likely that firms will gain greater best accounting practice efficiency.	Not Supported
H13e	The higher information technology resource is, the more likely that firms will gain greater accounting information auditing capability.	Supported
H14a	The higher modern accounting knowledge is, the more likely that firms will gain greater accounting transaction linkage competency.	Supported
H14b	The higher modern accounting knowledge is, the more likely that firms will gain greater accounting information reporting integration.	Not Supported
H14c	The higher modern accounting knowledge is, the more likely that firms will gain greater accounting information trust orientation.	Not Supported

Table 16: Summary of the Results of Hypothesis Testing (continued)

Hypothesis	Description of Hypothesized Relationships	Results
H14d	The higher modern accounting knowledge is, the more likely that firms will gain greater best accounting practice efficiency.	Not Supported
H14e	The higher modern accounting knowledge is, the more likely that firms will gain greater accounting information auditing capability.	Not Supported
H15a	The higher technology munificence growth is, the more likely that firms will gain greater accounting transaction linkage competency.	Supported
H15b	The higher technology munificence growth is, the more likely that firms will gain greater accounting information reporting integration.	Supported
H15c	The higher technology munificence growth is, the more likely that firms will gain greater accounting information trust orientation.	Supported
H15d	The higher technology munificence growth is, the more likely that firms will gain greater best accounting practice efficiency.	Supported
H15e	The higher technology munificence growth is, the more likely that firms will gain greater accounting information auditing capability.	Supported
H16a	Technology acceptance will positively moderate the relationship between information management leadership and accounting transaction linkage competency.	Not Supported

Table 16: Summary of the Results of Hypothesis Testing (continued)

Hypothesis	Description of Hypothesized Relationships	Results
H16b	Technology acceptance will positively moderate the relationship between information management leadership and accounting information reporting integration.	Not Supported
H16c	Technology acceptance will positively moderate the relationship between information management leadership and accounting information trust orientation.	Not Supported
H16d	Technology acceptance will positively moderate the relationship between information management leadership and best accounting practice efficiency.	Supported
H16e	Technology acceptance will positively moderate the relationship between information management leadership and accounting information auditing capability.	Not Supported
H17a	Technology acceptance will positively moderate the relationship between top management support and accounting transaction linkage competency.	Not Supported
H17b	Technology acceptance will positively moderate the relationship between top management support and accounting information reporting integration.	Not Supported
H17c	Technology acceptance will positively moderate the relationship between top management support and accounting information trust orientation.	Not Supported
H17d	Technology acceptance will positively moderate the relationship between top management support and best accounting practice efficiency.	Not Supported

Table 16: Summary of the Results of Hypothesis Testing (continued)

Hypothesis	Description of Hypothesized Relationships	Results
H17e	Technology acceptance will positively moderate the relationship between top management support and accounting information auditing capability.	Not Supported
H18a	Technology acceptance will positively moderate the relationship between top information technology resource and accounting transaction linkage competency.	Not Supported
H18b	Technology acceptance will positively moderate the relationship between information technology resource and accounting information reporting integration.	Not Supported
H18c	Technology acceptance will positively moderate the relationship between information technology resource and accounting information trust orientation.	Supported
H18d	Technology acceptance will positively moderate the relationship between information technology resource and best accounting practice efficiency.	Not Supported
H18e	Technology acceptance will positively moderate the relationship between information technology resource and accounting information auditing capability.	Not Supported
H19a	Technology acceptance will positively moderate the relationship between modern accounting knowledge and accounting transaction linkage competency.	Not Supported
H19b	Technology acceptance will positively moderate the relationship between modern accounting knowledge and accounting information reporting integration.	Not Supported

Table 16: Summary of the Results of Hypothesis Testing (continued)

Hypothesis	Description of Hypothesized Relationships	Results
H19c	Technology acceptance will positively moderate the relationship between modern accounting knowledge and accounting information trust orientation.	Not Supported
H19d	Technology acceptance will positively moderate the relationship between modern accounting knowledge and best accounting practice efficiency.	Not Supported
H19e	Technology acceptance will positively moderate the relationship between modern accounting knowledge and accounting information auditing capability.	Not Supported
H20a	Technology acceptance will positively moderate the relationship between technology munificence growth and accounting transaction linkage competency.	Not Supported
H20b	Technology acceptance will positively moderate the relationship between technology munificence growth and accounting information reporting integration.	Not Supported
H20c	Technology acceptance will positively moderate the relationship between technology munificence growth and accounting information trust orientation.	Not Supported
H20d	Technology acceptance will positively moderate the relationship between technology munificence growth and best accounting practice efficiency.	Not Supported
H20e	Technology acceptance will positively moderate the relationship between technology munificence growth and accounting information auditing capability.	Not Supported

CHAPTER V

CONCLUSION

The previous chapter reveals respondents characteristics, descriptive statistics, a correlation matrix, and the results of hypotheses testing. Therefore, this chapter aims to describe the conclusion, the theoretical and managerial contributions, limitations, and suggestions for further research.

This research investigates the effect of accounting information system quality on accounting information advantage, valuable decision making, information usefulness effectiveness, and business goal achievement in auto parts SMEs business in Thailand. Furthermore, information management leadership, top management support, information technology resource, modern accounting knowledge, and technology munificence growth are the antecedents of accounting information system quality. The moderating effects of technology acceptance are also tested. Meanwhile, technology acceptance is defined as moderated the relationships between each of five dimensions of accounting information system quality and its antecedents.

It can be stated that the key research question is “How does accounting information system quality affect business goal achievement?” In detail, there are five specific research questions as follows: 1) How does each dimension of accounting information system quality affect accounting information advantage, valuable decision-making, information usefulness effectiveness, and business goal achievement? 2) How does accounting information advantage affect valuable decision-making and information usefulness effectiveness? 3) How do accounting information advantage, valuable decision-making and information usefulness effectiveness affect business goal achievement? 4) How do information management leadership, top management support, information technology resources, modern accounting knowledge, and technology munificence growth affect each dimension of accounting information system quality? 5) How does technology acceptance moderate information management leadership, top management support, information technology resources, modern accounting knowledge, and technology munificence growth – each of which is a dimension of accounting information system quality relationships?

This research applies two theories to draw the conceptual model, including the information richness theory, and contingency theories. Auto parts SMEs businesses in Thailand are selected as the research population due to auto parts SMEs in Thailand is as a part of the business community, which will help the economic welfare of the people, generate revenue for the community and the country for providing new jobs, encourage innovation, stimulating competition, and enhance product and service quality. The population sample of this investigation is selected from the database of the Office of SMEs Promotion, as of May 2, 2017. For data collection, a mailed questionnaires was employed to gather data, and 1,093 questionnaires were sent to the head of accounting department (e.g. accounting director, accounting, manager), who is the key informant. For statistical analysis, multiple regression analysis is used to analyze data. It can be concluded that the majority of the hypotheses tested is partially supported. The results of each hypothesis according to each specific research question are described below:

According to the first specific research question, the results indicate that accounting transaction linkage competency (the first dimension) has a positive impact on two consequences, including accounting information advantage and valuable decision making. In additional, accounting information reporting integration (the second dimension) has a positive effect on three consequences include; valuable decision making, information usefulness effectiveness, and business goal achievement. Moreover, accounting information trust orientation (the third dimension) has a significant impact on accounting information advantage. Meanwhile, best accounting practice efficiency (the fourth dimension) has a significant influence on two consequences which are; accounting information advantage, and business goal achievement. Furthermore, accounting information auditing capability (the fifth dimension) has a significant effect only on information usefulness effectiveness.

For the second specific research question, the result shows that accounting information advantage has a positive influence on valuable decision making and information usefulness effectiveness. In the third specific research question, the finding presents that accounting information advantage, and information usefulness effectiveness have a strong positive effect on business goal achievement.

According to fourth specific research question, the finding reveals that information management leadership has a positive impact on four dimensions of accounting information system quality namely; accounting information reporting integration, accounting information trust orientation, best accounting practice efficiency, and accounting information auditing capability. The results show that information technology resource has a positive significant impact on three dimensions, which are; accounting information reporting integration, accounting information trust orientation, and accounting information auditing capability. Moreover, modern accounting knowledge has a significant effect on only accounting transaction linkage competency. Meanwhile, technology munificence growth has a positive influence on five dimensions of accounting information system quality namely; accounting transaction linkage competency, accounting information reporting integration, accounting information trust orientation, best accounting practice efficiency, and accounting information auditing capability. However, the results also show that top management support does not significantly influence all dimensions of accounting information system quality. According to the fifth specific research question, that technology acceptance plays two significant moderating roles on 1) the relationships between information management leadership and best accounting practice efficiency, and 2) the relationships between information technology resource and accounting information trust orientation.

Summary of Results

In conclusion, the accounting information system quality is essential for positive outcomes. In particular, accounting information reporting integration seems to be essential components of accounting information system quality leading to increase valuable decision making, information usefulness effectiveness and business goal achievement. Accounting transaction linkage competency seems to be an essential component which leads to accounting information advantage, and valuable decision making, meanwhile, best accounting practice efficiency is seems to be essential component which leads to accounting information advantage and business goal achievement. In additional, accounting information trust orientation affects accounting

information advantage, meanwhile, accounting information auditing capability leads to information usefulness effectiveness. The antecedent variables of accounting information system quality are information management leadership, information technology resource, and technology munificence growth which seem to be the most influential determinants of accounting information system quality. The results are summarized in Table 17 and Figure 10 below.

Table 17: A Summary of Results in All Research Questions

Research Questions	Hypotheses	Results	Conclusions
Specific Research Question			Partially supported
(1) How does each dimension of accounting information system quality affect accounting information advantage, valuable decision-making, information usefulness effectiveness, and business goal achievement?	H1a-d	- Accounting transaction linkage competency positively influences accounting information advantage and valuable decision making.	
	H2a-d	- Accounting information reporting integration has a positive effect on valuable decision making, information usefulness effectiveness, and business goal achievement.	
	H3a-d	- Accounting information trust orientation has a positive influence on accounting information advantage.	
	H4a-d	- Best accounting practice efficiency has a positive effect on accounting information advantage, and business goal achievement.	
	H5a-d	- Accounting information auditing capability has an influence on information usefulness effectiveness.	

Table 17: A Summary of Results in All Research Questions (continued)

Research Questions	Hypotheses	Results	Conclusions
(2) How does accounting information advantage affect valuable decision-making and information usefulness effectiveness?	H6 H7	- Accounting information advantage has a positive influence on valuable decision making. - Accounting information advantage has a positive significant effect on information usefulness effectiveness.	Fully supported
(3) How do accounting information advantage, valuable decision-making and information usefulness effectiveness affect business goal achievement?	H8 H9 H10	- Accounting information advantage has a positive effect on business goal achievement. - Valuable decision making does not have a significant effect on business goal achievement. - Information usefulness effectiveness has a positive influence on business goal achievement.	Partially supported

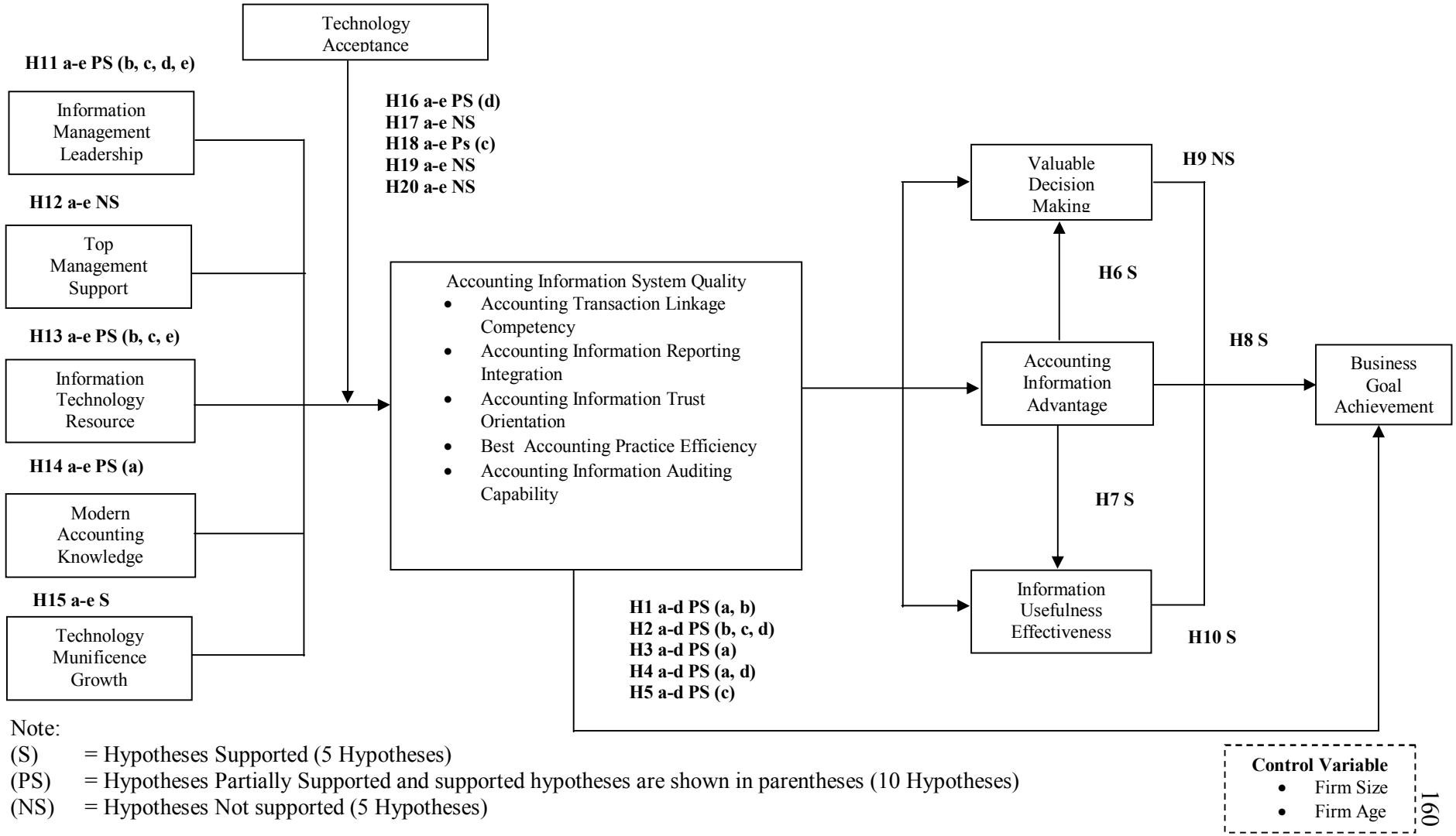
Table 17: A Summary of Results in All Research Questions (continued)

Research Questions	Hypotheses	Results	Conclusions
(4) How do information management leadership, top management support, information technology resources, modern accounting knowledge, and technology munificence growth affect each dimension of accounting information system quality?	H11a-e	- Information management leadership has a positive effect on accounting information trust orientation, best accounting practice efficiency, and accounting information auditing capability.	Partially supported
	H12a-e	- Top management support does not have any significant effect on all dimension of accounting information system quality.	
	H13a-e	- Information technology resource has a positive effect on accounting information reporting integration, accounting information trust orientation, and accounting information auditing capability.	
	H14a-e	- Modern accounting knowledge positively affects accounting transaction linkage competency.	
	H15a-e	-Technology munificence growth has a positive influence on all dimension of accounting information system quality.	

Table 17: A Summary of Results in All Research Questions (continued)

Research Questions	Hypotheses	Results	Conclusions
(5) How does technology acceptance moderate information management leadership, top management support, information technology resources, modern accounting knowledge, and technology munificence growth – each of which is a dimension of accounting information system quality relationships?	H16a-e H17a-e H18a-e H19a-e H20a-e	- Technology acceptance has two significant, moderating effects, firstly, in the relationship between information management leadership and best accounting practice efficiency, and secondly, in the relationship between information technology resource and accounting information trust orientation.	Partially supported

Figure 10: Model Summary of the Results of the Hypotheses Testing



Note:
(S) = Hypotheses Supported (5 Hypotheses)
(PS) = Hypotheses Partially Supported and supported hypotheses are shown in parentheses (10 Hypotheses)
(NS) = Hypotheses Not supported (5 Hypotheses)

Theoretical and Managerial Contribution

Theoretical Contribution

Firstly, this research indicates the causal relationships among the dimensions of accounting information system quality and business goal achievement of the auto parts SMEs firms in Thailand. The five dimensions of accounting information system quality, including 1) accounting transaction linkage competency, 2) accounting information reporting integration, 3) accounting information trust orientation, 4) best accounting practice efficiency, and 5) accounting information auditing capability, are newly developed and firstly examined in order to clarify into the concept which will be useful for further research. Particularly, all dimensions cover the quality' characteristic of the accounting information system which leads to have the more advantage of accounting information, valuable decision making, and information usefulness effectiveness, and ultimately leads to meet the business goal achievement. Thus, the first theoretical contribution is enhancing the insight understanding effect of accounting information system quality on business goal achievement in the auto parts SMEs in the context of Thailand.

Secondly, expanding the boundaries of information richness theory in the area of accounting information system. Because of, from the prior empirical research, the theory which usually employed to explain the relationships between accounting information system and its consequence is Resource Based View (RBV), however, in this research the information richness theory is deployed to explain the relationships between accounting information system quality and its consequence. Furthermore, the empirical evidence of this research confirms that five dimensions of accounting information system quality are important components that enhance the business goal achievement based on the information richness theory. This theory indicates that the richness of information refers to the quality of the information that is produced by accounting information system quality. And then, if the quality of information increases, uncertainty and equivocality will decrease. Moreover, accounting information system quality has an effect on accounting information advantage, valuable decision making, information usefulness effectiveness and ultimately lead to business goal achievement. Thus, the second theoretical contribution is the presentation of new

dimensions of accounting information system quality that are newly created and empirically tested by the construct of their antecedents and consequents. Besides, there are a few prior empirical researches that investigate the new dimension of accounting information system quality and still lack of focusing on quality of accounting information system in the small and medium sized enterprises in Thailand context. Therefore, these dimensions are very crucial to improve and enhance organizational performance in the consequent of meet the businesses' goals.

This research not only presents about the constructs of accounting information system quality, but there is also the empirical result of the accounting information system quality on accounting information advantage, valuable decision making, information usefulness effectiveness, and business goal achievement. The results help expand the ability to explain the important of information quality which are generated by the accounting information system quality based on the information richness theory, that if the firms have the more of accounting information system quality, the firms will have the more chance to meet the business goal achievement through accounting information advantage, valuable decision making, and information usefulness effectiveness. Particularly, the results also confirm that accounting information reporting integration (dimension 2), accounting transaction linkage competency (dimension 1), and best accounting practice efficiency (dimension 4) are important determinants to reinforce accounting information advantage, valuable decision making, information usefulness effectiveness, and business goal achievement.

Furthermore, another empirical result is in accordance with the fundamental principle of contingency theory in explaining the positive relationships among the internal and external factors (information management leadership, top management support, information technology resource, modern accounting knowledge, and technology munificence growth) and each dimension of accounting information system quality, which indicate the influential factor to enhance the quality of accounting information system of the firms.

Managerial Contribution

From the earlier mention, the result shows the main beneficially managerial implication for firms and their accounting executives. Firstly, the results can provide

guidelines for firms should more concentrate in improvement of quality of accounting information system, because these will lead the firm to the goal achievement. Especially, accounting information reporting integration, accounting transaction linkage competency, and best accounting practice are the critical component that all firms should more emphasize because they are likely to increase the more accounting information advantage, valuable decision making, information usefulness effectiveness, and business goal achievement. Therefore, organization should pay attention to accounting information system development and implementation. Especially, accounting information reporting integration is seem the most essential component to generate the more valuable decision making, the more of information usefulness effectiveness, and ultimately lead to business goal achievement. For this reason, firm should pay the more attention on accounting information reporting integration because of integrate of information inside and outside the firm in the monetary and non-monetary information into the firms' report is the key characteristic of the accounting information reporting integration. Because of the majority firms in this research employed Express as accounting software of their firms, so, financial information are reflected in firms' accounting reporting. Hence, SMEs firms should pay the more attention in the supplementation of accounting information not only side of financial information, but firms should pay the more attention on both of financial and non-financial information and both inside and outside firms' information, because of these are the core components of accounting information reporting integration such as executive summary report, analyze industry trend report.

In the next sequence, accounting transaction linkage competency, and best accounting practice efficiency are the key components of accounting information system quality too. The firm should pay the more concentrate in gathering, recording, classifying, and analyzing the day-to-day business transaction because these function will lead to enhance the more accounting transaction linkage competency of the firm and ultimately generate the more of accounting information advantage, and the more of valuable decision making. In addition, the firm should the more focus on best accounting practice because of these will help firm choose the suitable accounting practice, accounting policies which congruence with the currently firms' situation.

The advantageous accounting information system quality should contain the potential competencies in the collaboration among the various business functions within firm, other IS systems compatibility including communication system, business transaction linkage, and integrated accounting information reporting to related users through the potential of information management manner. Moreover, accounting information system quality beneficially provides accounting information to enhance the accounting information advantage, enhances the abilities in valuable decision making, increase information usefulness effectiveness, and ultimately leads to business goal achievement.

Secondly, the results reveal that accounting information advantage generates the more valuable decision making, and information usefulness effectiveness and ultimately lead the firm to meet the business goal achievement. Anywise, qualitative information is as important as quantitative information to complement and generate the completely information of the firms. Therefore, the core common characteristic of the accounting information advantage, valuable decision making, and information usefulness effectiveness is comprised of quantitative information and qualitative information. Even if, the major respondents of this research choose the Express as their firms' accounting software, it seems that only quantitative information is focused, and it seems to be a limitation of the precious' information. Therefore, the approach to reduce the opportunity of misunderstanding of the relevant users is the disclosure relevance' information into the notes to financial statement. Thus, management teams should pay the more attention in both of financial reports and non-financial reports, where both quantitative information and qualitative information are summarized into the reports, which ultimately lead to the more of valuable decision making and more information usefulness effectiveness. For this reason, the firm should pay the more concentrate in the way of enhance the outstanding of firms' information which reflect and response the real need of the users which include; correct, timeliness, differentiate, congruence with the dynamic environmental. In addition, the firm should concentrate on information usefulness effectiveness, because, it can help firms analyzing, and predicting the opportunities, and hindrances in the high competitive' situation. Furthermore, an effectively planning and directing are the key components of information usefulness effectiveness which lead to the efficiency of firms' performance.

