

MANAGING CRITICAL SUCCESS FACTORS IN A B2B SETTING

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ABSTRACT

When information systems (IS) are developed and implemented, in any context, a number of success factors determine whether or not the effort will succeed. Attention to success factors helps to avoid some costly mistakes, and speeds up the way change is managed. This paper is focused on how to manage critical success factors (CSF) in organisations involved in standards-based Business-to-Business (B2B), with a focus on organisational CSFs. An existing CSF framework in IS planning is applied theoretically to a B2B setting. Activities in a B2B standards implementation model are compared and matched against the framework. Results show that the framework is suitable for planning B2B implementations, essentially for strategic planning. Based on these results we have developed concrete guidelines to be used in the planning phase by strategic planners. Future work will consist of empirical validation, further detailing the guidelines in order to develop a practically useful "tool" for managing CSF in a B2B standards implementation.

KEYWORDS

Critical Success Factors, Business-to-Business, Framework, Guidelines.

1. INTRODUCTION

In all kinds of information systems (IS) development and implementation situations, there exist a number of success factors for whether or not the effort will succeed. In Business-to-Business (B2B), different types of factors from various origins affect the outcome of technology implementations. Close attention must be paid to what types of factors and issues that may affect organisations, and means to deal with them must be developed and/or adopted. Currently, there is a lack of such means, accentuated by the fact that IS projects fail at an alarming rate. B2B is characterised by numerous interactions in real-time between partners, aiming to provide better service and products to customers. Changes occur on an every day

basis. Attention to critical success factors (CSF) may help avoid some costly mistakes, and speed up change management.

CSF in IS development can be divided into three groups: economic, organisational and technological, of which we primarily focus on the organisational ones. The *goal* of this research is to investigate whether or not an existing framework for managing organisational CSF in IS development is applicable in planning for the implementation of B2B standards-based solutions, and if so, develop guidelines for this work. Little research exists so far that relates CSF to B2B information systems. The investigation is made through a theoretical comparative analysis. Activities in a B2B standards implementation model will be put in relation to an Information Systems Development (ISD) framework, and matches identified. The *main target groups* for the results are people strategic planners, i.e. management levels in organisations. These in turn influence for example project managers and staff educators that prepare staff members for dealing with CSF in their daily work.

The paper is organised as follows: Chapter 2 describes B2B and standards, Chapter 3 introduces CSF and the related framework, Chapter 4 includes the analysis, while Chapter 5 closes with results and future work.

2. SETTING THE SCENE: BUSINESS-TO-BUSINESS (B2B)

The setting of the paper is Business-to-Business (B2B) e-commerce. We use the definition of Thompson and Ranganathan (2004), where B2B is: “...the use of the Internet and Web-technologies for conducting inter-organisational business transactions.” This context can be illustrated by a simple figure (fig. 1). Two organisations wish to trade with one another. Each structures its work in various business processes (thick arrows). The primary connection between the partners can for example be through the order-order response process. Using technology, usually referred to as Information and Communication Technology (ICT), messages are sent between the partners (regular arrows).

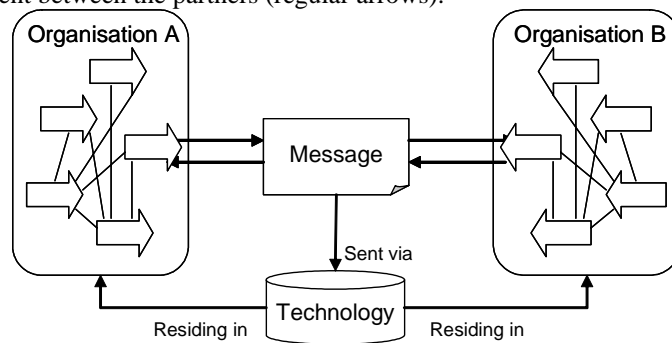


Figure 1. Main implementation process phases

B2B was selected for analysis since it is highly sensitive to market changes, and heavily dependent on IS. Adopting B2B is not only about choosing technology, but about strategy as well, and relationships must be carefully managed (Thompson and Ranganathan, 2004). B2B is also an enabler for competitiveness (Lee et al, 2003). Organisations may reside near each other geographically, or they may be dispersed. To a great extent, B2B is conducted using

standards (Ersala et al, 2002), which simplifies co-operation (Hasselbring, 2000; Ghiladi, 2003). In this paper, the definition of a B2B standard is: guidelines for how communication and information sent between organisations should be structured and managed (Söderström, 2004).

