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Strategic Information Planning – Insights from an Action Research Project in the Financial Services Industry

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Abstract
The core purpose of strategic information planning (SIP) lies in identifying future directions for investments in information technology, information systems and information supply that will assist an organisation to realise its business goals. SIP is a critical challenge and major concern to both academics and practitioners, in particular consultants. While the latter have proposed a number of formal methodologies and principles of good practice, these are normative recommendations that are hardly justified through theoretical insight. In fact, SIP is yet to be well understood theoretically and requires more empirical support. This motivated us to carry out an in depth case study on SIP in a financial service company. The study aimed at improving the SIP practices in place and was conducted in an action research-like manner. This research report at hand presents the results of the study. We firstly describe the enterprise, its situation and the SIP practices in place. We then reflect upon the SIP process, its contingencies and its outcome in light of the current academic literature. This leads us to a number of theoretically informed suggestions that concern the improvement of SIP as well as the direction of the resulting information strategy. These suggestions have already been debated with senior IT executives from the case enterprise. This debate helped to confirm some theoretical propositions from literature while other recommendations were not agreed upon by the practitioners. Our findings from the study are finally framed to give a fresh impetus to future research and perhaps challenge some current wisdom.

Keywords
Information (Technology/Systems) Strategy, Strategic Information Systems Planning, Strategic Alignment, IS/IT Governance, IT/IS Balanced Scorecard, Information Infrastructure, Information Function

1 Motivation for and Introduction to the Study

Information technology (IT) is an essential resource and critical success factor to enterprises competing in the so called “Information Economy”. Moreover, IT has become an important cost factor. Expenditure on IT is comparable to expenditure on research and development: it typically ranges from 1% to 3% of revenue and might even extent up to 5-10% in some industries[1]. If only for this reason, investments in IT and its application in IT-based information systems (IS) require careful planning by management through Strategic Information Planning (SIP), also called Strategic IT or IS Planning. Shortcomings in SIP may cause severe business problems such as a loss of control over IS/IT investments, the proliferation of isolated IS solutions and conflicts between different parts of the organisation[2]. In the light of its practical relevance it is not surprising that SIP is among the highest ranked issues on management agendas[3].

Despite its prominence in practice and practitioner publications, SIP is not one of the most frequently addressed topics in academic journals[4]. Research is still in a premature stage and there is much debate on the purpose, tasks, processes and success factors of SIP in literature (see Section 2). LEDERER and SALMELA even go as far as declaring the “absence of a theory of strategic information systems planning”[5], i.e. there is neither consensus on determinants, tasks, process, outputs and principles of SIP nor on SIP’s relation to success. Given these theoretical shortcomings current SIP methodologies show significant deficits. They are to a large extent normative without empirical validation[6]. Furthermore, as they lack theoretical underpinning, they cannot be related to different needs and situations in practice.

What makes the situation for researchers even more difficult is the fact that the perception of SIP in academic literature differs from its discussion in practice. As could be expected from its practical relevance, SIP is discussed intensively in practitioners’ magazines – certainly more extensively than in academic journals[7]. But the topics discussed in the strategy tracks of such magazines do not correspond very much with those discussed in academic journals. The tracks often introduce new and popular topics including “RFID”, “IP telephony”, “Supply Chain Management”, “Customer Relationship Management” and “Sarbanes-Oxley compliance”. Other topics such as “cost savings through IT”, “value from IT” or “IT infrastructure flexibility” are discussed under the strategy label because they are of enterprise-wide importance. The SIP process itself, appropriate methods to support it or calculi for gaining competitive advantage are not among these issues. Even without a detailed analysis of these topics, the discussions in the practitioners’ magazines indicate that there are differences in the way practitioners and researchers perceive the challenges of SIP.

The gap between the need for effective SIP in practice on the one hand and the weak methodological (often normative) recommendations on the other hand has motivated our

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1 Gomolski, Grigg, Potter (2001).
2 Kobler Unit (1990).
3 Galliers (1993); Watson et al. (1997).
4 Lee, Gosain, Im (1999).
5 Lederer, Salmela (1996), p. 237.
6 Flynn, Goleniewska (1993), pp. 300.
7 Lee, Gosain, Im (1999).

research. Our primary intention was to test SIP practices proposed by research in a given situation and to get indicators for their appropriateness from a comparison with practices employed in a real life setting. Section 2 details the objectives of our case study and the methodology applied. As a preparation for studying real-world situations and to introduce the SIP practices proposed by research we conducted a literature analysis capturing the current state of SIP research. Section 3 summarises its results. Section 4 describes the case company, while Section 5 focuses on SIP practices in this company. In Section 6, we discuss problems of the practitioners' approach in comparison to our understanding of SIP and propose improvements. Section 7 presents conclusions by synthesising the core lessons learned from the case study.

2 Research Objectives and Research Design

Existing empirical research on SIP can be classified into standardised surveys, case studies (single and multiple), action research, experiments (field and laboratory) and interviews[8]. Although questionnaire-based research has dominated so far (43% of the papers included in a survey by BROWN on SIP research in the past 15 years[9]), it is often being criticised as inappropriate in the current stage of SIP research since neither the problem nor the concepts of information strategy and SIP have been elaborated satisfactorily. BROWN states that "given the lack of theory (…), it may be appropriate for more theory-generating research to be conducted, employing qualitative techniques such as (…) action research"[10]. A second and even more important criticism is that SIP and information strategy are multi-facetted, subjective and often implicit concepts in practice. For this reason we hold the view that an analysis of information strategy and SIP must not be based on the use of standardised, quantitative-based questionnaires alone[11]. In light of the current state of SIP theory, an exploratory approach using a qualitative case study may well contribute to a better understanding of SIP. This is what we did in our research.

Although theory-generation is an important research objective, there is also a great need for guiding current SIP practice. Most of SIP frameworks and principles that are discussed in literature so far have been proposed by consultants and lack empirical evaluation. For this reason, our research was partly theoretically and partly practically oriented. Our research objectives were twofold:

1. to understand and assess SIP practices and the resulting information strategy in our case in the light of current literature. This objective requires an in-depth analysis of the situation at the case company as well as the SIP process and its outcome, i.e. the information strategy.

2. to find promising SIP practices and evaluate them within the case setting. This objective requires not only identifying promising new ways of conducting SIP, but also building hypotheses on when and why they could be appropriate.

With respect to our first objective, we started our project from the viewpoint of an external observer with document analysis and interviews. After we had become acquainted with the company's situation and its SIP process we changed our role to that of "action researchers" in order to meet the second objective. We actively proposed new ways of conducting SIP to challenge the existing practices.

Action research has its roots in the work of the well known American social scientist KURT LEWIN who originally aimed at providing a means to improve cohesion within social groups. He characterises action research as comparative research into social action and research that leads to social action[12]. It is thus an "applied science", "intended for use" and "aiming at

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8 Brown (2004).
9 Brown (2004).
10 Brown (2004), p. 27.
11 See, for example, Smith, Poel, Ribbers (2003); Walsham, Waema (1994); Earl (2003a).
12 Lewin (1963), p. 280.

knowledge for (successful) action"[13]. At the same time, action research was intended to contribute to a better theoretical understanding of group dynamics. The basic idea is that researchers, working together with practitioners, strive to make sense of a situation or problem and develop new orientations for action in a group setting that enables face-to-face communication.

Action research was deemed to be appropriate for the situation at hand, because it can be applied to complex research problems even if they are yet to be fully understood theoretically. While in traditional research, data collection is intended to support or reject predefined hypotheses, in action research data is gathered in a less structured way. Here, data shall help to derive a common and in depth interpretation of the situation and form a common basis for discussions with the practitioners. For this reason, action research is highly valuable in an early, exploratory phase of theory building as is the case in SIP research. Nevertheless, action research also bears some risks that have been discussed elsewhere[14].

