STRATEGIC IT ALIGNMENT AND RESOURCE-BASED VIEW: MIXED MODEL FOR ORGANIZATION PERFORMANCE

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Abstract: The purposes of study are explored the relationship among IS capabilities in resource-based view, strategic IT alignment, IT support for core competencies, and organization performance. Samples are 175 organizations which are selected through the Stratified random sampling method from the name list which are controlled by Securities and Exchange Commission (SEC) of Thailand. Survey research with structured questionnaire and interview form are used as the instruments in collecting data. The structural equation modeling (SEM) is assigned to test hypothesis with PLS (Partial Least Square). The measurement model uses EFA to explore the set of variables, and uses CFA to purify each construct and measurement model. Composite reliability is applied to ensure reliability by examining convergence and discriminant validity of the constructs.

The results reveal that the majority of respondents are male with their position are mostly managers or associate managers. The majority of organizations are industrials account for 21.14 percent while the level of CIO are the third level from top accounted for 54.86 percent. The operation time of organizations are between 21 and 30 years, total staff are less than 500 persons with IT/IS staff are between 21 and 30 persons. The proportional of IT budget are between 5 and 15 percent. The results affirm strongly encourage research model that strategic IT alignment and IS capabilities positively affect on IT support for core competencies. The usage IT support their core competencies positively influence the organization performance. Finally, this study insists that the mixed model between strategic IT alignment and IS capabilities positively affect on the organization performance through IT support for core competencies as the strong mediator of the model.

Keywords: Resource-Based View, Strategic IT Alignment, Organization Performance.

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1. INTRODUCTION

The present is the information technology era, the data and information are electronic platforms because the information technology both hardware and software are changing rapidly. The development of information technology are better and more efficient than the past. The organizations implement the information technology and information system for management their duties and activities. We can use, share, and sent information to anyone by no limitation. Moreover, the communication network are very fast and worldwide. From these reasons, the organizations will be planned to provide the information technology by consideration the changing of information technology in the future. So, the organizations should have strategic plans both strategic IT plan and strategic business plan to fixed budget for providing the information system (IS) resources. The people who have authorized to consider the total budget of their organizations are the administrators of top management.

The strategic IT alignment is mixed model between business strategy and IT strategy which can drive the organizational capabilities for achieving the organization goals and attaining a sustained competitive advantage (Henderson and Venkatraman, 1999). There are numerous articles and researches in the area of information technology or information system that explored, examined and confirmed the necessity and desirability of business-IT alignment and Strategic-IT alignment. The business-IT alignment and Strategic IT alignment can foretell the business requirement in the future and lay out a pathway to meet these upcoming need (Xiaoying et al., 2008; Chang et al., 2009). Rivard et al. (2006) asserted that strategic-IT alignment was important for contribution the organization performance, they focused on the relationship between IT resources of organization and business performance. Business IT alignment or strategic IT alignment can foretell the business requirement in the future and lay out a pathway to meet these upcoming need (Xiaoying et al., 2008; Chang et al., 2009). Moreover, Kearns and Lederer (2003) found that information technology (IT) positively influenced organizational profitability by creating superior strategies that achieve the competitive advantage and they confirmed that strategic IT alignment included the set of clearly composing outcome of business plan and IT plan.

The resource-based view (RBV) is a basic theory for archiving a competitive advantage for organization (Barney, 1991). Rivard et al. (2006) found that firm assets in resource-based view affected on firm performance. In addition, few studies asserted that resource-based view of information technology encouraged firm performance. Moreover, Ravichandran and Lertwongsatien (2005) found the relationship between IS support for core competencies and firm performance by invested resources in developing IT system for operating in business. Some studies use resource-based view as IS resources capabilities or IT capability that relate to firm competency and influence firm performance (Santhanam and Hartono, 2003; Ravichandran and Lertwongsatien, 2005; Majeed, 2011). There are many studies use strategic IT alignment by linking
many theories such as resource-based view, core competency, competitive advantage and organization performance. Most of studies link strategic IT alignment with firm performance (Oh and Pinsonneault, 2007; Leidner et. al., 2010) while Kearn and Lederer (2003) and Chen et. al., (2010) link strategic IT alignment with competitive advantage. However, some studies explored the relationship between resource-based view and competitive advantage (Kearn and Lederer, 2003; Wade and Hulland, 2004; Majeed, 2011). Especially, Rose et. al.(2010) confirmed that firm resources affected on competitive advantage and enhancing organization performance.

Before A.D. 2010 there are no empirical studies that linked between strategic IT alignment and resource-based view which influenced the organization performance. In recent years, there are a few studies explored the impact of strategic IT alignment that affected on competitive advantage and organization performance (Chen et. al., 2010; Tallon and Pinsonneault, 2011; Subriadi et. al., 2013). Chen et. al. (2010) offered the model for create competitive advantage by aligning IS strategy and business strategy. Later, Mithas et. al. (2011) developed the model for created organization performance by linking information management and organization capabilities. At the same time, Tallon and Pinsonneault (2011) studied the model of strategic IT alignment by using the agility as mediator variable to linked between strategic IT alignment and organization performance, the results asserted that strategic IT alignment influenced organization performance pass through agility. Later, Gerow et. al. (2014) examined the relationship between IT-business strategic alignment by analyzed 30 years of alignment researches, the results found that alignment dimension had relationship with performance in financial, productivities, and customer benefit.