Through a combined theoretical and empirical study, Söderström (2004) developed a B2B standards implementation model (fig. 2). There are three main phases: preparation, architectural and consolidation. Preparation concerns activities for planning and preparing projects and architectural work. Architectural work concerns making changes to processes and technology to incorporate the standard into the existing infrastructure. Finally, consolidation concerns launching the standard, as well as evaluating and maintaining the system and expanding its use.

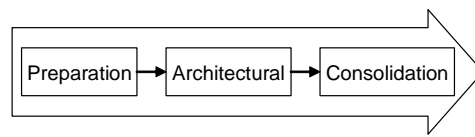


Figure 2. Main implementation process phases

Our focus is on the preparation phase, since CSF have the greatest impact here due to its planning and management features. Preparation includes four sub-steps: strategic planning, process analysis, partner alignment, and project planning (fig. 3). The order between the steps is not necessarily the same at all times, and some activities may be conducted parallel, which is illustrated by the double-headed arrows in fig.3.

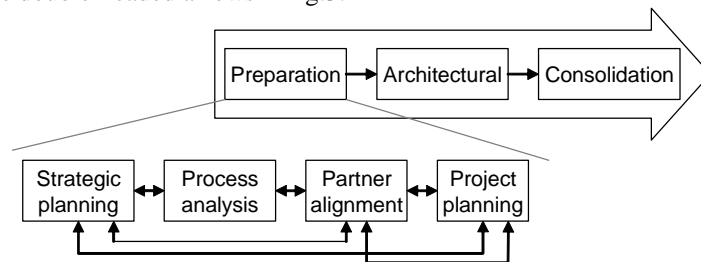


Figure 3. Detailing of the preparation phase

In brief, the four steps contain:

1. *Strategic planning*: Standards and B2B must be part of the business strategy, in order to identify how they can help achieve the business plan (Ramsey, 1998), create new markets, redefine old ones and enable inter-operability (Bolin, 2004). The lack of strategic vision is a major barrier to justifying IT investments (Love and Irani, 2004). Top management commitment is a necessity (Premkumar et al, 1994). Stakeholders from different organisational levels must be involved early to achieve implementation success.
2. *Process analysis*: Business processes must be analysed in order to identify, prioritise and orchestrate which processes to include (Söderström, 2004). This analysis enables a deeper understanding of the organisation and its processes (Kosanke and Nell, 1999), identifies business transaction requirements, and determines if a chosen standard covers these requirements (Rukanova et al, 2003). Hence, business processes help define project scope regarding which

processes to support (Ersala et al, 2002), and how and which part(s) of the organisation that will be affected.

3. *Partner alignment*: B2B partners must identify with whom to trade (Intel, 2003; Söderström, 2004). Partners may have different levels of maturity, and hence varying experience in standards use. Agreements include what, where, how, and scope (webMethods, 2003). Common goals must be set, responsibilities, time span and resources established, and a commitment given by each partner, for example through Trading Partner Agreements (TPA).
4. *Project planning*: Details about required technology, infrastructure, and project conduction are determined (RosettaNet 2001; Söderström, 2004). Results from previous phases are utilized in planning, with implementation goals, milestones and resources. Planning is the key to implementing IT (Ramsey, 1998). Agreements between project participants are important to resolve open issues and prepare execution options.

Söderström's (2004) model was selected as a basis for the upcoming analysis to CSF since it is the most detailed implementation model of its kind for B2B. It is based on an extensive literature survey, as well as on empirical material from standards developers, standards users and creators of standards-based software.