Our research approach should be carefully characterised as "action-research like" since it differed from that proposed by LEWIN in an important point. In our case, the researchers were not fully involved in the real world problem solving process. They did not take part in the official SIP process but conducted a parallel "shadow" process off the record. However, in the end, the differences of both processes, the techniques applied as well as the resulting information strategies were eventually compared and discussed with the practitioners.

We started our five months case study at a financial service company in summer 2003. The project was conducted by three researchers with the assistance of nine master students in information systems. Based on the idea of a role-takeover, the number of students approximately equalled the number of key SIP practitioners taking part in the project. Each student was assigned to at least one of the practitioners. It was the students' task to explore the SIP tasks and responsibilities assigned to the practitioners as deeply as possible. Six of the practitioners held management positions within the IT department, while the other four had to decide on the adoption and application of IT in the business units. The IT top managers, i.e. the CIO and the director of the IT department, did not actively take part in all phases of the project. In the beginning, they gave an introduction to the enterprise situation, business strategy and long-term objectives of information processing. In addition, they took part in the discussion of project results.

The research approach has proven to be effective for both of the research objectives. On the one hand, the concept of a role-takeover allowed us to gain a better understanding of the practitioners' views on SIP. We were able to discuss their specific concerns in SIP, their personal interpretation of the situation and their perception of problems in a much more informed way than without conducting an SIP process for the same company. On the other hand, we had the opportunity to carry out an SIP process that was driven by research recommendations and still fully realistic and embedded in a specific enterprise situation. Because of this, the practitioners were also more motivated to actively discuss their perceptions

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13 Argyris, Putnam, Smith (1985), pp. 4.

14 Frank et al. (1998).

and decisions with us – e.g. in a meeting with the CIO, the director of the IT department and two further IT managers at the end of the case study.

The following sections present the results of our research. Section 3 summarises the results of the literature review that provided us with the required SIP background, principles and methods from the academic domain. Section 4 introduces the general enterprise context of SIP, i.e. those aspects and conditions that are necessary to understand and interpret the SIP process in our specific case. This sets the scene for Section 5, which describes the SIP process at the company itself. Here, we describe the existing SIP practices. Section 6 then discusses the differences between the SIP approach that had been established at the investigated company and the one that the research team chose. This is done to reflect upon the SIP practices found at this company. The most striking differences have been a matter of discussion with the practitioners. The differences found and the results of the discussion with the SIP practitioners are reported in Section 6 and summarised in Section 7.

In terms of the research methodology applied, it can be said that Sections 4 and 5 report on results of the introductory interviews and the document analysis phase of our project. Section 6 comprises results from the subsequent phase in which we conducted an SIP process ourselves and compared the results.

3 Current State of SIP Research

Research has been concerned with the role of information systems in competition and the relationship between business strategy and IT for about 25 years now[15]. It originates from a discussion at the end of the 1970's when the strategic relevance of IT started to be recognised on a broader scale[16]. Nevertheless, it is at a relatively early stage of development if compared to traditional areas of planning such as marketing or financial planning. Though theoretical foundation is still limited, there is some consensus on elements of SIP and factors that influence it[17]. For example, LEDERER and SALMELA describe SIP in terms of its "inputs, processing and outputs". When using the term "inputs", they do not refer to factors that are processed within SIP but to factors that influence the planning process. Thus, the term "contingencies" appears to be more precise in this context. With this terminological adaptation, we adopt the model as outlined in Figure 1 to introduce the state of SIP research in the following sections.

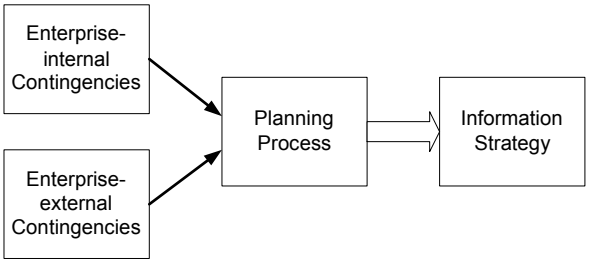

Figure 1: Basic model for investigating SIP

Strategic information planning is regarded as a process (Section 3.1) during which an information strategy is planned as the outcome of decisions that are based on certain analyses (Section 3.2). The planning process is influenced by internal as well as external contingencies (Section 3.3) such as the industry or a company's resource situation and culture.

3.1 Process: Strategic Information Planning

Textbooks on IS/IT management recommend several areas to be considered in the SIP process, so called fields of analysis[18]. These fields are depicted in Figure 2. The model's basic logic follows that of a SWOT analysis but with focusing on the information processing situation. This situation is made up of all resources and prerequisites that add to the enterprises information processing capability. These include the IT facilities and the socio-technical information systems. The latter can be seen as organisational applications of IT that provide information or facilitate communication for specific business purposes[19]. Furthermore, though

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15 Some widely known contributions are Porter, Millar (1985); Wiseman (1985); Galliers (1991).

16 The emergence of strategic issues in IT through the 1970's is described in Nolan (1979).

17 For an overview see Lederer, Salmela (1996), or Sambamurthy, Venkatraman, DeSanctis (1993).

18 The process described here follows the recommendations from common textbooks such as Ward, Griffiths (1997), Chapter 3; Martin (1990), Chapter 13; Boddy, Boonstra, Kennedy (2005), Part 2.

19 Checkland, Howell (1998).

not always tackled explicitly, the information available in the enterprise are also of high importance to its information processing capability. Some authors criticise the practice of focusing on IT/IS components and advocate for putting the 'I' back into the IT discussion[20]. Putting the information back does not only emphasise the role of the information resources, but also directs attention towards the organisational preconditions for providing information as reusable and reliable resources[21]. All these prerequisites for organisational information processing can be summarised under the term "information infrastructure (IIS)".

An enterprise must ensure that the IIS runs smoothly, is protected against fraud, maintained and adapted to future needs. To achieve this, the IIS must be complemented by an information function (IF) which acts on the IIS and is in charge of those tasks. Fulfilment of the IF requires personnel as well as technical facilities (e. g. CASE and administration tools). These resources can be set up internally, for example within a dedicated IS/IT department, whilst in the case of outsourcing, parts of the IF are assigned to external partners.

The strategic information planner must shed light on both the IIS and IF as sources of strengths and weaknesses in information processing. This analysis of the internal information processing situation must be balanced with the chances and risks provided by the changing inf*ormation processing environment*. This environment refers primarily to the markets for information, IT and related services. In particular, IT related environmental changes have to be monitored. These include the emergence of global infrastructures and standards, the diffusion of IT in relevant stakeholder segments, and its adoption by competitors.

It is commonly suggested that information strategy planning must not be isolated from strategic business thinking[22]. Rather, information strategy has to be mutually aligned with business strategy. On the one hand, business strategy places requirements on the information strategy. On the other hand, information technology may enable new ways of doing business which must be considered in the information strategy. Thus, a thorough analysis of the organisation's *business strategy* is necessary. Most authors claim that it is not sufficient to only know the business strategy[23]. Instead, they call for an in-depth understanding of the assumptions (internal strengths and weaknesses, external chances and risks, in particular) underlying the proposed business strategy. Good background information on critical success factors, environmental challenges, resulting opportunities and threats as well as internal strengths and weaknesses are necessary to assess the possible effects of alternative information strategies on the overall business strategy (represented by the thinner arrows in Figure 2).

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20 Davenport (2000). Also see Rockart (2004).

