# The Relationship between Strategic Information Systems Planning Situational Factors, Process Configuration and Success

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## ABSTRACT

*This paper reports a study into the relationship between the configuration of the process of Strategic Information Systems Planning (SISP) and the success of SISP. SISP is an important activity in the alignment of information technology systems and services to business requirements. However, despite the obvious importance of a proper planning of information technology and information systems in organizations, success of SISP is not evident. And as the success of SISP is also influenced by the process followed in developing the SISP, the research question for this study was, "How does the configuration of the SISP process influence the success of the SISP?"*

*Based on an explorative multi case study, we concluded that the specificity and comprehensiveness of strategies, goals and decisions in an organization has a positive effect on the success of SISP. Another conclusion was that a more dominant role of the IS/IT organization in the SISP process influences the quality of the SISP deliverable positively, but has a negative effect on the building of partnership between business and IT in the organization. A final conclusion was that following a formal SISP methodology does not seem to have an effect on the success of SISP. These findings provide guidance for practitioners that plan to develop an SISP as part of their efforts to align business and IT.*

## INTRODUCTION

In almost all industries, developments like new technologies, mergers and acquisitions, entrepreneurial initiatives, regulatory changes and strategic alliances create a dynamic business environment. A key success factor for a successful company in such a dynamic environment is an effective and efficient information technology (IT) supporting business strategies and processes. Already for more than two decades, the necessity and desirability of aligning business needs and information technology (IT) capabilities is considered to be one of the key issues in IT management (Reich & Benbasat, 1996; Sabherwal & Chan, 2001; Luftman, 2009; Gallagher & Gallagher, 2010). Strategic Information Systems Planning (SISP) is an important activity in the alignment of information technology (IT) systems and services to business requirements (Silvius, 2007). Despite the obvious importance of a proper planning of IT and IS investments in organizations, success of SISP is not evident (Grover & Segars, 2005). Several authors reported different factors influencing SISP success (for example Earl, 1993; Grover & Segars, 2005; Wang & Tai, 2001; Newkirk & Lederer, 2006). Frequently mentioned factors are the situational

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circumstances of the context or goal of the SISP project (Lederer & Sethi, 1988; Wang & Tai, 2001; Chi et al., 2005; Newkirk & Lederer, 2006) and the process or approach with which the strategic IS plan was developed and the 'fit' of this process with the culture the organization (Earl, 1993; Segars, 1994; Doherty et al., 1999; Grovers & Segars, 2005).

This paper reports a study into the relationship between the organizational context of the SISP project, the configuration of the SISP process and the success of the SISP. The research question was *How does the organizational context and the configuration of the SISP process influence the success of the SISP?* This question was motivated by the experience of the authors, both experienced consultants in SISP, that even while following the same methodology of SISP, the process will always be tailored to the specific organizational setting of a given SISP project.

The rest of this paper is structured as follows. After an introduction into the background of SISP, we will analyze the situational factors, process configuration variables and criteria for SISP success as found in literature. This analysis will lead us to a detailed conceptual model of the study. After this conceptual model, we will reveal the research method of the study, which we qualified as an explorative study. Next, the data collection strategy and the actual data will be showed, followed by an analysis of the findings. The paper will be concluded by a conclusion and a discussion of the implications of the results.

## STRATEGIC INFORMATION SYSTEMS PLANNING

Together with the rise of IS in organizations, the need for a structured planning and control cycle of IT systems and IT investments, arose. Information systems planning (ISP) is the term used for the early methodologies that aimed at implementing a structured planning process for IT investments and projects. These methodologies included Business Systems Planning (IBM Corporation, 1981), Information Systems Study and Information Engineering (Martin, 1982). As these early methodologies were developed in the 1970s and 1980s, at a time when the use of IT in organizations was relatively new, it is not surprising that they were designed for building foundations for the development of large bespoke information systems. The methodologies therefore focused heavily on the analysis and structure of the data of organizations (Silvius, 2007). Table 1 shows an overview of the characteristics of the main ISP methodologies (Silvius, 2007).



