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## **A Conceptual Framework for Assessing Strategic Information Systems Planning (SISP) Success in the Current Dynamic Environments**

Jungho Yang  
*RMIT University, jungho.yang@rmit.edu.au*

Dr Zijad Pita  
*RMIT University, zijad.pita@rmit.edu.au*

Mohini Singh  
*RMIT University, mohini.singh@rmit.edu.au*

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## **A Conceptual Framework for Assessing Strategic Information Systems Planning (SISP) Success in the Current Dynamic Environments**

Jungho Yang  
School of Business IT and Logistics  
RMIT University  
Melbourne, Victoria, Australia  
Email: [Jungho.yang@rmit.edu.au](mailto:Jungho.yang@rmit.edu.au)

Zijad Pita  
School of Business IT and Logistics  
RMIT University  
Melbourne, Victoria, Australia  
Email: [Zijad.pita@rmit.edu.au](mailto:Zijad.pita@rmit.edu.au)

Mohini Singh  
School of Business IT and Logistics  
RMIT University  
Melbourne, Victoria, Australia  
Email: [Mohini.singh@rmit.edu.au](mailto:Mohini.singh@rmit.edu.au)

### **Abstract (Abstract heading)**

*Within the current dynamic, increasingly globalized and digitalized environments, Strategic Information Systems Planning (SISP) is recognized as one of the most important tasks for better management and supporting strategic use of IS/IT. However, undertaking SISP process in today's dynamic environments is difficult because organisations need to consider and take multiple planning perspectives, including managerial, environmental and organisational factors simultaneously, not to deal with only one important perspective. To facilitate organisational performance and sustain competitive advantage through SISP success, various factors and their relationship regarding SISP success, organisational performance and competitive advantage need to be well identified and understood. This paper proposes a model to show relationship between seven primary factors and SISP success; SISP success and its outcomes; and the factors and SISP's outcomes. Further research is planned to undertake the survey of top 1,000 Korean large organisations to examine the relationships and test the proposed research hypothesis.*

### **Keywords**

Strategic Information Systems Planning, SISP, SISP success, conceptual framework, dynamic environment.

### **INTRODUCTION**

In today's dynamic environments, the world is increasingly interconnected, multi-faceted and unpredictable with a dynamic reality of customers, stakeholders, the public and all of the external forces impacting upon businesses. The business operations have also dramatically changed over the last decade and organisational environment has been more-and-more complex and turbulent due to e-business, globalization, virtualization and collaboration (Grant et al. 2010; Rainey 2010). To deal with the environments, organisations recognize that information systems (IS) and information technology (IT) are necessary to improve organisational performance and sustain competitive advantage by creating effective business processes, helping global communications, and supporting interactions between business elements and resources (Gottschalk 2007; Lientz 2010). They are transforming into more sophisticated and integrated business enterprises that are more cost-effective, flexible (or agile), performance-oriented, competitive, profitable and sustainable to adapt to the demands of constant change by strategic use of IS/IT (Bechor et al., 2010; Lutchman 2012; Verity 2012). Since IS/IT is increasingly incorporated into all perspectives of business operations and plays a strategic role in today's highly dynamic business world, the need for strategic information systems planning (SISP) is of vital importance in achieving success with IS/IT (Lientz 2010; McNurlin et al. 2009; Piccoli 2008; Wallace 2013).

Still many organisations are struggling to maintain market positions, financial performance and continuing success (Grant et al. 2010; Rainey 2010). Although organisations need to focus on the complexities and challenges of current social, economic and environmental realities (Rainey 2010), they have been geared toward

maintaining the status quo, not fundamental change that threatens careers because of a fear on the change (Lutchman 2012; Roberto et al. 2006). It indicates that many organisations have been negligent in considering various key elements affecting SISP success such as top management participation and support; sufficient communication between business and IT sectors; alignment between IS/IT and business planning; consideration of environmental factors; and adequate resource allocation (Lientz 2010; Lutchman 2012; Newkirk et al. 2008; Wallace 2013). Furthermore, although organisations have recognized the importance of SISP in the past decade, many organisations have developed IS/IT strategies that have been left to 'gather dust' or have been implemented in "a half-hearted manner" (Ward and Peppard 2002, pp. 125-126). Some studies claimed that SISP theories and methods still lack the capabilities (Choi and Bae 2007), competency (Bhatt 2009) and flexibility (Tallon 2009; Yeh et al. 2011) to systematically support sophisticated strategic planning process in the current digital environment such as e-business.