This study aims to investigate the relationship among strategic IT alignment, IS resource capabilities, IT support for core competencies, and organization performance. So, this study draws on strategic IT alignment theory and IS resource capabilities how strategic IT alignment and IS resource capabilities influence organization performance by linking with IT support for core competencies. To the best of our knowledge, there are a few study works in Thailand. So, this study can create new knowledge which relate to the application of information technology in Thailand in the future.

2. THEORETICAL BACKGROUND

2.1 Strategic IT Alignment

Grant et. al. (2010) described information technology (IT) and information system (IS) are procuring for the arrest, storage, processing and transmission of information, enhanced decision making and used as a competitive weapon. However, IT is different from IS. Information systems are viewed as procedures which have functions to collect, process, store and communicate for supporting the activities of the enterprise, while information technology implies to the microprocessor-based technology. It is used to
store, process, recall and transfer information and which may come from a part of network. They compared IT/IS with a horse racing which a jockey rides and controls a horse. The jockey (IS) uses the horse (IT) and plans to run the race for exceptional way. In this analogy, Information Management (IM) is the owner and trainer of the horse, who develops a business plan and determine when to run the horse in the racing and use with a jockey. This view shows that the Information System (IS) is administrator who needs achieve for the business goals by using the Information Technology (IT) as his tool on the balance between the technology, the IS and the business, which is namely IT/IS alignment. The process of these brings a degree of strategic intent and coordination to the business activities (Grant et. al, 2010).

The theory of Strategic IT alignment was developed in 1993 namely Strategic Alignment Model (SAM) by Henderson and Venkatraman. Later, they rewrote this theory again in 1999. They defined that strategic IT alignment was an integrated model between business strategy and IT strategy appropriately. It can drive the organization’s capabilities and force technology to achieve the organization goal and to attain the competitive advantage. The strategic IT alignment consists of four components including business strategy, IT strategy, organization infrastructure, and IT infrastructure. The organization can utilize strategic IT alignment by aligning the business plan and IT plan together with using the IT/IS resources to obtain the organization performance (Henderson and Venkatraman, 1999). There are many researches studied strategic IT alignment. For example, Kearns and Lederer (2003) found that information intensity is an important precedent factor and affects strategic IT alignment which was positively and significantly associated with the participation of the CIO in business planning and the participation of the CEO in IT planning. They summarized that strategic IT alignment was the best factor that explained the competitive advantage by aligning between IT plans and business plans appropriately. Also, they are significantly, positively related to the usage of IT for competitive advantage. Similarly, Beeson and Mahamid (2003) revealed that business manager and IT manager had positive attitude with regard to the importance of the strategic alignment. Both business manager and IT manager understand and know the needs of each other. They asserted that the strategic alignment was an important indicator of business and IT managers to acknowledge and prepare the business strategy and IT strategy together at the same time.

Later, Pearlson and Saunders (2009) proposed the IS strategy framework for organization namely the Information Systems Strategy Triangle which showed the relationships among IS strategy, business strategy and organization strategy. They described that the organization strategy is firm’s plan. It is the creation, implementation and evaluation of decision within an organization. It enables to achieve it’s long term objective which specifies the organization’s mission, vision, objective, develop policies and plan which can create to achieve the organization goals. The business strategy is
a long term plan that articulation a main management function which responds to market forces, customer demands and organizational capabilities (Pearlson and Saunders, 2009). While IS strategy is the plan which an organization uses to provide information technology such as hardware, applications and other IS components for service every department and supporting business strategy and organization strategy (Pearlson and Saunders, 2009). The three strategies have relationship to each other. If we change business strategy, it will affect on organization strategy and IS strategy. So it is necessary to align these strategies in harmony for achieving the organization goals, and can lead to superior performance (Oh and Pinsonneault, 2007; Pearlson and Saunders, 2009; Tallon and Pinsonneault, 2011).

Afterward, Rashidirad et. al. (2012) proposed the conceptual model of strategic IT alignment for leading to E-business value creation by linking competitive strategy with dynamic capability. At the same time, Subriadi et. al. (2013) measured firm performance by linking Resource-based View (RBV) theory and IT strategic alignment, the results revealed that IT resources had significant affected on IT capability, and performance. IT capability had significant affected on IT Support for Core Competence, and IT Support for Core Competence had effected performance. Moreover, they asserted that IT resources were materials to developed firm ability by creating IT-Base capability from adopted IT strategic alignment by aligning IT goals with business goals.

The recent year, Gerow et. al. (2014) examined the relationship between IT-business strategic alignment by analyzed 30 years of alignment researches with a Meta-Analysis. The results found that the alignment dimension (intellectual, operational, and cross domain) had relationship with the different performance types (financial performance, productivity, and customer benefit) and with many of the other constructs. This study contributed the literature by explaining the relationships between alignment and performance outcomes and presenting insight the sources of both consistency and inconsistency research, and guideline to research in the future.

