Introduction

Strategic Information Systems Planning (SISP) is an activity undertaken by organisational actors (generally senior management) to devise the existing and future plan for implementing IST capabilities across the organisation. This paper presents a selection of insights into the areas of SISP.

Discussion

Depending on the particular perspective taken towards SISP, it can be viewed through a narrow lens emphasising priority setting, such as:

“SISP is an exercise or ongoing activity that enables organisations to develop priorities for IS development.” Doherty et al (1999: 263)

“…process of deciding the objectives for the organisation’s computers and identifying computer applications that the organisation should implement.” Lederer and Sethi (1988: 445)

Or through a broader lens – focusing on wider issues such as planning, decision-making and strategic thinking, such as:

“IS planning is the process of identifying the computer-based applications that will assist an organisation in executing its business plan and realising its business goals…to identify the most valuable IS projects…is concerned with the sequencing and implementation of IS applications…examination of existing and proposed IS applications…forecasting resources and skill requirements and defines improvement in the IT infrastructure and IS organisation.” Salmela et al (2000: 4)

SISP has received considerable attention for a number of years, with the majority of the SISP literature having a primary focus towards the planning aspects of SISP – lending towards a broader perspective. Many authors (including Earl, 1993; Galliers, 1991 and Ward & Peppard, 2002) have discussed the potential key objectives of SISP. Earl (1993) summarised these key strategic objectives of SISP as follows:

- There is the need to align IST investment with business investment ensuring that any IST activities are aligned to the ongoing existing and future business activities and investments.
- By utilising the existing and new IST capabilities to deliver a sustainable competitive advantage for the organisation.
- Ensuring that the proposed IST capabilities are developed and managed efficiently and effectively through the efficient and effective management of IST resources.
- Delivering the IST infrastructure and architecture (both human and IST) through technology policies and architectures to enable the operation of existing IST capabilities and the development of future IST capabilities.

Being able to deliver these targets has been explicitly linked to the methods, approaches and formal processes used during SISP (Earl, 1993). Earl identified a series of concerns that can be grouped into three distinct areas, namely method, process and implementation, as follows:

- Method concerns focus on the techniques, procedures and tools employed during SISP. Various methods and techniques are adopted in organisations – some standardised and some devised by the organisation themselves. However, Earl (1993) identified concerns about an incorrect balance of attention towards the different techniques and tools employed
within SISP in that ineffective resources were being allocated to these activities that do not necessarily deliver business benefit.

- Process concerns included issues such as SISP ownership, poor IS-user relationships and business justification for the practice of SISP, thus leading to the poor execution of SISP across the organisation.
- Implementation of the actual strategy was a major concern in that even though the SISP activities deliver a documented strategy, that strategy can fail through inadequate systems development capabilities.

Earl’s concerns about method, process and implementation highlight the complexities involved in SISP – it is not just an exercise in the technical sense but SISP must relate to the business planning activities. Lederer and Sethi (1996) also highlighted that there are a variety of key inputs required throughout the SISP process that incorporate both business and IST aspects – such as business objectives, resource requirements, extent of planning processes and IST planning requirements. To understand these inputs and processes in more depth, we can return again to the extensive research undertaken by Earl (1993 and 1996). Earl (1993) investigated the most effective approach used to conduct SISP based around the need to overcome the method, process and implementation concerns. Earl identified five alternative approaches illustrated in Table 1.

