https://doi.org/10.48009/2_iis_2005_118-123

STRATEGIC PLANNING FOR INFORMATION SYSTEMS— WHO REALLY NEEDS IT?

Dr. Srečko Natek, University of Primorska, Faculty of Management Koper, srecko.natek@fm-kp.si
Dr. Dušan Lesjak, University of Primorska, Faculty of Management Koper, dusan.lesjak@fm-kp.si

ABSTRACT

Strategic Planning for Information Systems is a well known approach in many organizations. Such organizations have something in common: interviews with managers about the enterprise strategy, overall information system architecture models, project plans spanning over several years described in the document called "Information System Strategic Plan". Who really needs this document, understands it, makes decisions about future information systems development and how the document meets present business needs? The article tries to answer these questions.

Keywords: strategic planning for information systems, information systems development

INTRODUCTION

Choosing separate operative programme packages did not necessitate a strategic plan in the past. Most often a provider was selected, which was well-known in a certain environment and which was offering solutions for a reasonable price. A strategic plan was unnecessary and it was also difficult to justify the expenses for strategic planning with the impact on the future development of the information system.

The use of information technology for the support of company's strategic orientation and for the support of value chains substantially increased the complexity of the information system forced many companies into strategic planning of information systems [2]. Unfortunately, many strategic plans were just vast documents that contained attractive business and information models and were filled with unreasonable goals and assessments of future investments into information technology. It was not proved, neither in theory nor in practice, that strategic planning represented a reasonable investment, both from the economic and professional point of view. Thus companies became extremely cautious and seldom decided to prepare a strategic plan. They preferred to prepare concrete plans for the implementation of already selected information solutions, which could not substitute strategic plans.

The development of information technology and a wide supply of information solutions did not only bring about a much better functionality, integrity, reliability and efficiency of information support, but also increased investments in information development of companies. Such investments increase both in absolute values and the relative share of enterprise's turnover. Therefore the management should not transfer responsibility regarding these decisions to information specialists. Once it starts taking decisions regarding strategic development of the information system, the management should be interested in how such investments could be perceived as sound by the shareholders and how to insure their long term effectiveness [3].

The importance of these decisions calls for a thorough study of the future information system of the company and such investments, which are aimed at supporting strategic orientation of the company. Only investments in informatics which directly supports successful development of the company are sound investments. In order to acquire appropriate information needed for taking decisions, it is necessary to plan information development strategically. In this way, the management will become interested in using the strategic plan, ready to cooperate during its preparation and will use it as a tool for taking decisions regarding information development of the company. Finally, the management is likely to become its most important critic or strongest supporter.

KEY ISSUES OF INFORMATION SYSTEM STRATEGIC PLAN

Future development and operation of information system depend on a variety of factors [1,9,10]:

- manager's strategic orientation, which determines the direction and priorities of the company's future development,
- future organization of the company (functional and with regard to processes),
- strategic requirements of users, which determine strategic business rules, important limitations and approximate functionality of information solutions, which will support their internal and external value chains,
- spatial diversification of business activities, which influence computer architecture,
- available information technology, which determines possible computer architecture within a certain temporal framework,
- global view on company data, which are presented in the strategic plan in the form of strategic – global data model,
- available information solutions on the market,
- comparison of information support provided by the competition,
- project plan, which defines objectives, tasks, financial, human and other resources, which are required for the implementation of the strategic information system plan [6].

Some of these factors are much easier planned than others, and are thus more suitable for planning the information system. Some factors have a higher impact on business operations and are thus more important for planning the information system. Some advisers tend to include detailed user requirements into strategic planning of information systems, as these often have an important influence on the selection and consequent effective use of information solutions. On the other hand, we believe that, during the phase of strategic planning, this is not necessary, as it substantially decreases the transparency of a strategic plan.

By plotting the described issues of information system planning on the Hartman and Sifonis matrix [5] we get a priority list of areas, which should be included in the information system strategic plan (Figure 1).