Regarding the above theories, and researches, this study defines strategic IT alignment which was proposed by Kearns and Lederer (2003) in four terms including business plan (BP) and information technology plan (ITP) alignment, IT plan and business plan alignment, CEO participation, and CIO participation.

2.2 IS Capabilities

Resource-Based View (RBV) is a classic theory which can be applied to use and link in many disciplines, such as management, marketing, industry and information system. Especially, the information system (IS) applies RBV to analyze the impact of information technology (IT) on the organization performance (Santhanam and Hartono, 2003; Liang and You, 2009; Acosta et. al., 2011). The root RBV theory was proposed by Chamberlin (1933) and Penrose’s (1959). It was developed and contributed to the modern RBV in
strategic management field that can create competitive advantages for firms (Penrose, 1959; Rugman and Verbeke, 2002; Kor and Mahoney, 2004). Later, Porter (1980) proposed a new theory about competitive in the industry by linking with RBV namely “Five Force Model”. Afterward, Barney (1991) proposed the VRIO (Value, Rareness, Imitability, and Organization) framework for analyzing the firm’s resources to get competitive advantage in business vision. He defined RBV as a firm’s resources which were anything or all assets which could be tangible, intangible, human and nonhuman. Such assets are possessed, controlled or tied semi permanently by the firm. It was permitted to invent and applies value enhance strategies for instance, brand names, in-house knowledge of technology, technology skills, skilled personnel of employee, trade contacts, capital, efficient procedure (Barney, 1991; Halawi et al., 2005; Chang et al., 2006). The firm’s internal resources are basic predictors of superior financial performance of firm. Each firm is able to possess heterogeneous resources that are difficult to duplicate and are not inconstant. These resources provide a marketplace advantage superior competitors and create the potential for sustainable competitive advantage (Barney, 1991; Kearns and Lederer, 2003). Grant (1991) noted that the contribution of the RBV is the distinguished concept of firm with focuses on developing the internal resources and processes.

The RBV started to study in IS research in the mid-1990s (Wade and Hulland, 2004). Many academicians and researchers identified IS resources for instance; Ross et al. (1996) defined IS resources into three IT assets which together with IT process that contribute the business value. These three types were human assets (e.g., business understanding, personnel technical skills), technology assets (e.g., Physical IT tools, Database, technical platforms), and relationship assets (e.g., top management sponsorship, partnership, shared risk and responsibility). It was later modified by Bharadwaj (2000) who also included IT infrastructure, human IT resources, and IT-enabled intangibles. In other view, Feeny and Willcocks (1998) defined nine core IS capabilities which their organizations divided into four overlapping areas including business and IT vision (integration between IT and other divisions of the firm), design of IT architectures (IT development skills), delivery of IS services (implementation, dealing with vendors and customers) and a core set of capabilities which included IS leadership and informed buying. Likewise, Mata et al. (1995) define RBV in five key IS drivers; customer switching cost, access to capital, proprietary technology, technical IT skills, and managerial IT skills that leaded to sustain competitive advantage.

Day (1994) defined resource-based view for IS discipline in term of IS resources which used to services all departments of the organization namely IS Capabilities. IS Capabilities are the routines of the IS department. This study used IS Capabilities which are organized by using Day’s typology. He defined the IS resources into three types of processes or capabilities of organization including inside-out capabilities, outside-in capabilities, and spanning capabilities. Later, Wade and Hulland (2004) confirmed
Day’s typology about IS Capabilities in three dimensions which influence the firm performance. Later, Rivard et. al. (2006) found that IT supporting for strategy directly affected on performance, IT supporting for firm assets strongly affected on IT supporting for strategy, and it directly affected on profitability and performance. Their study indicated that an integrated IS Capabilities and competitive strategy was the best model for contribution of IT to the firm performance. Chang et. al. (2006) asserted that physical IT assets and relational specific intangibility were positively related with IOS (Interorganizational Information System) usage. Their study indicated that firms with more IOS usage were more likely to achieve better on the firm performance. Likewise, Yin and Yang (2011) proposed competitive advantage model by linking IT Capabilities and IT support for core competencies, the results revealed that IT Capabilities influenced IT support for core competencies.

2.3 IT Support for Core Competencies

The present time, there are highly competition both local and global business for scrambling or occupying the market share and customers, customer’s changing needs. The changing of environment and product market position lead to the requirement of more efficient supply chain management (Wernerfelt, 1984; Fahy and Smithie, 1999; Chang et. al., 2006). The organizations need to link their internal activities for example, production, inventory management, sales and purchasing material together with all outside business partners to operate their activities. They should collaborate with each other to reduce costs (Chang et. al., 2006). Prahalad and Hamel (1994) proposed competence-base theory by built the core competencies model. The core competencies have been defined as “An organization’s major value-creating skills, capabilities, and resources that determine its competitive weapons.” (Prahalad and Hamel, 1994). The core competencies are part of the result of organizational analysis, which internal analysis provides the organization’s specific assets, skills, and work activities.