Although prior literature sources discussed one or a few critical factors individually to date (Basu et al. 2002; Chi et al. 2005; Newkirk et al. 2008; Rondeau et al. 2010; Stemberger et al. 2011), there has been little research that simultaneously addressed various factors for a more extensive understanding of SISP. There has also been little study to observe how much SISP success by considering various factors is related to improving organisational performance and sustaining competitive advantage. Therefore, investigating the importance of consideration of various key factors; analysing the relationship between the factors and SISP success; and SISP success and organisational performance and competitive advantage originated from its success are the primary motivation of this study. As a contribution, this study will provide a theoretical and practical importance pertaining to the extensive approach of vital factors that play a critical role in achieving successful SISP process and the relationship among the factors, SISP success and organisational performance and competitive advantage.

The primary objectives of this study are to empirically find the answer for the research question: What is the relationship between key factors vital to undertake successful SISP process and its success in organisations? In this paper, we first review the theoretical perspectives of SISP. Then, we examine key factors for undertaking SISP process successfully; discuss what SISP success is; and the outcome of SISP success and how SISP success is assessed. Thereafter, we propose a conceptual framework to describe the relationship among the factors, SISP success and the outcome of SISP success with the research hypothesis. Finally, a research methodology and the conclusion with further works is presented.

## LITERATURE REVIEW

In today's highly competitive and dynamic business environments, organisations could no longer afford to rely on the static strategic management constructs of the past (Grant et al. 2010; Rainey 2010; Verity 2012). The term 'dynamic' can be defined as the capacity to renew resource positions to achieve congruence with changing environmental conditions (Pettus 2001). In particular, with the progress of IS/IT systems, the organisational changes are influenced and shaped by several dominant drivers, including globalization, virtualization, innovation and collaboration. The drivers also make organisations being more flexible, opportunistic, quick to market, and specialized in their market to create competitive advantage and sustain a high level of performance (Lutchman 2012; Rainey 2010). In order to deal with the complex and dynamic environment, organisational framework need to be well harmonized with business-IS/IT planning, execution and organisational structure in a way that helps the organisation to achieve its goals (Kemp et al. 2013).

Long time ago SISP is defined as "the process of identifying a portfolio of computer-based applications that will assist an organisation in executing its business plans and consequently realizing its business goals", whilst SISP comprises "searching for applications with a high impact and with the ability to create an advantage over competitors" (Lederer and Sethi 1988, p. 446). Since then the definitions of SISP has evolved in diverse ways incorporating the developments in IS/IT systems and the rapid changes taking place in the business environment (Grover and Segars 2005). More recently, SISP was defined as the process of strategic thinking that identifies the most desirable IS on which the firm could implement and enforce its long-term IT activities and policies (Bechor et al. 2010). Therefore, undertaking SISP process could be recognized as an exercise to improve an organisation's strategic alignment with business-IT purposes and objectives; meet both short-term and long-term organisational needs; and provide the ability to create vital impact on a competitive advantage. SISP particularly differs from the other planning practices, because the meaning of the 'strategic' encompasses a critical and long-term impact on the growth rate, industry and revenue of an organisation (McNurlin et al. 2009; Rainey 2010; Wallace 2013).

The main objectives of SISP process typically encompass business-IT strategic alignment and competitive advantage (Teo 2009). However, the goals of SISP are now expanding beyond the strategic alignment of IS/IT with business needs. Its purposes contain improving systems' architecture, infrastructure capability and reliability from IS/IT investments; and managing information resources effectively and securing user satisfaction (Cassidy 2006; Grant et al. 2010; Lientz 2010; Philip 2009). SISP is critical for organisations to realize the anticipated benefits of their IS/IT investments, including building barriers against new entrants, creating new products,

altering the basis of competition, building in switching costs, and changing the balance of power in supplier relationships (Choi and Bae 2007). Thus, Piccoli (2008) suggested that SISP is a central aspect of IS/IT management, that has a clear understanding of business strategy and an overall sense of direction with respect to what the organisation is trying to achieve from its IS/IT resources.