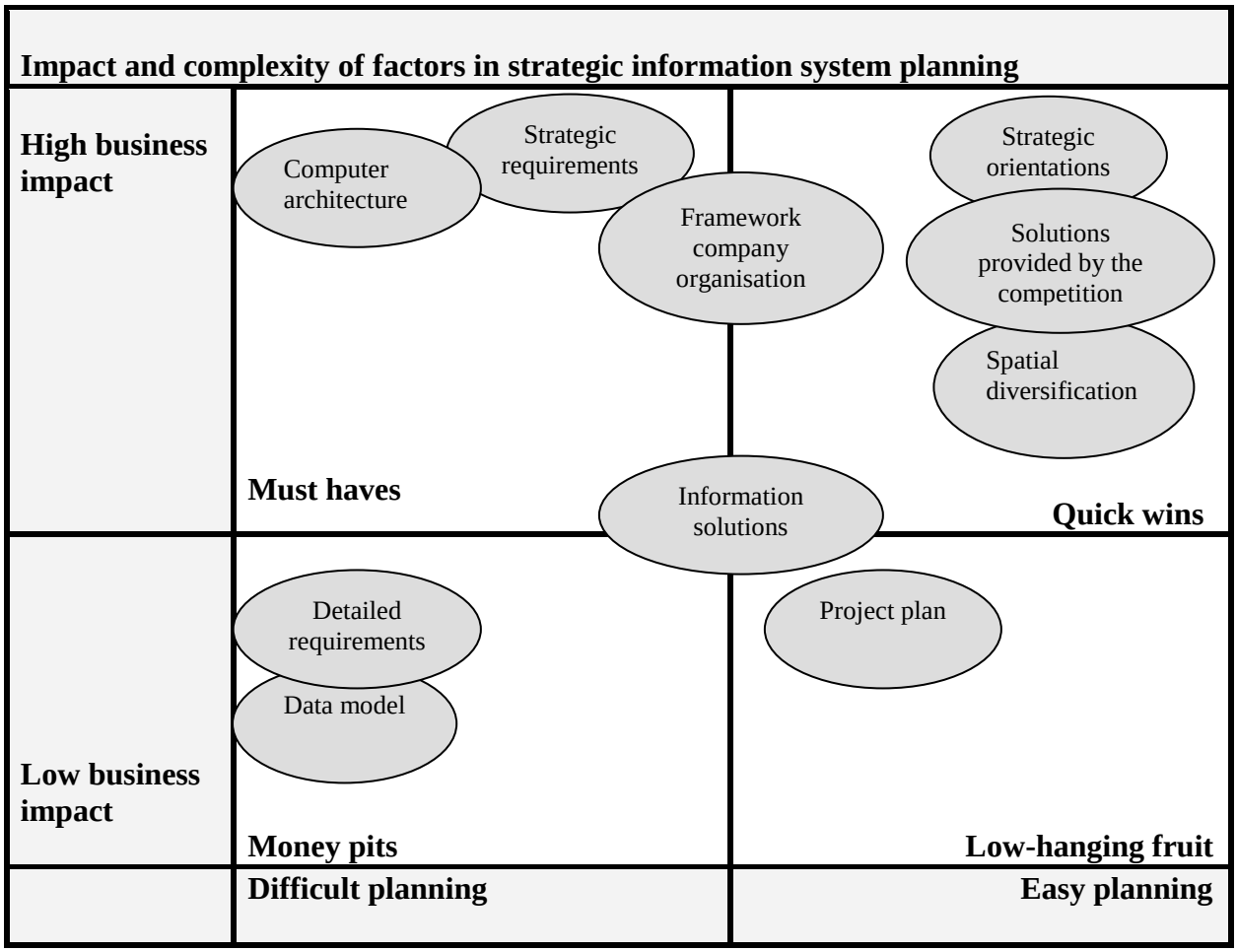

Figure 1. IS Issues Plotted on the Hartman and Sifonis Matrix [5]

The most important areas, which undoubtedly need to be included in the strategic plan, are placed in the quadrant dubbed »quick wins«:

- Strategic orientations of the company have a high business impact, but their planning within the strategic information system plan is relatively simple. Setting strategic orientations is not a task to be carried out within strategic information system planning, but the key task of management. Thus it is necessary to get information about these orientations within the project of strategic information system planning, either through discussions or from written documents. The acquired information should be organized for the needs of strategic plan [7].

- The comparison of the strategic plan with information systems and, if possible, information plans provided by the competition. Companies that make serious comparisons with their competition, value these comparisons highly. Comparisons are not particularly demanding, because many parts of the information system used by the competition can be easily revealed, whereas more concealed parts can be revealed through personal contacts with common business partners. It has been found that many strategic plans do not include this area, which makes comparisons of planned information systems of similar companies impossible.

- Spatial diversification of a company's business activities represents a »core framework« of our business activities. Its influence is therefore very important as it has a high impact on the chosen computer and communication architecture. It is well understood by all participants in strategic planning, and thus easily definable and planned.

We placed areas, which have to be included into any strategic plan, despite the fact that they are difficult to plan on the intersection between »quick wins« and »must haves«, because of their high business impact:

- Framework company organisation, which differs in different companies with regard to their complexity. It is more complex in companies, which are frequently reorganised, have a great number of decision-taking layers, many different business activities and complex intertwined business processes.

- Available information solutions on the market, which should be recognised, compared their functionality with our requirements, bought and introduced in the business practice of our company. Their market orientation is connected with a number of documents and advisers, who can help us substantially in the strategic planning of our information system, which makes their planning modestly difficult. Their inclusion into the strategic plan usually pays off.