The IT support for core competencies were the usage of IT/IS resources to support core functionalities of organizations for improving and enhancing their operations. Hamel (1994) categorized organization’s core competencies into three functions. In addition, Ravichandran and Lertwongstien (2005) developed three scales including market-access competency, integrity-related competency, and functionality-related competency. The market-access competency assessed the scope of usage IT in improving responsiveness and analyzing the customer’s requirements. The integrity-related competency measured the extent of usage IT to enhance and improve the efficiency and flexibilities of business processes. The functionality-related competency assessed the usage IT in developing new products, services, and activities to identify new market. Ravichandran and Lertwongsatien (2005) indicated that IS capabilities had positive affect on IT supporting for core competencies, and IT supporting for core competencies had influence on a firm performance relatively. Their study evidenced
that when the organization was able to use IS capabilities and efficient IT to support and enhance its core competencies, then it can increase the performance.

2.4 Organization Performance

The importance of organization’s operation is the measurement for the success of quality assurance by establishing quality indicators which are the administrator’s tools indicate the outcomes from the operations. It is also used to make a decision for both tactical level and operational level (Melville et al., 2004; Mithas et al., 2011). In general term, the organizations use performance to measure success and to achieve the organization’s goals. Mithas et al. (2011) defined that performance was the result of organization’s activities or investment over a given period of time. We can measure the performance from many perspectives both financial and nonfinancial perspectives. Some perspectives measured by using a combination of profitability, size of firm, market share, and sales growth relative to the firm’s largest competitor. The performance measurements are adopted from the PIMS studies (Profit Impact of Market Strategy), according to Buzzell and Gale (1987).

Organization performance in IS discipline is the results of firm’s operation to achieve their goals by using IT resources and align Business Strategy with IS Strategy to achieve organization performance (Oh and Pinsonneault, 2007). While Melville et al. (2004) defined that organization performance is the results of operation to achieve the firm’s goals by using IT Business value model generate the business processes for attaining the business processes performance and organization performance. Santhanam and Hartono (2003) found that IT capability can create firm performance. Their results showed that the effectively leverage of firm’s abilities with it’s IT investments by creating a strong IT capability which could affect on enhancing firm performance. The organization performance can measure both financial and nonfinancial views. This study uses Baldrige Criteria which is a Quality Management (QM) measurement for achieving excellent firm performance. They build multidimensional model by linking Information Management Capability and Organization Capability for creating firm performance which is likewise Balanced Scorecard of Kaplan and Norton (1992). Later, Mithas et al. (2011) developed the scales to measure the firm performance from Baldrige Criteria which were categorized in four perspectives; customer perspectives, financial perspectives, human resource perspectives, and organizational effectiveness perspectives. The results assert that information management capabilities influence the organization performance through organization capability.

2.5 IT and Organization Performance

Organization performance is very important indicator that measures the results and success of operations and activities to achieve the organization’s goals (Melville et al., 2004; Mithas et al., 2011). For IS discipline, researchers often link IT and
organization performance by focus on usage IT applications for attaining competitive advantage and lead to organization performance (Oh and Pinsonneault, 2007). Many researchers and practitioners proposed the measurement of organization performance. Some theories measure organization performance from financial such as profitability, market share, sales growth (Santhanam and Hartono, 2003; Mithas et. al., 2011). For non-financial perspective, it can be measured from customers’ satisfaction, human’s knowledge etc. The results of Santhanam and Hartono’s study in 2003 revealed that financial performance of firms which have superior IT capability were higher than other firms. Likewise, Ravichandran and Lertwongsatien (2005) asserted that IT support for core competencies influenced firm performance. Moreover, Hasan (2008) exposed that IT competency influenced firm performance. Similarly, Majeed (2011) affirmed that firm competitive advantage affected on firm performance, and Subriadi et. al. (2013) disclosed that IT support for core competencies affected on firm performance.

Whereas the conceptual model have emphasized IT support for core competencies and organization performance, most of the past researches linked strategic IT alignment and resource-based view (RBV) to firm performance. Some studies linked RBV and competitive advantage to firm performance. There are a few research works that link strategic IT alignment, RBV and core competencies to performance. Our study seeks to address this gap by linking the theories about strategic IT alignment, IS capabilities, IT support for core competencies to organization performance. We measure organization performance by using Baldrige Criteria in four perspectives including financial perspective, customer perspective, human resource perspective, and organizational effectiveness perspective (Mithas et. al., 2011).

3. RESEARCH MODEL AND HYPOTHESES

We provide a research model by interrelation four constructs including strategic IT alignment, IS capabilities, IT support for core competencies, and organization performance. Our model draws from strategic IT alignment model which proposed by by Henderson and Venkatraman (1999) and IS capabilities from Day (1994) and confirmed by Wade and Hulland (2004). We posit that usage IT can supplement core competencies and establish competitive advantage of organization. We also offer core competencies which are dependent variable and have relationship with IS resources. While core competencies are suggested as independent variable to attain the organization performance. Thus, we assign the constructs of model and develop the relationship among all of them in Figure 1.