SISP is a key management issue since the 1990s, and it is still ranked as a critical issue in IS/IT management (Bechor et al. 2010; Grover and Segars 2005; Luftman and Ben-Zvi 2010; Teo 2009). SISP is a complex and difficult task, for which organisations require decide which approach would best fit their organisational context and culture. Although there are various approaches for SISP, there is no universal way of carrying out SISP (Cassidy 2006; McNurlin et al. 2009; Ward and Peppard 2002). Also, there is no distinct consensus of the dimensions of SISP planning process, and the SISP process needs to encompass a broad set of characteristics and elements necessary for undertaking it. Organisations also need to have a long-term strategic view for their organisational processes and structures based on enhanced communication and coordination, and improved decision-making because strategy should not be isolated but be consistent with the current environments (Grant et al. 2010; Rainey 2010). Thus, SISP process to deal with the current dynamic environments needs to observe and take multiple or comprehensive planning perspectives at addressing interactions of different cultures, political, structural and technological features and issues that originate inside or outside the organisation at the same time to realize its sustainable success (Bechor et al. 2010; King 2009; Wallace 2013).

### **KEY FACTORS ESSENTIAL TO UNDERTAKE SISP**

According to the literature, there are essential factors of the SISP process that need to be considered to underpin its effective undertaking and the SISP success is a function of many variables (Gottschalk 1999; Rainey 2010). Furthermore, it is important for organisations to understand the factors in order to recognise SISP challenges and related issues (Lee et al. 2008; Wallace 2013). If the factors of SISP are better managed, chances of improving satisfaction with SISP is greater, enabling organisations optimize IS/IT-related investment and implementation. From the literature, seven essential factors that positively affect SISP successful undertaking are identified and proposed for research in this study.

#### **Top Management Participation and Support**

It has long been noted that top management participation and support is a significant critical driver for organisations to achieve successful SISP (Basu et al 2002; Philip 2007; Stemberger et al. 2011). Without top management participation and support, the process could result in problems in the analysis, design and development of the selected IS/IT system and the business-IT gap might be presented continuously in the organisation (Salmela et al. 2000). In order to make out organisational-wide framework or process for sustainable long-term success in the current dynamic environments, top management needs to be a good communicator or consultant who is congruent with the organisation's goals, objectives and principles based on the extensive mindset and interactions between users in the organisation (Kemp et al. 2013; Grant et al. 2010; Wallace 2013).

#### **Active Communication and Knowledge-Sharing Between Business and IT Sectors**

SISP requires discussion, clarification, negotiation and the realization of a mutual understanding and could help knowledge creation in both business and IT sectors (McNurlin et al. 2009; Piccoli 2008). Moreover, the success of strategic management is typically dependent upon extensive communication and knowledge-sharing, leading by various members' participation to build awareness and understanding, and encourage desired behaviours. It is one of the most important perspectives to achieve a successful strategic business and IT planning for strategic management (Heath and Heath 2008; Wagner and Newell 2006). However, employees work in business sectors and IT sectors normally find it difficult to communicate and share their knowledge because of the culture gap and the predisposition of individualism, so that there is a gap existed between business requirements and the ability of IT personnel to understand the requirements (Kovacic 2004). Therefore, active communication and knowledge-sharing between business and IT sectors is necessary for undertaking successful SISP process and realizing IS/IT implementation to deal with today's dynamic environment effectively (Lutchman 2012; Wallace 2013; Yeh et al. 2011).

#### **Business-IT Strategic Alignment**

The primary objective of SISP is typically business-IT strategic alignment to sustain long-term performance and competitive advantage, and realize business success (Hirschheim and Sabherwal 2001; Lientz 2010; Rainey 2010 Reich and Benbasat 2000). Business-IT misalignment, as result of an insufficient communication and relationship between business and IT sector, negatively affects the value of IT investments as it often lead to a tactical instead of a strategic investment (Kemp et al. 2013). Therefore, the effective undertaking of SISP process and overall success of IT implementation for sustaining a long-term organisational performance and competitive advantage

in a dynamic environments could be measured by ensuring business-IT strategic alignment (Hirschheim and Sabherwal 2001; Lientz 2010; Teo 2009; Wallace 2013).