Surprisingly, valuable decision making in the SMEs context is quite weak. One possible reason because of SMEs still have problems such as an in-transparency of financial reporting, lack of efficiency in management and administration, lack of professional or expert in SMEs business, and lack of skilled workers. For these problems, it will affect the creditability of SMEs Performance, and lead SMEs to face the problem of financial provision of the firms. When SMEs' accounting systems were not transparent enough for potential investors to rely on in making an investment, they might face difficulty in accessing finance and higher costs. Therefore, the way to solution this problem is "Single Accounting" policy, which released by Bank of Thailand, and SMEs must comply with this policy on January, 2019. The main objective of this policy aims to make sure that SMEs have the same account with the Revenue Department in accordance with government policies (www.bot.or.th; search on November 28, 2017). Because of in the past, SMEs often have multiple accounts and have another one financial report to file to Revenue Department for tax benefits. When applying for a loan with a financial institution, the report which are filed with the Revenue Department, it does not pass the criteria for considering the loan. Credit officers will need to recast the financial statements by taking information from the actual business transactions. Therefore, SMEs must pay the more attention in this coming topic, because of these policy will affect and enforce all SMEs businesses in Thailand. Thus, single accounting approach will improve the quality of accounting information which ultimately generates the valuable decision making of SMEs businesses.

Finally, to heighten the accounting information system quality, the results reveal that the higher degree of information management leadership, information technology resources, and technology munificence growth strengthen the higher degree of accounting information system quality. Thus, firm should increase the information management leadership manner and invest in information technology resources. Information management leadership, information technology resource, and technology munificence growth are the expectation that quality information will sustain the accounting information advantage. Hence, when firm has higher information management leadership manner, it will pay the attention to support the accounting information system implementation and invest in information technology resources—

including hardware, software, people, and communication system. The results of this research reveal that information management leadership and information technology resources positively affect accounting information system quality. Thus, firm should pay the more encourage of information management leadership by the supporting and adapting the newly techniques or novel technologies for the information management, continuously improving firms' database, which lead to enhance the more effectively of firms' performance.

Furthermore, the results indicate that information technology resource is one important factor which enhance accounting information system quality, so the firms should pay the more attention in the readiness of the information technology resource in the arena of supporting the employees' modern technology training, maintaining and developing the firms' database, and encourage the firm to have the computer network for the operational and communication, which lead the firm to meet the operational success. However, firm should place more concern on the technology munificence growth because the growth, advancement, and the diversity of technology will enhance the firm performance in the arena of choose and adapt the suitable technology which match with the need of each firms, enhance the effectively communication channel, which ultimately affect the accounting information system quality of the firm.

Meanwhile, top management support in the context of SMEs businesses of Thailand seem have ineffectiveness. Congruence with Institute for small and Medium Enterprises Development explained that SMEs in Thailand still have some limitations as follows; 1) lack of entrepreneurship, 2) lack of efficiency in management and administration, 3) lack of professional or expert in SMEs business, 4) lack of skilled workers, 5) lack of technology to reduce cost and support business, 6) high competition, 7) lack of efficiency and effectiveness of production management, and 8) lack of government support. Therefore, top management should pay attention on reviewing the role of management, the clearly of role and authority of their work are the more essential factors which lead the firms to meet the effectively management.

Limitations and Future Research Direction

Limitations

One limitation is the period time, the data collection procedure is relatively short which the process and follow-up method only took approximately two months. For this reason, the response rate is quite low, although exceeds the minimum requirement.

Future Research

According to the results, there are some constructs that have inappropriate measurements. To modify the constructs, researchers should re-conceptualize to confirm, all component variables, which are comprised in this conceptual framework, are appropriate in the context of SMEs. Besides, the results of hypothesis testing indicate that moderating effects is not obviously supported. Possibly, the measurements of these constructs are inappropriate. Further research should modify some question items in the other perspective. Therefore, further research should attempt to change for the appropriate variables, or consider in the new perspective of technology acceptance. Because of the difference organizational' climate of the technology acceptance or the different of organizational characteristics are determined as an influencing factor, hence, the level of technology acceptance of each firms, or the characteristic of firms; defenders versus prospectors should be considerate in the conceptual framework.

Finally, the conceptual framework of this research is developed form the acquiring of accounting and IT disciplines. To generalize this conceptual framework, there are several directions. Researchers should attempt to analyze by using other different groups of population and samples. Additionally, further research should conduct comparative analysis between the distinct statistically techniques or different countries. Also, the mixed-method analysis is the appropriate way to generalize this conceptual framework.

BIBLIOGRAPHY

BIBLIOGRAPHY

Aaker, A.D., Kumar, V. and Day, G.S. (2001). *Marketing Research.* New York: JohnWiley and Sons

Abdel-Kader, M. and Luther, R. (2008). The impact of firm characteristics on management accounting practices: A UK-based empirical analysis. *The British Accounting Review*, 40, 20-27.

Abdillah,. W. (2013). Personality and Cognitive Factors in Information system Migration Process. *Journal of Indonesian Economy and Business,* 28(3), 275-291.

Ademola, G. O., Samuel O. J. and Ifedolapo, O. (2012). The Roles of Record Keeping In the Survival and Growth of Small Scale Enterprises in Ijumu Local Government Area of Kogi State. *Global Journal of Management and Business Research,* 12(3), 55-66.

Ahmed, S.,S., and Zulkifli, M., U. (2012). The relationship between ERP system and supply chain management performance in Malaysian manufacturing companies. *Journal of Enterprise Information Management,* 25(6), 567-604.

Akmal. M., Syed, A.A.S.G., and Shaikh, F.M. (2012). Decision Usefulness, Truth and Accounting: A Philosophical Approach. *Journal of Business Strategies,* 6(1), 40-56.

Alenezi, H., Tarhini, A., and Sharma, S.K. (2015). Development of quantitative model to investigate the strategic relationship between information quality and e-government benefits. *Transforming Government People, Process and Policy,* 9(3), 324-351.

Ali, A., Rahman, M. S. A., and Ismail, W. N. S. W. (2012). Predicting Continuance Intention to Use Accounting Information Systems among SMEs in Terengganu, Malaysia. *International Journal of Economics and Management*, 6(2), 295 – 320.

Alberto, A.C.J., and Sharma, S. (2003). A Contingent Resource-Based View of Proactive Corporate Environmental Strategy. *The Academy of Management Review,* 28(1), 71-88.

Alles, M., Brennan, G., Kogan, A., and Vasarhelyi, M., A. (2006). Continuous monitoring of business process control: A pilot implementation of a continuous auditing system at Siemens. *International Journal of Accounting Information Systems*, 7, 137-161.

ALraja, M.N. and ALomiam, N.R. (2013). The Effect of General Controls of Information System Auditing in the Performance of Information Systems: Field Study. *Interdisciplinary Journal of Contemporary Research Business,* 5(3), 356-370.

Al-Mashari, M., and Zairi, M. (2000). Creating a Fit Between BPR and IT infrastructure: A Proposed Framework for Effective Implementation. *The international Journal of Flexible Manufacturing Systems,* 12(4), 253-274.

Al-Thuneibat, A.A., Al-Rehaily, A.S., and Basodan, Y.A. (2015). The impact of internal control requirements on profitability of Saudi Shareholding companies. *International Journal of Commerce and Management,* 25(2), 196-217.

Amidu, M. (2005). Accounting information and management of SMEs in Ghana. *The African Journal of Finance and Management*, 14(1), 15 – 24.

Amidu, M., Effah, J., and Abor, J. (2011). E – Accounting Practices among Small and Medium Enterprises in Ghana. *Journal of Management Policy and Practice,* 12(4), 146 – 155.

Amin, H.M.G., and Mohamed, E.K.A. (2016). Auditors' perceptions of the impact of continuous auditing on the quality of Internet reported financial information in Egypt. *Managerial Auditing Journal,* 31(1), 111-132.

Aphiwatpisan, J. (2012). The Selection of an Accounting Software Package for SMEs. *Silpakorn University Journal of Social Sciences, Humanities, and Arts,* 32(1), 23-37.

Armstrong, J. C., and Overton, T. S. (1977). Estimating nonresponse bias in mail surveys. *Journal of Marketing Research*, 14, 396-402.

Anderson, J. L., Jolly, L. D. and Fairhurst, A. E. (2007). Customer relationship management in retailing: A content analysis of retail trade journals. *Journal of Retailing and Consumer Services*, 14, 394-399 .

Andon, P., Bexter, J., and Chua, W.F. (2015). Accounting for Stakeholders and Making Accounting Useful. *The Journal of Management Studies,* 52(7), 986.

Anni, L., Juhani, L.T., and Petri, S. (2017). The potential of management accounting and control in global operations: Profitability-driven service business development. *Journal of Service Theory and Practice; Bingley,* 27(2), 496-514.

Aragon-Correa, J. A., and Sharma, S. (2003). A contingent resource-based view of proactive corporate environmental Strategy. *The Academy of Management Review*, 28(1), 71-88.

Arostegui, M.N.P., Amado, J.B. and Torres, J.T. (2012). Information technology-enabled quality performance: an exploratory study, *Industrial Management & Data Systems,* 112(3), 502-518.

Assenso-Kofo, O., Ali, M. J., and Ahmed, K. (2011). The Development of Accounting and Reporting in Ghana. *The International Journal of Accounting*, 46, 459-480.

Auh, S., and Mengue, B. (2005). Balancing exploration and exploitation: The moderating role of competitive intensity. *Journal of Business Research*, 58(12), 1652-1661.

Awayiga, J.Y., Onumah, J.M., and Tsamenyi, M. (2010). Knowledge and skills development of accounting graduates: the perceptions of graduates and employers in Ghana. *Accounting Education: An International Journal,* 19 (1-2), 139-58.

Bachmid, F.S. (2016). The Effect of Accounting Information System quality on Accounting Information quality. *Research Journal of Finance and Accounting,* 7(20), 26-31.

Badri, M. A., Davis, D., and Davis, D. (2000). Operations strategy, environmental uncertainty and performance: a path analytic model of industries in developing countries. *Omega,* 28(2), 155-173.

Bahmani Z., and Farhadpoor, M.R. (2017). The Effect of environmental Uncertainty and The Characteristics of Information Sources on Managers' Use of Information Sources for Making Decision. *International Journal of Information, Business and Management,* 9(1), 167-191.

Baninajarian, N., Abdullah, Z., and Bolong, J. (2011). The Role of Email in Improving Task Performance Among The Executive in Malaysia. *Australian Journal of Business and Management Research,* 1(4), 52-62.

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17, 99-120 .

Bedard, J. C., Jackson, C., Ettredge, M.L., and Johnstone, K.M. (2003). The effect of training on auditors' acceptance of an electronic work system. *International Journal of Accounting Information Systems*, 4, 227-250.

Bergeron, B. P. (2003). *Essentials of XBRL: financial reporting in the 21st century*. Hoboken: Wiley.

Bhatt, G. D., and Grover,V. (2005). Types of information technology capabilities and their role in competitive advantage: An empirical study. *Journal of Management Information Systems,* 22(2), 253-277.

Bhattacherjee, A. (2001). Understanding Information Systems Continuance: An Expectation-Conformation Model. *MIS Quarterly,* 25(3), 351-370.

Biddle, G. C., Hilary, G. and Verdi, R. S. (2009). How does financial reporting quality relate to investment efficiency? *Journal of Accounting and Economics*, 48(2-3), 112-131

Blouin, M.C. (2012). Does other information improve the usefulness of management earnings forecasts for analysts? *Review of Accounting and Finance,* 11(2), 93-112.

Boateng, A., and Glaister, K. W. (2002). Performance of International Joint Ventures: Evidence for West Africa. *International Business Review,* 11, 523-541.

Bohensky, M.A., Jolley, D. Sundararajan, V., Evan, S., Pilcher, D.V., Scott, I. and Brand, C.A. (2010). Data Linkage: A powerful research tool with potential problems. *BMC Health Service Research,* 10(346), 1-7.

Booth, M. E. and Philip, G. (2005). Information Systems Management in Practice: An Empirical Study of UK Companies. *International Journal of Information Management,* 25, 287-302.

Boulesnane, S., and Bouzidi, L. (2013). The mediating of information technology in the decision-making context. *Journal of Enterprise Information Management,* 26(4), 387-399.

Bradford, M. and Florin, J. (2003). Examining the role of innovation diffusion factors on the implementation success of the enterprise resource planning systems. *International Journal of Accounting Information Systems,* 4, 205-225.

Brady, R. (2006). Management control in a business network: new challenges for accounting. *Qualitative Research in Accounting & Management,* 3(2), 161-181.

Bricker, R., and Chandar, N. (2012). Relevance, reliability and restricted security fair values: a look at investment trusts. *Management Finance,* 38(12), 1203-1225.

Brown, A. (2013). Managing challenges in sustaining business excellence. *International Journal of Quality & Reliability Management,* 30(4), 461 - 475.

Bruton, G.D., and Rubanik, Y. (2002). Resources of the firm, Russian high technologystartups, and firm growth. *Journal of Business Venturing*, 17, 553-576.

Byington, J. R., Christensen, J. A., and McGee, W. J. (2006). M&A checklists for a post-SOX world. *Journal of Corporate Accounting & Finance,* 17(2), 31-36.

Byrd, T.A., and Davidson, N.W. (2003). Examining Possible Antecedents of IT Impact on supply Chain and Its Effect on Firm Performance. *Information and Management,* 41, 243-255.

Cappiello, C., Francalanci, C., and Pernici, B. (2003). Tine-related factors of data quality in multi-Channel information systems. *Journal of Management Information Systems,* 20(3), 71-91.

Capron, L., and Hulland, J. S. (1999). Redeployment of brands, sales forces, and marketing expertise following horizontal acquisitions: A resource-based view. *Journal of Marketing,* 63(2), 41-54.

Celuch, K., Walz, A.M., Saxby, C., and Ehlen, C. (2011). Understanding SME Intention to Use the Internet for Managing Supplier Information. *New England Journal of Entrepreneurship,* 14(1), 9-21.

Chang, K.C., and Wang, C.P. (2011). Information systems resources and information security. *Information Systems Frontier,* 13)4), 579-593.

Chapman, C. S., and Kihn, L. A. (2009). Information system integration, enabling control and performance. *Accounting, Organization and Society,* 34(2), 151-169.

Chen, J.C., and Lin, W.B. (2004). The effects of environment, knowledge attribute, organizational climate, and firm characteristics on knowledge sourcing decisions. *R&D Management,* 32(2), 137-146.

Chen, X.H. (2015). *The role of computer mediated communication competence on unique information pooling and decision quality in virtual teams*. ProQuest Dissertation and Theses Global.Michigan State University.

Chenhall, R.H. (2003). Management Control Systems Design within its Organizational Context: Findings from Contingency-Based Research and Directions for the Future. *Accounting, Organizations and Society*, 28, 127-168.

Chenhall, R.H., and Morris, D. (1986). The impact of Structure, Environment, and Interdependence on the Perceived Usefulness of Management Accounting Systems. *The Accounting Review,* 61, 16-35.

Choe, J.M., (1998). The effects of user participation on the design of accounting information systems. *Information and Management*, 34(3), 185-198.

———. (2004). The relationships among management accounting information, organizational learning and production performance. *Journal of Strategic Information Systems,* 13(1), 61-85.

———. (2015). The Relationships among Performance of Accounting Information System, Influence Factors and Evolution level of information system. *Journal of Management Information System,* 11, 215-239.

Chokri, B. (2016). User acceptance of the e-information service as information resource: A new extension of the technology acceptance model. *New Library World,* 117.9(10). 626-643.

Chou, C.C., and Chang, C.J. (2010). Continuous auditing for web-released financial information. *Review of Accounting and Finance,* 9(1), 4-32.

Cohen, G., Solomon, I., and Nijkamp, P. (2002). Information –communication technology (ICT) and transport: does knowledge underpin policy? *Telecommunication Policy,* 26, 31-52.

Colwyn J. T.,and Dugdale, D. (2001). The concept of an accounting regime. *Critical Perspectives on Accounting,* 12(1), 35-63.

Dastgir, M., Jamshidian, M., and Jadidi, A. (2003). The effect of characteristics of AIS on managers' decision making improvement. *Iranian Accounting Review*, 34(2), 54-79.

Daft, R. (1983). *Organization Theory and Design*. New York West.

Daft, R.L. and Lengel, R.H. (1984). Information Richness: A new Approach to Managerial Behavior and Organizational Design. *Research in Organizational Behavior,* 6, 191-233.

———. (1986). Organizational information requirements, media richness and structural design. *Management Science*, 32(5), 554–571. doi:10.1287/mnsc.32.5.554

Dang-Duc, S. (2011). Compliance with accounting standards by SMEs in transitional economics: evidence from Vietnam. *Journal of Applied Accounting Research,* 12(2), 96-107.

Dang, D.S., Marriott, D.N., and Marriott, P. (2006). Users' perceptions and uses of financial information of small and medium companies (SMCs) in transitional economies: qualitative evidence from Vietnam. *Qualitative Research on Accounting and Management,* 3(3), 218-35.

David, J. S., Dunn, C.L., McCarthy, W.E., and Poston, R.S. (1999). The Research Pyramid: A Framework for Accounting Information Systems Research. *Journal of Information Systems,* 13(1), 7-36.

De Guinea, A.O., Kelley, H., and Hunter, M.G. (2005). Information Systems Effectiveness in Small Business: Extending a Singaporean model in Canada. *Journal of Global Information Management*, 13(3), 55-70.

Delmotte, J., and Sels, L. (2008). HR Outsourcing Threat or Opportunity?. *Personnel Review*, 37(5), 543-563.

Ditkaew, N., and Ussahawanitchakit, P. (2010). Success of ERP Implementation in Thai Industrial Firms: An Empirical Research of Its Antecedents and Consequences. *Journal of Academy of Business and Economics,* 10(1).

Doh, S., Stough, R.R. (2010). Analysis of the impact of the perceived usefulness of ICT on the digital divide between disabled and non-disabled people in South Korea. *International Review of Public Administration,* 14(3), 53-70.

Doherty, E., Carcary, M., and Conway, G. (2015). Migrating to the Cloud Examining the drivers and barriers to adoption of cloud computing by SMEs in Ireland: an exploratory study. *Journal of Small Business and Enterprise Development,* 22(3), 512-527.

Doinea, O., Lepadat G., Tomita, A., and Danisa, I. (2011). The role of accounting information in decision-making strategies and process. *Economics, Management, and Financial Markets,* 6(2), 188-193.

Dolinsek, T., Tominc, P., and Skerbinjek, A.L. (2014). Users' Perceptions on Internet Financial Reporting. *Organizacija,* 47(4), 254-266.

Doll, W.J., and Torkzadeh G. (1988). The measurement of End-user computing Satisfaction. *MIS Quarterly,* 12(2), 259-274.

Dong, L., Neufeld, D., and Higgins, C. (2009). Top management support of enterprise systems implementations. *Journal of Information Technology,* 24(1), 55-80.

Dull, R. B., Graham, A. W., and Baldwin, A. A. (2003). Web-based financial statements: hypertext links to footnotes and their effect on decisions. *International Journal of Accounting Information Systems,* 4(3), 185-203.

Durbin, J., and Watson, G. S. (1971). Testing for serial correlation in least squares regression III. *Biometrika*, 58(1), 1–19.

Durugbo, C., Tiwari, A., and Alcock, J.R. (2014). Managing integrated information flow for delivery reliability. *Industrial Management & Data Systems,* 114(4), 628-651.

Dwivedi, Y. K., Ravichandran, K., Williams, M. D., Miller, S.,Lal, B., Antony, G. V., and Kartik, M. (2013). IS/IT project failures: A review of the extant literature for deriving a taxonomy of failure factors grand successes and failures in IT. *Public and private sectors*, (Berlin, Heidelberg: Springer), 73–88.

Dwiputrianti, S. (2011). Scope of Auditing on the Quality of Content in the Indonesian External Public Sectors Auditing Report. *International Review of Public Administration,* 16(3), 133-149.

Eisenhardt, K. M., and Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal,* 21(10–11), 1105–1121.

El Louadi, M. (1998). The relationship among organization structure, information technology and information processing in small Canadian firms. *Canadian Journal of Administrative Sciences*, 15(2), 180-199.

Ellram L. M., and Stanley L. L. (2008). Integrating strategic cost management with a 3DEC environment: Strategies, practices, and benefits. *Journal of Purchasing & Supply Management*, 14, 180-191.

Emad, H., Suhali A. T., and Ahmaed, H.R. (2014). The influence of Accounting Information System (AIS) on Performance of SMEs in Iraq. *Journal of Business & Management,* 3(4), 48-57.

Eppler, M.J., and Mengis J. (2004). The Concept of Information Overload: A Review of Literature from Organization Science, Accounting, Marketing, MIS, and Related Disciplines. *The Information Society: An International Journal*, 20(5), 325-344.

Felden, C. (2011). Characteristics of XBRL adoption in Germany. *Journal of Management Control,* 22(2), 161-186.

Fisher, C.W., and Kingma, B.R. (2009). Criticality of data quality as exemplified in two disasters. *Information and Management,* 39(2), 109-116.

Foss, K., and Rodgers, W. (2011). Enhancing Information Usefulness by Line Managers' Involvement in Cross-Unit Activities. *Organization Studies,* 32(5), 683.

Galbraith, J. (1977). *Organization Design*. Addison-Wesley, Reading, MA.

Gallivian, M.J. (2001). Organizational Adoption and Assimilation of Complex Technological Innovations: Development and application of a New Framework. *The DATA BASE for Advanced in Information Systems*, 32(3), 51-85.

Ge, M., and Helfert, M. (2013). Impact of information quality on supply chain decisions. *The Journal of Computer Information Systems,* 53(4), 57-67.

Gorla, N., and Lin, S.C. (2010). Determinants of software quality: A survey of information system project managers. *Information and Software Technology,* 52(6), 602.

Grabski, S. V., and Leech, S. A. (2007). Complementary controls and ERP implementation success. *International Journal of Accounting Information Systems*, 8(1), 17-39.

Grande, U.E., Estebenez, P.R., and Colomina, M.C. (2011). The impact of accounting information on performance measures: empirical evidence in Spanish SMEs. *The International Journal of Digital Accounting Research,* 11, 25-43.

Granlund, M., and Malmi, T. (2002). Moderate impact of ERPS on management accounting: a lag or permanent outcome?. *Management Accounting Research*, 13, 299-321.

Grubljesic, T., and Jaklic, J. (2015). Conceptualization of the Business Intelligence Extended Use Model. *Journal of Computer Information System*, 55(3), 72-82.

Grant, R.M. (1991). The resource-based theory of competitive advantage: Implications for strategy formulation. *California Management Review*, 33, 114–135.

Habib, A., Hossain, M., and Jiang, H. (2011). Environmental Uncertainty and the Market Pricing of Earnings Smoothness. Advance in Accounting. *Incorporating Advances in International Accounting,* 27, 256-265.

Hall, J.A. (2008). *Accounting Information System*. 6th ed. Mason, OH: South-Western Cengage Learning, 20.

Hall, J. (2013). *Accounting Information Systems*, South-Western: Cengage Learning.