Strategic IT Alignment and IT Support for Core Competencies
The theoretical framework depicted in figure 1 was converted into three hypothesis. To start with, the relationships between strategic IT alignment dimensions and IT supporting for core competencies were developed. Henderson and Venkatraman (1999)
proposed the management model in IS discipline namely Strategic IT alignment Model (SAM). This model focuses on four components including business strategy, organizational infrastructure and process, IT strategy and IS infrastructure and process. It can be considered in two dimensions;

1. Business represents to business strategy and organizational infrastructure and process and

2. Information Technology (IT) represents to IT strategy and IS infrastructure and process.

Several studies from both academicians and practitioners confirmed the relationship between strategic IT alignment and IT supporting for competencies. For example, Kearns and Lederer (2003) found that the strategic IT alignment process is positively influence on information intensity both the participation of the Chief Information Officer (CIO) in business planning and participation of the Chief Executive Officer (CEO) in IT planning. The strategic IT alignment influence competitive advantage. Later, Oh and Pinsonneault (2007) announced that the alignment between business strategy and Information System strategy on cost reduction had negative with firm expense. While the resource-based view (RBV) can predict the ability of IT
affect on firm revenue and profitability. While Bhatt et al. (2010) disclosed that IT infrastructure, which is one of a part the strategic IT alignment affect on organizational responsiveness to offer products and services with distinctive consistent with a customer’s need. Likewise Tallon and Pinsonneault (2011) summarized that strategic IT alignment has no direct effect to firm performance but it indirect affect on firm performance through agility as mediator that environmental volatility positively moderates the link between agility and firm performance. Therefore, if the organization manages the strategic IT alignment both in business and in IT department appropriately. They know how to use IT support for their core functionalities. This activity affects on the core competencies and will lead to achieve the firm performance. Furthermore, Subriadi, et al. (2013) studied the relationship between strategic IT alignment, and IT support for core competency. Their result exposed that strategic IT alignment were adopted by aligning IT goals with business goals through IT-base capability influenced IT support for core competency. Regarding the above results, the hypothesis is conducted by

H1: There is a positive relationship between strategic IT alignment and IT support for core competencies.

IS Capabilities and IT Support for Core Competencies

Considering the relationship between IS resources or IS Capabilities in Resource-Based View (RBV) and IT support for core competencies, Penrose’s (1959) and Chamberlin (1933) asserted that the RBV can create the competitive advantage. Barney (1991) also confirmed that the resources and capabilities that are valuable, rare, imitable, and non substitute, can become the firm’s core competencies, and will result in competitive advantage. Moreover, Day (1994) proposed resources in IS disciplines should be considered in term of IS resource capabilities. Day (1994) determine IS capabilities are one type of organization’s resource which are the routines functionalities of IT/IS department. The typology of IS resource capabilities have three categories including inside-out, outside-in, and spanning (Day, 1994). In addition, Wade and Hulland (2004) indicated that IS resources capabilities available and useful to contribute direct affect on competitive advantage. There are many studies that confirm the relationships between IS resources and IT support for core competencies. Mata et al. (1995) found that IS resources or IS Capabilities lead to competitive advantage. Also Ravichandran and Lertwongsatien (2005) predicated that IS capabilities were defined as resource-based view which affected on IT supporting for core competencies by the organization usage IT. They were able to use RBV with IT to support functionalities of their firms, and enhance its core competencies. Likewise, Rivard et al. (2006) clarified that using IT supporting firm assets dimension RBV had influence on IT supporting for strategies. Furthermore, Mithas et al. (2011) indicated that the information management capability played an important role for developing the firm’s resources in resource-based view.
such as IT infrastructure, hardware, software and other tools. They asserted that the information management capability affected organization performance through organization capability. Thus, we propose the following hypothesis.

H2 : There is a positive relationship between IS Capabilities and IT support for core competencies.

**IT Support for Core Competencies and Organization Performance**

The final research hypothesis correlates with the IT support for core competencies and organization performance. Praharad and Hamel (1990) emphasized that core competency is an organization’s value to create skills, capabilities, and resources that look like its competitive weapons. While Fahy and Smithee (1999) proposed the resource-based model of sustainable competitive advantage. Such model presents that the resource-based view of firm is a term of criteria which creates sustainable competitive advantage and competitive advantage establish the organization performance. Referring to the study of Ravichandran and Lertwongstien (2005) found that IT support for core competencies came from using IT capabilities and IS resources, pursuit of firm strategies affected on the firm performance. Similarly, Chang et al. (2006) confirmed that resource-based view positively affected on firm performance. On the other hand, Rivard et al. (2006) revealed that there was relationship between competitive advantage and the firm performance.

Moreover, Majeed (2011) proposed the conceptual model of relationship between competitive advantage and organization performance. At the same time, Mithas et al. (2011) proposed conceptual model for measuring the organizations performance by linking with information management capabilities. This can create the firm’s core competencies and will lead to get the firm performance. Subriadi et al. (2013) asserted that strategic IT alignment which was adopted by aligning IT goals with business goals through IT-based capability influenced IT support for core competency, and IT support for core competency influenced the organization performance. Thus, the hypothesis was conducted below.

H3 : There is a positive relationship between IT support for core competencies and organization performance.

4. **RESEARCH METHODS**

This research was combined quantitative and qualitative research. Survey research with structural questionnaires and interview form were used as instruments to collect data. The population and stratified random sampling were organizations from the name list which are controlled by Securities and Exchange Commission (SEC) of Thailand. The 243 questionnaires were mailed and e-mailed to chief information officers (CIO) of each organization. A total of 175 questionnaires were returned. The result in
a response rate is 72.02 percent.