3. THE FRAMEWORK FOR CRITICAL SUCCESS FACTORS IN IS PLANNING

Success factors in ISD can be categorised as emerging from economic, technological or organisational issues (Ewusi-Mensah and Przasnyski; 1994). Planning considerations should focus on important organisational factors, because this group is the most dominating and also influences the other two groups. Our research is therefore limited to organisational factors. This chapter will first discuss what critical success factors are, before the framework is elaborated.

3.1 Introducing Critical Success Factors

Critical Success Factors (CSF) are: "*the conditions that need to be met to assure success of the system*" (Poon and Wagner, 2001, p.395). They should consist of a limited number of factors (Rockart, 1979). They should consist of a limited number of factors (Rockart, 1979). The analysis of the factors emerging from organisational issues shows four different CSF (Aggestam, 2004):

- To learn from failed projects
- To define the system's boundary, both for the whole system and for relevant subsystems
- To have a well defined and accepted objective that aligns with the business objectives
- To involve, motivate and prepare the "right" stakeholders.

The framework does not explicitly need to take *To learn from failed projects* into consideration, it is more of a pre-requisite. Fig. 4 summarizes the analysis.

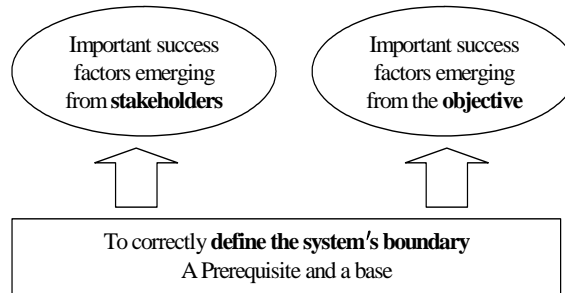


Figure 4. CSF in ISD

The remainder of this chapter will elaborate on each of the three remaining CSF.

3.1.1 The system's boundary

The systems boundary factor concerns business borders, and not the technical IS border. Knowing what the system is and defining its boundary is a prerequisite for ISD and consequently for addressing all success factors. The system's boundary constrains what needs to be considered and what can be left outside (van Gigch, 1991). Identifying the boundary triggers an active discussion about what the actual system includes, which related systems and subsystems there are, etc. Only if the organisation as a whole is clear about its aim and works on a principle of shared values can small units be allowed to take responsibility for running themselves (Barlow and Burke, 1999). Consequently, the whole system should ideally be analysed before the subsystems. It is important to stress that related systems may offer resources in exchange for something.

3.1.2 The stakeholders

Organisational change is risky, but risk can be minimised by having the right kind of persons on your team (Champy 1997), and to identify important stakeholders and discover their requirements (Kotonya and Sommerville 1997). How well an IS will work in an enterprise depends on the user involvement in the development process (Cherry and Macredie, 1999; Pohl, 1998; Sutcliffe, Economou and Markis, 1999; Saiedian and Dale, 2000; Browne and Ramesh, 2002). The success of this involvement depends on how well people work and communicate (Saiedian and Dale 2000), and communication gaps exist. According to Champy (1997) stakeholders across the organisation have two needs during organisational change: Confidence in the management and knowledge about the meaning of the change.

Commitment from the top is crucial if the project affects a large part of the organisation (Milis and Mercken, 2002). Strong sponsorship is required even before a project is launched to it being initiated and seeded resources (Poon and Wagner, 2000). According to Proccacino et al (2001) a committed sponsor is important, but the confidence in the management is even more important.