The more demanding areas, which are tricky to plan, but have an extremely high business impact and have to be included in every strategic plan were placed in the quadrant »must haves«:

- Strategic requirements of users of the future information system are varied and may include business rules, special functional requirements and limitations with regard to business operations. Characteristically, the selection from among a number of requirements set out by end-users is rather difficult and the list of requirements too long to be worth the name strategic. Too many details decrease transparency of the strategic plan which ceases to serve its purpose, i.e. provide a strategic view on the future information system. Because of their high business impact, which could jeopardize the success of the whole strategic plan, the requirements should be cautiously and selectively included in the strategic plan.

- Computer architecture represents the future computer and communication infrastructure. Once it has been chosen, we are faced with a substantially narrowed range of possible information solutions. Information technology can have a strong accelerating effect on the information and business development of the company. On the other hand, it can become a bottomless abyss for excessive amounts of invested money, which hinders development in other business areas. This makes its inclusion into the strategic plan inevitable, with the optimal selection of the architecture being one of the key success factors of strategic planning.

Only one item, project plan, desired by almost all, was placed into the quadrant »low-hanging fruit«. This is not a simple task, despite the fact that project planning tasks became routinised and project management knowledge widespread. The plan itself does not have a high business impact, because it is possible to reach the same strategic goals in different ways and through

different project plans. But no strategic plan can become operational, if it does not include a project plan for its implementation.

Two areas were placed in quadrant »money pits«, both difficult to plan and with a rather low business impact, which are included into strategic plan only under the condition that the investment put into their planning returns through integrally supplemented strategic plan:

- Detailed functional requirements of end-users frequently represent a pitfall of many strategic plans. A thorough examination of detailed requirements, which can be solved by almost any project of information system implementation, requires unnecessary time for strategic planning, increases their size, and above all decreases their transparency. Therefore we warn against the inclusion of this area into strategic information system plan.
- Global – strategic model of data is, in exceptional cases, an effective way for presenting the data aspect of the future business information system, especially if it represents a substantial deviation from the business operations contents covered in the existing information system. On a global level, these models are in different strategic plans most often similar, as they include key data entities, e.g. buyers, market, product, competition, etc. Main differences of possible information systems rarely become evident on this level of data model. If they are evident in a certain company, it is necessary to think about their inclusion into strategic plan despite the previously expressed misgivings [8].

CONCLUSION

For the management, which does not take direct decisions regarding the investments in information development of the company, the strategic plan represents only one of the many strategic documents, which has only been read and discussed on a business meeting. Such a strategic plan is unlikely to bring direct and sustainable effects on the future development of the information system and was probably made only because of insistent demands expressed by information experts, who needed such a document in order to be able to justify high investments in business informatics. Perhaps such a plan was made because of external advisors, who perceived a business opportunity, hoping that the plan may also be useful for the customer. Such strategic planning is of course not reasonable. The solution can not be found in giving up strategic information system planning altogether, but in such strategic planning which is likely to serve its basic purpose, i.e. support the management in taking decisions about the future development of information system.

Thus our contribution can be concluded by saying that strategic plans are mainly meant for the use of managers, who know precisely why they really need them. Such managers also know what kind of strategic plan is really needed and are likely to assess its quality and benefits. Most certainly, the whole company, business information system and information specialists profit from the strategic plan, because it represents the framework within which the future information development of the company can be assessed. Furthermore, its educational effect should not be neglected, as it makes the management aware of information technology and informatics in the field of business application of information technology. [4].

REFERENCES

1. Avison D. & Fitzgerald G. (2003). *Information Systems Development, Methodologies, Techniques and Tools*, McGraw-Hill (3.ed.), 45-72.
2. Harmon P. (2003). *Business Process Change, A Managers Guide to Improving, Redesigning, and Automating Processes*, Morgan Kaufman, 45-46.
3. Kovačič A., Jaklič J., Indihar Štemberger M., & Groznik A. (2004). Prenova in informatizacija poslovanja, EF Ljubljana, 10-15.
4. Lesjak D., Trunk Širca N. & Sulčič V. (2003). Electronic learning in Slovenia. *I. J. of innovation and learning*, (1), 36-44.
5. Luftman J. (2004). *Managing the Information Technology Resource*, Pearson Education, 156.
6. Stare, A. (2003). Dileme pri projektih uvajanja informacijske podpore, *Projektna mreža Slovenije*, (1), 9-12.
7. Turban E., Aronson J. & Peng Liang T. (2005). *Decision Support Systems and Intelligent Systems*, Prentice Hall (7.ed.), 100-305.
8. Valacich J. S., George J. F. & Hoffer J. A. (2004). *Essentials of Systems Analysis and Design*, Prentice Hall, (2nd ed.), 363-389.
9. Ward J. & Peppard J. (2002). *Strategic Planning for Information Systems*, Wiley (3rd ed.), 118-162.
10. Rathnam R.G., Johnsen J. & Wen H. J. (2004-2005). Alignment of Business Strategy and IT Strategy: A Case Study of a Fortune 50 Financial Services Company. *Journal of Computer Information Systems*, 1-8.