Hair, J. F. J., Anderson, R. E., Tatham, R. L., and Black, W. C. (2006). *Multivariate Data Analysis.* Upper Saddle River, NJ: Prentice-Hall, Inc, 235-240.

Hair, Jr. J.F., Black, W.C., Babin, B.J., and Anderson, R.E. (2010). *Multivariate Data Analysis: A Global Perspective*. New Jersey: Pearson Prentice Hall.

Hakansson, H. and Line, J. (2004). Accounting and Network Coordination. *Accounting Organizations and Society*, 29, 51-72.

Hanpuwadal, N., and Ussahawanitchakit, P. (2010). Accounting Practice effectiveness and financial performance of Thai listed firms: mediating effects of decision making efficiency for tax management, competent resource allocation and strategic planning success. *European Journal of Management,* 10(1).

Harash, E., Al-Timimi S., and Radhi A.H. (2014). The Influence of Accounting Information Systems (AIS) on Performance of small and Medium Enterprises (SMEs) in Iraq. *Journal of Business & Management,* 3(4), 48-57.

Heidmann, M., Schäfffe, U., and Strahringer, S. (2008). Exploring the Role of Management Accounting Systems in Strategic Sense making. *Information Systems Management,* 25, 244-257.

Hellen, L.A. (1997). Information system quality versus software quality. A discussion from managerial, an organizational and an engineering view point. *Information and Software Technology,* 39, 801-808.

Herritz, J. (2016). Applying accounting Best Practices to Business Intelligence. *Business Intelligence Journal,* 21(2), 18 – 22.

Herwiyanti, E. (2015). The effect of Information Technology Capability and Quality of Management Accounting Information with Technological Uncertainty as Moderating Variable. *The International Technology Management Review,* 5(1), 11-17.

Hitt, A.M., and Collins, J.D. (2007). Business Ethics, Strategic Decision Making, and Firm Performance. *Business Horizons,* 50, 353-357.

Homburg, C., Artz, M., and Wieseke, J. (2012). Marketing performance measurement systems: Does comprehensiveness really improve performance?. *Journal of Marketing*, 76(May), 56-77.

Hongsombud, A., Ussahawanitchakit, P., and Muenthaisong, K. (2012). Accounting Quality Control and Firm Growth: An Empirical Investigation of Corporate Governance Awarded Firms in Thailand. *Journal of the Academy of Business & Economics,* 97-124.

Hu, W., and Feng, J. (2005). Data and Information quality: an information-theoretic perspective. *Computing and Information System Journal,* 9(3), 32-47.

Huang, M., Zhu, H., and Zhou, X. (2013). The effect of information provision and interactivity on e-tailer website. *Online Information Review,* 37(6), 927-945.

Huang, P.Y., Pan, S.L., and Ouyang, T.H. (2014). Developing information processing capability for operational agility from Chinese manufacturer. *European Journal of Information Systems,* 23(4), 462-480.

Hunton, E.J. (2002). Blending Information and communication Technology with Accounting Research. *Accounting Horizons,* 16(1), 55-67.

Hunton, J.E., Lippincott, B., and Reck, J.L. (2003). Enterprise resource planning systems: Comparing firm performance of adopters and non-adopters. *International Journal of Accounting Information Systems,* 4(3), 165-184.

Hunton, J. E., Wier, B., and Stone, D.N. (2000). Succeeding in managerial accounting. Part 2: a structural equations analysis. *Accounting, Organizations and Society*, 25, 751-762.

Hunter, M.G., and Long, W.A. (2003). *Adopting the Entrepreneurial Process in the Study of Information Systems and Small Business, in Gingrich, G. (Ed.). Managing IT in Government, Business, Cnd communities*. Hershey, PA: IRM Press.

Hunter, M.G., and Long, W.A. (2002). Information Technology and Small Business: Lessons from the Entrepreneurial Process. *Information Resources Management Association Conference (IRMA)*, Washington: Seattle.

HuvilaIsto. (2014). *Information Management Leadership*. [Online]. Available from: http://www.istohuvila.se/node/423 [accessed January 6, 2016].

Ibrahim, O., and Leong, L.W. (2012). Perception of information technology use in organization: Models and Theories used in current landscape. *African Journal of Business Management,* 6(4), 1290-1305.

Iskander, N., and Lowe, N. (2013). Building Job Quality from the Inside-Out: Mexican Immigrants, Skills, and Jobs in the Construction Industry. *ILR Review,* 66(4), 785-807.

Ireland, R. D., Hitt, M. A. and Vaidyanath, D. (2002). Alliance management as a source of competitive advantage. *Journal of Management,* 28(3), 413-446.

Islam, M.A., Yusut, D.H.M., Yusoff, W.S., and Johari, A.N.B. (2012). Factors affecting user satisfaction in the Malaysian income tax e-filing system. *African Journal of Business Management,* 6(2), 6447-6455.

Ismail, N. A. (2007). The impact of information technology on performance: The mediating role of management accounting systems. *Journal Technolo*gy, 46(E), 27- 44.

———. (2009). Factors influencing AIS effectiveness among manufacturing SMES: Evidence from Malaysia. *The Electronic Journal on Information Systems in Developing Countries*, 38(10), 1-19.

Ismail, N. A. and King, M. (2005). Firm performance and AIS alignment in Malaysian SMEs. *International Journal of Accounting Information Systems*, 6(4), 241-259.

Ismail, R., and Othman, N.A. (2014). The Effectiveness of Government-Support Programmes Toward Business Growth. *Journal of Technology Management and Technopreneurship,* 2(2), 41-52.

Ives, B., Olson, M. H., and Baroudi, J. J. (1983). The Measurement of User Information Satisfaction. *Communications of the ACM*, 26(10), 785-793.

Jantarajaturapath, P. and Ussahawanitchakit, P. (2009). E-commerce competencies and success of Thai e-commerce firms: A mediating of multi-channel retailing advantage. *Journal of Academy of business and Economics*, 9, 1-22.

Jennex, M. E., Amoroso, D., and Adelakun, O. (2004). E-commerce infrastructure success factors for small companies in development economics. *Electronic Commerce Research,* 4(3), 263-286.

Joshi, P. L. (2001). The International Diffusion of New Management Accounting Practices: The Case of India. *Journal of International accounting, Auditing & Taxation,* 10, 85-109.

Julien P.A., and Ramangalahy, C. (2003). Competitive Strategy and Performance of Exporting SMEs: An Empirical Investigation of the Impact of Their Export Information search and Competency. *Entrepreneurship Theory and Practice,* 227-246.

Jurisch, M.C., Palka, W., Wolf, P., and Krcmar, H. (2014). Which capabilities matter for successful business process change? *Business Process Management Journal,* 20(1), 47-67.

Kahai, S. S., Cooper, B. R. (2014). Exploring the core concepts of Media Richness Theory: The Impact of Cue Multiplicity and Feedback Immediacy on Decision Quality. *Journal of Management Information Systems*, 20(1), 263-299.

Kaino, B.J., Waweru, K.M., and Omondi, H.R. (2015). Users' Perceptions on the Effectiveness of Enterprise Resource Planning System in Enhancing the Performance of Accounting Information Systems of public Universities in Kenya. *Journal of Business Studies Quarterly,* 7(2), 221-230.

Kaplan, D., Krishnan, R., Padman, R., and Petters, J. (1998). Assessing Data Quality in Information. *Communication of the ACM,* 41(2), 72-78.

Kappelman, L., McLean, L., Luftman, J., and Johnson, V. (2013). Key Issues of IT Organizations and Their Leadership: The 2013 SIM IT Trends Study. *MIS Quarterly Executive,* 12(4), 227-240.

Karadag, H. (2015). Financial Management Challenges In Small And Medium – Sized Enterprises: A Strategic Management Approach. *Emerging Markets Journal,* 5(1), 26 – 40.

Karim, J.A. (2013). Evaluating the impact of information security on enhancing the business decision-making process. *World Journal of Entrepreneurship Management and Sustainable Development,* 9(1), 55-64.

Karim, S., and Mitchell, W. (2000). Path-dependent and path-breaking changes: Configuring business resources following acquisitions in the U.S. medical sector, 1978–1995. *Strategic Management Journal*, 21, 1061–1081.

Kettinger, J. W., Zhang, C., and Marchand, A.D. (2011). CIO and Business Executive Leadership Approaches to Establishing Company-Wide Information Orientation. *MIS Quarterly Executive*, 10(4), 157- 174.

Kharuddin, S., Ashhsri, Z.M., and Nassir, A.M. (2010). Information System and Firms' Performance: The Case of Malaysian Small Medium Enterprise. *International Business Research,* 3(4), 28-35.

Koltay, T. (2017). The bright side of information: ways of mitigating information overload. *Journal of Documentation,* 73(4), 767-778.

Konthong, K., Sangboom, K., and Srimuangtong, N. (2015). Understanding the Computer Assisted Audit Techniques Acceptance of CPAs in Thailand: A Conceptual Paper. *Proceeding of the Academy of Management Information and Decision Sciences,* 19(2), 6-15.

Konthong, K. and Ussahawanitchakit, P. (2009). Management accounting information system and business value creation: An empirical study of Thai listed firms. *Review of Business Research,* 9, 95-107.

———. (2010). AIS competency, Accounting Outcomes, and firm performance: An empirical study of Thai-listed firms. *Journal of International Management Studies,* 10(3), 43-67.

Korutaro, S.T., Brendah, A., Irene, N., and Immaculate, T. (2017). The impact of financial management practices and competitive advantage on the loan performance of MFIs. *International Journal of Social Economics; Bradford,* 44(1), 114-131.

Krejcie, R. V. and Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30(3), 607-610.

Lange, P.D., Jackling, B., and Gut, A.M. (2006). Accounting graduates' perceptions of skills emphasis in undergraduate courses: An investigation from two Victorian universities. *Accounting and Finance*, 46, 365-386.

Laonamtha, U., Ussahawanitchakit, P., and Boonlua, S. (2013). Modern Cost Management Capability and Firm Performance: An Empirical Assessment of Auto Parts Businesses in Thailand. *Review of Business Research*, 13(4), 77-102.

Laosirihongthong, T., Teh, P.L., and Adebamjo, D. (2013). Revision quality management and performance, *Industrial Management & Data Systems,* 117(7), 990-1006.

Larasati, N.W., and Santosa, P.I. (2017). Technology Readiness and Technology Acceptance Model in New Technology Implementation Process in Low Technology SMEs. *International Journal of Innovation, Management and Technology,* 8(2), 113-117.

Lee, Y. (2003). Crafting rules: Context-reflective data quality problem solving. *Journal of Management Information Systems*, 20(3), 93-119.

Lee, Y., Strong, D., Kahn, B., and Wang, R., (2002). AIMQ: A methodology for information quality assessment. *Information and Management,* 40(2), 133-146.

Lee, L., Whitworth, J., and Hermanson, S. (2015). The Effects of Information Technology Innovativeness on Audit Efficiencies. *Review of Business Information System,* 19(1), 25-38.

Lehmann, C.M. (2010). Internal Controls: A Compendium of Short Cases. *Issue in Accounting Education,* 25(4), 741-754.

Leiblein, M. J., Reuer, J. J. and Dalsace, F. (2002). Do make or buy decisions matter? The influence of organizational governance on technological performance. *Strategic Management Journal*, 23, 817-833.

Lelis, D.L.M., and Pinheiro, L.E.T. (2012). Auditors and Auditee Perceptions of Internal Auditing Practices in a Company in the Energy Sector. *Revista Contabilidade & Financas,* 23(60), 212-222A.

Lev, B., Li, S., and Sougiannis, T. (2010). The usefulness of accounting estimates for predicting cash flows and earnings. *Review of Accounting Studies,* 15(4), 779-807.

Levina, N., and Vaast, E. (2005). The emergence of boundary spanning competence in Practice: Implications for implementation and use of information systems. *MIS Quarterly,* (2), 335–63.

Lewis, E. F., Hardy, M. and Snaith, B. (2013). An analysis of survey reporting in the imaging professions: Is the issue of non-response bias being adequately addressed? *Radiography*, 19(3), 240–245.

Li, Y., Chen, Y., Li, X., and Chen, Z. (2016). The Analysis for the contradictions Between M&A and Supply of and Demand for Accounting Information. *Management & Engineering,* 24, 24-32.

Liebesman, S. (2011). Linking Systems to Improve Results. *Strategic Finance,* August, 19.

Lim, F. P. (2013). Impact of Information Technology on Accounting Systems. *Asia-pacific Journal of Multimedia Services Convergent with Art, Humanities, and Sociology,* 3(2), 93-106.

Lin, C.A. (2003). An interactive Communication Technology Adoption Model. *Communication Theory*, 13, 345-365.

Lin, C.W., and Wang, C.H. (2011). A selection model for auditing software. *Industrial Management & Data Systems,* 111(5), 776-790.

Lissack, M. R., and Gunz, H. P. (2005). *Managing Complex in Organizations: A View in Many Directions.* Quorum Books Publication: Greenwood Publishing Group, Inc.

Liu, C., Luo, X., and Wang, F.L. (2017). An empirical investigation on the impact of XBRL adoption on information asymmetry: Evidence from Europe. *Decision Support System,* 93, 42-50.

Lo, S. K. (2013). The influence of equivocality in purchasing tasks on the selection of transaction channel in online auction. *Behaviour and Information Technology,* 32(6), 603-611.

Lucas, H.C., Jr. (1978). *Information Systems Concepts for Management*, New York, NY: McGraw - Hill.

Lutfi, A.A., Idris, K.M., and Mohamad, R. (2016). The Influence of Technological, Organizational and Environmental Factors on Accounting Information System Usage among Jordanian Small and Medium-sized Enterprises. *International Journal of Economics and Financial Issue,* 6(S7), 240-248.

Ma'ayan, Y., and Carmeli, A. (2016). Internal Audits as a Source of Ethical Behavior, Efficiency, and Effectiveness in Work Units. *Journal of Business Ethics,* 137(2), 347-363.

Maceviciute, E., and Wilson, T.D. (2002). The Development of the Information Management Research Area. *Information Research*, 7, 1-18.

Makadok, R. (2001). Toward a Synthesis of the Resource-Based View and Dynamic-Capability Views of Rent Creation. *Strategic Management Journal*, 22, 387–401.

Maines, L.A., and Wahlen, J.M. (2006). The Nature of Accounting Information Reliability: Inferences from Archival and Experiment Research. *Accounting Horizons,* 20(4), 399-425.

Malik, P.K.G.N.K., and Malik, R.G.N.G. (2013). Presence of Informational Attributes In MIS Reports. *International Journal of Management & Information Systems,* 17(1), 13-20.

Marriot, N. and Marriot, P. (2000). Professional accountants and the development of a management accounting service for the small firm: Barriers and possibilities. *Management Accounting Research,* 11(4), 475-49.

Martin, R.(2005). *Financial Reporting by Small and Medium Sized Enterprises*. [Online] Available from: http://www.accaglobal.com/databases/events/ centraleurope. [accessed September 31, 2017].

MdQamruzzaman. (2014). Accounting Information System (AIS) Enhance Efficiency level of the Organization: Evidence from Insurance Industry in Bangladesh. *Bangladesh Research Publication Journal*, 9(4), 297-304.

Mia, L., and Clarke, B.(1999) Market Competition, Management Accounting Systems and Business Unit Performance. *Management Accounting Research,* 10, 137-158.

Mitchell, V. L. (2006). Knowledge integration and information technology project Performance. *MIS Quarterly,* 30(4), 919–39.

Mitchell, F., Reid, G., and Smith, J. (2000). *Information System Development in the Small Firm: The Use of Management Accounting.* CIMA Publishing.

Mndzebele N. (2013). The usage of Accounting Information Systems for effective Internal Controls in the Hotels. *International Journal of Advanced Computer Technology (ITACT),* 2(5). ISSN: 2319-7900.

Mohammadi, F., and Hajiheydari, N. (2012). How Business Intelligence Capabilities Contributed Managerial Decision Making Style. *International Journal of e-Education, e-Business, e-Management and e-Learning,* 2(1), 28-33.

Montealegre, R. (2002). A process model of capability development: lessons from the electronic commerce strategy at Bolsa de Valores de Guayaquil. *Organization Science,* 13(5), 514-531.

Moorthy, M.K., Mohamed, A.S.Z., Gopalan, M., and San, L.H. (2011). The impact of information technology on internal auditing. *African Journal of Business Management,* 5(9), 3523-3539.

Morabito, V., Themistocleous, M., and Serrano, A. (2010). A survey on integrated IS and competitive advantage. *Journal of Enterprise Information Management,* 23(2), 201-214.

Moss, C.B., Klinefelter, D.A., and Gunderson, M.A. (2012). Accounting for complex entities: implication for ARMS. *Agriculture Financial Review,* 72(2), 201-209.

Mukherji, J., and Mukherji, A. (2016). Decision Making as Mediator between Environmental Uncertainty, technology Sophistication, and Financial Performance of Entrepreneurial Firms. *Competition Forum; Indiana,* 14(1), 9-15.

Nagano, M.S., and Moraes, M.B.C. (2013). Accounting Information Systems: An Intelligent agents approach. *African Journal of Business Management,* 7(4), 273-284.

Nelson, R.R., Tood, P.A., and Wixom H.B. (2005). Antecedents of Information and System Quality: An Empirical Examination within the Context of Data Warehousing. *Journal of Management Systems,* 21(4), 199-235.

Neter, J., Wasserman, W. and Kutner, M. H. (1985). *Applied linear Statistical Models: Regression, Analysis of Variance, and Experimental Designs*. Homewood: Richard D. Irwin, Inc.

Neuman, W.L. (2006). *Social Research Methods: Qualitative and Quantitative Approaches.* Toronto: Pearson.

Nicolaou, A. I. (2000). A contingency model of perceived effectiveness in accounting information systems: Organizational coordination and control effects. *International Journal of Accounting Information Systems,* 1(2), 91-105.

———. (2010). Integrated information systems and transparency in business reporting. *International Journal of Disclosure and Governance,* 7(3), 216-226.

Nilniyom, P., and Kunsrison, R. (2011). The role of accounting best practice efficiency in accounting information effectiveness on Thai food business success. *Review of Business Research,* 11(2).

Ninlaphy, S. (2012). Internal Control System Effectiveness and Ongoing firm Sustainability: Evidence from Financial Business in Thailand. *Journal of International Finance and Economics,* 12(4), 61-84.

Nogueira, S.P.S., Jorge, S.M.F., and Oliver, M.C. (2013). The usefulness of financial reporting for internal decision-making in Portuguese municipalities. *Management Research: The Journal of the Iberoamerican Academy of Management,* 11(2), 178-212.

Nogueira, S.P.S., and Jorge, S.M.F. (2017). The perceived usefulness of financial information for decision making in Portuguese municipalities: The importance of internal control. *Journal of Applied Accounting Research,* 18(1), 116-136.

Nomsa, M. (2013). The usage of Accounting Information System for effective Internal controls in Hotel. *International Journal of Advanced Computer Technology (IJACT),* ISSN: 2319-7900, 1-3.

Nunnally, J. C. and Bernstein, I. H. (1994). *Psychometric Theory.* New York: McGraw-Hill

O'Donnell, E., and David, J. S. (2000). How information systems influence user decisions. *International Journal of Accounting Information Systems*, 1(3), 178-203.

Onaolapo, A.A., and Odetaya, T.A. (2012). Effect of Accounting Information System on Organizational Effectiveness: A Case Study of Selected Construction Companies in Ibadan, Nigeria. *American Journal of Business and Management,* 1(4), 183-189.

OSMEP. (2002). *White Paper on Small and Medium Enterprises of Thailand in 2002*. n.p.: n.p.

Özkan, E., and Tolon, M. (2015). The Effects of Information Overload on Consumer Confusion: An Examination on User Generated Content. *Boğaziçi Journal,* 29(1), 27-52.

Pan, Y. and Li, X. (2000). Joint Venture Formation of very Large Multinational Firms. *Journal of International Business Studies,* 31(1), 179-189.

Parr, A.N., and Shanks, G. (2000). A model of ERP project implementation. *Journal of Information Technology,* 15(4), 289-303.

Parmigiani, D. (2012). Teachers and Decision-Making Processes: An Italian Exploratory Study on Individual and Collaborative Decision. *Canadian Journal of Education*, 35(1), 171-186.

Patnayakuni, R., Rai, A., and Tiwana, A. (2007). Systems development process Improvement: A knowledge integration perspective. *IEEE Transactions on Engineering Management,* 54(2), 286–300.

Peng, S., Tondkar, R., Van der Laan, S., Harless, J. and David, W. (2008). Does convergence of accounting standards lead to the convergence of accounting practices? A study from China. *The International Journal of Accounting*, 43(4), 448 - 468.

Penrose, E. T. (1959). *The Theory of the Growth of the Firm*. New York: Wiley.

Pipino, L.L., Lee, Y.W., and Wang, R.Y. (2002). Data quality assessment. *Communications of the ACM,* 45(4), 211-218.

Pokharel, S. (2005). Perception on Information and Communication Technology Perspective in Logistics. *The Journal of Enterprise Information Management,* 18(2), 136-149.

Pothong, O. and Ussahawanitchakit, P. (2011). Sustainable Accounting and Firm Survival: An Empirical Examination of Thai Listed Firms. J*ournal of Academy of Business and Economics,* 11(3), 1-28.

Poston, R., and Grabski, S. (2001). Financial impacts of enterprise resource planning implementations. *International Journal of Accounting Information Systems,* 2(4), 271-294.

Pratt, J.H. (2002). *E-BIZ.COM: Strategies for Small Business Success*. SBAHQ-00-C-0004. Washington DC: Small Business Administration, U.S. Department of commerce.

Preston, A. (1993). *Accounting Gets New Look: Vendors Cultivate Windows Packages*, PCWeek.

Pricewaterhouse Coopers (PWC). (2010). *Guide to Forward-looking Information: Don't Fear the Future: Communicating with Confidence.* [Online]. Available from: http://www.pricewaterhousecoopers.co.th. [accessed March 2, 2016].

Pronpandejwittaya, P. (2012). Effectiveness of accounting information system: effect on performance of Thai-listed firms in Thailand. *International Academy of Business and Economic.* ISSN: 1555-1296,

Purnendu, M., and Kallol, B. (2016). Strategic role of information, knowledge and technology in manufacturing industry performance. *Industrial Management & Data System,* 116(6), 1259-1278.

Purwati, A.S., Suparlinah, I., and Putri, N.K. (2014). The Use of Accounting Information in the Business Decision Making Process on Small and Medium Enterprises in Banyumas Region, Indonesia. *Economy Transdisciplinarity Cognition,* 17(2), 63-75.

Radu, F., Bordeianu, D.G., and Paraschivescu, M.D. (2012). Aspects of the Accounting Information System in the Context of the Entity's Management Process. *Economy Transdisciplinarity Cognition,* 15(1), 143-149.