3.1.3 The objective

A successful IS should meet agreed upon business objectives (Ewusi-Mensah and Przasnyski 1994, Milis and Mercken 2002). When the IS strategy reflects organisational objectives, supports business strategies, recognizes external forces and reflects resource constraints, then the organisation more likely uses IS strategically (Kearns and Leder 2000). Defining the goal

is fundamental (Clavadetcher 1998) and organisational change must begin here (Champy, 1997). A comprehensive project definition gives a common vision, a co-operation base, terms of reference and prevents boundaries from extending beyond intended limits (Milis and Mercken 2002). In developing an IS we make tacit knowledge about the system explicit in a way that everybody involved can understand (Pohl 1998). This is a complex process (Kotonya and Sommerville 1997, Leffingwell and Widrig 2000, Pohl 1998), which requires careful analysis of the organisation. An organisation should be examined from different perspectives (Pun 2001) which in turn is a prerequisite for defining the goal. We use Bolman and Deal's (1997) four complementary views/frames (table 1), but complement them with a fifth frame, the Neutral Frame in order to capture the neutral perspective of the organisation e.g. the Business Plan and objectives, ownership, turnover and number of employees. This Neutral Frame can be thought of as a starting point for the other frames.

Table 1. Overview of the Four-Frame Model, adapted from Bolman and Deal (1997)

| | Structural frame | Human resource frame | Political frame | Symbolic frame |
|-----------------------------------|--|--------------------------------------|---|---|
| Metaphor for organisations | Factory or machine | Family | Jungle | Carnival, temple, theatre |
| Central concepts | Rules, roles, goals, policies, technology, environment | Needs, skills, relationship | Power, conflict, competition, organisational politics | Culture, meaning, metaphor, ritual, ceremony, stories, heroes |
| Image of leadership | Social architecture | Empowerment | Advocacy | Inspiration |
| Basic leadership challenge | Attune structure to task, technology, environment | Align organisational and human needs | Develop agenda and power base | Create faith, beauty, meaning |

The way an objective will be defined and formulated depends on the level of inquiry at which it has been considered (van Gigch 1991, Beyer and Holtzblatt 1998, Leffingwell and Widrig 2000). Three levels of inquiry have to be considered (van Gigch, 1991):

- Action or implementation level – “*How*”
- Diagnostic level – “*What* to do”
- Reflecting level – “*Why*”

Discussions about objectives, and even design of IS, often only take place at the action level and/or what-to-do level, but according to van Gigch (1991) all three levels are necessary. This is in accordance with Bubenko (1993) who claims that the HOW part should be linked to the WHY and WHAT parts.

3.2 The framework for managing CSF

A framework is “... a suggested point of view for an attack on a scientific problem” (Crick and Koch, 2003, p.119). The building blocks in the CSF framework (fig.5) are not new in

themselves, but the combination is. The framework stresses a flexible outset adaptable according to stakeholder type, and it should be used in planning to prepare the organisation for managing CSF in future activities. To the best of our knowledge, no other framework takes this point of view. The framework should also be used iteratively on different levels of abstraction: first to the whole project (“the system”) and then to identified critical, parts (“subsystems”). However, we will use a sequential order in this paper for simplicity reasons.

The target organisation should define the system’s boundary and relevant subsystems. The objective has to be defined next, and relevant stakeholders be identified. The objective should be well defined, analysed and described in different complementary frames and at different levels of detail. It should always support the business objective, which requires IS- and business strategies to be clearly aligned. The goal descriptions can be thought of as a tool box aiming to be used in the motivation process.