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<th>Approach</th>
<th>Characteristics</th>
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<td>Business Led</td>
<td>Adopting a top-down approach, the business planners drive the SISP phase. This approach is seen as the 'common sense' method and IST decisions are driven purely by business needs. Under this approach, SISP normally unfolds on an annual basis and the responsibility for the process lies with the IST Director – being a major element of their agenda. Although this approach is welcomed by the IST Director, it can soon come into difficulties and become more complex as the business strategy may not incorporate the correct level of clarity needed to deliver the IST strategy.</td>
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<td>Method Driven</td>
<td>Here, the inputs and processes are driven by the formal technique/model adopted within the organisation. Although a formal, structured model leads the development of the IST strategy there is a tendency for a gap to still exist between the business strategy and the IST capabilities, which may create a mismatch in delivering the final IST strategy.</td>
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<td>Administrative Approach</td>
<td>The emphasis in this approach is on resource planning and control through formal procedures for allocating IST resources. Typically, business units submit IST proposals and an IST portfolio is compiled following a formal review process. The timing of this activity is normally synchronised with the organisation's annual financial planning phases.</td>
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<td>Technological Approach</td>
<td>The emphasis here is on devising architecture or blueprints for IST capabilities across the organisation. Various architectures developed will cover areas such as applications, infrastructure and protocols. The focus is on delivering a detailed IST model for the organisation. Being so technically led, there again can be a mismatch between business and IST capabilities.</td>
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<td>Organisational Approach</td>
<td>Here, the assumption is that the SISP process is not neat and tidy and cannot be segregated to an annual process but unfolds throughout the year via continuous integration of the IST department into the business departments. Various methods and approaches may or may not be adopted, depending on the specific circumstances. There is a continuous iteration of learning through implementation as the strategy unfolds.</td>
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Table 1: SISP Models (Adapted from Earl, 1993)

Earl (1993, 1996) and Doherty et al (1999) argue that the organisational approach of SISP is the method most effective for strategists to adopt within organisations as this enables collective learning across the organisation, ensures business problems are tackled by teams and ensures the IST function works closely with the rest of the organisation (involving a devolution of some IST responsibility). This approach also
sees SISP as part of the normal business planning activities and acknowledges that IST strategies often emerge from ongoing activities (Earl, 1993). Although the contributions by Earl and Doherty are insightful, they do not however present the actual processes undertaken by the organisational actors whilst performing SISP activities. Ward and Peppard (2002) emphasise the need for strategists to be able to understand where the organisation is now, analyse IST applications required to move the organisation forward and identify ways of creating ideas for future IST investment. By considering internal/external business and IST issues, the strategy process is geared towards delivering the future IST portfolio (illustrated in Figure 1). This approach is clearly structured around a gap analysis model of IST strategy development (Lambert and Peppard, 1993) in that the process component incorporates the consideration of the current situation, the formulation of the IST strategy and preparing for migration through the production of plans and the business case. The process by which the business strategy is devised should also be mirrored in the IST strategy.

At first glance, this model seems to be fairly prescriptive and does not consider the informal aspects of SISP such as decision-making, intuition and innovation. However, closer examination of Ward and Peppard’s work does reveal the need to acknowledge the less formal aspects of strategy development:

“As far as recommending an approach to IS/IT strategy formulation, this book supports a mixture of the formal and informal. Formal techniques are used if the requirements demand that all appropriate elements of the business are explored in a structured manner, and the business drivers are applied to achieve prioritisation within a consolidated program of business IS initiatives. But, informal techniques are also included to capture innovative ideas where they arise in the business, both during the initial strategy process and thereafter.” Ward and Peppard (2002: 153)

Ward and Peppard argue that any inputs, processes and outputs of this model must consider three fundamental aspects of the development of IST strategies:

- That IT can support or define the business strategy.
- Strategists must consider the competitive moves that affect the organisation in that the strategic plans developed can influence the marketplace that the organisation is trying to exploit.
- To realise that IT innovations can disrupt the industries within which the organisation exists.
Although useful in highlighting some of the key concerns and issues of SISP this model is still partial and other critical issues – such as the impact and restrictions caused by legacy systems, implementation mechanisms and established IST architectures on the strategy formulation processes – are neglected. Instead the focus is geared towards the strategic capabilities of IST on the business. Importantly, Gallier’s (1991) argued that although the prescriptive models of SISP developed in the literature incorporate formal aspects and are focused on the strategic capabilities of IST, the actual realities are different:

“The reality is that many companies do not formulate strategy according to this rational/analytical model, nor do they adequately plan their information systems, let alone incorporate competitive considerations into their planning efforts. What is more, they experience difficulty in implementing their plans, once they have been formulated.” Galliers (1991: 55)

This over-emphasis on the formal, rational model is clearly seen in a variety of literature and is highlighted by Ciborra (1994). In fact, there is far too much focus on the ‘planning’ aspects in the literature (Ward and Griffith, 1996). In order to develop an effective IST strategy, strategists must also incorporate strategic thinking and opportunistic decision-making. So not only do we have to focus on the formal aspects but also the less formal ‘softer’ aspects of strategy development. SISP must therefore have a wider conception than the orthodoxy advocated in the literature (Galliers, 1991). Both Galliers (1991) and Earl (1996) argued for the need to incorporate a variety of formal models (such as the stages of growth model and the models used to determine a competitive advantage) but also to acknowledge the more informal aspects such as creative, intuitive thinking (as with Ward & Griffith, 1996 and Ward & Peppard, 2002). Galliers (1991) believed that although this is crucial it will not happen overnight but will take time to develop. As this does develop, organisations will be seen to evolve through various stages of growth, as illustrated in Figure 2.

![Figure 2: SISP Development Path (Adapted from Galliers, 1991)](image)

Whether organisations do evolve through these quadrants is not necessarily supported or documented in the IST strategy literature. Furthermore, insights into how organisations evolve around the quadrants are again lacking in the literature base. What is evident in these models and insights presented so far is their partial and selective nature, and the lack of insights into the actual processes undertaken during SISP activities.

In more recent action research, Salmela et al (2000) focused on the level of comprehensiveness adopted in SISP. He discusses two basic approaches – illustrated in Table 2 that reflect a distinction between formal (comprehensive) and informal (incremental) approaches of SISP.
Approach | Characteristics
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Comprehensive | Plans are complicated and highly integrated with the overall strategy. Formal, multiple environmental analysis is undertaken leading to formal decision-making and the use of formal written plans. Periodic reviews are conducted to determine changing circumstances.

Incremental | Plans are simple and loosely integrated with the overall strategy. The organisation operates as independent planning groups and personal experience is crucial in developing the plans. This planning is based on informal networks of individuals and the sharing of interpretations. IST plans are continuously reviewed.

Table 2: Characteristics of Comprehensive and Incremental SISP (Adapted from Salmela et al 2000)

With the need to accommodate flexibility in SISP (as advocated in the organisational approach), one would assume that the incremental approach would be more suited to the complex situation of IST strategy development and would be adopted more successfully within organisations. An additional reason for assuming the incremental approach would be more suited is also evident in the fact that the comprehensive approach to planning has been heavily criticised in not only the IST literature but also in the general business strategy literature for being too expensive and time-consuming (Salmela et al 2000). However, Salmela’s research highlights that the comprehensive planning approach is more likely to be adopted within organisations by incorporating a number of techniques and tools such as environmental analysis and risk assessment. The success of comprehensive planning relies on many factors including ensuring organisational commitment and resource availability, providing comprehensive analysis and involving many people from around the organisation (Salmela et al 2000). The results of Samela’s research go against the need for a more ‘organisational’ approach to SISP (advocated in the IST literature). Salmela’s research clearly highlights the potential lack of alignment between the IST strategy literature and the actual processes undertaken in organisations. Also, Parnell (2003) argues extensively, in a business strategy context, that organisations developing strategies need to adopt both flexible comprehensive approaches. Furthermore, as Field and Stoddard (2004) argue, there is far too much emphasis on short-term aspects of IST strategic development:

“Because the rate of technology change is so rapid…most people see IT through a narrow lense of short-term…IT actually benefits most from a long-term disciplined strategic view.” Field and Stoddard (2004: 75)

Finally, there are also many other factors that are critical for effective SISP, including high-levels of creativity, the need to focus on implementation, the alignment of business and IST, a need to question beliefs, highlight key assumptions about current and future business needs, review the benefits of SISP and gain senior management involvement in the process.

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References