Ram, J., Corkindale, D. and Wu, M.L. (2013). Examining the role of system quality in ERP projects. *Industrial Management & Data Systems,* 113(3), 350-366.

Ray, A. W., Robbert, M. A., and Brocious, J. (2003). The Cambridge Container Company: managing customer-centric information integration. *International Journal of Accounting Information Systems,* 4(4), 309-330.

Reed, R. (2010). *Good Small Business Guide; How to Start and Grow Your Own Business.* London: A & C Black publishers Ltd.

Reem, Okab al-Kasswna. (2012). Electronic Accounting Information System efficiency in Energy sector under condition of uncertainty. *Research Journal of Finance and Accounting,* 3(5).

Reeves, C., and Bednar, D.A. (1994). Defining Quality: Alternatives and implication. *Academy of Management Review,* 19(3), 419-445.

Regoliosi, C., and D'eri, A. (2014). "Good" corporate governance and the quality of internal auditing departments in Italian listed firms. An exploratory investigation in Italian listed firms. *Journal of Management & Governance,* 18(3), 891-920.

Riemenschneider, C. K., and Mykytyn Jr., P. P. (2000). What small business executives have learned about managing information technology? *Information and Management,* 37(3), 257-269.

Rodriguez, C.S., and Spraakman, G. (2012). ERP systems and management accounting: a multiple case study. *Qualitative Research in Accounting & Management,* 9(4), 398-414.

Rodriguez, C.S., and Lorente, A.R.M. (2011). Effect of IT and quality management on performance. *Industrial Management & Data Systems,* 111(6), 830-848.

Rodriguez, M.Z., Barraza, M.F.S., Jaca, C., Alvarez, M.J., and Viles, E. (2014). Information capability under different quality management approaches. *Revista de Globalizacion, Competitividady Gobernabillidad : GCG,* 8(3), 33-44.

Rogelberg, S. G., and Stanton, J. M. (2007). Understanding and dealing with organization survey nonresponse. *Organization Research Methods*, 10(2), 195-209.

Rojsurakiti, T. (2015). SMEs High-Growth in Thailand. *Archive Research Journal*, 3(1), 209-217.

Romney, M., and Steinbart, P. (2006). *Accounting Information System*. N.J.: Prentice Hall.

Rose, C. R., Uli, J., Abdullah, H., and Ismail, A.I. (2009). A conceptual framework of the relationship between organizational resources, capabilities, systems, competitive advantage and performance. *Research Journal of International Studies,* 12, 45-58.

Rose, J., and Kræmmergaard, P. (2006). ERP systems and technological discourse shift: Managing the implementation journey. *International Journal of Accounting Information Systems,* 7(3), 217-237.

Sarapaivanich, N., and Kotey, B. (2006), The Effect of Investment Readiness in Accessing External Finance of SMEs in Thailand, *29th Institute for Small Business and Entrepreneurship Conference*, Cardiff, October 31-November 2.

Sauser, B. J., Reilly, R. R., and Shenhar, A.J. (2009). Why Projects Fail? How Contingency Theory can Provide New Insights – A Comparative Analysis of NASA's Mars Climate Orbiter Loss. *International Journal of Project Management,* 27, 665-679.

Said, A. G. (2001). The applicability of TAM Outside North America: An Empirical Test in the United Kingdom. *Information Resources Management Journal,* 14(3), 37-46.

Sajady, H., Dastgir, M., and Nejad, H.H. (2008). Evaluation of effectiveness of accounting information systems. *Information Science and Technology*, 6(2), 49-59.

Saleh, F.M. (2013). Critical success factors and data quality in accounting information systems in Indonesian cooperative enterprises: An empirical examination, *Interdisciplinary Journal of Contemporary Research,* 5(3), 321-338.

Salehi, M., and Husini, R. (2011). A study of the effect of information technology on internal auditing some Iranian evidence. *African Journal of Business Management,* 5(15), 6169-6179.

Salehi, M.R.V., and Mogadam, A. (2010). Usefulness of accounting Information System in Emerging Economy: Empirical Evidence of IRAN. *International Journal of Economics and Finance,* 186-195.

Sauser, B.J., Richard, R. R., and Aaron, J.S. (2009). Why projects fail? how contingency theory can provide new insights – A comparative analysis of NASA's Mars climate orbiter loss. *International Journal of Project Management*, 27, 665-679.

Schipper, K., and Vincent, L. (2003). Earnings quality. *Accounting Horizons, 17*(Supplement), 97–110.

Sener, I. (2012). Strategic Responses of Top Managers to Environmental Uncertainty. *Procedia-Social and Behavioral Sciences*, 58, 169 – 177.

Serrano-Cinca, C., Fuertes-Callen,Y., and Mar-Molinero, C. (2005). Measuring DEA Efficiency in Internet Companies. *Decision Support Systems,* 38(4), 557-573.

Shin, I.H., Lee, M.G. and Park, W. (2013). Implementation of the continuous auditing system in the ERP-based environment. *Managerial Auditing Journal,* 28(7), 592-627.

Shuhidan, S.M., Mastuki N., and Nori, M.W.M. N. W. (2015). Accounting Information System and Decision Useful Information Fit Towards Cost Conscious Strategy in Malaysian Higher Education Institutions. *Procedia Economics and Finance,* 31, 885-895.

Siamak, N. S. (2012). *The Usefulness of Accounting Information System of Effective Organization Performance*. [Online]. Available from: http://dx.doi.org/10.5539/ijef.v4n5p136 [accessed February 2, 2016].

Shittu, A.J., Ahlan, A.R., and Osman, W.R.S. (2012). Information security and mutual trust as determining factors for information technology outsourcing success. *African Journal of Business Management,* 6(1), 102-110.

Srikarsem, U., and Ussahawanitchakit, P. (2009). Management Audit Effectiveness and Organizational Survival of Thai-Listed Firms: Mediating Role of Value Added Performance, Governance Outcome and Outperforming Market Position. *International Journal of Business Research*, 10(5), 1-25.

Stansbury, J., Stansbury, M., and Snyder, D. (2015). Excellence, Success, and the proactive Function of Common Grace in Accounting *Journal of Markets & Morality,* 18(1), 119-138.

Stone, D.N., Hunton, J.E. and Wier, B. (2000). Succeeding in managerial accounting. Part:1 Knowledge, ability, and rank. *Accounting Organizations and Society,* 25, 697-715.

Storey C., and Perks H. (2015). Mixing rich and asynchronous communication for new service development performance. *R&D Management*, 45(2), 107-125.

Sumritsakun, C. (2012). The effect of accounting information system effectiveness on accounting information usefulness via information trust and information timeliness as mediators: case study of Thai-listed companies. *International Journal of Business Research,* 12(1).

Sutton, S. G. (2006). Enterprise systems and the re-shaping of accounting systems: A call for research. *International Journal of Accounting Information Systems,* 7(1), 1-6.

Tang, J. (2008). Environmental Munificence for Entrepreneurs: Entrepreneurial Alertness and Commitment. *International Journal of Entrepreneurial Behavior& Research*, 14(3),128 – 151.

Tarafdar, M. and Gordon, S. R. (2007). Understanding the influence of information systems competencies on process innovation: A resource-based view. *Journal of Strategic Information Systems,* 16(4), 353-392.

Teru, P.S., and Hla, T.D. (2015). Evaluation of the usefulness of efficiency of the accounting information system. *Issue in Business Management and Economics,* 3(8), 109-113.

Tian, J., Wang, K., Chen, Y., and Johansson, B. (2010). From IT deployment capabilities to competitive advantage: An exploratory study in China. *Information Systems Frontiers,* 12(3), 239-255.

Thapayom, A. and Ussahawanitchakit, P. (2015). Accounting Information System Excellence and Goal Achievement: Evidence for Information and Communication Technology Businesses in Thailand. *The Business and Management Review,* 7(1), 309-321.

Thoumrungroje, A. (2013). *Handbook of Research Methodology in International Business.* Bangkok: Triple Education.

Tran, Q., and Tian, Y. (2013). Organization Structure: Influencing Factors and Impact on Firms. *American Journal of Industrial and Business Management,* 3, 229-236.

Trevino, L., Daft, R. L., and Lengel, R. H. (1990). Understanding managers' media choices: A symbolic interactionist perspective. In J. Fulk & C. W. Steinfield (Eds.), *Organizations and Communication Technology*, 71-95. Newbury Park, CA: Sage

Tucker, B.P., and Lowe, A.D. (2014). Practitioners are from Mars; academic are from Venus? An investigation of the research-practice gap in management accounting. *Accounting, Auditing & Accountability Journal,* 27(3), 394-425.

Tucker, B.P., and Schaltegger, S. (2016). Comparing the research-practice gap in management in management accounting. A view from professional accounting bodies in Australia and Germany. *Accounting, Auditing & Accountability Journal,* 29(3), 362-400.

Tysiac, K. (2015). Driving Faster Decisions. *Journal of Accountancy,* 219(4), 48-51.

Ussahawanitchakit, P. (2012). Information Richness, Marketing Effectiveness, IT Competency, and Competitive Advantage: Evidence from Thai E-Commerce Business. *International Journal of Business Strategy*, 12(1), 10-18.

Van der Meer-Kooistra, J., and Vosselman, E. G. J. (2000). Management control of interfirm transactional relationships: the case of industrial renovation and maintenance. *Accounting Organizations and Society,* 25(1), 51-77.

Van Vliet, V. (2010). *Activity Based Management (ABM).*[Online]. Available from: https://www.toolshero.com/financial-management/activity-based-management-abm/. [accessed March 12, 2017].

Vickery, K. S., Droge, C., Stank, P. T., Goldsby, J.T., and Markland, E.R. (2004). The Performance Implications of Media Richness in Business-to-Business Service Environment: Direct versus Indirect Effects. *Management Science,* 50(8), 1106-1119.

Wade, M. and Hulland, J. (2004).The resource-based view and information systems research: review, extension, and suggestions for future research. *MIS Quarterly,* 28(1), 107-142.

Wang, H. and Chen, W.R. (2010) Is Firm-Specific Innovation Associated with Greater Value Appropriation? The roles of Environmental Dynamism and Technological Diversity. *Research Policy*, 39, 141-154.

Wang, W., Hsieh, J.P.A., Butler, J.E., and Hsu, S.H. (2008). Innovate with complex information technologies: A theoretical model and empirical examination. *Journal of Computer Information Systems,* 41(1), 27- 36.

Whittington, O.R., and Pany, K. (2004). *Principles of Auditing and other Assurance Service.* Boston: McGrow Hill Irwin.

Wickramasinghe, N. and Mills, G.L. (2002). Integrating e-commerce and knowledge management—what does the Kaiser experience really tell us. *International Journal of Accounting Information Systems,* 3(2), 83-98.

Wilkinson, J. W., Cerullo, M. J., Raval, V., and Wong-On-Wing, B. (2000). *Accounting Information Systems: Essential Concepts and Applications*. New York: John Wiley and Sons.

Wimoonard, T., and Ussahawanitchakit, P. (2014). Accounting Information System Competency and Goal Achievement: Evidence from Information Technology and Communication Businesses. *Review of Business Research,* 14(2), 41-60.

Wydra, S. (2015). Challenges for technology diffusion policy to achieve socioeconomicgoals. *Technology in Society*, 41, 76-90.

Xu, Z., and Zhou, M. (2012). *Cost Reduction in Automobile Industry – Case Studies of the Chinese Market*. Thesis. School of Business and Engineering, University of Halmstad.

Yang, M.H., Lin, W.S. and Koo, T.L. (2011). The Impact of computerized internal controls adaptation on operating performance. *African Journal of Business Management,* 5(20), 8204-8214.

Yeboah, B., and Ezer, O. (2014). Factors Influencing the Adoption of Cloud Computing by Small and Medium Enterprises (SMEs) in Developing Economics. *International Journal of Emerging Science And Engineering (IJESE),* 2(4), 13-20.

Yeh, C.H., Lee, G.G. and Pai, J.C. (2012). How information system capability affects e-business information technology strategy implementation. An empirical study in Taiwan. *Business Process Management Journal,* 18(2), 197-218.

Yeh, C.H., and Shen, W.C. (2010). Using continuous auditing life cycle management to ensure continuous assurance. *African Journal of Business Management,* 4(12), 2554-2570.

Yen, Y.S. (2014). The interaction effect on customer purchase intention in e-commerce. A comparisons between substitute and complement. *Asia Pacific Journal of Marketing and Logistic,* 26(3), 472-493.

Yeunyong, W. (2007). *Cause and consequences of AIS Effectiveness in Manufacturing Firms: Evidence from Thailand.* [Online]. Available from: http://www.freepatentsonline.com/article/International-Journal-Business-Research/178900277.html. [accessed May 3, 2017[.

Yigibasioglu, O.M. (2015). The role of institutional pressures and top management support in the intention to adopt cloud computing solutions. *Journal of Enterprise Information Management,* 28(4), 579-594.

Yu, B.T.W., To, W.M., and Lee, P.K.C. (2012). Quality management framework for public management decision making. *Management Decision,* 50(3), 420-438.

Zanello, G., and Srinivasan, C.S. (2014). Information Sources, ICTs and Price Information in Rural Agricultural Markets. *European Journal of Development Research,* 26(5), 815-831.

Zarraga, R.M., and Alvarez, M.J. (2016). Efficient information-related practices in companies committed to EFQM. *TQM Journal,* 28(6), 798-813.

Zhang, C. (2014). Challenges and Strategies of Promoting Cloud Accounting. *Management and Engineering,* 17, 79-82.

Zviran, M., and Haga, W.J. (1990). Cognitive password: the key to easy across control. *Computer Security,* 9(9), 723-739.

APPENDICES

APPENDIX A

Respondent Characteristic

Table A1: Demographic Characteristic of Respondents

Description	Categories	Frequency	Percentage
Gender	Male	76	31.28
	Female	167	68.72
Total		**243**	**100.00**
Age	Less than 30years old	26	10.70
	30 - 40 years old	99	40.74
	41 - 50 years old	94	38.68
	More than 50 year old	24	9.88
Total		**243**	**100.00**
Marital status	Single	76	31.27
	Married	156	64.20
	Divorced/Separated	11	4.53
Total		**243**	**100.00**
Education level	Lower than bachelor's degree or equivalent	187	76.95
	Higher than bachelor's degree	56	23.05
Total		**243**	**100.00**
Work experience	Less than 5years	28	11.52
	5-10years	67	27.57
	11-15 years	44	18.11
	More than 15years	104	42.80
Total		**243**	**100.00**

Table A1: Demographic Characteristic of Respondents (Continued)

Description	Categories	Frequency	Percentage
Average monthly income	Less than 50,000 Baht	139	57.20
	50,001 – 70,000 Baht	44	18.11
	70,001 – 90,000 Baht	15	6.17
	More than 90,000 Baht	45	18.52
Total		**243**	**100.00**
Working Position	Director of Accounting	31	12.76
	Accounting Manager	149	61.32
	Accountant	53	21.81
	Other	10	4.11
Total		**243**	**100.00**

Table A2: Characteristics of Auto Parts SMEs Business

Description	Categories	Frequency	Percentage
Business Entity	Limited Company	235	96.71
	Partnership	8	3.29
Total		**243**	**100.00**
Ownership Pattern	Single business	174	71.61
	Branch business	69	28.39
Total		**243**	**100.00**
Types of Auto Parts	Original equipment manufacturer: OEM	159	65.43
	Replacement equipment manufacture: REM	53	21.81
	Both type	21	12.76
Total		**243**	**100.00**
Major Customer	Domestic customer	195	80.25
	Foreign customer	33	13.58
	Both type	15	6.17
Total		**243**	**100.00**
Business Location	Southern region	2	0.82
	Eastern region	69	28.40
	Northeastern region	7	2.88
	Central region	106	43.62
	Bangkok	59	24.28
Total		**243**	**100.00**

Table A2: Characteristics of Auto Parts SMEs Business (Continued)

Description	Categories	Frequency	Percentage
Working Capital	Less than 25 million Baht	157	64.61
	25,000,000 – 50,000,000 Baht	37	15.23
	50,000,001 – 75,000,000 Baht	15	6.17
	More than 75,000,000 Baht	34	13.99
Total		**243**	**100.00**
Firm' Average Revenue per Year	Less than 20 million Baht	84	34.57
	20,000,000 – 40,000,000 Baht	44	18.11
	40,000,001 – 60,000,000 Baht	24	9.87
	More than 60,000,000 Baht	91	37.45
Total		**243**	**100.00**
Total Asset of Firm	Less than 50 million Baht	122	50.21
	50,000,001 – 100,000,000 Baht	54	22.22
	100,000,001 – 150,000,000 Baht	13	5.35
	More than 150,000,000 Baht	54	22.22
Total		**243**	**100.00**
Number of Employees	Less than 50 employees	124	51.03
	50 – 100 employees	48	19.75
	101 – 150 employees	13	5.35
	More than 150 employees	58	23.87
Total		**243**	**100.00**

Table A2: Characteristics of Auto Parts SMEs Business (Continued)

Description	Categories	Frequency	Percentage
Period of time in business (Firm age)	Less than 5 year	59	24.28
	5 – 10 year	65	26.75
	11 – 15 year	40	16.46
	More than 15 year	79	32.51
Total		**243**	**100.00**
Firm' Accounting Software	Express	124	51.03
	Smartbiz	19	7.82
	Formula	16	6.58
	AutoFlight	41	16.87
	iMoneys	9	3.71
	ClipAcc	6	2.47
	EasyAcc	13	5.35
	Other	15	6.17
Total		**243**	**100.00**

APPENDIX B

Tests of Non-Response Bias

Table B1: Test of Non- Response Bias

Comparison	N	Mean	Std. Dev.	t	P-Value
Working Capital					
-First group	122	1.75	1.123	.844	.399
-Second group	121	1.64	1.049		
Average Revenue					
-First group	122	2.61	1.269	1.257	.210
-Second group	121	2.40	1.307		
Total asset					
-First group	122	2.07	1.238	.905	.366
-Second group	121	1.93	1.170		
Number of employees					
-First group	122	2.12	1.250	1.300	.195
-Second group	121	1.92	1.215		
The period of time in business					
-First group	122	2.64	1.150	.895	.372
-Second group	121	2.50	1.205		

APPENDIX C

Item Factor Loading and Reliability Analyses in Pre-Test

Table C1: Item Factor Loading and Reliability Analyses in Pre-Test[a]

Constructs	Items	Factor Loadings	Correlated Item-Total Correlation	Alpha Coefficient
Accounting transaction linkage competency (ATL)	ATL1	.812	.651	.814
	ATL2	.779	.608	
	ATL3	.818	.661	
	ATL4	.805	.626	
Accounting information reporting integration (ARI)	ARI1	.914	.840	.910
	ARI2	.791	.663	
	ARI3	.955	.910	
	ARI4	.881	.787	
Accounting information trust orientation (ATO)	ATO1	.851	.755	.886
	ATO2	.809	.697	
	ATO3	.862	.767	
	ATO4	.840	.742	
	ATO5	.788	.671	
Best accounting practice efficiency (BAP)	BAP1	.883	.789	.910
	BAP2	.878	.786	
	BAP3	.921	.847	
	BAP4	.873	.776	
Accounting information auditing capability (AAC)	AAC1	.948	.904	.934
	AAC2	.885	.801	
	AAC3	.929	.871	
	AAC4	.915	.850	

[a]n=30

Table C1: Item Factor Loading and Reliability Analyses in Pre-Test[a] (Continued)

Constructs	Items	Factor Loadings	Correlated Item-Total Correlation	Alpha Coefficient
Accounting information advantage (AIA)	AIA1	.777	.593	.806
	AIA2	.900	.781	
	AIA3	.656	.477	
	AIA4	.850	.691	
Valuable decision making (VDM)	VDM1	.742	.572	.833
	VDM2	.878	.747	
	VDM3	.855	.719	
	VDM4	.789	.629	
Information usefulness effectiveness (IUE)	IUE1	.812	.683	.881
	IUE2	.876	.765	
	IUE3	.910	.811	
	IUE4	.844	.726	
Business goal achievement (BGA)	BGA1	.585	.406	.808
	BGA2	.851	.701	
	BGA3	.885	.744	
	BGA4	.841	.680	
Information management leadership (IML)	IML1	.701	.536	.830
	IML2	.850	.720	
	IML3	.849	.686	
	IML4	.854	.706	
Top management support (TMS)	TMS1	.830	.705	.901
	TMS2	.918	.843	
	TMS3	.866	.757	
	TMS4	.916	.835	

[a]n=30

Table C1: Item Factor Loading and Reliability Analyses in Pre-Test[a](Continued)

Constructs	Items	Factor Loadings	Correlated Item-Total Correlation	Alpha Coefficient
Information technology resource (ITR)	ITR1	.858	.750	.907
	ITR2	.884	.786	
	ITR3	.931	.868	
	ITR4	.884	.786	
Modern accounting knowledge (MAK)	MAK1	.900	.806	.914
	MAK2	.931	.861	
	MAK3	.936	.873	
	MAK4	.826	.712	
Technology munificence growth (TMG)	TMG1	.857	.755	.927
	TMG2	.934	.876	
	TMG3	.897	.816	
	TMG4	.935	.879	
Technology acceptance (TAC)	TAC1	.851	.706	.854
	TAC2	.888	.764	
	TAC3	.848	.714	
	TAC4	.715	.546	

[a]n=30

APPENDIX D

Diagnosis of Primary Assumption for Regression Analysis

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

Regression analysis (OLS) is used to test the interrelationship between various independent and dependent variables by SPSS program. From the relation model and the hypotheses, the following 17 equation models are presented including assumptions of regression model as follows: 1) Linearity of phenomenon measured, 2) Constant variance of the error terms (Homoscedasticity), 3) Normality of the error term distribution, 4) Independence of the error terms, and 5) Test of Multicollinearity. The results of testing are shown as follow:

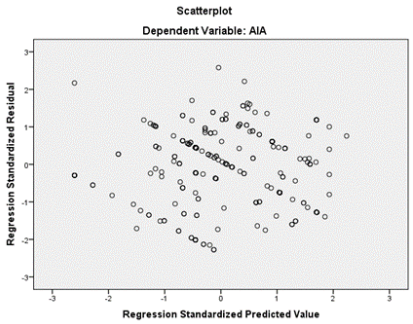
1. Linearity of phenomenon measured

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

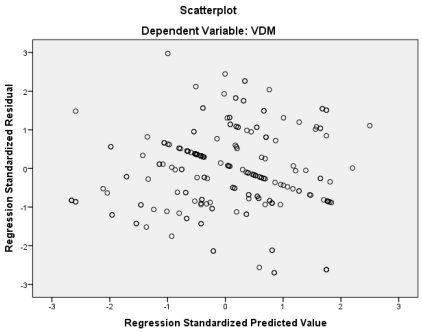
2. Test of constant variance of the error terms (Homoscedasticity)