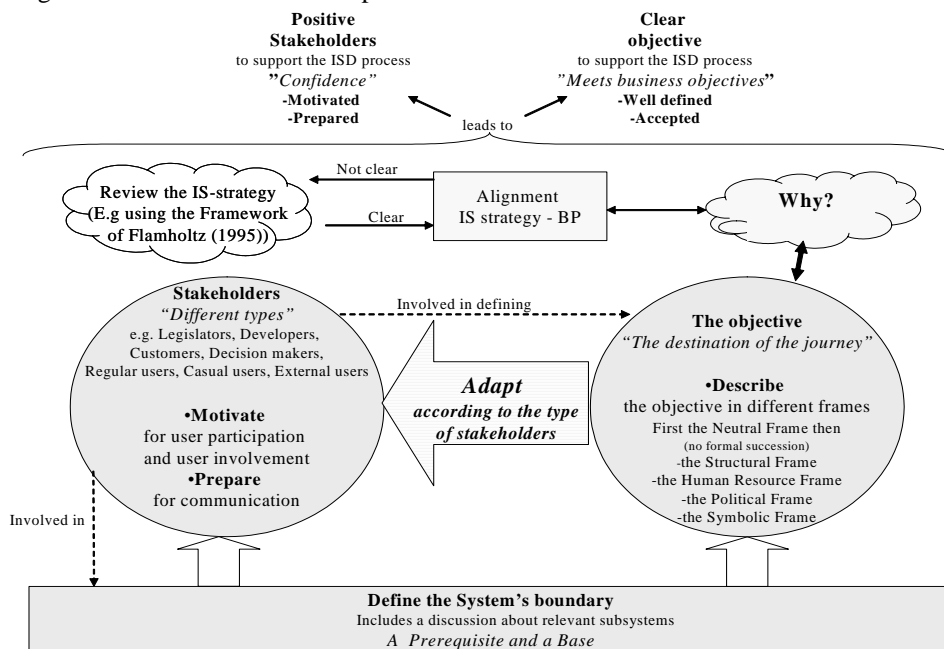


Figure 5. A Framework to support the Information Systems Development process

Relevant stakeholders should be motivated and prepared for future participation and involvement in the ISD process. User participation refers to user activities, while user involvement is more a subjective psychological state of individuals. Stakeholder groups are probably a mix of the two. Both motivation and preparation must thus be adapted to the various types of stakeholders.

The motivation process should focus on stakeholder needs of knowledge and confidence. Stakeholders will feel confidence and motivation if the objective’s description is adapted to them and explained in a way that they obtain knowledge about how it will affect them and why the project is important. The most suitable stakeholder description should be chosen, which could mean more than one description. User participation and user involvement is a communication process. The preparation process should thus focus on educating stakeholders about concepts to make future communication easier and more effective.

These processes aim to meet stakeholder needs about confidence and knowledge about changes. This will contribute to positive, motivated and prepared stakeholders, a prerequisite for user involvement and participation, and consequently for reaching user satisfaction with the system. Using the framework results in a clear, well defined and accepted objective, and in positive, motivated and prepared stakeholders.

4. MAPPING THE CSF FRAMEWORK TO THE B2B SETTING

B2B relies on IS. Enabling B2B organisations to operate and enhance their IS more effectively and with higher quality is therefore important. This chapter will map the CSF framework to the B2B setting in order to determine its appropriateness for use therein.

The analysis originates from the descriptions of the implementation phases with the intention to identify matches between them and the framework for CSF. Since the framework is based on organisational CSF and has a planning and preparing view, the main matches are found in the three sub-steps: strategic planning, process analysis, and partner alignment (see table 2). The leftmost column presents the four implementation phases, the middle column includes a brief description of key points therein, and the rightmost column includes comments of in what way the CSF framework can assist in B2B implementation planning. Starting with strategic planning, there are two central issues: the necessity of an updated business strategy, and the inclusion of relevant stakeholders. The strategy determines where the organisation is heading, and the standards-based solution must be duly incorporated. Furthermore, only strategy reveals which operations matter. The CSF framework emphasizes the important why-perspective by stressing the necessity of clear and accepted goals. Commitment from top management is another central building block, and this is where strategy is determined and a way to ensure that organisations operate to meet goals. The framework also emphasizes relationships between goals, actors and sub-systems. This includes delimiting the IS by clearly identifying and stating systems boundaries, and to include relevant stakeholders in its preparation. In the implementation model, a cross-functional/cross-organisational, implementation team is suggested. This team should co-operate in order to realize the objective and to conduct B2B implementation.

In process analysis, the most essential point is to identify what to include in the B2B effort, in terms of processes, systems and organisational entities. This means, for example, that organisations should analyse their processes to define the scope of projects, and to identify which processes need support. The framework includes boundary identification, in order to set clear goals and delimitations. Furthermore, the tight coupling between goals and boundaries mean that defining the goal helps to define systems boundaries as well. The goals are agreed upon by involved stakeholders. In this process where subsystems/-parts are identified, another positive effect may also be a clarification of which partners and actors there are to include.