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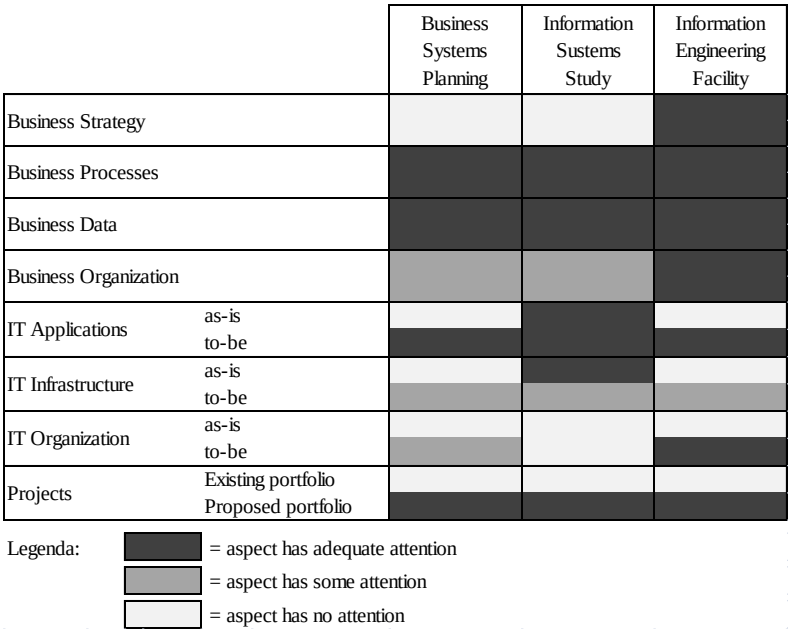
**Table 1: Characteristics of the main ISP methodologies (Silvius, 2007).**




From this overview it shows that methodologies of, and approaches to, ISP developed over the years. Several authors (Lederer & Sethi, 1988; Earl, 1993; Segars et al., 1998) suggest that the methodological focus in the development of ISP methods, failed to identify the broader set of practices that influenced the use and effectiveness of ISP. These practices included the level of participation, the ownership of the project or the focus of the planning exercise. ISP, although designed as a tool for business management, became a procedure by IT professionals for IT professionals (Pols, 2003). Consequently, Earl (1993) suggested that, a combination of method, process and implementation, is the most complete way of realizing IS planning. This approach is known as the 'Strategic' Information Systems Planning (SISP) approach.

The concept of SISP evolved during the 1980s (Lederer & Sethi, 1988). The significant difference between SISP and the ISP planning methodologies, is the explicit emphasis on strategic alignment and competitive impact. Earl (1993) confirms that two key defining aspects of SISP are "aligning investment in IS with business goals" and "exploiting IT for competitive advantage". In ISP, the alignment of business and IT is one-sided: IT follows business. Lederer & Sethi (1988) adopt in SISP a broad, two-sided view of alignment. They define SISP as "the process of identifying a portfolio of computer-based applications that will assist an organization in executing its business plans and consequently realizing its business goals", but also state that SISP entails "searching for applications with a high impact and with the ability to create an advantage over competitors".

The development of SISP, however, entails more than just a different technique, procedure or methodological approach Earl (1993). SISP comprises of a mix of procedures, techniques, user–IS interactions, special analyses and random discoveries. It is a more holistic approach to the planning of IT investments. This also suggests that there could be different approaches to ISP. More specifically, the elements of an approach can be defined as the nature and place of method,

the attention to and style of process, and the focus on and probability of implementation. Based on these aspects, Earl (1993) identifies five distinct SISP approaches, see Table 2.