Non-response bias was examined by comparing the profile of respondents in term of organization type and organization size. The chi-square tests comparing early and late respondents on organization type and organization size, also revealed no significant response bias. The majority of the responding organizations were industrials accounted for 21.14 percent; 20.00 percent were in services; 10.86 percent were in property and constructions; 10.30 percent were in agriculture and food industries; 9.71 percent were in resources, and technology; and 9.14 percent were in consumer productions and financial. The organizations’ operating time were between 21 and 30 years. The organization size was less than 500 employees, IS department size in these organizations was between 21 and 30 employees. The proportion of IT budget was between 5 and 10 percent.

The survey was targeted at CIOs in the IS department. Most of them were managers or associate managers who had authority in management about strategic plan of IS department. The job titles of the other respondents (director or associate director, president or vice president, senior IS executives) also indicate that they are CIOs in IS department.

Measure

Our conceptual framework consisted of four constructs which were developed from the theories related to strategic IT alignment, IS capabilities(resource-based view in IS discipline), IT support for core competencies, and organization performance. Strategic IT alignment was measured by the respondents’ opinion on an integration between business strategy and IT strategy in using IT for operating to achieve organization goals. Moreover, it asked CIO and CEO participation for creating and improving the business and IT plans. This scale comprised four dimensions which were developed from Henderson and Venkatraman (1999), Kearns and Lederer (2003), and Lindow et. al. (2010).

We defined IS capabilities as IS resources of organization in resource-based view (RBV) which included assets, capabilities, organization processes, organization characteristics, hardware, software, knowledge, and know-how. An organization can use such resources to develop strategies and control to implement the efficient improvement to achieve efficiency strategies. This scale categorized three typologies from the type of process including inside-out capabilities, outside-in capabilities, and spanning capabilities (Day, 1994; Wade and Hulland, 2004).

We imposed IT support for core competencies as the term of usage IS resources to support core functionalities of organization (Hamel, 1994; Ravichandran and Lertwongstien, 2005). Later, Rivard et. al. (2006) demonstrate that IT supporting for competencies affected on performance, and the integrated RBV and competitive
strategy affected on firm performance. Likewise, Majeed (2011) offered the best model of organization performance by linking competitive advantage to organization performance. Moreover, Subriadi et. al. (2013) asserted that aligning IT goals with business goals through IT-base capability influenced firm performance through IT support for core competency as mediator.

Last construct was organization performance which measured by CIOs’ assessment to get the results of organization’s operation for achieving organization’s goals. This measure from Baldrige criteria that measured in four perspectives including organization performance in financial perspective, organization performance in customer perspective, organization performance in human resource perspective, and organization performance in organizational perspective (Mithas et. al., 2011).

In addition, regarding the theoretical and previous studies, the scales of four constructs used five points Likert scale to measure the CIO’s opinion (1: strongly disagree, 2: disagree, 3: neither disagree nor agree, 4: agree, and 5: strongly agree).

Scale Validation
The scales were validated by using the standard procedures both validity and reliability assessment. All items of scales in a related domain were pooled and used factor analysis both EFA (Exploratory Factor Analysis) and CFA (Confirmatory Factor Analysis) to assess their convergent and discriminant validity. A scale was assessed to have appropriate convergent validity when all items loaded highly on one factor. If the scales items also had low cross-loadings on other factor, then the scale seemed to indicate adequate discriminant validity. If any item on each factor had low factor loadings, then these items were dropped and reassessing the factor analysis again. The factor loadings of items on each factor with high loadings, it indicated the set of scales had adequate convergent and discriminant validity. The reliability of these scales were refined and assessed, the Cronbach’s alpha value and composite reliability (CR) for all scales were greater than 0.7, AVE and $\sqrt{AVE}$ were higher than 0.5 (Chin, 2001). Thus, it concluded that the scales adequate had validity and reliability.

5. STATISTICAL DATA ANALYSIS AND RESULTS
The research model was tested by using Partial Least Squares (PLS) techniques. The model consisted of four latent constructs: strategic IT alignment, IS capabilities, IT support for core competencies, and organization performance. All latent constructs were defined as formative constructs. The factors as conceptualized in our theoretical model were used as formative indicators of the latent constructs. Business plan and IT plan alignment, IT plan and business plan alignment, CEO participation and CIO participation were used as formative indicators of strategic IT alignment. Inside-out capabilities, outside-in capabilities, and spanning capabilities were used as formative
indicators of IS capabilities. Market access competency, integrity-related competency, and functionality-related competency were used as formative indicators of IT support for core competencies. Organization performance in financial perspective, organization performance in customer perspective, organization performance in human resource perspective, and organization performance in organization effectiveness perspective were used as formative indicators of organization performance from Baldrige criteria.