21 Levitan (1981).

22 Henderson, Vencatraman (1993).

23 E.g. Ward, Griffiths (1997), pp. 161.

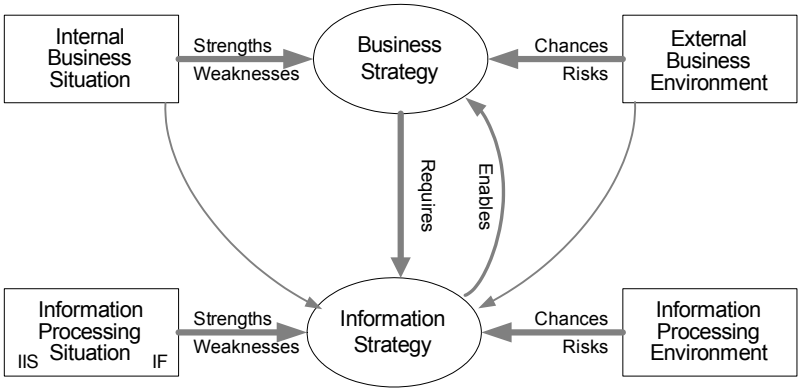

Figure 2: Fields of analysis during an SIP process

Because of its practical relevance, consultants have proposed a number of frameworks, techniques and principles of good practice to guide the SIP process (Figure 2)[24]. Some of have even proposed formal methodologies that orchestrate the use of frameworks, principles and techniques. Early and internationally well known examples of such methodologies are IBM's Business Systems Planning or Strategic Information Planning within James Martin's Information Engineering methodology[25]. However, empirical work does not support the assumption that the proposed frameworks, principles and especially the formal methodologies meet the requirements of practice[26]. First of all, most of the methodologies proposed have scarcely been applied in practice before publication. Evaluations or success studies are generally lacking[27]. Secondly, only a minority of enterprises apply formal processes or methods at all[28]. FLYNN and GOLENIEWSKA complete this picture stating that even if formal techniques for SIP are used they fall short of expectations[29].

3.2 Outcome: Information Strategy

The concept of strategy is substantiated in very different ways by different authors[30]. One very common perception[31] of information strategy is that of a portfolio of IT/IS investments or projects[32]. Others perceive information strategy as an architecture for IT applications to serve as a kind of blueprint for building the IS landscape[33]. Moreover, there a number of authors who equate information strategy with the plan of the IS/IT department in the enterprise[34]. The

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24 See, for example, Henderson's and Venkatraman's Strategic Alignment Model (1993)

25 IBM (1981); Martin (1990). For an overview see Fink (1991) and Teubner (2003a).

26 Flynn, Goleniewska (1993), pp. 300.

27 Heinrich, Lehner (1990), pp. 3-28.

28 Schellmann (1997); Lehner (1991).

29 Flynn, Goleniewska (1993), p. 301.

30 See Mocker, Teubner (2005).

31 Earl (2003b), p. 59.

32 E.g. Lederer, Salmela (1996), Lederer, Sethi (1991), (1992a), (1992b), (1996); Gottschalk (1999b), Salmela, Lederer, Reponen (2000); Ang, Shaw, Pavri (1995); Lehner (1993).

33 E.g. Hildebrand (1994); see also Brown (2004).

34 E.g. Lehner (1993), p.16; McLeod (1998), p. 40, 48¸ Smits, van der Poel, Ribbers (2003), p. 65.

information systems strategy then corresponds to the departmental strategies of other departments like the marketing or production department derived top-down from an overall business strategy[35]. One thing that all of these propositions have in common is a strong focus on IT and its application. This focus is also expressed by the terms “Strategic IS Planning (SISP)”, “Strategic Planning for IS (SPIS)”, or “IT Strategy Planning (ITSP)” that are frequently used as alternatives to SIP. ITSP highlights the role of information and communication technology as an enabler of information and communication in business, SPIS focuses on the application of IT and its organisational integration into business. SISP might indicate an ever tighter focus on Strategic Information Systems, i.e. IS that provide competitive advantage. However, in line with EARL and others we view IT and IS strategy as elements of an overall information strategy[36]. Both, information systems and the technology (computers, networks) form part of the Information Infrastructure (IIS), which also includes the (digital) information resources available to the enterprise.

IIS strategy does not stand alone but has to be accompanied by planning for the resources and tasks to run and maintain the IIS. These are organised in the information function (IF). IIS and IF together add up to the information processing capability of an enterprise as mentioned before.

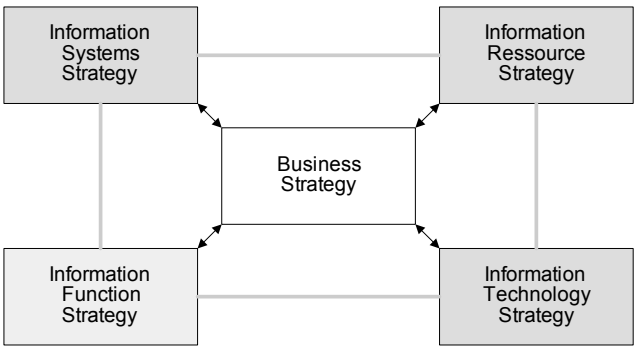

Figure 3: Information strategy subject areas

In sum, we can state that information strategy is a fundamental and long-term plan for the future development of the IIS and IF[37]. Figure 3 sets out the different fields for information strategy decisions graphically[38]. As already mentioned in the previous section, the figure indicates that the information strategy (interlinked grey rectangles; the three dark grey rectangles indicate the IIS part of the information strategy) has to be closely linked to the business strategy (white rectangle)[39].

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35 E.g. Boddy, Bonstra, Kennedy (2005), pp. 88

36 See Earl (2000); Ward, Griffiths (1997), p. 543.

37 See Earl (2000), pp. 20, and Ward, Griffiths (1997), p. 543. For a theoretical foundation of the concepts of IIS and IF see Teubner (2003b), pp. 32 and pp. 46.

38 For a similar representation of the information strategy see Earl (2000), p. 21. However, note that the strategy concepts are similar but not identical.

39 This model is elaborated in more detail in Mocker, Teubner (2005).

3.3 Contingencies of Strategic Information Planning

It is neither possible to generalise with regards to the appropriateness of SIP outcomes nor is there one 'best' way to conduct strategic information planning. WARD, GRIFFITHS stress that it is vital "(...) to assess the situation and the needs carefully … (as each) … organisation merits a different approach, which will vary according to the current circumstances and the stimuli prompting the need for planning"[40]. The factors that impact on the SIP process and its outcomes can be organised into three categories: factors external to the enterprise, factors within the enterprise but outside SIP and factors that stimulate SIP[41]. These factors are discussed in the following sections.

3.3.1 External Context: Industry

The industry of an enterprise can be defined as a group of companies providing customers with similar services or products that partly might substitute each other. It has been pointed out that different industries call for different information processing capabilities[42].

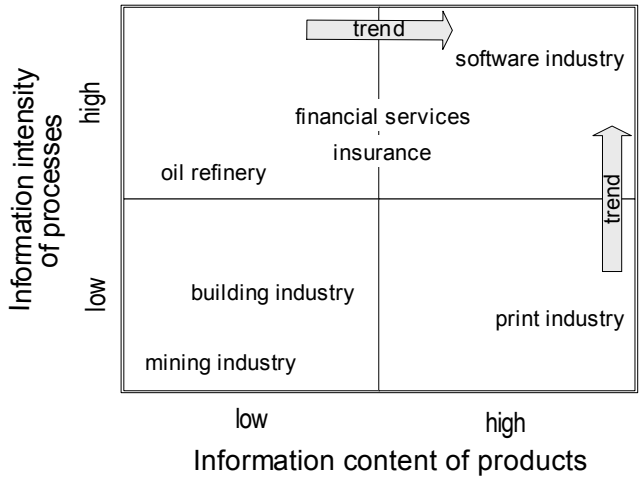

Figure 4: Information intensity matrix[43]

Porter, for instance, proposes a grid for the classification of industries according to the information intensity of the value chain and of the products and services delivered. The grid suggests that the higher the information intensity of an industry is in each dimension, the more important is information processing to business success (Figure 4). Associated with the information intensity of the business is its reliance on IT, which again calls for extensive SIP[44].