**Table 2: Overview of the SISP approaches.**

| | *Business-led* | *Method-driven* | *Administrative* | *Technological* | *Organizational* |
|---|---|---|---|---|---|
| **Emphasis** | Business | Technique | Resources | Model | Learning |
| **Basis** | Business plans | Best method | Procedure | Rigor | Partnership |
| **Ends** | Plan | Strategy | Portfolio | Architecture | Themes |
| **Methods** | Ours | Best | None | Engineering | Any way |
| **Nature** | Business | Top-down | Bottom-up. | Blueprints | Interactive |
| **Influencer** | IS planner | Consultants | Committees | Method | Teams |
| **Relation to Business Strategy** | Fix points | Derive | Criteria | Objectives | Look at Business |
| **Priority setting** | The Board | Method recommends | Central committee | Compromise | Emerge |
| **IS Role** | Driver | Initiator | Bureaucrat | Architect | Team member |
| **Metaphor** | It's common sense | It's good for you | Survival of the fittest | We nearly aborted it | Thinking IS all the time |

These different approaches suggest some form of organizational contingency in SISP. Developing this perspective, several authors started analyzing the influence of situational factors.

### *SISP situational factors*

The authors that related SISP to situational factors (for example Lederer & Sethi 1988; Wang & Tai, 2001; Chi et al. 2005; Newkirk & Lederer, 2006), identified factors like the organizational configuration, market dynamics, goal of the SISP, etc. Based on the literature on SISP we analyzed these factors and combined several sets of factors into one concise list. Table 3 provides an overview of these SISP situational factors and their sources.



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**Table 3: Overview of the SISP situational factors.**

| *Variable* | | *Description* | *Source* |
|---|---|---|---|
| MHO | Market hostility | Availability of resources and the degree of competition in the external environment. | Newkirk & Lederer (2006) |
| MDY | Market dynamism | The rate and unpredictability of environmental change. | Grover & Segars (2005); Newkirk & Lederer (2006) |
| OFO | Organizational formalism | Extent to which rules, procedures and activities are written in the organization. | Wang & Tai (2003) |
| CE | Centralization | Extent to which decision making authority is centralized at the topmost management level. | Wang & Tai (2003) |
| ISR | Role of IS | Extent to which firms critically depend on the IS function for their future operations. | Wang & Tai (2003); McFarlan, McKenney & Pybum (1983) |
| GO | SISP Goal | The most important goals of the SISP process. | Earl (1993); Lederer & Sehti (1996); Segars (1998); Basu et al. (2002); Wang & Tai (2003); Chi et al. (2005) |
| MPP | Maturity of planning processes | Stage of evolution of the planning process: preliminary, evolving, mature. | Grover & Segars (2005) |
| IPP | IS participation in business planning | Extent to which the IS department is involved in interaction with top management during business planning. | Wang & Tai (2003) |
| FR | Frequency / Consistency | Frequency of planning activities or cycles (occasional vs continous). | Earl (1993); Doherty et al. (1999); Grover & Segars (2005) |
| AP | Acceptance of plans | Degree of acceptance of organizational members regarding IS planning, such as accepting the outputs of the planning exercise and the participation of line managers in the IS planning process. | Wang & Tai (2003) |

## *SISP process configuration*

Earl (1993) was not the only author to mention the importance of the process of SISP. For example, Lederer and Sethi (1996); Basu et al., (2002); Doherty, Marples and Suhaimi, (1999); Grover & Segars (2005) also identify process factors in SISP.