### **Understanding of Internal and External Business-IT Environments**

The internal and external business-IT environments greatly affect both the direction and pace of SISP for strategic use of IS/IT because the business activities of an organisation could be assessed and prioritized by the internal and external environmental changes and opportunities (Bechor et al. 2010; Chi et al. 2005). Besides, organisational framework for strategic management needs to be built to react swiftly and effectively to changing business drivers with flexibility and resilience by appropriate understanding internal and external threats including corporate risks, asset risks and customer risks (Lutchman 2012). However, a number of organisations still have a difficulty in considering and maintaining various internal and external factors at the same time (Newell and David 2006). Therefore, organisations need to recognise the significance of internal and external environments in which undertaking SISP process is operating (King 2009).

### **Appropriate Resource Allocation for Undertaking SISP Process**

Decision-making during SISP process primarily includes business-IT investments, objectives and strategies by aligning business-IT plans (Wallace 2013). Resource allocation for SISP and IS/IT is anticipated to maintain and support the organisation's goals, objectives and activities for IT. In order to accomplish the success of strategic management based on IS/IT, it is also crucial to arrange the appropriate resource allocation or investment to fix effectively key change issues and operationalize the change idea. In the past 10 years or more, attention has focused on investigating the success factors of SISP process, but SISP success has been hindered in budget limitation or resource allocation issues. If the organisation lack the necessary resources it can make the progress of strategic tasks delayed or slow (Kim and Mauborgne 2003; Lientz 2010). Thus, effective SISP process with appropriate resource allocation, including HR and financial resources, and investment including learning or training for the process can result in sustained competitive advantage and organizational performance in today's dynamic environments (Bechor et al. 2010; Wallace 2013; Ward and Peppard 2002).

### **Performing Organisational Learning**

The SISP and IS/IT implementation is typically accompanied by substantial investment in formal organisational learning or training programs. In particular, most organisations in today's dynamic environments are concerned with learning about complex systems to enhance effective decision-making and find out ways to understand behaviour of the complex systems (Sterman 2000). Organisational learning enables an organisation to perform new tasks, do existing tasks faster and increase its quality of work by providing the necessary knowledge for efficient execution of tasks within the newly deployed IS/IT. Then, organisation could judge the merits and risks of proposed projects and create concrete procedures for measuring the effectiveness of the plan (Sharma and Yetton 2007). Moreover, organisational learning can contribute to organisational performance by improving the effects of IS/IT capabilities and competences. Besides, IS capabilities and competences are an outcome of organisational learning (Grant et al. 2010; Lin and Hsu 2010; Peppard and Ward 2004). Hence, in the current increasingly dynamic contexts, organisational learning is crucial to undertake successful SISP, because SISP is viewed as a learning process rather a problem solving process (Grover and Segars 2005; Wang and Tai 2003).

### **Active Partnership with Members of an Organisation and External Vendors**

In today's dynamic business-IT environment such as e-business and globalization, many organisations normally outsource or work together with business and IT specialists from outside vendors to undertake IT-related projects due to the lack of internal capabilities (Grant et al. 2010; Rainey 2010). SISP is also the work that is closely related to a collaborative discussion, clarification, negotiation and understanding of various parties such as top management, business-IT managers and external stakeholders (McNurlin, et al. 2009; Piccoli 2008). With the recent IT outsourcing phenomena, some authors have made calls for more rigorous empirical study on influence of SISP practice by mainly external knowledge from the vendor (Chi et al. 2005) and other organizations (Lin 2006) and as to what extent that influence the SISP success. Thus, in today's dynamic business-IT contexts, the partnership and relationship between members of the organisation and the consultants might play a key part in the success of SISP process and IS/IT implementation (Piccoli 2008; Ward and Peppard 2002; Wallace 2013).

## **SISP SUCCESS**

Organisations are more likely to achieve organisational objectives and strategies, and to sustain organisational performance and competitive advantage with SISP success based on the improvement of planning effectiveness (Grover and Segars 2005; Otim et al. 2009; Tallon 2009; Wang and Tai 2003). IS planning effectiveness is the assessment of 'how well the IS planning system has met its goals' (King 1988, p. 107). Some scholars argued that the effectiveness or success of SISP process needs to be measured from multi-dimensional and multi-stakeholder

perspectives by using a combination of internal and external factors, including comprehensive, formalization, focus, flow, participation and consistency. It is also based on both judgmental and objective criteria such as alignment; analysis; cooperation; and improvement in capabilities (Grover and Segars 2005). Moreover, in today's dynamic environmental conditions, the planning characteristics need to be well aligned and moved together to achieve planning success. It is because SISP is more than just a collection of independent planning characteristics and its success is not only about an organisation's objective to align its business-IT strategies, but also about its ability to learn and adapt to changing circumstances (Otim et al. 2009; Papke-Shields et al. 2002). Thus, in order to achieve SISP success, organisations need to address a wide set of factors positively affecting SISP undertaking and align the chosen factors for promoting planning effectiveness with IS/IT in accordance with their business-IT objectives and strategies.