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40 Ward, Griffiths (1997), pp. 107.

41 See Ward, Griffiths (1997), Chapter 3, or Lederer, Salmela (1996).

42 Porter, Millar (1985); Earl (1989); McFarlan (1984).

43 Adapted from Porter, Millar (1985), p. 153.

44 Sambarmurthy, Venkatraman, DeSanctis (1993), p. 25 ; Tukana, Weber (1996).

3.3.2 Internal Business Context

The internal business context comprises factors that are specific to the organisation. It has been shown that the resource situation has a significant influence on SIP[45]. SIP is generally viewed as a "resource drain" since it ties up scarce human resources (IS/IT specialists, key users, top management, IS/IT management). Empirical studies underpin the effect of the quantity and quality of resources available on SIP success[46]. Likewise, the organisational size and structure may influence SIP practice. For example, a large size as well as complex structures may increase the need for formal planning. Organisational size is furthermore associated with the need to plan more dedicated and more complex IS/IT resources (e.g. the number of technologies and systems and their interconnections). Other internal context factors are the formal position of the executives representing the IF and the maturity and formality of the planning and control system.

Closely related to these more explicit phenomena are top management values and attitudes towards information processing[47]. For example, if the information function is represented by a CIO at the top management level, it may indicate that IT/IS is accepted as playing an important role within the enterprise. Furthermore, the management and control system may express aspects of the organisational culture. These soft factors should not be looked upon as static phenomena; rather they evolve over time and thus should be also seen from a historical point of view.

3.3.3 Stimuli

Information strategy planning or revision may be triggered by either specific events or as part of a regular planning activity: "Sometimes IS planning is a special endeavour and sometimes it is part of business planning at large"[48]. Specific events can be the result of external (competitive) threats imposed by the IT environment or can be related to internal business initiatives such as organisational redesign or business strategy changes. Such stimuli can affect the aims of SIP as well as the planning process itself in certain ways[49]. For example, business process reengineering initiatives are driven by the idea of reinventing the business based on the capabilities of IT. Thus, they place a strong emphasis on organisational analyses and transformation through IT[50].

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45 Ward, Griffiths (1997), pp. 109.

46 Premkumar, King (1994a), p. 336. See also Premkumar, King (1994b), p. 78, and the findings reported there.

47 Empirical support is provided by Cragg (2002), pp. 275, for example.

48 Earl (1993), p. 7.

49 Ward, Griffiths (1997), pp. 109.

50 Hammer, Champy (1993); Davenport (1993).

4 The Financial Service Corporation

For our case study, we analysed a company from the financial services industry. In order to preserve confidentiality, we call this company the Financial Service Corporation (FSC). The following sections describe FSC's external industry situation as well as its internal business context. With regard to the internal context, a special focus is placed on the description of the IF and the overall business planning and control system into which SIP is embedded. Finally, we describe the stimuli that drove SIP at FSC. All these factors act as contingencies to SIP as outlined in Figure 1.

4.1 External Context: Industry

FSC is a major player within a specific segment of the German financial services industry. The financial services industry in general is a highly information intensive business (see the position of the financial services industry in Figure 4). FSC does not sell physical products but financial services requiring a certain amount of paper work (contracts, settlements, statements). Business processes are thus dominated by information processing activities such as customer counselling, rating or underwriting.

The financial services market in Germany is dominated by three trends. The first is *market saturation*. With a stagnation of demand the markets have become more and more customer dominated. While customer loyalty has been relatively high in the past, customers nowadays become increasingly sensitive to price and quality. As such, many customers have no objection to switch suppliers in exchange for better products and services. In consequence, financial service companies have to find ways to retain customers.

Another trend which is largely enabled by deregulation of the local financial markets and the establishment of a common European market is *globalisation*. Globalisation is more of a threat than an opportunity to FSC, which is regionally bound and builds on the local presence of its sales organisation.

Increased competition, a third trend, is partly a result of market saturation, customer domination, and globalisation. Another important factor stimulating competition is that of suppliers from other lines of the financial services market diversifying into new market segments. It becomes more and more common to offer customers full-service packages including insurance and financial services, a strategy called "Allfinanz".

Despite the challenging industry situation, FSC's management regards the company to be in a good competitive position. FSC justifies this belief by pointing to three major assets: a leading cost structure, a superior sales organisation and a management team that has successfully kept the corporation's market leader position in the past. The company had sales of EUR 52 billion and more than two million customers in 2003. With this volume FSC is market leader with about 40% of the market share in its regional segment.

4.2 Internal Business Context

Regarding the internal business context of SIP, several aspects are of particular importance: the organisational structure gives an overview of the company as a whole and outlines where IT is located within the company. The organisation of the information function gives an indication of how many people are conducting certain tasks of the information function. Finally, since SIP is embedded in and influenced by the overall business planning and control system and values, these issues are of interest as well.

4.2.1 Enterprise Organisation

FSC is a medium sized enterprise with 900 employees who are located at two sites. 750 employees work at the head office while the remaining 150 employees work at a branch office. These 900 employees are complemented by a sales organisation of 1,600 independent sales representatives. Furthermore, FSC cooperates with other financial service organisations that work in different segments of the industry but in the same regional market. FSC is basically organised in functional departments, among them marketing, sales, product management, human resources (HR) and organisation, accounting and information technology (Figure 5).

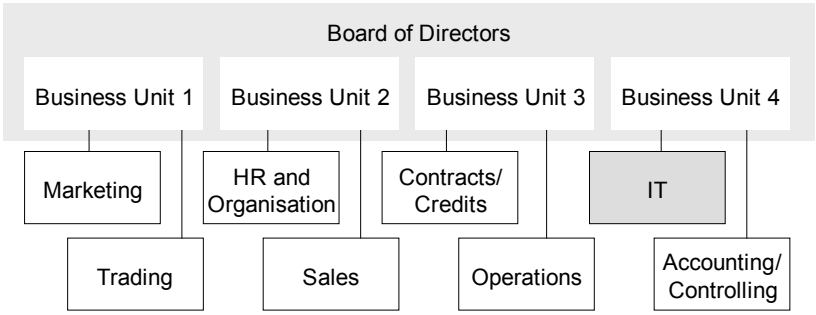

Figure 5: FSC's organisational structure

4.2.2 Organisation of the Information Function

Most of the people conducting tasks of the IF are located in the IT department (see Figure 6). Exceptions are business systems architects who are with other business units and IT controllers who are mostly located in the accounting department. The IT department is located on second management level and reports to the business unit director who represents IT/IS issues on the board (Figure 5).

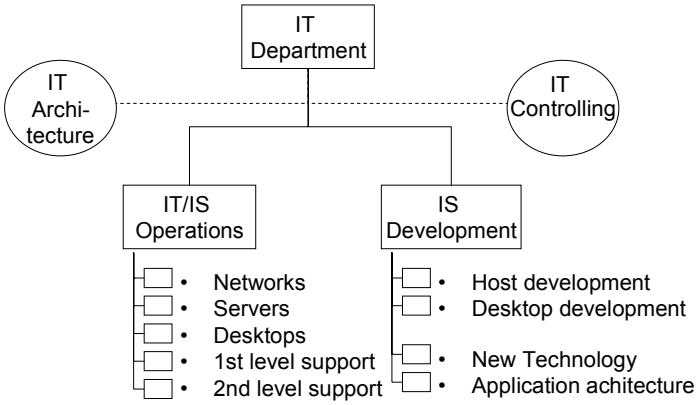

Figure 6: Organisational structure of the IT department

FSC employs about 100 employees who are responsible for the following tasks of the IF (number of employees in brackets):

- First level support (30)
- Second level support for applications (25)
- Business systems architects (10)
- Systems analysis and development (internal: 20, external: varying)
- IT management and administration (15)

IT personnel accounts for more than 10% of all employees. This already indicates that IS/IT is a substantial cost factor for FSC. Hardware and software add up to more than 50% of the enterprise's fixed assets, while 25% of the administrative costs are related to IT/IS- services.