**Table 4: Overview of the SISP process configuration variables.**

| *Variable* | | *Description* | *Source* |
|---|---|---|---|
| SMI | Senior management involvement | Championship of a top executive | Basu, Hartono, Lederer & Sethi (2002) |
| RES | Resources | The degree to which the ISP process could be done with resources with the right competences and knowledge. | Lederer & Sethi (1996); Basu et al. (2002) |
| TI | Team involvement | Participation of user managers and information systems professionals in SISP | Basu, Hartono, Lederer & Sethi (2002) |
| PA | Participation | The breadth of involvement in the strategic planning process (narrow vs wide) | Earl (1993); Segars (1994); Doherty, Marples & Suhaimi (1999); Grover & Segars (2005) |
| SI | SISP Initiator | Individual who starts the SISP study (top management vs MIS management) | Chi et al. (2004) |
| IN | Influencer | Organizational subunit or factor that has the greatest influence on the outcome of the IS planning process | Earl (1993) |
| ISR | IS role | The role of the IS department during the IS planning process | Earl (1993) |
| FOR | Formalisation / method | [Use] of structures, techniques and written procedures to support the planning process | Earl (1993); Segars (1994); Doherty, Marples & Suhaimi (1999); Grovers & Segars (2005) |
| PH | SISP Planning horizon | Time period from beginning of exeution of plan to its conclusion | Chi et al. (2004) |
| SC | SISP Scope | Organizational level covered in the SISP study (enterprise level vs division level) | Chi et al. (2004) |
| EA | Environmental assessment | Extent to which an organization evaluates external information and identifies business needs, objectives, external opportunities and threats during SISP | Wang & Tai (2003); Chi et al. (2004) |
| CO | Comprehensiveness | Extent to which an organisation attempts to be exhaustive in making and integrating decisions | Segars (1994); Doherty, Marples & Suhaimi (1999); Grovers & Segars (2005) |
| FL | Flow | Locus of authority or devolution of responsibilities for strategic planning (bottom up, top down or interactive) | Earl (1993); Segars (1994); Doherty, Marples & Suhaimi (1999); Grovers & Segars (2005) |
| DF | Design focus | Extent to which the architectural design is focused at the future state organization (IST versus SOLL) | Earl (1993); Lederer & Sethi (1996); Doherty, Marples & Suhaimi (1999) |
| IMP | Implementation | Focus during the planning process on the implications for implementation | Earl (1993); Lederer & Sethi (1996); Doherty, Marples & Suhaimi (1999) |

For the purpose of our analysis, we analyzed the factors identified in these studies and grouped them into 15 process configuration variables. Table 4 provides an overview of these variables and their sources.

### *Variables of SISP success*

For the identification of the variables of SISP success, we followed a similar process. Based on the literature we identified 10 variables of SISP success. Table 5 lists these variables and their sources.

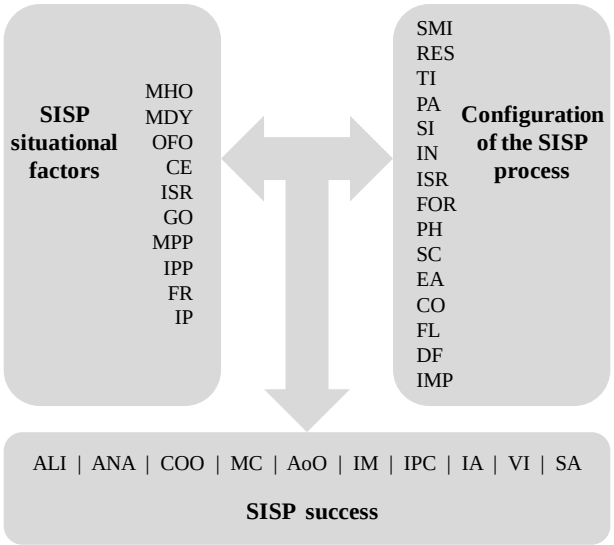
**Table 5: Overview of the variables of SISP success.**