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

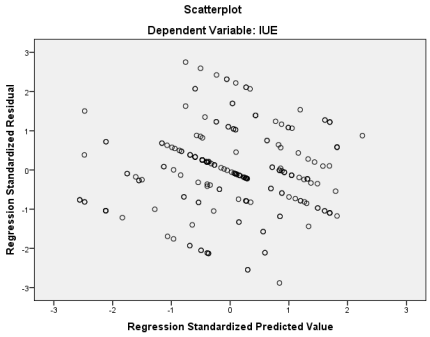
Equation 1: AIA = $\alpha_1 + \beta_1 ATL + \beta_2 ARI + \beta_3 ATO + \beta_4 BAP + \beta_5 AAC + \beta_6 SIZ + \beta_7 AGE + \varepsilon$



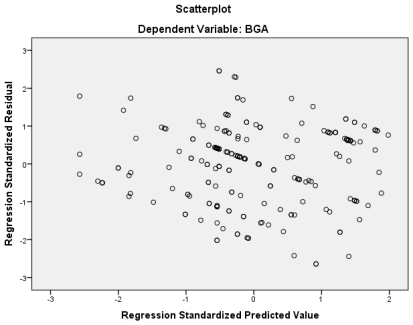
Equation2: VDM = $\alpha_2 + \beta_8 ATL + \beta_9 ARI + \beta_{10} ATO + \beta_{11} BAP + \beta_{12} AAC + \beta_{13} SIZ + \beta_{14} AGE + \varepsilon$



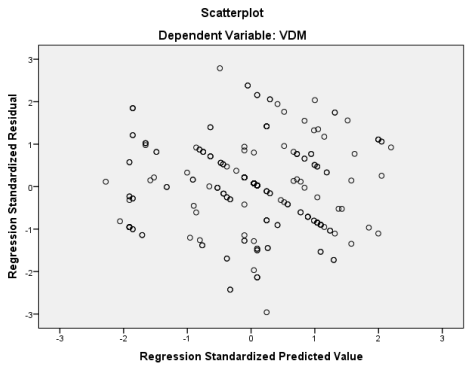
Equation3: IUE = $\alpha_3 + \beta_{15} ATL + \beta_{16} ARI + \beta_{17} ATO + \beta_{18} BAP + \beta_{19} AAC + \beta_{20} SIZ + \beta_{21} AGE + \varepsilon$



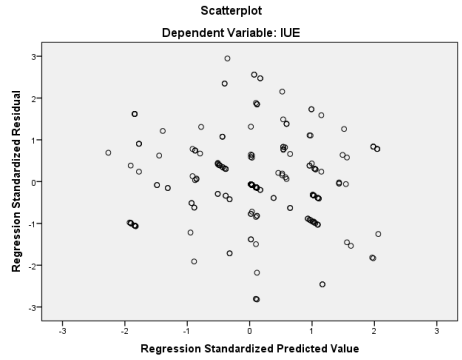
Equation 4: BGA = $\alpha_4 + \beta_{22} ATL + \beta_{23} ARI + \beta_{24} ATO + \beta_{25} BAP + \beta_{26} AAC + \beta_{27} SIZ + \beta_{28} AGE + \varepsilon$



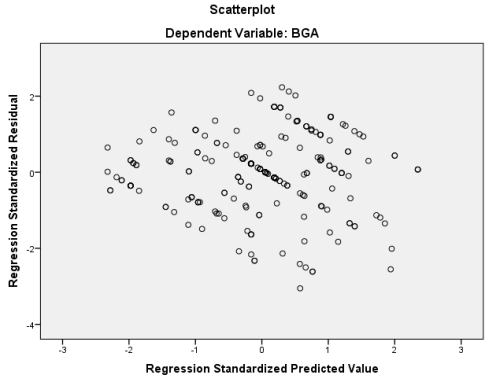
Equation 5: VDM = $\alpha_5 + \beta_{29}AIA + \beta_{30}SIZ + \beta_{31}AGE + \varepsilon$



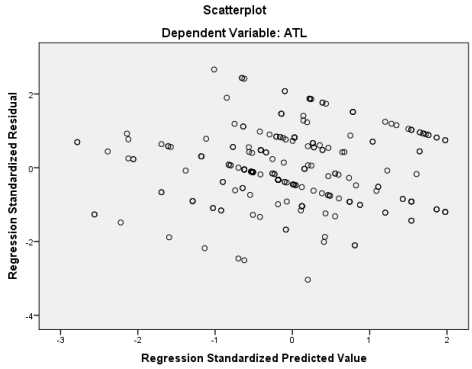
Equation 6: IUE = $\alpha_6 + \beta_{32}AIA + \beta_{33}SIZ + \beta_{34}AGE + \varepsilon$



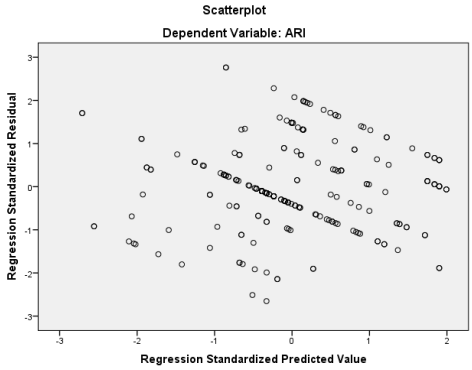
Equation7: BGA = $\alpha_7 + \beta_{35}AIA + \beta_{36}VDM + \beta_{37}IUE + \beta_{38}SIZ + \beta_{39}AGE + \varepsilon$



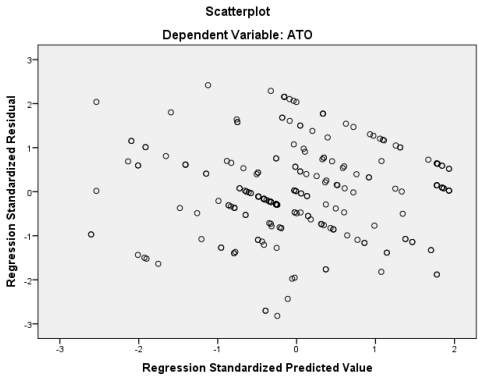
Equation8: ATL = $\alpha_8 + \beta_{40}IML + \beta_{41}TMS + \beta_{42}ITR + \beta_{43}MAK + \beta_{44}TMG + \beta_{45}SIZ + \beta_{46}AGE + \varepsilon$



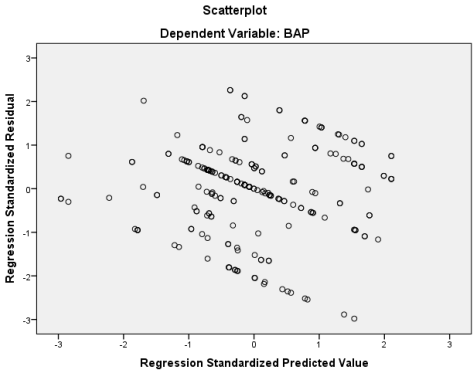
Equation9: ARI = $\alpha_9 + \beta_{47}IML + \beta_{48}TMS + \beta_{49}ITR + \beta_{50}MAK + \beta_{51}TMG + \beta_{52}SIZ + \beta_{53}AGE + \varepsilon$



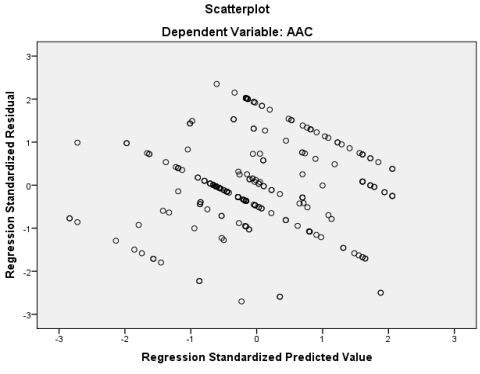
Equation 10: ATO = $\alpha_{10} + \beta_{54}IML + \beta_{55}TMS + \beta_{56}ITR + \beta_{57}MAK + \beta_{58}TMG + \beta_{59}SIZ + \beta_{60}AGE + \varepsilon$



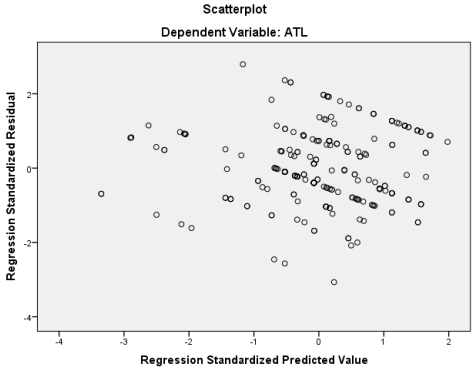
Equation 11: BAP = $\alpha_{811} + \beta_{61}IML + \beta_{62}TMS + \beta_{63}ITR + \beta_{64}MAK + \beta_{65}TMG + \beta_{66}SIZ + \beta_{67}AGE + \varepsilon$



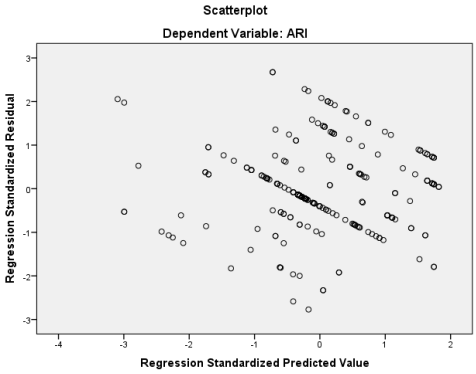
Equation 12: AAC = $\alpha_{12} + \beta_{68}IML + \beta_{69}TMS + \beta_{70}ITR + \beta_{71}MAK + \beta_{72}TMG + \beta_{73}SIZ + \beta_{74}AGE + \varepsilon$



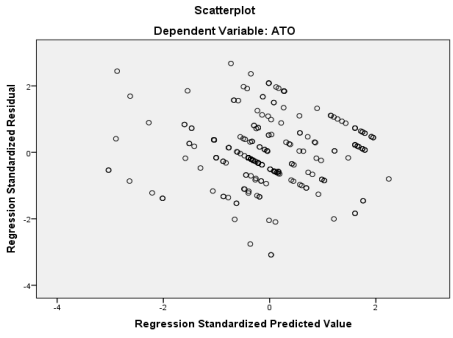
Equation13: ATL $= \alpha_{13} + \beta_{75}IML + \beta_{76}TMS + \beta_{77}ITR + \beta_{78}MAK + \beta_{79}TMG + \beta_{80}TAC + \beta_{81}(IML*TAC) + \beta_{82}(TMS*TAC) + \beta_{83}(ITR*TAC) + \beta_{84}(MAK*TAC) + \beta_{85}(TMG*TAC) + \beta_{86}SIZ+\beta_{87}AGE+ \varepsilon$



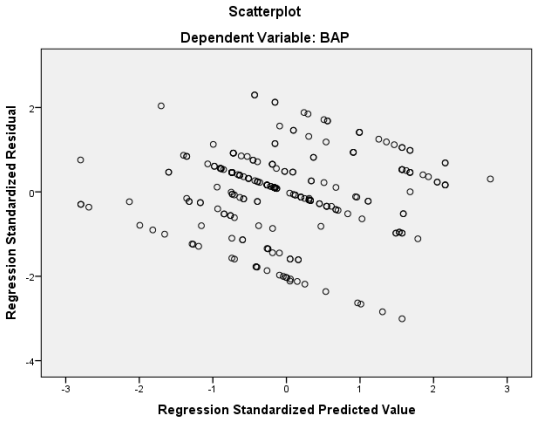
Equation 14: ARI = $\alpha_{14} + \beta_{88}IML + \beta_{89}TMS + \beta_{90}ITR + \beta_{91}MAK + \beta_{92}TMG + \beta_{93}TAC + \beta_{94}(IML*TAC) + \beta_{95}(TMS*TAC) + \beta_{96}(ITR*TAC) + \beta_{97}(MAK*TAC) + \beta_{98}(TMG*TAC) + \beta_{99}SIZ+\beta_{100}AGE + \varepsilon$



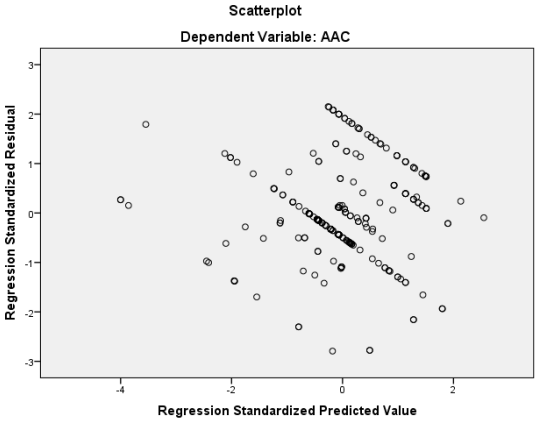
Equation 15: ATO $= \alpha_{15} + \beta_{101}IML + \beta_{102}TMS + \beta_{103}ITR + \beta_{104}MAK + \beta_{105}TMG + \beta_{106}TAC + \beta_{107}(IML*TAC) + \beta_{108}(TMS*TAC) + \beta_{109}(ITR*TAC) + \beta_{110}(MAK*TAC) + \beta_{111}(TMG*TAC) + \beta_{112}SIZ+\beta_{113}AGE+ \varepsilon$



Equation 16: BAP = $\alpha_{16} + \beta_{114}IML + \beta_{115}TMS + \beta_{116}ITR + \beta_{117}MAK + \beta_{118}TMG + \beta_{119}TAC + \beta_{120}(IML*TAC) + \beta_{121}(TMS*TAC) + \beta_{122}(ITR*TAC) + \beta_{123}(MAK*TAC) + \beta_{1124}(TMG*TAC) + \beta_{125}SIZ + \beta_{126}AGE + \varepsilon$



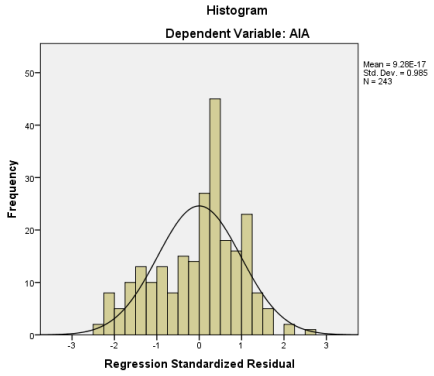
Equation 17: AAC = $\alpha_{17} + \beta_{127}IML + \beta_{128}TMS + \beta_{129}ITR + \beta_{130}MAK + \beta_{131}TMG + \beta_{132}TAC + \beta_{133}(IML*TAC) + \beta_{134}(TMS*TAC) + \beta_{135}(ITR*TAC) + \beta_{136}(MAK*TAC) + \beta_{137}(TMG*TAC) + \beta_{138}SIZ + \beta_{139}AGE + \varepsilon$

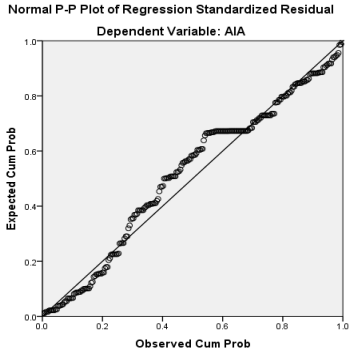


3. Normality of the error term distribution

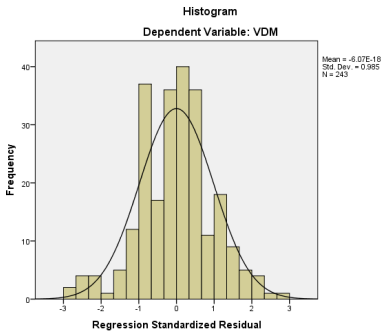
The normal probability plot of the residuals and the histogram of residuals are used to check the normality of error term distribution. “The normal distribution makes a straight diagonal line, and the plotter residuals are compared with the diagonal., If a distribution in normal, the residual line closely follows the diagonal” (Hair et al., 2010). As shown in the following, the values fall along the diagonal with no systematic departures. Therefore, the assumption of normality is met. As a result, the non-normality problems should not be concerned.

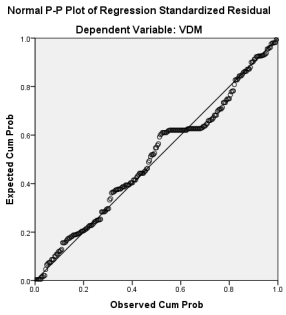
Equation 1: AIA = $\alpha_1 + \beta_1 ATL + \beta_2 ARI + \beta_3 ATO + \beta_4 BAP + \beta_5 AAC + \beta_6 SIZ + \beta_7 AGE + \varepsilon$



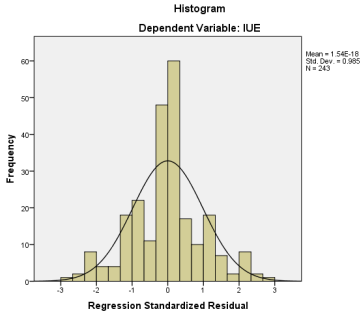


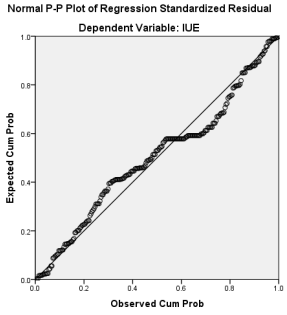
Equation2: VDM = $\alpha_2 + \beta_8 ATL + \beta_9 ARI + \beta_{10} ATO + \beta_{11} BAP + \beta_{12} AAC + \beta_{13} SIZ + \beta_{14} AGE + \varepsilon$



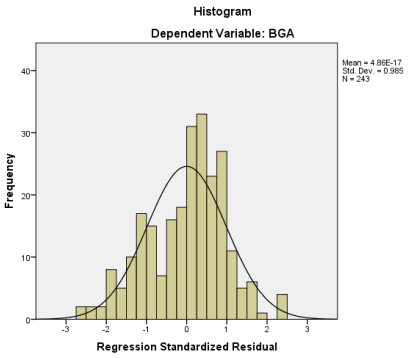


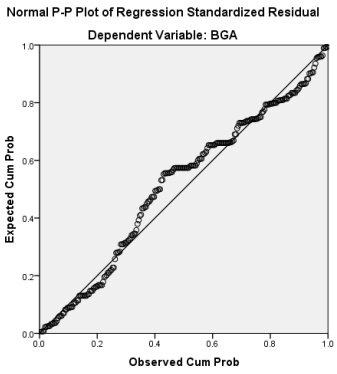
Equation3: IUE = $\alpha_3 + \beta_{15}ATL + \beta_{16}ARI + \beta_{17}ATO + \beta_{18}BAP + \beta_{19}AA + \beta_{20}SIZ + \beta_{21}AGE + \varepsilon$



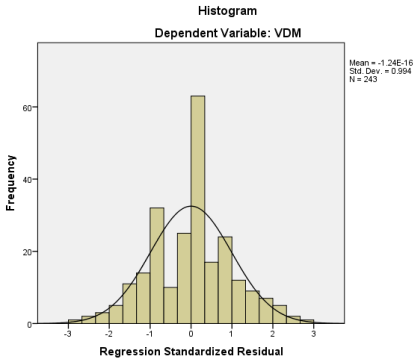


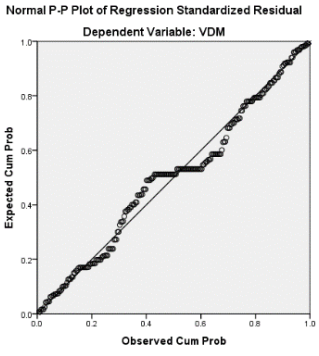
Equation 4: BGA = $\alpha_4 + \beta_{22}ATL + \beta_{23}ARI + \beta_{24}ATO + \beta_{25}BAP + \beta_{26}AAC + \beta_{27}SIZ + \beta_{28}AGE + \varepsilon$



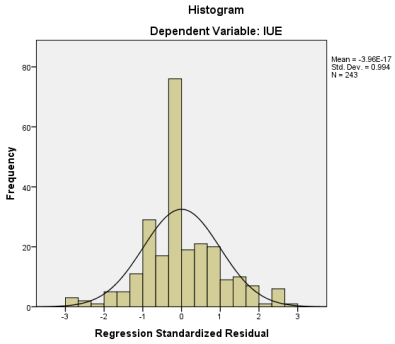


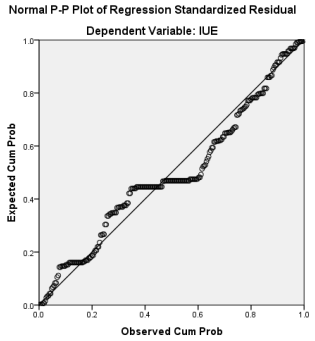
Equation 5: VDM = $\alpha_5 + \beta_{29}AIA + \beta_{30}SIZ + \beta_{31}AGE + \varepsilon$



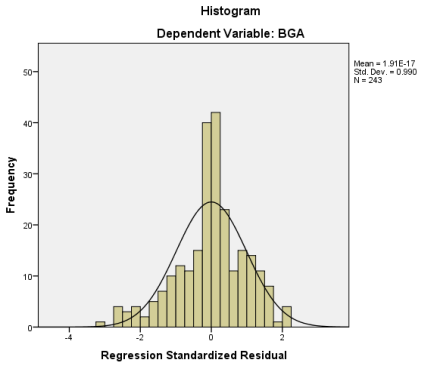


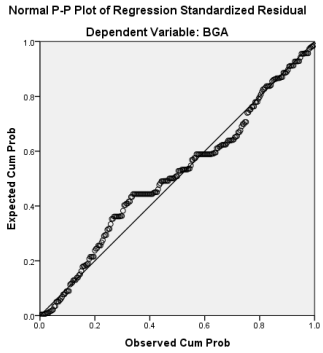
Equation 6: IUE = $\alpha_6 + \beta_{32}AIA + \beta_{33}SIZ + \beta_{34}AGE + \varepsilon$



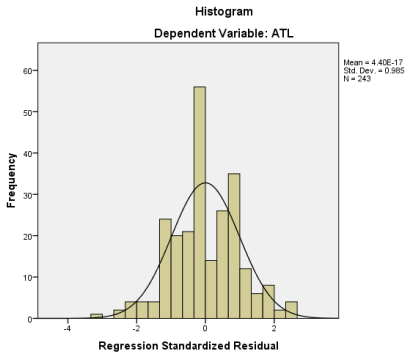


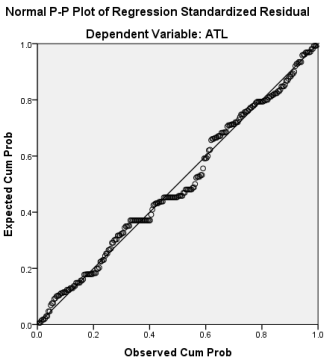
Equation7: BGA = $\alpha_7 + \beta_{35}AIA + \beta_{36}VDM + \beta_{37}IUE + \beta_{38}SIZ + \beta_{39}AGE + \varepsilon$