4.2.3 Business Planning and Control: System and Values

Business planning is closely linked to budgeting and financial planning and complemented by a highly developed control system which is used to monitor goal attainment and cost development. FSC uses a formal planning system which is strongly based on the balanced scorecard as proposed by KAPLAN and NORTON[51]. The scorecard is used to translate the organisation's strategic vision and goals into controllable metrics for each business unit (see Figure 7).

The strong emphasis on financial planning and quantitative controlling is inextricably embedded in the management philosophy. Management focuses rather on setting quantitative goals and controlling goal attainment than on the planning of strategic actions to be taken. The focus of planning is on quantitative figures at the expense of soft facts. The (formal) business strategy thus remains partial and somewhat incomplete.

Within this tradition of thinking, the IT department is highly regarded for its contribution to reduce cost. Massive investments in IS/IT with a focus on automation of mass data processing

51 Kaplan, Norton (1992).

and business process optimisation have added to FSC's leading cost position in the past. A further contribution expected from IT is better management information to improve planning and controlling capabilities.

4.3 Stimuli of SIP

Two initiatives gave SIP a specific impetus in the past years. One was a software development joint venture and the other one was an outsourcing initiative. However, at the time of our study SIP was not triggered by any specific event. As is typical for FSC, SIP was executed in conjunction with the overall scorecard based business planning mentioned in the section above, which takes place periodically. Although there are no specific triggers that stimulate SIP, it is equally true to say that there is a general bias towards investment and cost control for two reasons. Firstly, cost has traditionally played and still plays a major role in FSC's competitiveness. Secondly, IIS operation and development cost represent a major portion of FSC's overall costs.

5 Information Strategy and Planning at FSC

Somewhat surprisingly, neither the term “strategic information planning” nor the term “information strategy” were commonly used and homogeneously understood at FSC. The same was true for related terms such as SISP, ITSP, SPIS and IS/IT strategy (Section 1). However, when asked for their information strategy, the FSC managers gave us insight into the plans for the IT department. When we discuss FSC’s strategy development process and the resulting information strategy in the following sections we refer to these plans.

5.1 Strategic Information Planning

Processwise, SIP at FSC is fully embedded in business planning. Through this integration FSC achieves a certain level of alignment between business plans and IS plans. The planning process is highly standardised. It is heavily based on budgeting and financial planning, and complemented by a dedicated control system to monitor goal attainment and cost development. The resulting planning process thus provides a high degree of technocratic rigour. To make these points clear it is helpful to view the SIP process from two perspectives, a methodological one (Section 5.1.1) and an organisational one (Section 5.1.2).

5.1.1 Methodology

FSC’s SIP process starts from a business vision which is broken down into goals categorised into four dimensions as proposed by KAPLAN and NORTON’s balanced scorecard[52]. In a second step, these enterprise-wide goals are further broken down into goals for each main department, one of them being the IT department.

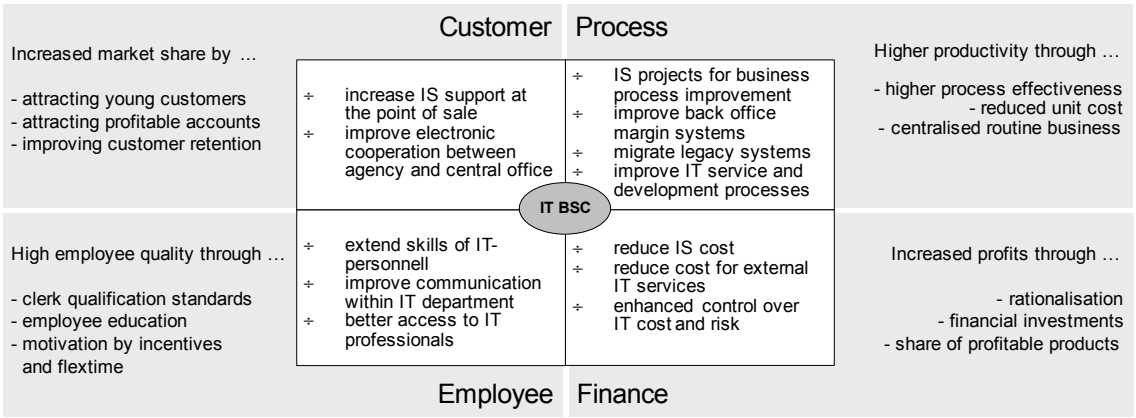

Figure 7: FSC’s business objectives and IT balanced scorecard

52 Kaplan, Norton (1992).

Figure 7 exhibits FSC‘s business (grey shaded) and IS departmental goals (white box), both arranged in the four dimensions of the balanced scorecard. FSC’s business vision focuses on market leadership and improved profitability through cost leadership. The business objectives that were derived from this vision are set out in the grey shaded part of Figure 7. For example, from the customer perspective the objectives include attracting new customers, especially young people with a potentially long customer life cycle, and improving customer retention in order to increase both volume and profitability. The white box in Figure 7 depicts the IT objectives. It is striking that the perspective is an enterprise-wide one in the customer and the process dimension while it has changed to a departmental one in the employee and finance perspective. In other words, the question behind the former two dimensions is: how can IT help to improve customer service and satisfaction (at the point of sale) and to increase efficiency in the back office process (including IT service processes). In contrast, the goals in the latter two dimensions are directed inwardly towards the IT department. They focus on reduction of IT departmental cost and training of employees of the IT department only. To be consistent with the other two dimensions, the question should have been how applications provided by the IT department shall contribute to cost reductions in other units and how it supports fulfilling IT related training needs in the business units, respectively.

5.1.2 Participants and Process

SIP at FSC is conducted in cooperation with different groups. It is initiated by top management that is concerned with overall business planning. The board of directors sets out the business vision and the objectives in each of the four dimensions of the balanced scorecard (Figure 8). The board then proposes preliminary budgets for each department. Furthermore, it stipulates the rough course of action to be taken and identifies key strategic business projects. However, the measures to be employed in order to achieve the objectives are not outlined in detail. The strategic actions are mostly implicit and loosely associated with goal statements (e.g. “check tools regarding personnel development”, “exploit potentials for reducing personnel cost” or “increase profitability of customer relationships”).

Whenever a first version of the overall business plan has been established, it is handed over to the functional departments for further specification. The functional departments break down the objectives and suggest projects (including IT projects) and activities to meet them. They write tentative business cases for the projects and match the estimated costs with the (preliminary) budgets. The budgets may then be expanded by top management in the light of these more detailed plans.