| *Variable* | | *Description* | *Source* |
|---|---|---|---|
| ALI | Alignment | Improvement of linkage of the IS strategy and business strategy, or alignment of IT with business needs | Lederer & Sethi (1996); Earl (1993); Segars (1998); Grover & Segars (2005); Newkirk & Lederer (2006) |
| ANA | Analysis | Improved understanding of internal operations of the organization in terms of its processes, procedures and technology | Earl (1993); Lederer & Sethi (1996); Segars (1998); Basu et al(2002); Wang&Tai (2003); Chi et al(2005) |
| COO | Cooperation | General agreement concerning development priorities, implementation schedules and managerial responsibilities | Lederer & Sethi (1996); Earl (1993); Segars (1998); Grover & Segars (2005); Newkirk & Lederer (2006) |
| MC | Management commitment | Extent to which SISP has helped increasing top management commitment to IT | Lederer & Sethi (1996); Earl (1993); Segars (1998); Grover & Segars (2005); Newkirk & Lederer (2006) |
| AoO | Achievement of objectives | Extent to which SISP achieves its objectives | Earl (1993); Segars (1998); Lederer & Sethi (1988); Doherty et al. (1999); Gottschalk (1999) |
| IM | Implementation | Extent to which strategic information systems plans have, or are thought likely to be, implemented | Lederer & Sethi (1988); Doherty et al. (1999); Gottschalk (1999) |
| IPC | Improvement planning capabilities | Assessment how the process of planning has improved the organization's capability to perform business or IT planning. | Lederer & Sethi (1996); Earl (1993); Segars (1998); Grover & Segars (2005); Newkirk & Lederer (2006) |
| IA | Information architecture | Extent to which SISP has helped developing an information architecture | Lederer & Sethi (1996); Earl (1993); Segars (1998); Grover & Segars (2005); Newkirk & Lederer (2006) |
| VI | Visibility | Extent to which SISP has helped increasing visibility of IT in the organization | Earl (1993); Lederer & Sethi (1996); Segars (1998); Basu et al(2002); Wang&Tai (2003); Chi et al(2005) |
| SA | Strategic application | Extent to which SISP has helped identifying strategic applications | Earl (1993); Lederer & Sethi (1996); Segars (1998); Basu et al(2002); Wang&Tai (2003); Chi et al(2005) |

## RESEARCH APPROACH

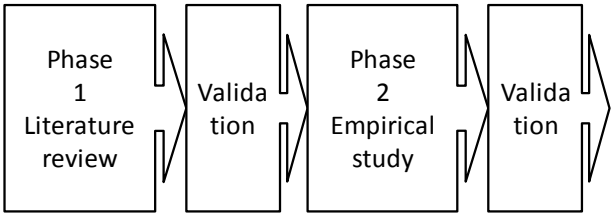
Based on the situational factors, the SISP process configuration variables and the variables of SISP success found in the literature, we can now specify the conceptual model of the study. Figure 1 depicts this conceptual model.

**Figure 1: Conceptual model of the study.**



The study has an explorative nature. For this reason, a qualitative research methodology was followed to seek illumination and understanding of the relationships between the three main concepts of the study. The research process was structured in two phases, literature review and empirical study, with validation steps in between. Figure 2 illustrates this process.

**Figure 2: Illustration of the research prcess.**




Phase 1 of the study, the literature review, was reported in the preceding section. The literature review was concluded with the development of the conceptual model of the study (Figure 1). This model, and underlying variables (Tables 3,4 and 5), was validated in a focused group discussion with experienced SISP professionals. From this discussion, no additions to the model were concluded. The professionals in the focused group, recognized the variables of the three concepts as relevant to respectively, situational context, process configuration and success of SISP.

Given the contextual nature of the variables, we selected a case study based approach for the empirical phase of the study. Case study research is an adequate method to study complex phenomena that can best be studied within a specific context (Yin, 2010). We selected 16 cases from the practice of the SISP professionals. The cases were selected based on the criteria:

- Performed a SISP project within the last 3 years.
- The SISP project is completed.
- The project leader and project sponsor of the SISP project are available for interviews.
- The cases used a similar SISP method.
- Company size was between 500 and 5000 employees (mid and large size).

Table 6 shows the industries represented in the cases.

**Table 6: Overview of the cases in the study.**

| *Industry* | *Number of cases* |
|---|---|
| Transport and Logistics | 4 |
| Banking | 1 |
| Insurance | 8 |
| Public | 2 |
| Entertainment | 1 |
| **Total** | **16** |

The study was performed in the Netherlands. 12 of the 16 cases represented international companies.