This research uses PLS to analyze and interpret in two phases. First, the measurement of model performance is assessed and refined by evaluating the structural model, both validity and reliability. The results validity and reliability of the measurement model assessment in Table 1 indicates that strategic IT alignment, IS capabilities, IT support for core competencies, and organization performance are statistically significant. Second, phase uses PLS to test the structural model of this study.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Cronbach’s Alpha</th>
<th>CR</th>
<th>AVE</th>
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<tbody>
<tr>
<td>BP-ITP Alignment</td>
<td>0.923</td>
<td>0.890</td>
<td>0.802</td>
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<td>ITP-BP Alignment</td>
<td>0.918</td>
<td>0.839</td>
<td>0.634</td>
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<td>CEO Participation</td>
<td>0.924</td>
<td>0.839</td>
<td>0.724</td>
</tr>
<tr>
<td>CIO Participation</td>
<td>0.918</td>
<td>0.879</td>
<td>0.707</td>
</tr>
<tr>
<td>Inside-out Capabilities</td>
<td>0.916</td>
<td>0.903</td>
<td>0.756</td>
</tr>
<tr>
<td>Outside-in Capabilities</td>
<td>0.919</td>
<td>0.895</td>
<td>0.739</td>
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<tr>
<td>Spanning Capabilities</td>
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<td>0.918</td>
<td>0.789</td>
</tr>
<tr>
<td>Core Competency</td>
<td>0.905</td>
<td>0.848</td>
<td>0.651</td>
</tr>
<tr>
<td>Finance Perspective</td>
<td>0.926</td>
<td>0.911</td>
<td>0.775</td>
</tr>
<tr>
<td>Customer Perspective</td>
<td>0.914</td>
<td>0.897</td>
<td>0.728</td>
</tr>
<tr>
<td>Human Perspective</td>
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<td>0.890</td>
<td>0.718</td>
</tr>
<tr>
<td>Organisation Perspective</td>
<td>0.915</td>
<td>0.892</td>
<td>0.646</td>
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Figure 2 shows the path coefficient and $R^2$ value of the structural model. The results reveal that 35.20 percent of variance in IT supports for core competencies ($R^2 = 0.352$), and 22.40 percent of variance in organization performance ($R^2 = 0.224$). The results in Table 2 indicate that all path coefficients are statistically significant. The path coefficient from Strategic IT Alignment to IT support for Core Competencies is 0.203, and T-Statistics 3.4841 with $P$ value is 0.0006. While path coefficient from IS Capabilities to IT support for core competencies is 0.469, and T-Statistics 7.1441 with $P$ value is 0.0000. The last path coefficient from IT support for core competencies to organization performance is 0.473, and T-Statistics 6.7959 with $P$ value is 0.0000 respectively. These show that strategic IT alignment influences IT support for core competencies, while IS Capabilities influences IT support for core competencies, and IT support for core competencies affects on organization performance. Overall, these results propose strong support for all hypothesized relationship in our model.
Relationship between Strategic IT Alignment and IT Support for Core Competencies

The hypothesis H1 shows a significant path coefficient linking strategic IT alignment to IT support for core competencies (.203, \( P \leq .001 \)) it concludes that strategic IT alignment affects on IT support for core competencies. The results support the original theory by Henderson and Venkatraman (1999) and previous studies. For example, Kearns and Lederer (2003) asserted that aligning business plan and IT plan influenced the usage IT for support organizational core competencies. Likewise, Chen et al. (2010) reported that aligning IS strategy and business strategy for strategic management by use IS function plan and business plan with usage IT supported the organization’s functionality cause them get potential.

Besides, the results of other researchers and practitioner disclosed that aligned business plan and IT plan by IT usage had significant affect on IT support for core competencies (Tallon and Pinsonneault, 2011; Subriadi et al., 2013). In addition, Gerow et al. (2014) revealed the relationship among these constructs. Furthermore, the results

<table>
<thead>
<tr>
<th>Linked Construct</th>
<th>Path Coefficient</th>
<th>T-Statistic</th>
<th>P Value</th>
</tr>
</thead>
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<tr>
<td>Strategic IT Alignment To IT support for Core Competencies</td>
<td>0.203</td>
<td>3.4841</td>
<td>0.0006</td>
</tr>
<tr>
<td>IS Capabilities To IT support for Core Competencies</td>
<td>0.469</td>
<td>7.1441</td>
<td>0.0000</td>
</tr>
<tr>
<td>IT support for Core Competencies To organization performance</td>
<td>0.473</td>
<td>6.7959</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Figure 2: The results of testing the structural model of the theoretical Framework

Table 2
Path Coefficient, T-Statistic, and P value of Model Testing
CIOs’ (Chief Information Officer) opinion from interview form assert that the organization has both strategic business plan and strategic IT plan for working to attain the organization’s goals.

Relationship between IS Capabilities and IT Support for Core Competencies

The hypothesis H2 shows a significant path coefficient linking IS capabilities to IT support for core competencies (.469, $P \leq .001$) which indicate that it was statistically significant. So, we conclude that IS capabilities strongly influence IT support for core competencies. It supports the original theories by Day (1994) and previous studies. For example, Kearns and Lederer (2003) and Rivard et al. (2006) asserted that information intensity and usage of IT as IS resources influenced firm core competencies and created competitive advantage. Likewise, the results of Ravichandran and Lertwongstien (2005) revealed that IS capabilities positively affected on IT support for core competencies. Similarly, Yin and Yang (2011) investigated IT capabilities in three perspectives: IT infrastructure, managerial IT skills, and partnership between IT and business could create competitive advantage. They reported that IT capabilities in three perspectives affected on IT assimilation in term competitive advantage perspective from usage IT support for competencies. Moreover, Bi et al. (2013) examined the relationship between IT complementary resource and SME performance. They used IT complementary resources in RBV, and defined business process performance in term activity integration and information sharing, process which mean use IT support for core competencies. Their results illustrated that the IT complementary resource in RBV affected on business process performance and led to achieve the organization performance.