The IT department is fully integrated into this iterative top-down planning process and treated in a way similar to that of all other departments. The difference lies in the fact that the IT department provides cross-functional IS/IT services to all other functional departments. For this reason, the latter participate as internal customers in the SIP process. During departmental planning the functional departments – besides defining all other non-IT related projects – define their IS/IT requirements and come up with IS/IT project proposals. Small projects may be initiated autonomously by the functional department. In this case, they are charged to the functional budgets. But the majority of projects are imposed on the IT department and its budget (Figure 8)

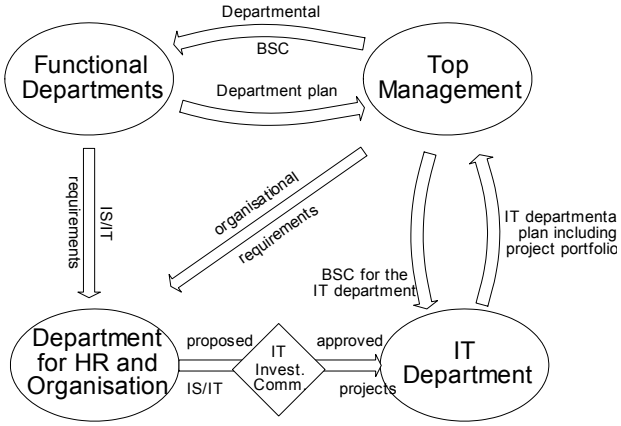

Figure 8: Process and participants in SIP

However, the functional departments are not able to simply impose their IS/IT requirements on the IT department. The process is mediated by the department for Human Resources and Organisation which collects, integrates and consolidates IT/IS requirements and project proposals from the other departments. It also checks the business cases, evaluates the organisational and economic impact of projects, and judges interrelations, priorities and costs. These activities are preparatory for the final decision on which projects shall be initiated. This project approval – which in the first place depends on the available budget – is in the responsibility of an IT investment committee. This committee includes representatives from all functional departments, the department for HR and organisation and the IT department. The consolidated list of approved IS/IT project proposals is then passed on to the IT department which elaborates a detailed functional plan under the given budget restrictions. This plan, called "IT departmental conception", is finally submitted back to the top management, as is the plan of any other department.

5.2 Information Strategy

The "IT departmental conception" details the IT objectives and assigns projects and activities. The document starts with an introduction of the overall business objectives and gives an executive summary of the projects and activities to be carried out during the planning period, which is typically one year. Its main part elaborates the plan in all four dimensions of the balanced scorecard. Each dimension is tackled in a section of 2-5 pages. Each section, again, starts with the goal statements of the IT balanced scorecard (Figure 7) and then explains the corresponding projects and the activities to be undertaken.

Attached to the strategy document is an appendix that lists all IT/IS projects for the planning horizon. Most of the projects were initiated by the business units and some arose from legal, organisational or technical necessities. Projects of the latter kind were designated "reengineering project" or "maintenance project", respectively. Most of the projects are not projects of their own right but should be seen as work packages that are designed to be handled within the planning horizon. These work packages are part of larger IS initiatives that

can are also called “programmes”[53]. There are two groups of programmes in place at FSC, but they are not documented in the IT departmental conception. The most important programme is concerned with the development of a new back-office system. It has been adhered to for a couple of years now. Two more projects contribute to a smaller programme related to the point of sale. It focuses on automating sales procedures and facilitating data transfer between the sales representatives and partners on the one hand and the back office on the other.

It is worth mentioning that all projects included in the IT departmental conception either relate to the process or the customer dimension of the balanced scorecard (Figure 7). This is due to the shift from an outward to an inward perspective in the other dimensions as stated above (Section 5.1.1). Furthermore, the full spectrum of projects for process and customer service improvements as well as for the development of employees’ IT qualifications in other business units has to be included. The cost-benefit impact of these projects could then be reflected in the financial dimension.

[53] Weill, Ross (2004), p. 44

6 Discussion: Problems and Propositions

This section raises questions that emerged from both the analysis of the practices found at FSC and the propositions of the researchers on how to conduct SIP at FSC. While the analysis reflected on current practices at FSC, the propositions put forward by the research team explored new ways of conducting SIP at FSC. The results of the analysis as well as the innovative propositions put forward by the researchers have been discussed with FSC's two IT project managers, the IT director and the CIO. Their comments on the topics raised are also included in the following sections.

6.1 Strategic Information Planning

A very broad but still helpful concept to characterise SIP was introduced by EARL. He defines an "SIP approach" as "(...) the interaction of method, process, and implementation, as well as the variety of activities and behaviors"[54]. EARL distinguishes five SIP approaches labelled "Business-Led", "Method-Driven", "Administrative", "Technological", and "Organisational" by using nine discriminating criteria (see Table 1).

	Business-led	*Method-Driven*	*Administrative*	*Technological*	*Organisational*
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	Consultant	Committees	Method	Teams
Relation to Business Strategy	Fix points	Derive	Criteria	Objective	Look at business
Priority Setting	The board	Method recommends	Central committee	Compromise	Emerge
IS Role	Driver	Initiator	Bureaucrat	Architect	Team member

Table 1: SIP approaches according to EARL

According to the criteria "emphasis", "basis", "ends", "priority setting", "method" and "nature" put forward by EARL, SIP at FSC can be classified as being administrative[55]:

- The *emphasis* is on a reasonable allocation of financial resources and thus it is heavily *based on* financial planning and capital budgeting procedures. No application is developed until it is on these plans. EARL's characterisation of the administrative approach as being

54 Earl (2003a), p. 189.
55 Earl (1993), p. 7; Earl (2003a), p. 190.

"attached to the firm's normal financial planning […] routine"[56] fits the description of FSC's SIP approach in Section 5 very well.

- A portfolio of IS/IT projects is one of the core results of SIP at FSC ("*ends*" criterion). Tasks like p*riority setting* and investment approval are the responsibility of an IT investment committee that includes representatives from the IT department, the functional business departments, and the organisation and HR department. Decisions are first of all based on functional requirements and budget margins. Potential benefits are only seldomly assessed systematically but rather judged intuitively. Again, EARL's characterisation of the administrative approach matches the description of SIP at FSC (see Section 5): "Typically, IS proposals were submitted by business units or departments to committees who examined project viability, common system possibilities, and resource consequences", "a planning investment or steering committee makes all decisions"[57].

- From a *methodological* point of view, FSC does not build on specific IT/IS methods for strategic planning. Business planning methods such as the balanced scorecard approach as well as budgeting and financial planning techniques are used.

- The *nature* of the approach is rather bottom-up than top-down. It is true that the IS/IT portfolio follows the strategic objectives and rough guidelines imposed by top management's business plan. However, projects are generated bottom-up by the functional departments.

EARL ascribes certain inherent benefits and shortcomings to the administrative approach: on the benefit side, all units are involved and the procedures are well-known to all stakeholders. This approach usually also fits the planning and control style of the company and is thus conducted in congruence with other activities. This holds true for FSC as well since SIP is fully integrated into the overall business planning as described in Section 5.1. Hence, the administrative approach effectively assures that SIP really happens and that everybody knows what to do at which point in time. EARL's work suggests that, in the administrative approach, the applications selected for the development portfolio are eventually implemented. We can confirm this for FSC: once projects are in the portfolio they usually got started.

On the downside, EARL states that "ideas for radical change were not identified, strategic thinking was absent, inertia and 'business as usual' dominated, and enterprise-level applications remained in the background"[58]. If compared to the business-led and the organisational approach, the administrative approach is much weaker in linking business and IT themes. Furthermore, the administrative approach does not build on the engineering rigour and does not yield integrated technology plans as the method-driven approach or the technological approach do.

EARL's concept of an SIP approach is valuable for a first characterisation of the SIP setting. However, it is a too broad and somewhat vague concept (neither the criteria nor their values are

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56 Earl (1993), p. 9.
57 Earl (1993), p. 9.
58 Earl (1993), p. 9.

defined properly) to identify detailed problems and analyse them regarding their causes. Hence, for a more detailed analysis we used three guiding questions: Who is responsible for SIP? How is SIP conducted? By which means is SIP supported? These questions relate to SIP governance (Section 6.1.1), SIP process (Section 6.1.2) as well as SIP methodology (Section 6.1.3). In fact, these questions also address some of the criteria used in EARL's model ("basis"/"nature", "influencer" and "methods").