In the case studies, data collection was done in semi-structured interviews with the project leader and the project sponsor of each case. This data collection strategy was selected, as interviews allow the researchers to fully understand the subjects' experiences as well as to learn more about their answers to the questions posted (Cunningham, 2008).

The respondents were asked how they assessed the relationship between each of the 10 situational factors, the 15 process configuration variables and the 10 variables of SISP success. Where possible, also documents on the SISP project and deliverable were analyzed.

The interviews were transcribed and analyzed using an open coding process as described by Corbin and Strauss (2007). Answers and quotes from the interviews were labeled and categorized as indicating a positive relationship or a negative relationship between the different variables. The relationships were then summarized for all 16 case studies. In the summarization, the positive and negative relationships were 'netted' for all potential relationships between the variables. The resulting 'net' score was coded on a five-point scale:

| | |
|---|---|
| - - | for a negative relationship indicated in 10 or more cases; |
| - | for a negative relationship indicated in 5 to 10 cases; |
| 0 | for no relationship indicated; |
| + | for a positive relationship indicated in 5 to 10 cases; |
| + + | for a positive relationship indicated in 10 or more cases. |

Also the relationships between the variables that appeared from the analysis of the case studies, were validated in a focused group discussion with the project leaders of the SISP cases that participated in the study.

## FINDINGS

This section will present the findings of our study. The three concepts of the study, SISP situational factors, process configuration and success, will be pair wise related to each other and the relationships that arose from the cases will be discussed.

### *Relationship Situational factors and Process configuration*

Table 7 shows the relationships found in relating situational factors and the variables of SISP process configuration.

**Table 7: Overview of relationships between situational factors and SISP process configuration.**

| | | | SISP situational factors | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Market hostility | Market dynamism | Organizational formalism | Centralization | Role of IS | SISP Goal | Maturity of planning processes | IS participation in business planning | Frequency / Consistency | Acceptance of plans |
| | | | MHO | MDY | OFO | CE | ISR | GO | MPP | IPP | FR | AP |
| SISP process configuration variables | SMI | Senior management involvement | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | RES | Resources | ++ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TI | Team involvement | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | PA | Participation | ++ | 0 | 0 | 0 | 0 | 0 | ++ | 0 | 0 | 0 |
| | SI | SISP Initiator | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | IN | Influencer | ++ | ++ | ++ | ++ | 0 | 0 | 0 | ++ | 0 | 0 |
| | ISR | IS role | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ++ | 0 | 0 |
| | FOR | Formalisation / method | 0 | ++ | ++ | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | PH | SISP Planning horizon | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 |
| | SC | SISP Scope | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | EA | Environmental assessment | 0 | 0 | 0 | 0 | 0 | ++ | 0 | 0 | 0 | 0 |
| | CO | Comprehensiveness | ++ | 0 | 0 | 0 | 0 | ++ | 0 | 0 | 0 | 0 |
| | FL | Flow | 0 | 0 | 0 | 0 | 0 | ++ | + | 0 | 0 | 0 |
| | DF | Design focus | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 |
| | IMP | Implementation | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

From this table it shows that most relationships were found on two situational factors: Market hostility and SISP Goal. Regarding the process configuration variables, most relations appeared on the Influencer of the SISP.

The Market hostility seems to positively influence the participation of business professionals in the SISP, and thereby the configuration of the team. Logically this also affects the influencer role in the SISP process, with a stronger role for business professionals.

The goal of the SISP appeared to relate specifically to the planning horizon, the use of an environmental assessment, the comprehensiveness of the SISP and 'flow' (bottom-up vs. top-down).

Other situational factors had their (more limited) influence mostly on the influencer role in the SISP and on the formalization of the SISP process.

### *Relationship Situational factors and SISP success*

The relationships between situational factors and the variables of SISP success are shown in Table 8.