Relationship between IT Support for Core Competencies and Organization Performance

The hypothesis H3 presents a significant path coefficient linking IT support for core competencies to organization performance was statistically significant (0.473, $P \leq .001$). The result asserts that IT support for core competencies strongly affects on organization performance which support the theories and previous studies. For example, Ravichandran and Lertwongstien (2005) revealed that IT support for core competencies positively affected on firm performance. Similarly, Oh and Pinsonneault (2007) revealed the organizations used IT applications as function to support their core competencies which influenced firm performance. Furthermore, the studies of many researchers pointed out that the usage of IT support for firm core competencies affected on organization performance (Hasan, 2008; Mithas et al., 2011; and Subriadi et al., 2013).

From table 2 can summarized that the variable that most strongly influences to other variable is IT support for firm core competencies to organization performance with maximum path coefficient (0.473). The influence from IS capabilities to IT support...
for firm core competencies is in second order with path coefficient (0.469). While the minimum path coefficient from strategic IT alignment to IT support for firm core competencies is 0.203. Consequently, the study concludes that the mixed model between strategic IT alignment and IS capabilities as resource-based view (RBV) affect on organization performance through IT support for core competencies as strong mediator of model.

6. DISCUSSION, IMPLICATION AND LIMITATION

The study drew strategic IT alignment from SAM (Strategic Alignment Model), IS capabilities from resource-based view theory in IS discipline, and IT support for core competencies to examine how they influence on organization performance. We found that strategic IT alignment and IS capabilities affected on IT usage to support organization’s core competencies. Albeit, this study is operated with Thai organizations, according to the name list which are controlled by Securities and Exchange Commission (SEC) of Thailand, the results of our study are similar the theories and previous studies which are made from western contexts.

The results from CIOs’ (Chief Information Officer) opinion disclose that the process of making plan starts at the CIOs’ participation and brainstorm with other department for making the strategic IT plan. Even though, the CIOs have duties to make strategic IT plan based on strategic business plans, but they cannot approve their strategic IT plan. They propose the strategic IT plans to the CEOs (Chief Exclusive Officer). When CEOs get the strategic IT plans, they will review, approve and align with strategic business plans for creating the best strategic IT plans. It confirms that the CIOs of Thai organizations have role and authority in making strategic IT plans but the final process ends at CEOs who are the top of administration line in the organizations. Forasmuch, the results show that the CIOs of Thai organizations are in the third level of the administration line from the top management, so they are limited in their decision, especially the budget or investment in IT/IS department.

The finding provides several implications for the researchers who are interested in field which is related to this study. For example, the future study should investigate on other antecedents and consequence of strategic IT alignment such as business and IT management that contribute to success factors for strategic IT alignment (Beeson and Mahamid, 2003). Respectively, the future research works will examine other potential results of strategic IT alignment such as IS effectiveness, service orientation, IT investment, innovation strategies and knowledge management (Tallon and Pinsonneault, 2011). Such notions of IS capabilities are firm’s IT capabilities from three indicators: IT infrastructure capabilities, managerial IT skills, and partnership between IT and business (Melville, 2004; Yin and Yang, 2011). Moreover, in the other notions will examine the mediator effect between IS resource capabilities and organization performance. Consequently, future research works will measure the organization
performance from other framework such as Balanced Scorecard (Kaplan and Norton, 1996) or measure from finance such as sales growth, return on assets (ROA), return of equity (ROE), and net profit (Lindow et al., 2010 and Majeed, 2011).

This study has some noteworthy limitations. For the first limitation, our model use strategic-IT alignment and IS capabilities to explore the effect of IT support for core competencies, and organization performance. The second, this study focuses on the organization performance of large organizations which are selected from the name list of Securities and Exchange Commission (SEC) of Thailand. Furthermore, the study uses cross-sectional data and organization performance measure from subjectiveness by using five point Likert scales. The final finding is the best model for contributing the organization performance from strategic IT alignment, IS resource capabilities, and usage of IT to support core competencies. In the future, the model will consist of exterior variables which may influence the IT support for core competencies, and organization performance such as IS quality, IT investment etc.

7. CONCLUSION
The results expose that IT support for core competencies strongly influences on organization performance. Consequently, we can predicate that the mixed model between strategic IT alignment and IS capabilities positively affect on IT support for core competencies which are the strong mediator that influence organization performance. Thus, we can insist that our results are strongly consistent with the original theories and previous studies (Henderson and Venkatraman, 1999; Day, 1994; Wade and Hulland, 2004; Ravichandran and Lertwongsatien, 2005; Rivard et al., 2006; Ying and Yang, 2011; Subriadi et al., 2013 and Bi et al., 2013).

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References