6.1.1 SIP Governance

WEILL and ROSS define IT governance as „specifying the decision rights and accountability framework to encourage desirable behaviour in the use of IT"[59]. They identify six governance archetypes depending on the combination of stakeholders involved in the decision making. Involvement may either mean to give *input* to the decision process (e. g. reports, requirements statements, budget plans) or to have *decision* rights. When ordered from more to less centralised, these archetypes are: business monarchy, IT monarchy, federalism, IT duopoly, feudalism, and anarchy (see Table 2).

Governance Archetype	*Who has decision or input rights?*
Business Monarchy	A group of business executives or individual executives (CxOs). Includes committees of senior business executives (may include CIO). Excludes IT executives acting independently.
IT Monarchy	Individuals or groups of IT executives
Federal	C level executives (CxOs) and business groups (e.g. business unit leaders or key process owners); may also include IT executives as additional participants. Equivalent of the central and state governments working together
IT Duopoly	IT executives and one other group
Feudal	Business unit leaders, key process owners or their delegates make separate decisions for their respective units.
Anarchy	Each individual user makes separate decision; no group decision.

Table 2: IT governance archetypes according to WEILL[60]

Archetypes may differ by IT decision area. Looking at SIP at FSC, we identified two relevant decision areas: defining business requirements for IS, and making decisions on which IT/IS projects are to be added to the project portfolio[61]. Both decisions are made in a rather feudal fashion dominated by the business departments:

- The requirements of the business functions regarding IS are identified by the business architects within the functional departments. These requirements are identified by each department separately and they often manifest in the form of IT/IS project proposals.

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59 Weill, P. (2004); Weil, Ross (2004). Similar definitions are given by Sambamurthy, Zmud (1999) and Peterson (2004).

60 Weill, P. (2004); Weil, Ross (2004).

61 Weill, Ross (2004) identify these decision areas as well, calling them "business application needs" and "IT investment and prioritisation".

- While some smaller projects are carried out under the direction of the functional departments themselves (see Section 5.1.2), the majority of project decisions are made by an IT investment committee which includes executives from all departments. Here, the IT department is only one department among many others and thus its influence is rather small. The decisions are dominated by the business executives. Though decisions are made in a group setting, the governance structure is close to that of business feudalism rather than business monarchy. Project requests are not mutually evaluated and compared. It is common practice that the committee approves any project requested by a business unit as long as it fits in the budget.

WEILL and ROSS recommend such a decentralised and business dominated approach for companies in a stage of strong business growth[62]. They argue that this governance structure allows functional departments to expand their activities including IT/IS applications quickly without being restricted by rigid corporate wide standards. However, FSC is not in a stage of organisational growth. The market is stagnating and allows only for limited growth in volumes. The objective of growth in (revenue) volumes is not meant as expanding into new business activities.

The business dominated governance approach is driven by the business needs as articulated by the functional departments, but this is at the expense of the exploitation of IT potential and architectural integrity. Both lead to increased IT/IS maintenance costs. The project ideas are largely predefined by the business units and the IT department merely has an executing and fulfilling role. Its influence on the projects and thus on bringing in promising technologies to transform business is limited. The same is true for the enforcement of standards to ensure architectural integrity. Architectural integrity requires coordinating the demands of the project portfolio and balancing them with the cost efficiency and reliability of enterprise-wide services used by multiple applications. WEILL and ROSS found that successful enterprises sacrifice business requirements and functionality to sustain architectural integrity[63]. In the case of FSC, the IT department was not in the position to enforce enterprise-wide architectural standards. This resulted in the use of a high number of different technologies, which is costly to support.

The missing architectural integrity had been identified as an important deficiency by an independent management consultancy before. The consultancy proposed to set up an “architectural office”. Our arguments revived this idea. However, they went beyond that of an architectural office aiming at a deeper involvement of IT in business decisions in general. When calling for more influence of IT management on business, we implicitly argued for a deeper involvement of the CIO and a more active role in representing IT on the top management level. Thus, we challenged the current role of the IT management and the CIO’s role in particular. Do they really act as top executives who actively participate in strategic management or are they primarily heading a functional department[64]?

The position of the CIO is remarkable in this context. He is director for “Accounting and Information Technology” on the board. On the one hand, the fact that IT is represented by a

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62 Weil, Ross (2004), pp. 141.
63 Weil, Ross (2004), p. 42.
64 Stephens et al. (1992).

member of the board points out its high importance for the enterprise. On the other hand, the denomination “IT and Accounting” reflects a historical evolution of IT from the accounting department. This implies a fulfilling role. In an earlier stage of development, IT may have evolved from a mere support function responsible for efficient mass data processing in accounting.

6.1.2 SIP Process

The SIP process at FSC is very much driven by the balanced scorecard as described in Section 5.1.2. Each functional department builds a departmental plan based on the quantitative goals stipulated by top management. In contrast to the practitioners who started SIP from these quantitative goals, the research team tried to reconstruct the business strategy and its underlying premises. The team argued that quantitative business objectives are not a sufficient basis to develop an aligned information strategy. Even more important are goal contents and the strategic actions to achieve these objectives. Strategic actions may be enabled, leveraged or even redefined through the potential of IT. For example, it is important to know that the goal “growth of market share” shall be achieved by the action “reducing customer fluctuation through a better relationship management”. Customer relationship management (CRM) will then be an important concern of SIP. SIP might either consider support for the CRM measures already under discussion or even introduce new IT based measures, for example Web based CRM, into the strategic planning process.

The IT managers at FSC partly admitted that the applied top-down budgeting approach formally is not capable of conveying a complete picture on business strategy. But they saw enough latitude for good ideas to emerge from the (partly informal) cooperation between the IT department and the business functions. Furthermore, they were confident that informal processes and the coordinating work of the HR and organisation department would help good ideas for the strategic impact of IT to affect strategic business decisions bottom-up.

6.1.3 SIP Methodology

FSC did not employ any methods for SIP beyond financial planning and budgeting techniques. IS/IT-specific techniques for SIP were not in place. This contrasts with the project level, where methods and tools for systems analysis and design, in particular for process and data modelling, were used extensively.

The research team introduced a couple of new methods and techniques. Among these were visioning, goal decomposition, creativity techniques, matrix-diagramming, architectural planning, argument balance-sheets as well as investment appraisal, portfolio and program planning methods. The FSC team had a strong interest in these methods, especially regarding the sophistication of methods for investment appraisal. Though FSC’s experience with financial methods exceeded the experiences of the research team significantly, any discussion on the evaluation of economic effects of IT applications was welcome[65]. But most interest was

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65 See Parker, Benson, Trainor (1988), for example.

generated by analytical techniques for architectural, portfolio and programme planning. Beyond this general interest in improved methods, FSC felt no need for a formal and fully integrated SIP methodology as often proposed in academic and consulting literature (Section 3.1).

6.2 Information Strategy

The different SIP approaches followed by practitioners and researchers resulted in different information strategies. The most striking differences can be expressed in terms of strategy scope and mode.

6.2.1 Information Strategy Scope

We distinguish the scope of the information strategy in reach, range and time horizon. The reach of the information strategy refers to the coverage of information processing issues. The greater the reach, the broader is the plan of the IIS (and the corresponding IF) with respect to the supported business units and functions. The range of the information strategy refers to its coverage of IIS components and related tasks (compare Section 3.1). Finally, the time horizon designates the temporal scope of the objectives and the duration of the strategic actions.