**Table 8: Overview of relationships between situational factors and SISP success.**

| | | | SISP situational factors | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Market hostility | Market dynamism | Organizational formalism | Centralization | Role of IS | SISP Goal | Maturity of planning processes | IS participation in business planning | Frequency / Consistency | Acceptance of plans |
| | | | MHO | MDY | OFO | CE | ISR | GO | MPP | IPP | FR | AP |
| Variables of SISP success | ALI | Alignment | 0 | 0 | 0 | 0 | 0 | ++ | 0 | ++ | 0 | 0 |
| | ANA | Analysis | 0 | 0 | 0 | 0 | ++ | + | 0 | 0 | 0 | 0 |
| | COO | Cooperation | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | MC | Management commitment | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ++ | 0 | 0 |
| | AoO | Achievement of objectives | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | IM | Implementation | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | IPC | Improvement planning capabilities | 0 | 0 | 0 | 0 | 0 | ++ | 0 | 0 | 0 | 0 |
| | IA | Information architecture | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VI | Visibility | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | SA | Strategic application | 0 | 0 | 0 | 0 | 0 | 0 | ++ | 0 | 0 | 0 |

In this part of the study, only few relationships appeared. The relationship between the situational setting of SISP and its success therefore seems to be limited.

Also in this mapping, the goal of the SISP appeared to have the largest influence, in this case on the success variables alignment, analysis and the improvement of planning capabilities. The second most influential situational factor was IS participation in business planning. This factor, often referred to as an important aspect of the 'partnership' between business and IT in an organization (Luftman & Kempaiah, 2007), showed to be positively related to business management's commitment to the SISP and to the alignment of business and IT.

### *Relationship Process configuration and SISP success*

Table 9 shows the relationships found in the cases, between the SISP process configuration and SISP success. A visual inspection of this matrix learns that also in this mapping, most of the potential relationships were assessed as neutral or non existing, however, far less than in Tables 7 and 8. Of the relationships between the three concepts analyzed in our study, this one seems to be most impactful.

The clearest relation showing from Table 9, is the strong positive effect of Comprehensiveness on many variables of success. Comprehensiveness is about the specificity of directions, strategies, goals and decisions. The more specific an organization can formulate its goals and ambitions, the more successful the SISP will be. The positive relations found for the variable Implementation, which indicates whether the SISP has a strong focus on implementation, may also be an indication for this conclusion. The more specific the goal of the SISP is, the better the chance of success.



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Interesting results were again found for the variable Influencer. This result can be interpreted as that a leading role of the IS department in the SISP process has a positive effect on the deliverable of the process, but does not create cooperation of or partnership between business and IT. The relationships found for SISP initiator and IS role also suggest this. This finding was confirmed by focused group discussion, in which it was concluded, that an IT/IS dominated SISP process was often actually hindering the alignment of business and IT.

**Table 9: Overview of relationships between SISP process configuration and the variables of SISP success.**

| | | | Variables of SISP success | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Alignment | Analysis | Cooperation | Management commitment | Achievement of objectives | Implementation | Improvement planning capabilitie | Information architecture | Visibility | Strategic applicatio |
| | | | ALI | ANA | COO | MC | AoO | IM | IPC | IA | VI | SA |
| SISP process configuration variables | SMI | Senior management involvement | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | RES | Resources | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 |
| | TI | Team involvement | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | PA | Participation | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | SI | SISP Initiator | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | + |
| | IN | Influencer | + | 0 | - - | + | 0 | 0 | 0 | 0 | + | 0 |
| | ISR | IS role | 0 | 0 | 0 | 0 | 0 | 0 | - - | 0 | 0 | 0 |
| | FOR | Formalisation / method | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | PH | SISP Planning horizon | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - - | 0 | 0 |
| | SC | SISP Scope | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | EA | Environmental assessment | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ++ | 0 | 0 |
| | CO | Comprehensiveness | ++ | ++ | + | 0 | + | 0 | ++ | ++ | 0 | ++ |
| | FL | Flow | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | DF | Design focus | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | ++ |
| | IMP | Implementation | 0 | 0 | + | 0 | 0 | 0 | 0 | + | 0 | 0 |

Some of the relationships that did not show in the study may be considered remarkable. For example the use of a formalized SISP method was not considered to have had an effect on the success of the SISP. However, this result is in line with the observations of Silvius (2007), who states that, in order to gain acceptance for the results of the planning process, "The modern approach to IT planning is less formal in methodology".