Table 2. Relating B2B standards implementation preparation to Aggestam’s (2004) framework.

| Phases | Description | Framework |
|--------------------|--|---|
| Strategic planning | An updated business strategy is essential when implementing B2B standards. As many relevant stakeholder as possible should be involved early on. | It is essential to have a clear and accepted goal, supporting the why perspective. Emphasises relations between goals, included stakeholders, and identified sub-systems. |

| | | |
|-------------------|--|--|
| Process analysis | Identifying what (parts of) business processes. | The goal and systems boundaries are tightly coupled, and presuppose one another. Contributes to identify important sub-systems/parts of the organisation. |
| Partner alignment | The common goal needs to be agreed on and committed to. Responsibility and resource commitment must be agreed upon. | The goal and system boundaries need to be identified. Contributes to identify relevant issues to resolve between partners. Contributes to achieving well accepted goals. |
| Project planning | Make a detailed plan based on the results from the previous phases. | Is not explicitly managed within the framework, but results from previous phases can be utilized as a basis for project planning. |

Partner negotiations (or *partner alignment*) are essential to establish what to do, why, by whom, with what means, and when. Clear responsibilities make better ground for project success. Besides the mentioned focus on goals and system boundaries, using the framework contributes to identify issues that partners need to resolve. The result is agreements on e.g. common and well accepted goals, leading to a higher likelihood of project success.

The project planning phase is not directly dealt with in the CSF framework. Previous phases form the basis for the activities in project planning. In particular, preparations made in the three phases aim to facilitate and enable mutual agreements between all project participants. The framework does not deal with economic or technological issues, but focus on organisational ones. However, since organisational issues affect economic and technological ones, they are implicitly part of the framework. For example, it is important to know which business processes to include to be able to establish needed economic and technological resources.

5. GUIDELINES FOR APPLYING THE CSF FRAMEWORK IN B2B PRACTICE

By mapping between the framework and B2B, we have identified *what* to accomplish in order to achieve a successful B2B standards implementation. However, in order to make these results useful, we also need to identify *how* to apply them in practice. In this chapter, concrete guidelines are presented to be used by the identified target groups (strategic planners, along with for example project planners) when implementing standards in real-life organisations. The guidelines will be based on the mapping results and structured according to the sub-phases in the preparation phase (fig. 2). In accordance with the mapping results, as presented in table 2, project planning will not be included in the guidelines. The phases are, as mentioned, partly conducted in parallel. This has two consequences: there will be some overlaps between the guidelines; and there is an implicit assumption that partners communicate if the internal work affects the joint external work. This highlights the importance of documentation of the work, to enable aspects such as planning and resource management.

5.1 Strategic planning

Three aspects can be identified explaining why the framework is useful in B2B standards implementation concerning strategic planning: to achieve clear and accepted goals in relation to an updated business strategy; to identify critical parts as departments, stakeholders etc; and to explicitly define how these relate to one another and to the goals and the strategy. For each of these, table 3 presents applicable guidelines. It should be noted that strategic planning concerns work conducted internally in an organisation.

In B2B standards implementation, one important aim is to describe the goals of the project in relation to an updated business strategy. The framework can assist to achieve the aim by assisting in the developing clear and accepted goals in accordance to the why-perspective. The goal discussion should be made from the frames presented in the framework. This enables a multifaceted view of standards consequences, and highlights its relationship to the strategy. If its alignment to the strategy is not clear, the strategy must be revised. As mentioned, the goal descriptions can be thought of as a tool box for use in the motivation process. A second aim is to identify what in the organisation and its environment that is critical to the project. The framework can be used to identify these boundaries. Bottle-necks can be identified from the goal descriptions. One example of a bottle-neck is the lack of competence regarding B2B standards. Bottle-necks can thus be people, and education is one example of an action to take to include them. Other examples of actions include: to use adapted descriptions of the defined goals depending on the target group in question; and collect their opinions and needs regarding the project.