## **THE OUTCOME OF SISP SUCCESS**

SISP enables organisations to facilitate business value and competitive position by the measurable improvement of key business processes utilizing IS/IT. In addition, SISP enables them to sustain organisational performance and agility (or flexibility) by the improvement of business processes and IS/IT systems, technology and resources (Lientz 2010; Wallace 2013). SISP success makes organisations possible to deliver more rapid benefits of IT to the business through the process change and by creating IS/IT objectives and action items for their businesses more realistic so that they are able to turn their business drivers into golden opportunities (Lutchman 2012). In today's dynamic world, the SISP success in organisations is closely related to achieving their strategic goals and objectives as well as realizing sustainable growth and value by improving organisational performance and competitive advantage based on alignment of business-IT objectives and plans; effective communication and coordination; proper allocation and prioritization of resources. According to the literature, the ways of measuring SISP success by the improvement of organisational performance and competitive advantage have been classified into three broader dimensions, including dynamic capabilities, IS competencies and IT infrastructure flexibility. This study introduces and proposes these the three dimensions as the factors that are important to achieve SISP success in the current dynamic business-IT environments.

### **Dynamic Capabilities**

To accomplish a success in the current dynamic environment such as e-business, organisations might require the reconfiguration of existing resources and/or the acquisition of new resources. It means, organisations competing in the e-business environments need to identify and deploy relevant dynamic capabilities to seek organisational performance and competitive advantage (Grant et al. 2010). Dynamic capabilities refer to 'the ability of the firm to reconfigure its internal and external capabilities in response to a dynamic environment' (Teece et al. 1997). These capabilities involve organisational skills, resources, and functional capabilities to match the requirements of a changing environment and they can identify the bases on which the future of the IS function must be built. If organisations are to develop dynamic capabilities, learning is also crucial (Pettus 2001). Dynamic capabilities enable an organisation to reconfigure and recombine existing knowledge to be able to respond to the challenge of changing environments (Eisenhardt and Martin 2000). Wang and Shi (2007) also proposed the three key sources of dynamic capabilities for e-business, such as market sensing; organisational learning; and coordination. Therefore, having a clear understanding of dynamic capabilities is critical for successful SISP and the dynamic capabilities should be achieved as the outcome of SISP successful undertaking.

### **IS Competencies**

King (2009) is of the opinion that the SISP process needs to consider the organisation's past and potential core IS competencies. Organisations also need to focus on obtaining their core competencies to achieve a competitive advantage by enhancing the organisation's overall ability (Grant et al. 2010). Core IS competencies are complex and sophisticated 'bundles' of capabilities, processes, systems and procedures that an organisation develops over time to achieve a competitive advantage in the marketplace (King 2009). Such competencies might be likely to include good market research; concurrent design processes; effective competitive intelligence; and a variety of other organisational activities and systems. In other words, IS competencies are those IS attributes that cannot be easily imitated by IS/IT units in other organisations (Bhatt 2009). In the dynamic IS capability era, the strategic management of IS/IT is about creating IS competencies so that achieving IS competencies is of greatest interest to organisations (Peppard and Ward 2004). Therefore, IS competencies are a critical factor to support the better outcome of SISP success and should be achieved during SISP undertaking.