Even more remarkable however is the fact that Senior Management Involvement did not show an effect on SISP success. In the focused group discussion for the validation of the results, this was not recognized. In the discussion it was emphasized that the commitment that senior business management has to the SISP, does have an effect on its success.

## DISCUSSION

### *Reflection on the conceptual model*

Figure 1 showed the conceptual model of our study. In this model, all three concepts in our study, situational factors of SISP, the configuration of the SISP process and the success of SISP, are related to each other. Based on our findings, however, it should be concluded that these relationships are most substantial between situational factors and the configuration of the SISP process, and between the configuration of the SISP process and its success. The third relationship, between situational factors and SISP success, appeared to hardly exist.

### *Relationships that appeared*

Based on the analysis of the cases in our study, we found the following relationships.

- The specificity and comprehensiveness of strategies, goals and decisions in an organization has a positive effect on the success of SISP.
- A more dominant role of the IS/IT organization in the SISP process influences the quality of the SISP deliverable positively, but has a negative effect on the building of partnership between business and IT in the organization.

These relationships were recognized and acknowledged in the focused group discussion.
The conclusions that these findings represent provide an opportunity for further research. It could be tested whether these conclusions still hold up in a larger sample.

### *Relationships that did not appear*

Overall, our study showed quite a lot of relationships that were considered as neutral or non-existing. For example the use of a formalized SISP method was not considered to have had an effect on the success of the SISP. Also Senior Management Involvement did not show an effect on SISP success, which was not recognized in our validation. Also on this finding, an opportunity for further research arises.

## CONCLUSION

In this paper we reported a study into the relationship between the situational factors of SISP, the configuration of the SISP process and the success of SISP. After a literature based analysis of the three concepts in our study, we performed an empirical exploration, based on 16 SISP case studies in the Netherlands. The research question of this study was, *How does the organizational context and the configuration of the SISP process influence the success of the SISP?*

Based on the analysis of the cases in our study, we found that SISP success relates quite convincingly to the way the SISP process is configured. A relationship with situational factors in the organizational context, however, was hardly found.



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Regarding the relationship between SISP process configuration and the variables of SISP success, a clear relationship appeared on the specificity and comprehensiveness of strategies, goals and decisions in the organization. This comprehensiveness has a positive effect on the success of SISP.

Another convincing relationship appeared on the role of the IT/IS organization in SISP. Our study showed that a more dominant role of the IS/IT organization in the SISP process influences the quality of the SISP deliverable positively, but has a negative effect on the building of partnership between business and IT in the organization.

From the study it also showed that the adoption of a formal SISP methodology does not have an effect on the success of SISP.

These findings provide guidance for practitioners that plan to develop an SISP as part of their efforts to align business and IT. They also confirm the conclusion of Earl (1993) that SISP is not merely a method, but a combination of method, process and implementation.

## IMPLICATIONS

The implications of the findings of this study for IT/IS professionals should be that 'pushing' SISP as an action to enhance business and IT alignment only makes sense if there is a certain level of commitment of business to the SISP process, demonstrating the partnership between business and IT. Of SISP becomes a process that is driven by the IT/IS department, the success is only on the level of the output and not on the level of the outcome.

For business professionals, the implications of this study is that an effective business and IT alignment, of which SISP is an important element, starts with a clear and specified business strategy and direction that IT can be aligned with. Alignment without direction is not successful.
For academics the implications of this study may imply that more extensive research should be done into the partnership of business and IT as a foundation of successful SISP and thereby a successful alignment of business and IT.

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