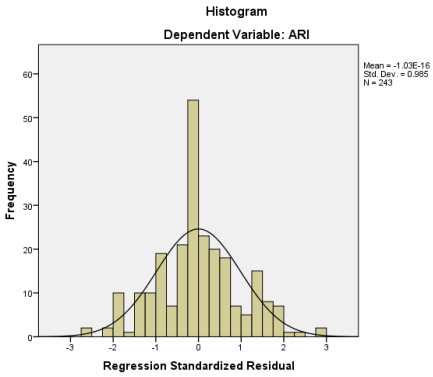


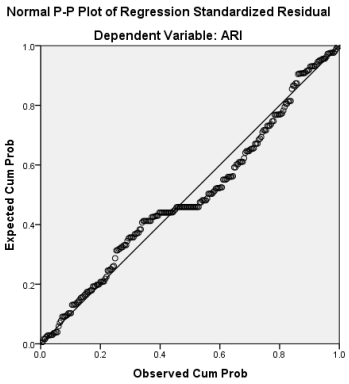
Equation8: ATL = $\alpha_8 + \beta_{40}IML + \beta_{41}TMS + \beta_{42}ITR + \beta_{43}MAK + \beta_{44}TMG + \beta_{45}SIZ + \beta_{46}AGE + \varepsilon$



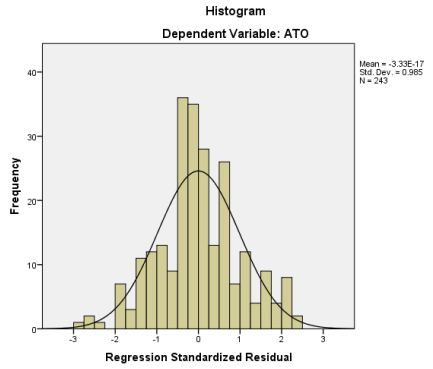


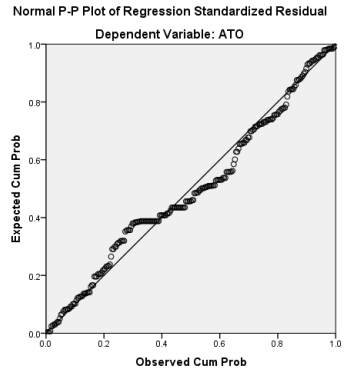
Equation9: ARI = $\alpha_9 + \beta_{47}IML + \beta_{48}TMS + \beta_{49}ITR + \beta_{50}MAK + \beta_{51}TMG + \beta_{52}SIZ + \beta_{53}AGE + \varepsilon$



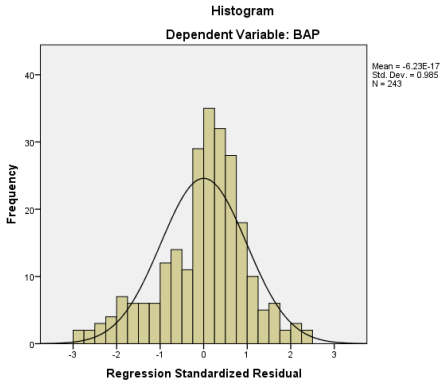


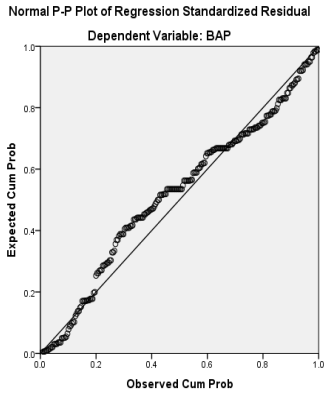
Equation 10: ATO = $\alpha_{10} + \beta_{54}IML + \beta_{55}TMS + \beta_{56}ITR + \beta_{57}MAK + \beta_{58}TMG + \beta_{59}SIZ + \beta_{60}AGE + \varepsilon$



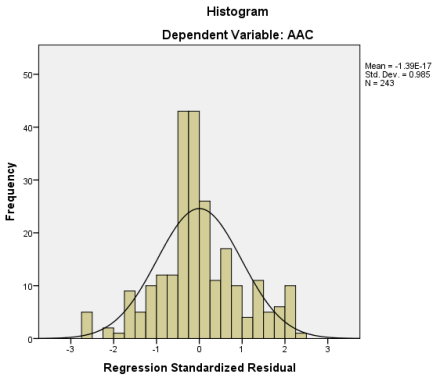


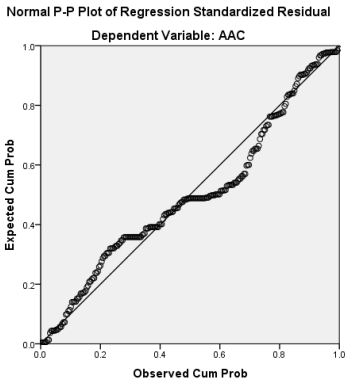
Equation 11: BAP = $\alpha_{811} + \beta_{61}IML + \beta_{62}TMS + \beta_{63}ITR + \beta_{64}MAK + \beta_{65}TMG + \beta_{66}SIZ + \beta_{67}AGE + \varepsilon$



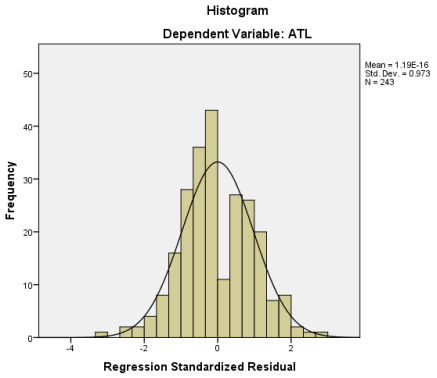


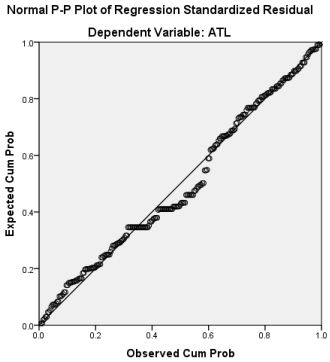
Equation 12: AAC = $\alpha_{12} + \beta_{68}IML + \beta_{69}TMS + \beta_{70}ITR + \beta_{71}MAK + \beta_{72}TMG + \beta_{73}SIZ + \beta_{74}AGE + \varepsilon$



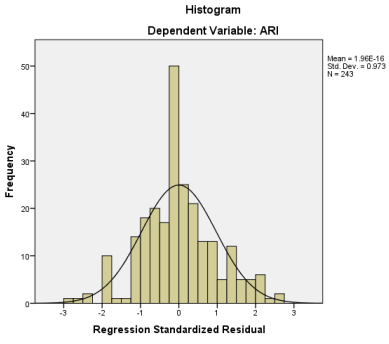


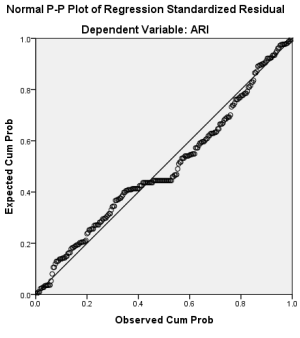
Equation13: ATL = $\alpha_{13} + \beta_{75}IML + \beta_{76}TMS + \beta_{77}ITR + \beta_{78}MAK + \beta_{79}TMG + \beta_{80}TAC + \beta_{81}(IML*TAC) + \beta_{82}(TMS*TAC) + \beta_{83}(ITR*TAC) + \beta_{84}(MAK*TAC) + \beta_{85}(TMG*TAC) + \beta_{86}SIZ + \beta_{87}AGE + \varepsilon$



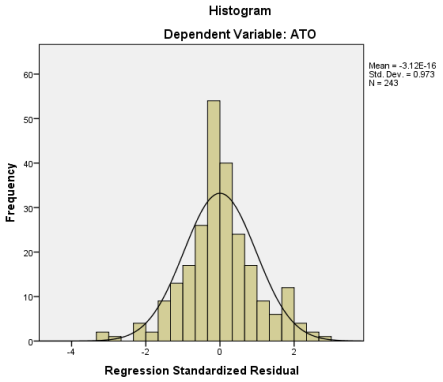


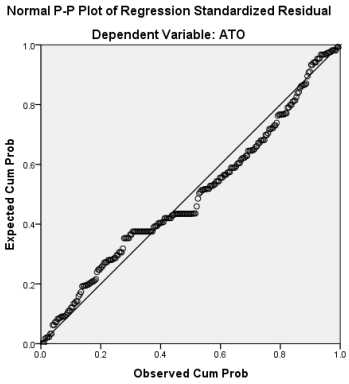
Equation 14: ARI = $\alpha_{14} + \beta_{88}IML + \beta_{89}TMS + \beta_{90}ITR + \beta_{91}MAK + \beta_{92}TMG + \beta_{93}TAC + \beta_{94}(IML*TAC) + \beta_{95}(TMS*TAC) + \beta_{96}(ITR*TAC) + \beta_{97}(MAK*TAC) + \beta_{98}(TMG*TAC) + \beta_{99}SIZ + \beta_{100}AGE + \varepsilon$



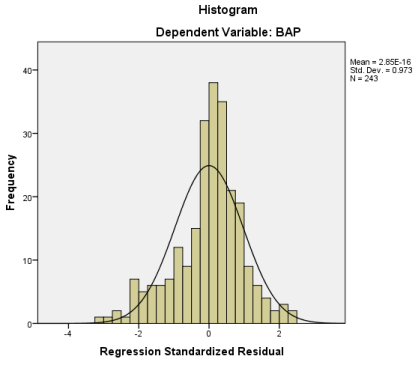


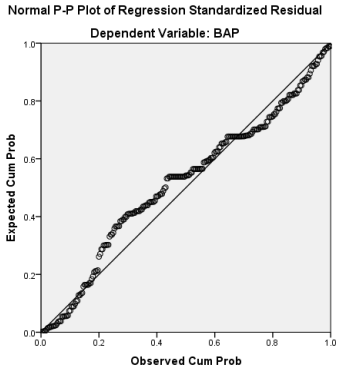
Equation 15: ATO = $\alpha_{15} + \beta_{101}IML + \beta_{102}TMS + \beta_{103}ITR + \beta_{104}MAK + \beta_{105}TMG + \beta_{106}TAC + \beta_{107}(IML*TAC) + \beta_{108}(TMS*TAC) + \beta_{109}(ITR*TAC) + \beta_{110}(MAK*TAC) + \beta_{111}(TMG*TAC) + \beta_{112}SIZ + \beta_{113}AGE + \varepsilon$



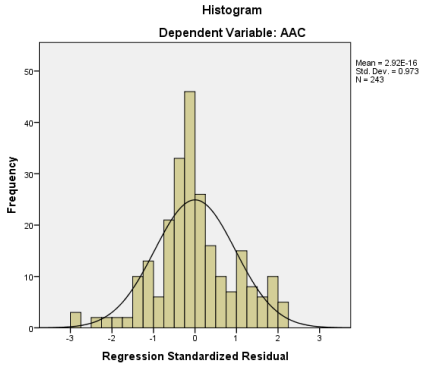


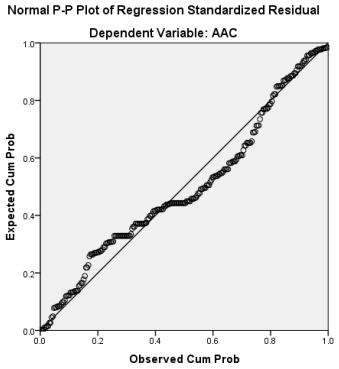
Equation 16: BAP = $\alpha_{16} + \beta_{114}IML + \beta_{115}TMS + \beta_{116}ITR + \beta_{117}MAK + \beta_{118}TMG + \beta_{119}TAC + \beta_{120}(IML*TAC) + \beta_{121}(TMS*TAC) + \beta_{122}(ITR*TAC) + \beta_{123}(MAK*TAC) + \beta_{1124}(TMG*TAC) + \beta_{125}SIZ + \beta_{126}AGE + \varepsilon$





Equation 17: AAC = $\alpha_{17} + \beta_{127}IML + \beta_{128}TMS + \beta_{129}ITR + \beta_{130}MAK + \beta_{131}TMG + \beta_{132}TAC + \beta_{133}(IML*TAC) + \beta_{134}(TMS*TAC) + \beta_{135}(ITR*TAC) + \beta_{136}(MAK*TAC) + \beta_{137}(TMG*TAC) + \beta_{138}SIZ + \beta_{139}AGE + \varepsilon$





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

Durbin and Watson statistic is employed to detect the presence of autocorrelation (a relationship between values separated from each other by a given time lag) in the residuals from a regression analysis. Critical values 1.50 – 2.50 indicating autocorrelation is not a problem (Durbin and Watson, 1971). From the results in Table D1 below, we can assume that there is no first order linear auto-correlation in our multiple linear regression data.

Table D1: Durbin and Watson Statistic

Equation	R	R Square	Adjusted R Square	Durbin-Watson Value
1	0.630	0.397	0.379	1.805
2	0.477	0.227	0.204	1.979
3	0.535	0.286	0.265	1.846
4	0.568	0.322	0.302	1.930
5	0.684	0.468	0.461	1.800
6	0.672	0.452	0.445	1.721
7	0.730	0.533	0.523	1.718
8	0.546	0.298	0.277	2.135
9	0.620	0.385	0.366	2.057
10	0.622	0.387	0.369	2.053
11	0.527	0.278	0.257	1.841
12	0.601	0.361	0.342	2.045
13	0.563	0.317	0.278	2.102
14	0.633	0.401	0.367	2.092
15	0.651	0.424	0.391	2.031
16	0.538	0.290	0.250	1.911
17	0.636	0.404	0.370	2.116

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. 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 test multicollinearity, this research uses Variance Inflation Factor (VIF).Hair et al. (2010) 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 D2:The results of mulicollinearity testing (AISQ and its consequences)

Independent Variables	Dependent Variables							
	Equation 1: AIA		Equation 2: VDM		Equation 3: IUE		Equation 4: BGA	
	Tolerance	VIFs	Tolerance	VIFs	Tolerance	VIFs	Tolerance	VIFs
ATL	0.456	2.191	0.456	2.191	0.456	2.191	0.456	2.191
ARI	0.256	3.900	0.256	3.900	0.256	3.900	0.256	3.900
ATO	0.228	4.380	0.228	4.380	0.228	4.380	0.228	4.380
BAP	0.862	1.160	0.862	1.160	0.862	1.160	0.862	1.160
AAC	0.436	2.294	0.436	2.294	0.436	2.294	0.436	2.294
SIZ	0.893	1.120	0.893	1.120	0.893	1.120	0.893	1.120
AGE	0.934	1.071	0.934	1.071	0.934	1.071	0.934	1.071

Table D3:The results of mulicollinearity testing (accounting information advantage, valuable decision making, information usefulness effectiveness, and business goal achievement)

Independent Variables	Dependent Variables					
	Equation 5: VDM		Equation 6: IUE		Equation 7: BGA	
	Tolerance	VIFs	Tolerance	VIFs	Tolerance	VIFs
AIA	0.985	1.015	0.985	1.015	0.484	2.068
VDM					0.318	3.146
IUE					0.327	3.056
SIZ	0.938	1.066	0.938	1.066	0.932	1.073
AGE	0.942	1.061	0.942	1.061	0.934	1.071

Table D4: The results of multicollinearity testing (AISQ and its antecedences)

Independent Variables	Dependent Variables									
	Equation 8: ATL		Equation 9: ARI		Equation 10: ATO		Equation 11: BAP		Equation 12: AAC	
	Tolerance	VIFs	Tolerance	VIFs	Tolerance	VIFs	Tolerance	VIFs	Tolerance	VIFs
IML	0.330	3.034	0.330	3.034	0.330	3.034	0.330	3.034	0.330	3.034
TMS	0.362	2.760	0.362	2.760	0.362	2.760	0.362	2.760	0.362	2.760
ITR	0.323	3.095	0.323	3.095	0.323	3.095	0.323	3.095	0.323	3.095
MAK	0.386	2.588	0.386	2.588	0.386	2.588	0.386	2.588	0.386	2.588
TMG	0.480	2.082	0.480	2.082	0.480	2.082	0.480	2.082	0.480	2.082
SIZ	0.911	1.098	0.911	1.098	0.911	1.098	0.911	1.098	0.911	1.098
AGE	0.932	1.072	0.932	1.072	0.932	1.072	0.932	1.072	0.932	1.072

Table D5: The results of multicollinearity testing (AISQ, its antecedences and moderator)

Independent Variables	Dependent Variables									
	Equation 13 ATL		Equation 14: ARI		Equation 15: ATO		Equation 16: BAP		Equation 17: AAC	
	Tolerance	VIFs	Tolerance	VIFs	Tolerance	VIFs	Tolerance	VIFs	Tolerance	VIFs
IML	0.283	3.563	0.283	3.563	0.283	3.563	0.283	3.563	0.283	3.563
TMS	0.340	2.938	0.340	2.938	0.340	2.938	0.340	2.938	0.340	2.938
ITR	0.294	3.401	0.294	3.401	0.294	3.401	0.294	3.401	0.294	3.401
MAK	0.336	2.972	0.336	2.972	0.336	2.972	0.336	2.972	0.336	2.972
TMG	0.450	2.222	0.450	2.222	0.450	2.222	0.450	2.222	0.450	2.222
TAC	0.284	3.515	0.284	3.515	0.284	3.515	0.284	3.515	0.284	3.515
IML*TAC	0.219	4.569	0.219	4.569	0.219	4.569	0.219	4.569	0.219	4.569
TMS*TAC	0.218	4.593	0.218	4.593	0.218	4.593	0.218	4.593	0.218	4.593
ITR*TAC	0.220	4.542	0.220	4.542	0.220	4.542	0.220	4.542	0.220	4.542
MAK*TAC	0.297	3.362	0.297	3.362	0.297	3.362	0.297	3.362	0.297	3.362
TMG*TAC	0.410	2.437	0.410	2.437	0.410	2.437	0.410	2.437	0.410	2.437
SIZ	0.873	1.145	0.873	1.145	0.873	1.145	0.873	1.145	0.873	1.145
AGE	0.887	1.127	0.887	1.127	0.887	1.127	0.887	1.127	0.887	1.127

APPENDIX E

The Original Items

Table E1: Original Items in Scales

Construct	Items
Accounting Transaction Linkage Competency (ATL)	
ATL1	Accounting information system help firm completely recording operating activities among various departments within firm
ATL2	Accounting information system helps firm to gathering accounting transaction among various departments within firmefficiently.
ATL3	Accounting information system help businesses to be classified and to sort out the accounting entries that arise from each unit within the organization systematically.
ATL4	Accounting information system helps businesses summarize and analyze accounting transactions from various agencies. To reflect the overall performance of the organization is more accurate.
Accounting Information Reporting Integration (ARI)	
ARI1	Accounting information system allows the organization to present corporate accounting reports as an organization-wide overview. To be in the same system efficiently.
ARI2	Accounting information system support the company to present accounting reports that incorporate operational information from both within and outside the organization in a manner consistent with the situation.
ARI3	Accounting information system enables the company to offer a complete inventory of both monetary and non-monetary information.
ARI4	Accounting information system support companies to report accounting information in the same view and direction.
Accounting Information Trust Orientation (ATO)	
ATO1	Accounting information system helps businesses with unbiased accounting information without bias and reliability.
ATO2	Accounting information system allows the company to have accounting information that reflects the economic reality of the business as well.
ATO3	Accounting information system support the company to have accounting information that is content as required by accounting standards.
ATO4	Accounting information system allows the company to have transparent accounting information and verify that the source is clear.
ATO5	Accounting information system support the company to have accurate accounting information, can compare with other businesses effectively.

Table E1: Original Items in Scales (continued)

Construct	Items
Best Accounting Practice Efficiency (BAP)	
BAP1	Accounting information system allows the company to fully and accurately comply with accounting standards.
BAP2	Accounting information system allows companies to apply accounting standards in a timely and appropriate manner.
BAP3	Accounting information system help businesses choose accounting practices that are more suited to their business.
BAP4	Accounting information system helps the company to set accounting policies more accurately and in line with accounting transactions.
Accounting Information Auditing Capability (AAC)	
AAC1	Accounting information system supports the company to verify the accuracy of the information as well.
AAC2	Accounting information system allows the company to fully review the accuracy of its accounting practices.
AAC3	Accounting information system helps businesses track the source and reliability of their data.
AAC4	Accounting information system allows the business to check documents more systematically in the operation activities.
Accounting Information Advantage (AIA)	
AIA1	The Company has different accounting information that reflects the direction of future operations.
AIA2	The firm has up-to-date accounting information that is consistent with changing circumstances.
AIA3	The Company has accurate, quick and accurate accounting information that responds to its intended use.
AIA4	The company has a variety of accounting information, both monetary and non-monetary.
Valuable Decision Making (VDM)	
VDM1	Businesses can choose to invest under various circumstances.
VDM2	Businesses can set appropriate operating guidelines to suit changing situations.
VDM3	Businesses can choose the best operating option in the situation they are.
VDM4	Firm can make quick and timely decisions.

Table E1: Original Items in Scales (continued)

Construct	Items
Information Usefulness Effectiveness (IUE)	
IUE1	Businesses can take that information to be used in the planning of operations properly in line with the changing situation.
IUE2	Businesses can take the acquired information to analyze the opportunities and obstacles in the current competitive situation of the business effectively.
IUE3	Businesses can apply accounting information used to forecast trends and direction in the operation of the future of the business accurately.
IUE4	Businesses can bring the acquired information to use in the control and order in the operation systematic and concrete.
Business Goal Achievement (BGA)	
BGA1	The Company's performance is in line with the objectives and goals set effectively.
BGA2	The company has continued to grow its sales growth.
BGA3	The company has a significantly higher market share than its competitors.
BGA4	The company is able to meet the needs of its existing customers very well and has new customers continuously increasing from the past to the present.
Information Management Leadership (IML)	
IML1	The firm believes that good information management It will help the company to manage more efficiently.
IML2	Businesses focus on the application of information management technology. This will make the business have more quality and diverse information.
IML3	The Company pays attention to continuous investment in information system development and make your business more efficient.
IML4	The Company encourages the introduction of new techniques and methods. Applied to the management of information. This will make the operation more effective than competitors.