### **IT Infrastructure Flexibility**

In the current dynamic environments, organisations apply and utilize a combination of integrated internet-based telecommunication, databases and data warehouses that might be needed for more flexible support, because each deals with different aspects of planning (Gottschalk 2007). Currently, the primary goal of organisations is to



merge speed with flexibility by reacting swiftly to changing business drivers and reacting effectively to broaden strategic experiments that have proven successful in the organisation (Lutchman 2012; McNurlin et al. 2009). IT infrastructure flexibility was defined as the ability of IT infrastructure, such as hardware compatibility, software modularity, network connectivity and IT skills adaptability to easily and quickly scale and evolve in accordance with the needs of the market (Byrd and Turner 2000). Flexibility and swift strategic transaction are the keys to survival. In the increasingly complex and dynamic challenges, the strategic management of the total managerial process with a focus on aligned and flexible decision-making is necessary for organisations to achieve overall success by better serving in the markets (Kemp et al. 2013; Rainey 2010). According to Tallon (2009), inflexible IT infrastructure exhibit chaotic SISP process while those with flexible IT infrastructure have more structured SISP. This is due to one such capability that will allow redirecting or repositioning of resources to whatever activities in the value chain are in most need of support. The value of IS/IT is in its contribution to the business by business process performance and use of knowledge and information for cumulative improvement. The objective of SISP is to facilitate business performance and flexibility through the improvement of business processes and IT systems, technology, and resources (Lientz 2010). Therefore, IT infrastructure flexibility should be considered as a critical factor to measure SISP success and be realized as the outcome of its successful undertaking.

### A CONCEPTUAL FRAMEWORK FOR SHOWING THE RELATIONSHIP AMONG KEY FACTORS, SISP SUCCESS AND THE OUTCOME OF SISP SUCCESS

Based on the above arguments, this research proposes a research model to show the relationship between the key drivers and SISP success as shown in Figure 1.

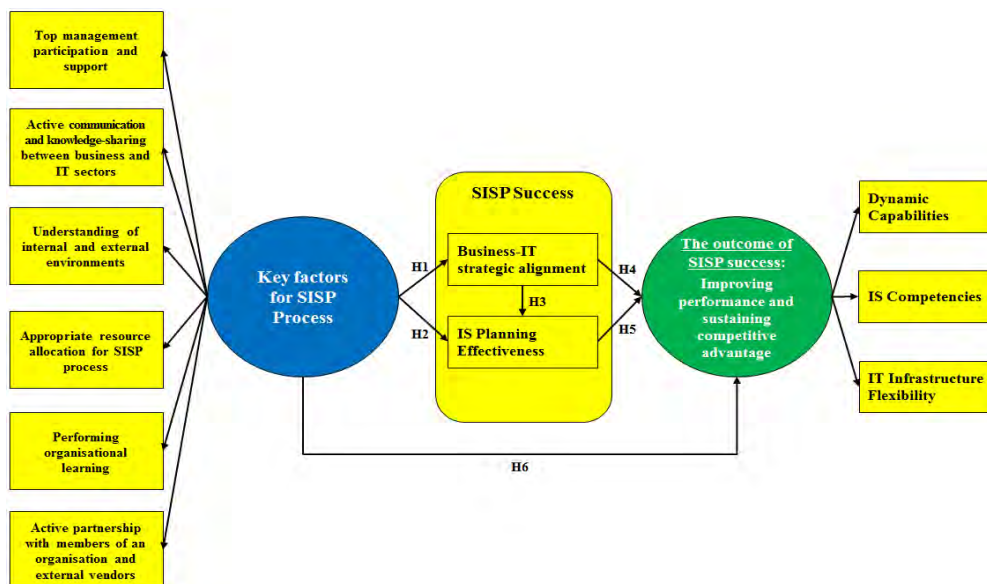


Figure 1: The Conceptual Framework for the Research

Fulfilment of the examined factors are likely to enable organisations to undertake the SISP process successfully. The factors will also enable organisations to help successful IS/IT implementation and strategic use of IS/IT by achieving business-IT strategic alignment and IS planning effectiveness. In other words, the more organisations attempt to consider potential antecedents during SISP, the more they are likely to achieve its success. By the argument, the two hypotheses are proposed:

*H1: The higher consideration of the factors has a positive affect improving business-IT strategic alignment.*

*H2: The higher consideration of the factors has a positive affect improving IS planning effectiveness.*

The primary objective of SISP process typically encompasses business-IT strategic alignment and it is regarded as one of the key aspects while undertaking SISP. The success of SISP and IS/IT implementation in a dynamic environments can also be measured by a greater business-IT strategic alignment (Teo 2009). It can be achieved through harmonizing crucial business-IT goals and strategies based on analysis of internal and external environments and processes as well as communication and cooperation between members in the organisation (Otim et al., 2009; Papke-Shields et al., 2002; Wang and Tai, 2003). Thus, business-IT strategic alignment can be a critical factor that leads to undertake successful SISP and improve IS planning effectiveness as a vital factor for SISP success at the same time. Based on the argument, the following hypothesis can be proposed:



*H3: Business-IT strategic alignment can have a positive affect improving IS planning effectiveness for SISP success.*

Organisations are more likely to experience SISP success when they maximize achieving business-IT strategic alignment and IS planning effectiveness through the consideration of the possible factors during the process. If they conduct SISP process successfully, they can have higher opportunities to achieve sustainable organisational performance and competitive advantage. It means that the outcome of SISP success is closely related to realizing business objectives and strategies through the progress of organisational performance and competitive advantage. As already mentioned, the ways of measuring the outcome of the SISP success are classified into three broader dimensions, including *dynamic capabilities*, *IS competencies* and *IT infrastructure flexibility* (Grover and Segars 2005; King 2009; Tallon 2009). Therefore, based on the argument, the following two hypotheses are proposed:

*H4: Business-IT strategic alignment has a positive affect improving organisational performance and competitive advantage.*

*H5: IS planning effectiveness has a positive affect improving performance and competitive advantage.*

Of course, the key factors should be more likely to support organisations to undertake SISP process effectively and successfully. They are also the factors that enable organisations to achieve organisational goals and strategies as well as to facilitate organisational performance and competitive advantage by enabling to improve business-IT strategic alignment and IS planning effectiveness. Therefore, the following hypothesis is proposed based on the argument:

*H6: Key factors vital to undertake SISP process have a positive affect improving organisational performance and competitive advantage.*

## **RESEARCH METHODOLOGY**

This research leads to a positivist quantitative study with pre-designed survey and statistical analysis to answer research question; to test the hypotheses and to validate the conceptual framework. Both, business and IT-related manager in top 1,000 large organisations of Korea will be selected for the sample population. The study will focus only on large organisations as there are the key differences and gaps between large organisations and small and medium enterprises such as the overall level of IS/IT diffusion and use, SISP introduction, IS/IT investment, scale of IT department and manpower, organizational learning, etc. Korea is selected as both, the private and public industry of Korea has been regarded as one of the best countries with a strong leadership in Information Communication and Technology (ICT). However, despite the diffusion of IS/IT to manage the current e-business and globalized environment, in Korean organisations most of SISP hasn't yet been undertaken in a strategic and systematic way.

To analyse the survey data, the structural equation modelling (SEM) and Chi-square will be used. Latent variable models (LVMs), such as the factor analysis model and structural equation models, is found appropriate for investigating the relationships between observed (measured) and unobserved (latent) variables (Lee 2007). SEM is also regarded as a family of statistical techniques allowing researchers to test multivariate models by the analysis of covariance structures (Anderson and Gerbing 1988). Based on the SEM, the relationships among key factors, SISP success and its outcome will be analysed. Furthermore, the ranks of significance about key factors organisations mainly consider to undertake SISP can differ from business-IT managers and industries. Thus, Chi-square will be used to statistically determine significance in the analysis of frequency distributions regarding key factors from a specific group (Zikmund et al. 2012).

## **CONCLUSION**

In today's highly competitive and dynamic business environments organisations, the advancement of IS/IT including Internet has enabled organisations to provide massive benefits with a focused relationship management with customers, stakeholders, partners, governments and the outsourcing of support functions across organisations. In order to create sustainable performance and competitive advantage in the current highly dynamic business world, undertaking SISP process is important for organisations to support successful implementation and use of their IS/IT. Undertaking suitable SISP process is difficult task and organisations need to have multiple planning perspectives by fully understanding their objectives and strategies, and dealing with their various issues, not only considering a critical factor. To conduct organisational-level of SISP successfully, it is essential to consider possible factors that have a positive effect on SISP undertaking. In this paper, seven key factors and a conceptual framework are proposed to describe the relationships among the key factors, positively influencing successful SISP undertaking, and SISP success and the outcome of its success. If organisations consider and reflect those factors during SISP undertaking, they would more likely achieve SISP success by improving IS planning effectiveness and business-IT strategic alignment. Then, the outcome of its success is to realize organisations' business aims and strategies through sustaining organisational performance and

competitive advantage based on the advancement of dynamic capabilities, IS competencies and IT infrastructure flexibility.

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