Information Strategy Reach

FSC's information strategy is by and large a departmental strategy. As such, its reach is restricted: the project list attached to the strategy document is only a list of those IS/IT projects that are under direct responsibility of the IT department, but not an enterprise-wide project portfolio. Projects that are carried out in the functional departments are not included in the plan, neither are projects conducted independently by external partners. The missing overall view of the restricted functional strategy scope leads to a lack of integration and control. The systems deployed and run by the IT department are well integrated. But there is no integration with and between those systems outside the responsibility of the IT department.

Information Strategy Range

At FSC, the information strategy focuses very much on the IS layer of the IIS. This is reflected in the project list as the core of the IT departmental conception. In contrast, there is no separate technology plan that is concerned with fading out overaged technologies or introducing new ones. Most technology planning is carried out in conjunction with the introduction of new applications. Information strategy thus remains a local patchwork. Strategic decisions that are concerned with building a "strategic IT platform (…) that not only responds to immediate needs but also provides escalating benefits over the long term" cannot be addressed in this way[66].

66 Ross, Weill (2002), p. 86.

Furthermore, compatibility has to be assured via a certain level of standardisation[67]. The consequences of a missing overall IT planning have already been mentioned in Section 6.1.1. FSC's technological infrastructure lacks this standardisation and integration. Similar observations hold true for the information resources at FSC. These are only planned as far as data is concerned that is used by information systems under the direction of the IT department. Other important information resources, e. g. in data mining which is under the direction of the sales department, are scarcely known in the IT department. Thus, picking up the idea of an architectural office (see Section 6.1.1), the research team proposed to expand the responsibilities from pure IT to all layers of the IIS: information systems, information technology as well as the institutional prerequisites for information resources and supply.

Time Horizon

The regular planning horizon of FSC's IT departmental conception including the project list is one year. Some more complex projects might be longer. Of course, there are assumptions regarding the long term development of the IIS behind the project list, but these are not made explicit. Again, this does not allow for building the above mentioned "strategic platform". The research team in contrast prepared a 2-5 year project portfolio. This was anchored in an overall plan of the future called "Information Architecture (IA)" which can be seen as an aggregated, enterprise-wide overview model of the current and/or planned deployment of the IIS[68]. It highlights significant components of the IIS and relates them to each other[69]. (E. g.: An information resource is provided by an application system which is based on an IT component. Or: An application shares data with an application through a data base management system.)

When discussing our findings concerning the information strategy scope (i.e. reach, range and time horizon), FSC's IT managers confirmed that long term objectives were not explicitly stated in the IT departmental conception. In addition, two IT managers complained about a missing overall view of the systems deployed at FSC. Even worse, the IT managers suspected that some systems were unknown to the IT department. Only systems that had been developed and run by the IT department were documented in a repository. Systems run by the functional departments are not included therein. While the systems within the scope of the IT department were well integrated concerning data and functions, they were scarcely linked to the systems deployed in the realm of other functional units. In addition, data and technical security of these systems could not be controlled by the IT department which again demonstrates the lack of integration and control.

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67 Weill, Broadbent (1998), p. 15.

68 See Krcmar (1990) or Pearlson, Saunders (2004), chapter 4.

69 Watson et al. (1997), p. 96.

6.2.2 Information Strategy Mode

FSC's information strategy cannot be described in detail here. The current strategy is confidential and dynamic, of course. However, we can describe the fundamental orientation of FSC's information strategy. For this purpose we refer to the concept of generic strategy types as proposed by SZYPERSKI. He outlines four generic strategies to describe general attitudes towards the use of IT[70]:

- When following a *momentum strategy*, an enterprise in principle is satisfied with the existing IIS. Changing business goals or emerging technological opportunities may give rise to new applications. But basically, the enterprise follows a wait-and-see-policy.

- An *aggressive strategy* is characterised by an active search for new IT opportunities and their early and consequent exploitation.

- The *moderate development strategy* type combines features of the momentum and the aggressive type: new IT opportunities are taken if they support the business goals, but only carefully: deployment is not done without thorough situation analysis and often follows a prototyping approach.

- A *defensive strategy* is characterised by a restrictive use of IT. New applications are only deployed if they are a technical or economical necessity with preference for well established IT and standard software applications.

FSC's strategy type can be classified as that of a momentum strategy. FSC knows about the important role of IT in competition, but is very confident about its current information processing capabilities. The existing IIS is only changed if strategic targets or functional requirements change or if existing systems are outstripped by new technologies and thus have become obsolete. The predominant focus of the current information strategy was on automating back office systems. As far as front office systems were concerned the focus of IT applications was on automating sales procedures and facilitating data transfer between the sales representatives and partners as well as the back office. Opening up new business opportunities through strategic information systems is not a strategic intent.

The type of strategy put forward by the research team implicitly argued for more "courageous" investments in the IIS with respect to transforming FSC's business. It can be best characterised by the moderate development type. The World Wide Web strategy may serve as an example to illustrate the different nature of the information strategies proposed by FSC and the research team. FSC viewed the Web primarily as an advertising platform. There was no integrated strategy for the use of the Web by FSC, its sales representatives and other partners. In contrast, the research team proposed to integrate the FSC main Web site and the multitude of individual sites of varying quality deployed by the sales representatives. A Web portal should serve as a common roof and as a central access point to provide current (retention) and potential future customers (acquisition) with additional services. Another example is that the

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70 Szyperski (1981); see also Pfeiffer (1990), p. 146.

research team put much emphasis on new IT-enabled value adding services and customer care.

The differences between FSC's current strategic orientation and the one put forward by the research team led to a controversial discussion. The research team underpinned its position with empirical evidence. For example, VAN NIEVELT and WILLCOCKS found a positive correlation between overhead IT spending ("the non-operation segments of an organisation, where future business is developed") and success for companies in a strong competitive position[71]. Interestingly, the authors illustrate their findings with a case study from the financial services industry.

FSC's IT management did not see the point, arguing with the large development projects conducted. High investment volumes and the risks taken in these projects were pinpointed to argue the venture character of the current strategy. But investment volumes and risk are not good indicators for a strong impetus of IT on business. In contrast to a genuine development strategy, FSC does not aim at exploiting the emerging potential of new IT. Technologies employed are up to date but already well established. And what is even more important, the application of IT to business follows well established patterns of automation and cost reduction. While increasing profitability is one of FSC's business goals, the goal of retaining market leadership via market share growth might be better supported with a more aggressive information strategy. As outlined in the Web portal example, more courageous investments into customer/front office systems could help to attract new customers as well as to improve customer retention. Both objectives – which were defined in the balanced scorecard (see Figure 7) – are not properly addressed by the current momentum strategy focusing on the back office.

71 Schlögl (2001)

7 Conclusions

Our case study revealed that neither the term SIP nor a similar term was commonly used at FSC. It seems that information (systems) strategy is still an arbitrary concept in practice. Of course, most enterprises plan their information processing capabilities and resources in one way or another. And most of them obviously confirm to have an information strategy when asked[72]. However, we suspect that these plans do not really correspond to the concept of information strategy as elaborated in literature: a written, long term statement about the development of the IIS and the corresponding IF that is argued in terms of impact on business strategy and the organisation's competitive success. FSC's plans lacked a lot of these characteristics though their planning documents were elaborated thoroughly and detailed compared to the plans of other enterprises we studied. Besides, FSC is fairly successful in its information intensive business.

Moreover, we learned that SIP research was only poorly perceived in practice. While FSC has lots of sources (books, tools and even consulting support) for systems analysis and software development at its disposal, there was no comparable professional guidance for SIP. In addition, the findings of current research we brought into discussion did not seem to be convincing, at once. Hence, taken together, our experiences might also indicate a research deficit: a lack of comprehensive, intelligible and convincing theoretical insight into SIP that is suitable to guide decision making in practice.

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72 Nievelt, Willcocks (1999), pp. 8 and pp. 20.

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