Table E1: Original Items in Scales (continued)

Construct	Items
Top Management Support (TMS)	
TMS1	The management of the business believes that continuous development of the organization. It will make the organization a sustainable success.
TMS2	The management of the business attaches great importance to the development and improvement of good corporate governance. This will help the management achieve better goals.
TMS3	The management of the company encourages the personnel in the organization to participate in the presentation of the concept of concrete management. This will allow for quick success of operations.
TMS4	The management of the business focuses on the appropriate allocation of resources to meet the needs of various entities. This will help the company achieve its goals better.
Information Technology Resource (ITR)	
ITR1	The company is confident that its technological resources are well-equipped. It allows the business to manage various tasks effectively.
ITR2	The company encourages staff to continue to attend training on modern technology. It will make the administration of the organization more effective.
ITR3	The company is committed to improving the database system to be up-to-date. It will help to make the information more useful.
ITR4	The Company focuses on providing adequate computer network for communication and operation of modern enterprises. It gives the company a competitive advantage continuously.
Modern Accounting Knowledge (MAK)	
MAK1	The firm believes that having modern accounting knowledge will make the operation of the organization more effective.
MAK2	The company attaches importance to tracking new issues and topics. Continuing accounting will help to make the operation more consistent with the situation.
MAK3	The Company pays close attention to the study of new accounting standards. It helps to be able to apply in the operation as well and efficiently.
MAK4	Businesses focus on knowledge management on issues. Related to modern accounting will help the organization to develop consistently.

Table E1: Original Items in Scales (continued)

Construct	Items
Technology Munificence Growth (TMG)	
TMG1	The continually technology growth has enhance the firm focus on the study of the technology and be able to apply in the operation as well.
TMG2	Due to the technology diversity, firms are able to use the right technology and corresponds to the situation of the organization very well.
TMG3	Nowadays, data communication technology is more advanced and modern. There is a way to communicate more quickly and efficiently.
TMG4	Today's technology is more advanced and advanced, which improve the performance of the firm to be more advantageous.
Technology Acceptance (TAC)	
TAC1	Businesses believe that technology is an important factor in the current operation. This will allow the business to be more successful.
TAC2	Businesses have pushed for the application of technology to corporate governance as concrete. It will help the organization achieve its goals better.
TAC3	The firm believes that research and development in the enterprise will give the business an advantage over competitors.
TAC4	The Company encourages employees to learn and understand the technology that is constantly changing. It will allow for more efficient operation.

APPENDIX F

Cover Letter and Questionnaire (Thai Version)

แบบสอบถามเพื่อการวิจัย

เรื่อง คุณภาพระบบสารสนเทศทางการบัญชีกับการบรรลุเป้าหมายของธุรกิจ : หลักฐานเชิงประจักษ์จากวิสาหกิจขนาดกลางและขนาดย่อมประเภทชิ้นส่วนยานยนต์ในประเทศไทย

คำชี้แจง

โครงการวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาวิจัยเรื่อง “คุณภาพระบบสารสนเทศทางการบัญชีกับการบรรลุเป้าหมายของธุรกิจ : หลักฐานเชิงประจักษ์จากธุรกิจ วิสาหกิจขนาดกลางและขนาดย่อมประเภทชิ้นส่วนยานยนต์ในประเทศไทย” เพื่อใช้เป็นข้อมูลในการจัดทำวิทยานิพนธ์ในระดับปริญญาเอกของผู้วิจัยในหลักสูตรปรัชญาดุษฎีบัณฑิต สาขาวิชาการบัญชี คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม มหาสารคาม โทรศัพท์ 043-754333

ข้าพเจ้าใคร่ขอความอนุเคราะห์จากท่านผู้ตอบแบบสอบถาม ได้โปรดตอบแบบสอบถามชุดนี้ โดยรายละเอียดของแบบสอบถามประกอบด้วยส่วนคำถาม 7 ตอน ดังนี้

ตอนที่ 1 ข้อมูลทั่วไปเกี่ยวกับผู้บริหารฝ่ายบัญชีวิสาหกิจขนาดกลางและขนาดย่อมประเภทชิ้นส่วนยานยนต์ในประเทศไทย

ตอนที่ 2 ข้อมูลทั่วไปเกี่ยวกับวิสาหกิจขนาดกลางและขนาดย่อมประเภทชิ้นส่วนยานยนต์ในประเทศไทย

ตอนที่ 3 ความคิดเห็นเกี่ยวกับคุณภาพระบบสารสนเทศทางการบัญชีของวิสาหกิจขนาดกลางและขนาดย่อมประเภทชิ้นส่วนยานยนต์ในประเทศไทย

ตอนที่ 4 ความคิดเห็นเกี่ยวกับผลการดำเนินงานของวิสาหกิจขนาดกลางและขนาดย่อมประเภทผลิตชิ้นส่วนยานยนต์

ตอนที่ 5ความคิดเห็นเกี่ยวกับปัจจัยภายในที่มีผลต่อคุณภาพระบบสารสนเทศทางการบัญชีของวิสาหกิจขนาดกลางและขนาดย่อมประเภทชิ้นส่วนยานยนต์ในประเทศไทย

ตอนที่ 6 ความคิดเห็นเกี่ยวกับปัจจัยภายนอกที่มีผลต่อคุณภาพระบบสารสนเทศทางการบัญชีของวิสาหกิจขนาดกลางและขนาดย่อมประเภทชิ้นส่วนยานยนต์ในประเทศไทย

ตอนที่ 7ข้อคิดเห็นและข้อเสนอแนะเกี่ยวกับระบบสารสนเทศทางการบัญชีของวิสาหกิจขนาดกลางและขนาดย่อมประเภทชิ้นส่วนยานยนต์ในประเทศไทย

คำตอบของท่านจะถูกเก็บรักษาเป็นความลับ และจะไม่มีการใช้ข้อมูลใด ๆ ที่เปิดเผยเกี่ยวกับตัวท่านในการรายงานข้อมูล รวมทั้งจะไม่มีการร่วมใช้ข้อมูลดังกล่าวกับบุคคลภายนอกอื่นใดโดยไม่ได้รับอนุญาตจากท่าน

ท่านต้องการรายงานสรุปผลการวิจัยหรือไม่

( ) ต้องการ E - mail _____ ( ) ไม่ต้องการ

หากท่านต้องการรายงานสรุปผลการวิจัย โปรดระบุ E-mail ของท่าน หรือแนบนามบัตรของท่านมากับแบบสอบถามชุดนี้

ผู้วิจัยขอขอบพระคุณที่ท่านได้กรุณาเสียสละเวลาในการตอบแบบสอบถามชุดนี้อย่างถูกต้องครบถ้วน และหวังเป็นอย่างยิ่งว่าข้อมูลที่ได้รับจากท่านจะเป็นประโยชน์อย่างยิ่งต่อการวิจัยในครั้งนี้ และขอขอบพระคุณอย่างสูงมา ณ โอกาสนี้ หากท่านมีข้อสงสัยประการใดเกี่ยวกับแบบสอบถาม โปรดติดต่อผู้วิจัย นางสาวนุชจรินทร์ โลหะปาน โทรศัพท์เคลื่อนที่ 081-0552859 หรือ E – mail: lohan_nan@hotmail.com

(นางสาวนุชจรินทร์ โลหะปาน)
นิสิตระดับปริญญาเอก สาขาวิชาการบัญชี
คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม

<u>ตอนที่ 1</u> ข้อมูลทั่วไปของผู้บริหารฝ่ายบัญชีของวิสาหกิจขนาดกลางและขนาดย่อมประเภทผลิตชิ้นส่วนยานยนต์ในประเทศไทย

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

☐ ปริญญาตรีหรือเทียบเท่า ☐ สูงกว่าปริญญาตรี

5. ประสบการณ์ในการทำงาน

☐ น้อยกว่า 5 ปี ☐ 5 – 10 ปี

☐ 11 – 15 ปี ☐ มากกว่า 15 ปี

6. รายได้เฉลี่ยต่อเดือน

☐ ต่ำกว่า 50,000 บาท ☐ 50,000-70,000 บาท

☐ 70,001-90,000 บาท ☐ มากกว่า 90,000 บาท

7. ตำแหน่งงานในปัจจุบัน

☐ ผู้อำนวยการฝ่ายบัญชี ☐ ผู้จัดการฝ่ายบัญชี

☐ สมุห์บัญชี ☐ อื่น ๆ (โปรดระบุ).....

<u>ตอนที่ 2</u> ข้อมูลทั่วไปเกี่ยวกับวิสาหกิจขนาดกลางและขนาดย่อมประเภทผลิตชิ้นส่วนยานยนต์ในประเทศไทย

1. รูปแบบธุรกิจ

☐ บริษัทจำกัด ☐ ห้างหุ้นส่วน

2. ความเป็นเจ้าของกิจการ

☐ ธุรกิจเดี่ยว ☐ ธุรกิจในเครือ

3. ประเภทธุรกิจ (ตอบได้มากกว่า 1 ข้อ)

☐ ชิ้นส่วนเพื่อนำไปประกอบยานยนต์ ☐ ชิ้นส่วนทดแทนหรืออะไหล่ทดแทน

4. ลูกค้าหลักของกิจการ

☐ ลูกค้าในประเทศ ☐ ลูกค้าต่างประเทศ

5. ที่ตั้งของกิจการ

☐ ภาคเหนือ ☐ ภาคใต้

☐ ภาคตะวันออก ☐ ภาคตะวันออกเฉียงเหนือ

☐ ภาคกลาง ☐ กรุงเทพมหานคร

6. ทุนในการดำเนินงาน

☐ ต่ำกว่า 25,000,000 บาท ☐ 25,000,000 – 50,000,000 บาท

☐ 50,000,001 - 75,000,000 บาท ☐ มากกว่า 75,000,000 บาท

7. รายได้ของธุรกิจเฉลี่ยต่อปี

☐ ต่ำกว่า 20,000,000 บาท ☐ 20,000,000 – 40,000,000 บาท

☐ 40,000,001 – 60,000,000 บาท ☐ มากกว่า 60,000,000 บาท

8. มูลค่าสินทรัพย์รวมในปัจจุบัน

☐ ต่ำกว่า 50,000,000 บาท ☐ 000,001 –100,000,000 บาท

☐ 100,000,001 - 150,000,000 บาท ☐ มากกว่า 150,000,000 บาท

<u>ตอนที่ 2</u> ข้อมูลทั่วไปเกี่ยวกับวิสาหกิจขนาดกลางและขนาดย่อมประเภทผลิตชิ้นส่วนยานยนต์ในประเทศไทย (ต่อ)

9. จำนวนพนักงานทั้งหมดในปัจจุบัน

☐ น้อยกว่า 50 คน ☐ 50 - 100 คน

☐ 101 - 150 คน ☐ มากกว่า 150 คน

10. ระยะเวลาในการดำเนินธุรกิจ

☐ น้อยกว่า 5 ปี ☐ 5 – 10 ปี

☐ 11 – 15 ปี ☐ มากกว่า 15ปี

11. กรุณาระบุโปรแกรมสำเร็จรูปทางการบัญชีที่องค์กรท่านใช้ในปัจจุบัน

☐ Express ☐ Smartbiz

☐ Formula ☐ AutoFlight

☐ iMoneys ☐ ClipAcc

☐ EasyAcc ☐ อื่นๆ (โปรดระบุ).....

<u>ตอนที่ 3</u> ความคิดเห็นเกี่ยวกับคุณภาพระบบสารสนเทศทางการบัญชีของวิสาหกิจขนาดกลางและขนาดย่อมประเภทผลิตชิ้นส่วนยานยนต์ในประเทศไทย

คุณภาพระบบสารสนเทศทางการบัญชี (Accounting Information System Quality)	ระดับความคิดเห็น				
	มากที่สุด 5	มาก 4	ปานกลาง 3	น้อย 2	น้อยที่สุด 1
<u>ความสามารถในการเชื่อมโยงรายการทางการบัญชี (Accounting Transaction Linkage Competency)</u> 1. ระบบสารสนเทศทางการบัญชีช่วยให้กิจการมีการบันทึกเหตุการณ์ทางการบัญชีจากกิจกรรมการดำเนินงานในแต่ละวันของหน่วยงานต่างๆ ภายในองค์ได้อย่างเป็นรูปธรรม					
2. ระบบสารสนเทศทางการบัญชีช่วยให้กิจการสามารถรวบรวมรายการทางการบัญชีที่เกิดจากการดำเนินงานต่างๆ จากทุกหน่วยงานภายในองค์กรเข้าด้วยกันได้มีประสิทธิภาพมากยิ่งขึ้น					
3. ระบบสารสนเทศทางการบัญชีช่วยให้กิจการมีการจัดจำแนกและแยกประเภทของรายการทางการบัญชีที่เกิดขึ้นจากแต่ละหน่วยงานภายในองค์กรเข้าไว้ด้วยกันอย่างเป็นระบบ					
4. ระบบสารสนเทศทางการบัญชีช่วยให้กิจการสรุปและวิเคราะห์รายการทางการบัญชีจากหน่วยงานต่างๆ เพื่อสะท้อนผลการดำเนินงานในภาพรวมขององค์กรได้ถูกต้องมากยิ่งขึ้น					
<u>การบูรณาการรายงานข้อมูลทางการบัญชี (Accounting Information Reporting Integration)</u> 5. ระบบสารสนเทศทางการบัญชีช่วยให้กิจการนำเสนอรายงานทางการบัญชีในภาพรวมของทั้งองค์กรไว้ในระบบเดียวกันได้อย่างมีประสิทธิภาพ					
6. ระบบสารสนเทศทางการบัญชีช่วยให้กิจการนำเสนอรายงานทางการบัญชีที่มีการผสมผสานข้อมูลการดำเนินงานจากทั้งภายในและภายนอกองค์กรให้สอดคล้องกับสถานการณ์ที่ได้เป็นอย่างดี					
7. ระบบสารสนเทศทางการบัญชีช่วยให้กิจการมีการนำเสนอของข้อมูลทั้งที่เป็นตัวเงินและข้อมูลที่ไม่เป็นตัวเงินเข้าไว้ในรายงานได้อย่างครบถ้วน					
8. ระบบสารสนเทศทางการบัญชีช่วยให้กิจการมีการรายงานข้อมูลทางการบัญชีในมุมมองและทิศทางเดียวกัน					

ตอนที่ 3 (ต่อ)

คุณภาพระบบสารสนเทศทางการบัญชี (Accounting Information System Quality)	ระดับความคิดเห็น				
	มากที่สุด 5	มาก 4	ปานกลาง 3	น้อย 2	น้อยที่สุด 1
การมุ่งเน้นความน่าเชื่อถือของข้อมูลทางการบัญชี (Accounting Information Trust Orientation) 9.ระบบสารสนเทศทางการบัญชีช่วยให้กิจการมีข้อมูลทางการบัญชีที่มีความเป็นกลาง ปราศจากความลำเอียงและเชื่อถือได้					
10. ระบบสารสนเทศทางการบัญชีช่วยให้กิจการมีข้อมูลทางการบัญชีที่สะท้อนให้เห็นถึงสภาพความเป็นจริงเชิงเศรษฐกิจของกิจการได้เป็นอย่างดี					
11. ระบบสารสนเทศทางการบัญชีช่วยให้กิจการมีข้อมูลทางการบัญชีที่มีเนื้อหาสาระตามที่มาตรฐานทางการบัญชีได้กำหนดไว้อย่างครบถ้วน					
12. ระบบสารสนเทศทางการบัญชีช่วยให้กิจการมีข้อมูลทางการบัญชีที่มีความโปร่งใสและตรวจสอบที่มาที่ไปได้อย่างชัดเจน					
13. ระบบสารสนเทศทางการบัญชีช่วยให้กิจการมีข้อมูลทางการบัญชีที่มีความถูกต้องสามารถเปรียบเทียบกับกิจการอื่นได้อย่างมีประสิทธิภาพ					
ประสิทธิภาพการปฏิบัติทางการบัญชีที่ดี (Best Accounting Practice Efficiency) 14. ระบบสารสนเทศทางการบัญชี ช่วยให้กิจการมีการปฏิบัติตามมาตรฐานการบัญชีได้อย่างครบถ้วนและถูกต้อง					
15. ระบบสารสนเทศทางการบัญชีช่วยให้กิจการประยุกต์ใช้มาตรฐานการบัญชีได้ทันถ่วงทีและเหมาะสมกับสถานการณ์					
16. ระบบสารสนเทศทางการบัญชี ช่วยให้กิจการเลือกแนวปฏิบัติทางการบัญชีได้เหมาะสมกับกิจการมากยิ่งขึ้น					
17. ระบบสารสนเทศทางการบัญชีช่วยให้กิจการกำหนดนโยบายบัญชีได้อย่างถูกต้องและสอดคล้องกับรายการทางการบัญชีมากยิ่งขึ้น					
ศักยภาพการตรวจสอบข้อมูลทางการบัญชี (Accounting Information Auditing Capability) 18. ระบบสารสนเทศทางการบัญชีช่วยให้กิจการสามารถตรวจสอบความถูกต้องของข้อมูลได้เป็นอย่างดี					
19. ระบบสารสนเทศทางการบัญชีช่วยให้กิจการสามารถสอบทานความถูกต้องของการปฏิบัติงานทางการบัญชีได้อย่างครบถ้วน					
20. ระบบสารสนเทศทางการบัญชีช่วยให้กิจการสามารถติดตามถึงแหล่งที่มาและความน่าเชื่อถือของข้อมูลได้เป็นอย่างดี					
21. ระบบสารสนเทศทางการบัญชีช่วยให้กิจการตรวจเช็คเอกสารหลักฐานในกิจกรรมการดำเนินงานได้อย่างเป็นระบบมากยิ่งขึ้น					

<u>ตอนที่ 4</u> ความคิดเห็นเกี่ยวกับผลการดำเนินงานของวิสาหกิจขนาดกลางและขนาดย่อมประเภทผลิตชิ้นส่วนยานยนต์ในประเทศไทย

ผลการดำเนินงาน	ระดับความคิดเห็น				
	มากที่สุด 5	มาก 4	ปานกลาง 3	น้อย 2	น้อยที่สุด 1
<u>ความได้เปรียบของข้อมูลทางการบัญชี (Accounting Information Advantage)</u> 1. กิจการมีข้อมูลทางการบัญชีที่มีความแตกต่างที่สะท้อนให้เห็นถึงทิศทางของการดำเนินงานในอนาคตได้เป็นอย่างดี					
2. กิจการมีข้อมูลทางการบัญชีที่ทันสมัยที่สอดคล้องกับสถานการณ์ที่มีการเปลี่ยนแปลงอยู่เสมอ					
3. กิจการมีข้อมูลทางการบัญชีที่มีความถูกต้อง ชัดเจน และรวดเร็ว สามารถตอบสนองต่อวัตถุประสงค์การใช้งานได้อย่างทันถ่วงที					
4. กิจการมีข้อมูลทางการบัญชีที่มีหลากหลายทั้งที่เป็นตัวเงินและไม่เป็นตัวเงิน					
<u>การตัดสินใจที่มีคุณค่า (Valuable Decision Making)</u> 5. กิจการสามารถเลือกลงทุนภายใต้สถานการณ์ต่างๆ ได้เป็นอย่างดี					
6. กิจการสามารถกำหนดแนวทางในการดำเนินงานให้สอดคล้องเหมาะสมกับสถานการณ์ที่มีการเปลี่ยนแปลงได้อย่างมีประสิทธิภาพ					
7. กิจการสามารถเลือกทางเลือกในการดำเนินงานที่ดีที่สุดในสถานการณ์ที่เป็นอยู่					
8. กิจการสามารถทำการตัดสินใจได้อย่างรวดเร็วและทันท่วงที					
<u>ประสิทธิผลการใช้ประโยชน์จากข้อมูล (Information Usefulness Effectiveness)</u> 9. กิจการสามารถนำข้อมูลที่ได้ ไปใช้ในการวางแผนในการดำเนินงานได้อย่างเหมาะสม สอดคล้องกับสถานการณ์ที่มีการเปลี่ยนแปลงได้ดียิ่งขึ้น					
10. กิจการสามารถนำข้อมูลที่ได้มา ไปใช้ในการวิเคราะห์โอกาสและอุปสรรคในการแข่งขันในสถานการณ์ปัจจุบันของกิจการได้อย่างมีประสิทธิภาพ					
11. กิจการสามารถนำข้อมูลทางการบัญชี ไปใช้ในการพยากรณ์แนวโน้มและทิศทางในการดำเนินงานในการอนาคตของกิจการได้อย่างถูกต้องแม่นยำ					
12. กิจการสามารถนำข้อมูลที่ได้มา ไปใช้ในการควบคุมและการสั่งการในการดำเนินงานได้อย่างเป็นระบบและรูปธรรม					
<u>การบรรลุเป้าหมายของธุรกิจ (Business Goal Achievement)</u> 13. กิจการมีผลการดำเนินงานเป็นไปตามวัตถุประสงค์และเป้าหมายที่วางไว้ได้อย่างมีประสิทธิภาพ					
14. กิจการมีอัตราการเติบโตของยอดขายเพิ่มขึ้นอย่างต่อเนื่อง					
15. กิจการมีส่วนแบ่งทางการตลาดที่เพิ่มขึ้นอย่างโดดเด่นกว่าคู่แข่งขัน					
16. กิจการสามารถตอบสนองความต้องการของลูกค้าเดิมได้เป็นอย่างดีและมีลูกค้าใหม่เพิ่มขึ้นอย่างต่อเนื่องจากอดีตจนถึงปัจจุบัน					

<u>ตอนที่ 5</u> ความคิดเห็นเกี่ยวกับปัจจัยภายในที่มีผลต่อคุณภาพระบบสารสนเทศทางการบัญชีของวิสาหกิจขนาดกลางและขนาดย่อมประเภทผลิตชิ้นส่วนยานยนต์ในประเทศไทย

ปัจจัยภายในที่มีผลกระทบต่อคุณภาพระบบสารสนเทศทางการบัญชี	ระดับความคิดเห็น				
	มากที่สุด 5	มาก 4	ปานกลาง 3	น้อย 2	น้อยที่สุด 1
<u>การเป็นผู้นำด้านการจัดการข้อมูล (Information Management Leadership)</u> 1. กิจการเชื่อมั่นว่าการจัดการข้อมูลที่ดี จะช่วยให้กิจการสามารถบริหารงานให้มีประสิทธิภาพมากยิ่งขึ้น					
2. กิจการมุ่งเน้นให้มีการประยุกต์ใช้เทคโนโลยีในการบริหารจัดการข้อมูล ซึ่งจะทำให้กิจการมีข้อมูลที่มีคุณภาพและมีความหลากหลายมากขึ้น					
3. กิจการให้ความสำคัญกับการลงทุนด้านการพัฒนาระบบข้อมูลอย่างต่อเนื่อง ทำให้กิจการสามารถใช้ประโยชน์จากข้อมูลได้อย่างมีประสิทธิภาพมากยิ่งขึ้น					
4. กิจการส่งเสริมให้มีการนำเทคนิคและวิธีการใหม่ๆ เข้ามาประยุกต์ใช้ในบริหารจัดการข้อมูล ซึ่งจะทำให้การดำเนินงานมีประสิทธิภาพเหนือกว่าคู่แข่งขันมากยิ่งขึ้น					
<u>การสนับสนุนจากผู้บริหารระดับสูง (Top Management Support)</u> 5. ผู้บริหารของกิจการเชื่อมั่นว่าการพัฒนาองค์กรอย่างต่อเนื่อง จะทำให้องค์กรประสบความสำเร็จอย่างยั่งยืน					
6. ผู้บริหารของกิจการให้ความสำคัญกับการพัฒนาและปรับปรุงระบบงานที่ดีในองค์กร ซึ่งจะช่วยให้การบริหารงานบรรลุเป้าหมายได้ดียิ่งขึ้น					
7. ผู้บริหารของกิจการสนับสนุนให้บุคลากรในองค์กรมีส่วนร่วมในการนำเสนอแนวคิดในการบริหารงานอย่างเป็นรูปธรรม ซึ่งจะช่วยให้ประสบความสำเร็จในการดำเนินงานได้อย่างรวดเร็ว					
8. ผู้บริหารของกิจการมุ่งเน้นให้มีการจัดสรรทรัพยากรที่มีความเหมาะสมและตรงกับความต้องการของหน่วยงานต่างๆ จะช่วยให้กิจการสามารถบรรลุเป้าหมายได้ดียิ่งขึ้น					
<u>ทรัพยากรทางด้านเทคโนโลยี (Information Technology Resource)</u> 9. กิจการเชื่อมั่นว่าการมีทรัพยากรทางด้านเทคโนโลยีอย่างเพียบพร้อมจะช่วยให้กิจการสามารถบริหารงานต่างๆ ได้อย่างมีประสิทธิภาพมากยิ่งขึ้น					
10. กิจการส่งเสริมให้บุคลากรเข้าร่วมฝึกอบรมทางด้านเทคโนโลยีสมัยใหม่อย่างต่อเนื่อง จะช่วยให้การบริหารองค์กรมีประสิทธิผลมากยิ่งขึ้น					
11. กิจการมุ่งมั่นในการปรับปรุงพัฒนาระบบฐานข้อมูลให้มีความทันสมัยอยู่เสมอ จะช่วยให้สามารถใช้ประโยชน์จากข้อมูลได้อย่างมีประโยชน์มากยิ่งขึ้น					
12. กิจการมุ่งเน้นให้มีระบบเครือข่ายคอมพิวเตอร์ในการติดต่อสื่อสารและการปฏิบัติงานขององค์กรที่ทันสมัยอย่างเพียงพอ จะช่วยให้กิจการได้เปรียบทางการแข่งขันอย่างต่อเนื่อง					

ตอนที่ 5(ต่อ)

ปัจจัยภายในที่มีผลกระทบต่อคุณภาพระบบสารสนเทศทางการบัญชี	ระดับความคิดเห็น				
	มากที่สุด 5	มาก 4	ปานกลาง 3	น้อย 2	น้อยที่สุด 1
ความรู้ทางการบัญชีสมัยใหม่ (Modern Accounting knowledge) 13.กิจการเชื่อมั่นว่าการมีความรู้ทางการบัญชีสมัยใหม่จะช่วยให้การดำเนินงานขององค์กรมีประสิทธิภาพมากยิ่งขึ้น					
14. กิจการให้ความสำคัญกับการติดตามประเด็นและหัวข้อใหม่ๆ ทางการบัญชีอย่างต่อเนื่อง จะช่วยให้การดำเนินงานสอดคล้องกับสถานการณ์มากยิ่งขึ้น					
15. กิจการให้ความสำคัญกับการศึกษาทำความเข้าใจในมาตรฐานการบัญชีใหม่ที่เกิดขึ้นอย่างเป็นระบบ จะช่วยให้สามารถประยุกต์ใช้ในการดำเนินงานได้เป็นอย่างดีและมีประสิทธิภาพ					
16. กิจการให้ความสำคัญกับการจัดการความรู้ในประเด็นต่างๆ ที่เกี่ยวข้องกับการบัญชีสมัยใหม่ ซึ่งจะช่วยให้องค์กรมีการพัฒนาอย่างต่อเนื่อง					
การยอมรับเทคโนโลยี (Technology Acceptance) 17. กิจการเชื่อมั่นว่าเทคโนโลยี เป็นปัจจัยสำคัญในการดำเนินงานในปัจจุบัน ซึ่งจะช่วยให้กิจการสามารถประสบความสำเร็จมากยิ่งขึ้น					
18. กิจการมีการผลักดันให้มีการประยุกต์ใช้เทคโนโลยีเพื่อการบริหารจัดการองค์กรอย่างเป็นรูปธรรม จะช่วยให้องค์กรบรรลุเป้าหมายได้ดียิ่งขึ้น					
19. กิจการเชื่อมันว่าการวิจัยและพัฒนาในองค์กร จะช่วยให้กิจการมีความได้เปรียบเหนือคู่แข่งขัน					
20. กิจการส่งเสริมให้พนักงานเกิดการเรียนรู้และทำความเข้าใจเทคโนโลยีที่มีการเปลี่ยนแปลงอย่างต่อเนื่อง จะช่วยให้การดำเนินงานมีประสิทธิภาพมากขึ้น					

<u>ตอนที่ 6</u> ความคิดเห็นเกี่ยวกับปัจจัยภายนอกที่มีผลต่อคุณภาพระบบสารสนเทศทางการบัญชีของวิสาหกิจขนาดกลางและขนาดย่อมประเภทผลิตชิ้นส่วนยานยนต์ในประเทศไทย

ปัจจัยภายนอกที่มีผลกระทบต่อคุณภาพระบบสารสนเทศทางการบัญชี	ระดับความคิดเห็น				
	มากที่สุด 5	มาก 4	ปานกลาง 3	น้อย 2	น้อยที่สุด 1
<u>การเจริญเติบโตของการเอื้ออำนวยของเทคโนโลยี (Technology Munificence Growth)</u> 1. เทคโนโลยีในปัจจุบันมีการเจริญเติบโตอย่างต่อเนื่อง ทำให้กิจการต่างๆ มุ่งมั่นในการศึกษาทำความเข้าใจในเทคโนโลยีที่เกิดขึ้น เพื่อสามารถประยุกต์ใช้ในการดำเนินงานได้เป็นอย่างดี					
2. เทคโนโลยีมีความหลากหลายมากยิ่งขึ้น ทำให้กิจการต่างๆ สามารถเลือกใช้เทคโนโลยีได้เหมาะสม สอดคล้องกับสถานการณ์ขององค์กรได้เป็นอย่างดี					
3. ปัจจุบันเทคโนโลยีการสื่อสารข้อมูลมีความก้าวหน้าและทันสมัยมากขึ้นทำให้กิจการต่างๆ มีช่องทางในการติดต่อสื่อสารได้อย่างรวดเร็วและมีประสิทธิภาพมากขึ้น					
4.เทคโนโลยีในปัจจุบันมีความก้าวหน้าและล้ำสมัยมากขึ้น ทำให้กิจการต่างๆ สามารถปรับปรุงสมรรถนะในการดำเนินงานให้มีความได้เปรียบมากยิ่งขึ้น					

<u>ตอนที่ 7</u> ความคิดเห็นและข้อเสนอแนะเกี่ยวกับระบบสารสนเทศทางการบัญชีของวิสากิจขนาดกลางและขนาดย่อม ประเภทชิ้นส่วนยานยนต์ ในประเทศไทย

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ขอขอบพระคุณท่านที่ได้สละเวลาตอบแบบสอบถามทุกข้อ ได้โปรดพับแบบสอบถามและใส่ซองที่แนบมาพร้อมนี้ ส่งคืนตามที่อยู่ที่ระบุ **หากท่านต้องการรายงานสรุปผลการวิจัยครั้งนี้ <u>โปรดแนบนามบัตรหรือระบุอีเมลล์</u> ของท่านมาพร้อมกับแบบสอบถาม** ผู้วิจัยยินดีที่จะจัดส่งรายงานสรุปให้แก่ท่านภายหลังเสร็จสิ้นการวิเคราะห์ข้อมูล

APPENDIX G

Cover Letter and Questionnaire (English Version)

Questionnaire: Accounting information system quality and business goal achievement

Section 1 General information of accounting executive of Auto parts SMEs businesses in Thailand

1. Gender
   - □ Male
   - □ Female

2. Age
   - □ Less than 30 yearsold
   - □ 30 - 40 years old
   - □ 41- 50 years old
   - □ More than50 years old

3. Marital status
   - □ Single
   - □ Married
   - □ Divorced

4. Education levels
   - □ Bachelor's degree or lower
   - □ Higher than bachelor's degree

5. Work experience
   - □ Less than5 years
   - □ 5-10 years
   - □ 11 - 15 years
   - □ more than 15 years

6. Average salary per month
   - □ Less than50,000 Baht
   - □ 50,000 - 70,000 Baht
   - □ 70,001 - 90,000Baht
   - □ More than90,000 Baht

7. Working position at present
   - □ Accounting executive
   - □ Accounting manager
   - □ Accountant
   - □ Others……

Section 2 General Information of Auto parts SMEs businesses in Thailand

1. Business Entity
   - □ Company limited
   - □ Partnership

2. Ownership Pattern
   - □ Single business
   - □ Branch business

3. Type of auto parts
   - □ OEM
   - □ REM

4. Major Customers
   - □ Domestic customer
   - □ Foreign customer

5. Location of Business
   - □ Northern region
   - □ Southern region
   - □ Eastern region
   - □ Northeastern region
   - □ Central region
   - □ Bangkok

6. Working Capital
   - □ Less than25,000,000 Baht
   - □ 25,000,000 – 50,000,000 Baht
   - □ 50,000,001 – 75,000,000 Baht
   - □ More than75,000,000 Baht

7. Average Revenue per Year
   - □ Less than 20,000,000 Baht
   - □ 20,000,000 – 40,000,000 Baht
   - □ 40,000,001 – 60,000,000 Baht
   - □ More than 60,000,000 Baht

8. Total asset at Present
   - □ Less than 50,000,000 Baht
   - □ 50,000,001 – 100,000,000 Baht
   - □ 100,000,001 – 150,000,000 Baht
   - □ More than 150,000,000 Baht

Section 2 General Information of Auto parts SMEs businesses in Thailand (Continued)

9. Number of employees

□ Less than50 □ 50 - 100
□ 101 – 150 □ More than150

10. Period of Time in Business

□ Less than5Years □ 5 - 10Years
□ 11 - 15Years □ More than15Years

11. Firm' Accounting Software

□ Express □ Smartbiz
□ Formula □ Autoflight
□ iMoneys □ ClipAcc
□ EasyAcc □ Other…….

Section 3 Opinions in accounting information system quality of auto parts SMEs businesses in Thailand

Accounting Information System Quality	Opinion Levels				
	Strongly agree 5	Agree 4	Not sure 3	Disagree 2	Strongly disagree 1
Accounting Transaction Linkage Competency 1. Accounting information system help firm completely recording operating activities among various departments within firm	5	4	3	2	1
2.Accounting information system helps firm to gathering accounting transaction among various departments within firmefficiently.	5	4	3	2	1
3. Accounting information system help businesses to be classified and to sort out the accounting entries that arise from each unit within the organization systematically.	5	4	3	2	1
4Accounting information system helps businesses summarize and analyze accounting transactions from various agencies. To reflect the overall performance of the organization is more accurate.	5	4	3	2	1
Accounting Information Reporting Integration 5. Accounting information system Allows the organization to present corporate accounting reports as an organization-wide overview. To be in the same system efficiently.	5	4	3	2	1
6. Accounting information system support the company to present accounting reports that incorporate operational information from both within and outside the organization in a manner consistent with the situation.	5	4	3	2	1
7. Accounting information system It enables the company to offer a complete inventory of both monetary and non-monetary information.	5	4	3	2	1
8. Accounting information system support companies to report accounting information in the same view and direction.	5	4	3	2	1
Accounting Information Trust Orientation 9. Accounting information system helps businesses with unbiased accounting information without bias and reliability.	5	4	3	2	1

Section 3 (Continued)

Accounting Information System Quality	Opinion Levels				
	Strongly agree 5	Agree 4	Not sure 3	Disagree 2	Strongly disagree 1
Accounting Information Trust Orientation 10. Accounting information system allows the company to have accounting information that reflects the economic reality of the business as well.	5	4	3	2	1
11Accounting information system support the company to have accounting information that is content as required by accounting standards.	5	4	3	2	1
12. Accounting information system allows the company to have transparent accounting information and verify that the source is clear.	5	4	3	2	1
13.Accounting information system support the company to have accurate accounting information, can compare with other businesses effectively.	5	4	3	2	1
Best Accounting Practice Efficiency 14. Accounting information system allows the company to fully and accurately comply with accounting standards.	5	4	3	2	1
15. Accounting information system allows companies to apply accounting standards in a timely and appropriate manner.	5	4	3	2	1
16. Accounting information system help businesses choose accounting practices that are more suited to their business.	5	4	3	2	1
17. Accounting information system helps the company to set accounting policies more accurately and in line with accounting transactions.	5	4	3	2	1
Accounting Information Auditing Capability 18. Accounting information system supports the company to verify the accuracy of the information as well.	5	4	3	2	1
19. Accounting information system allows the company to fully review the accuracy of its accounting practices.	5	4	3	2	1

Section 3 (Continued)

Accounting Information System Quality	Opinion Levels				
	Strongly agree 5	Agree 4	Not sure 3	Disagree 2	Strongly disagree 1
20. Accounting information system Helps businesses track the source and reliability of their data.	5	4	3	2	1
21. Accounting information system allows the business to check documents more systematically in the operation activities.	5	4	3	2	1

Section 4 Opinions in consequences of accounting information system quality of auto parts SMEs businesses in Thailand

Consequences Accounting Information System Quality	Opinion Levels				
	Strongly agree 5	Agree 4	Not sure 3	Disagree 2	Strongly disagree 1
Accounting Information Advantage					
1. The Company has different accounting information that reflects the direction of future operations.	5	4	3	2	1
2. The firm has up-to-date accounting information that is consistent with changing circumstances.	5	4	3	2	1
3. The Company has accurate, quick and accurate accounting information that responds to its intended use.	5	4	3	2	1
4. The company has a variety of accounting information, both monetary and non-monetary.	5	4	3	2	1
Valuable Decision-Making					
5. Businesses can choose to invest under various circumstances.	5	4	3	2	1
6. Businesses can set appropriate operating guidelines to suit changing situations.	5	4	3	2	1
7. Businesses can choose the best operating option in the situation they are.	5	4	3	2	1
8. Firm can make quick and timely decisions.	5	4	3	2	1

Section 4 (Continued)

Consequences Accounting Information System Quality	Opinion Levels				
	Strongly agree 5	Agree 4	Not sure 3	Disagree 2	Strongly disagree 1
Information Usefulness Effectiveness 9.Businesses can take that information to be used in the planning of operations properly in line with the changing situation.	5	4	3	2	1
10. Businesses can take the acquired information to analyze the opportunities and obstacles in the current competitive situation of the business effectively.	5	4	3	2	1
11.Businesses can apply accounting information used to forecast trends and direction in the operation of the future of the business accurately.	5	4	3	2	1
12. Businesses can bring the acquired information to use in the control and order in the operation systematic and concrete.	5	4	3	2	1
Business Goal Achievement 13. The Company's performance is in line with the objectives and goals set effectively.	5	4	3	2	1
14. The company has continued to grow its sales growth.	5	4	3	2	1
15. The company has a significantly higher market share than its competitors.	5	4	3	2	1
16. The company is able to meet the needs of its existing customers very well and has new customers continuously increasing from the past to the present.	5	4	3	2	1

Section 5 Opinions in internal factor that influence on accounting information system quality of auto parts SMEs businesses in Thailand

Internal factor that influence on accounting information system quality	Opinion Levels				
	Strongly agree 5	Agree 4	Not sure 3	Disagree 2	Strongly disagree 1
Information Management Leadership 1. The firm believes that good information management It will help the company to manage more efficiently.	5	4	3	2	1
2. Businesses focus on the application of information management technology. This will make the business have more quality and diverse information.	5	4	3	2	1

Section 5 (Continued)

Internal factor that influence to accounting governance	Opinion Levels				
	Strongly agree 5	Agree 4	Not sure 3	Disagree 2	Strongly disagree 1
3. The Company pays attention to continuous investment in information system development and make your business more efficient.	5	4	3	2	1
Information Management Leadership 4. The Company encourages the introduction of new techniques and methods. Applied to the management of information. This will make the operation more effective than competitors.	5	4	3	2	1
5.The management of the business believes that continuous development of the organization. It will make the organization a sustainable success.	5	4	3	2	1
Top Management Support 6. The management of the business attaches great importance to the development and improvement of good corporate governance. This will help the management achieve better goals.	5	4	3	2	1
7.The management of the company encourages the personnel in the organization to participate in the presentation of the concept of concrete management. This will allow for quick success of operations.	5	4	3	2	1
8.The management of the business focuses on the appropriate allocation of resources to meet the needs of various entities. This will help the company achieve its goals better.	5	4	3	2	1
Information Technology Resource 9. The company is confident that its technological resources are well-equipped. It allows the business to manage various tasks effectively.	5	4	3	2	1
10The company encourages staff to continue to attend training on modern technology. It will make the administration of the organization more effective.	5	4	3	2	1
11.The company is committed to improving the database system to be up-to-date. It will help to make the information more useful.	5	4	3	2	1

Section 5 (Continued)

Internal factor that influence to accounting governance	Opinion Levels				
	Strongly agree 5	Agree 4	Not sure 3	Disagree 2	Strongly disagree 1
12. The Company focuses on providing adequate computer network for communication and operation of modern enterprises. It gives the company a competitive advantage continuously.	5	4	3	2	1
Modern Accounting Knowledge 13.The firm believes that having modern accounting knowledge will make the operation of the organization more effective.	5	4	3	2	1
14. The company attaches importance to tracking new issues and topics. Continuing accounting will help to make the operation more consistent with the situation.	5	4	3	2	1
15The Company pays close attention to the study of new accounting standards. It helps to be able to apply in the operation as well and efficiently.	5	4	3	2	1
16Businesses focus on knowledge management on issues. Related to modern accounting will help the organization to develop consistently.	5	4	3	2	1
Technology Acceptance 17. Businesses believe that technology is an important factor in the current operation. This will allow the business to be more successful.	5	4	3	2	1
18.Businesses have pushed for the application of technology to corporate governance as concrete. It will help the organization achieve its goals better.	5	4	3	2	1
19. The firm believes that research and development in the enterprise will give the business an advantage over competitors.	5	4	3	2	1
20.The Company encourages employees to learn and understand the technology that is constantly changing. It will allow for more efficient operation.	5	4	3	2	1

Section 6 Opinions in external factor that influence on accounting information system quality of auto parts SMEs businesses in Thailand

External factor that influence on accounting information system quality	Opinion Levels				
	Strongly agree 5	Agree 4	Not sure 3	Disagree 2	Strongly disagree 1
Technology munificence Growth 1. The continually technology growth has enhance the firm focus on the study of the technology and be able to apply in the operation as well.	5	4	3	2	1
2. Due to the technology diversity, firms are able to use the right technology and corresponds to the situation of the organization very well.	5	4	3	2	1
3. Nowadays, data communication technology is more advanced and modern. There is a way to communicate more quickly and efficiently.	5	4	3	2	1
4.Today's technology is more advanced and advanced, which improve the performance of the firm to be more advantageous.	5	4	3	2	1

Section 7 Recommendation and suggestions in accounting information system of auto part SMEs in Thailand

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..... Thank you for your participation **.....**

APPENDIX H

Letters to the Experts

บันทึกข้อความ

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

ที่ ศธ.0530.10/ **วันที่** 23 พฤษภาคม 2560

เรื่อง ขอเรียนเชิญเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัย

เรียน ผู้ช่วยศาสตราจารย์ ดร.เกสินี หมื่นไธสง

ด้วย นางสาวนุชจรินทร์ โลหะปาน นิสิตระดับปริญญาเอก หลักสูตรปรัชญาดุษฎีบัณฑิต (ปร.ด.) สาขาวิชาการบัญชี คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม กำลังศึกษาวิทยานิพนธ์ เรื่อง "คุณภาพระบบสารสนเทศทางการบัญชีกับการบรรลุเป้าหมายของธุรกิจ: หลักฐานเชิงประจักษ์จากวิสาหกิจขนาดกลางและขนาดย่อม ประเภทขึ้นส่วนยานยนต์ในประเทศไทย" ซึ่งเป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปรัชญาดุษฎีบัณฑิต ดังนั้น เพื่อให้การดำเนินการเป็นไปด้วยความเรียบร้อยและบรรลุตามวัตถุประสงค์ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม จึงใคร่ขอความอนุเคราะห์ท่านเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัยและข้อเสนอแนะเพื่อนำข้อมูลที่ได้ไปดำเนินการทำวิทยานิพนธ์ต่อไป ตามเอกสารแนบท้าย

จึงเรียนมาเพื่อโปรดพิจารณา

(ผู้ช่วยศาสตราจารย์ ดร.นิติพงษ์ ส่งศรีโรจน์)
คณบดีคณะการบัญชีและการจัดการ

บันทึกข้อความ

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

ที่ ศธ.0530.10/ **วันที่** 13 มิถุนายน 2560

เรื่อง ขอเรียนเชิญเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัย

เรียน อาจารย์ ดร.พลาญ จันทรจตุรภัทร

ด้วย นางสาวนุชจรินทร์ โลหะปาน นิสิตระดับปริญญาเอก หลักสูตรปรัชญาดุษฎีบัณฑิต (ปร.ด.) สาขาวิชาการบัญชี คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม กำลังศึกษาวิทยานิพนธ์ เรื่อง "คุณภาพระบบสารสนเทศทางการบัญชีกับการบรรลุเป้าหมายของธุรกิจ: หลักฐานเชิงประจักษ์จากวิสาหกิจขนาดกลางและขนาดย่อม ประเภทชิ้นส่วนยานยนต์ในประเทศไทย" ซึ่งเป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปรัชญาดุษฎีบัณฑิต ดังนั้น เพื่อให้การดำเนินการเป็นไปด้วยความเรียบร้อยและบรรลุตามวัตถุประสงค์ คณะการบัญชีและการจัดการ มหาวิทยาลัยมหาสารคาม จึงใคร่ขอความอนุเคราะห์ท่านเป็นผู้เชี่ยวชาญตรวจสอบเครื่องมือวิจัยและข้อเสนอแนะเพื่อนำข้อมูลที่ได้ไปดำเนินการทำวิทยานิพนธ์ต่อไป ตามเอกสารแนบท้าย

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