Table 3. Applicable guidelines in strategic planning

| Aim | What the framework supports | Guidelines for B2B practice |
|---|---|--|
| To achieve and describe goals in relation to an updated business strategy | To develop goals that are clear and accepted internally in the organisation, in accordance with its <i>why</i> -perspective | <ol style="list-style-type: none"> 1. Discuss from different views how the goals of the standards implementation project are useful in helping the organisation to achieve its general business goals. 2. If necessary, review the existing strategy and reformulate the strategy to incorporate the use of standards as a strategic tool |
| To identify critical parts where the initial anchoring work should start | To identify departments, partners, systems, work groups, etc. that may have major impact on implementation | <ol style="list-style-type: none"> 1. Analyse the goal descriptions to discover potential “bottle-necks”, in terms of people, organisations or systems. 2. Plan explicit actions to ensure the inclusion and motivation of “bottle-necks” residing inside the organisation. 3. Use the adapted goal descriptions in order to motivate critical stakeholders |

| | | |
|---|--|---|
| To explicitly define relations between goals, the strategy, stakeholders etc. | To align goals, stakeholders and sub-systems | <ol style="list-style-type: none"> 1. Use goal descriptions to identify relations between goals 2. Organise several discussion seminars with relevant internal stakeholders, with the purpose of identifying the relations. |
|---|--|---|

Finally, one aim includes to explicitly define relations between the goals, the strategy, the stakeholders, etc. This is what the framework and its systems thinking should be used for. Once again, the goal descriptions should be used to identify the relations. Furthermore, discussion seminars are useful means to complement the descriptions with the viewpoints of various stakeholders, such as: managers, the “bottle-necks”, technicians, etc. All of which should be directly involved in B2B. The seminars should also be repeated several times in order to use the framework in its intended, iterative way.

5.2 Process analysis

Three aspects can be identified explaining why the framework is useful in B2B standards implementation concerning process analysis: to get a clear view of the business processes; to identify what processes to include; and to identify what systems that support these processes. For each of these, table 4 presents applicable guidelines. It should be noted that process analysis concerns work conducted internally in an organisation.

In B2B standards implementation, different business processes can be included. The most common ones are procurement, order, invoice and payment. To have a clear view of which these processes are, and which of them that are the most relevant for the future project is important. Work has to be conducted in two different time perspectives in order to get the needed overview: the current situation and the desired future. The process model must take the inter-organisational perspective into consideration. The framework can assist to achieve the aim by letting each goal be “the system”, and from there identify relevant subsystems in the form of processes. This facilitates the identification of which processes are relevant in the view of the B2B project. When the most relevant processes have been identified, the framework should be reiterated regarding each process as being “the system”. This work aims to both identify relevant stakeholders with different needed skills, and to identify supporting systems. Cooperation with personnel with different skills ensures a multi-faceted view of the processes. Relevant stakeholders should thus be motivated, using the goal descriptions as a useful tool.

Table 4. Applicable guidelines in process analysis

| Aim | What the framework supports | How to do it in B2B practice |
|---|------------------------------------|---|
| To have a clear view of the organisation’s business processes | To identify process boundaries | <ol style="list-style-type: none"> 1. Model the business processes according to the current situation (AS-IS). 2. Model the business processes according to the desired future situation (TO-BE). |

| | | |
|---|---|---|
| To identify what business processes to include, and to motivate and prepare relevant stakeholders | To select processes relevant for the B2B project | <ol style="list-style-type: none"> 1. Identify if there are processes that do not belong to the project by pairing each goal description with the TO-BE process models 2. List relevant processes. 3. Prioritise which processes to include in B2B. 4. Take specific actions must to motivate the personnel involved in the selected processes to participate in the project. |
| To identify what systems that support the business process | To select IT systems relevant for the B2B project | <ol style="list-style-type: none"> 1. Identify what IT systems that support the business processes. 2. List relevant systems. |

The third final aim concerns the IT systems. In this case, the single process becomes the system, and the IT systems become the sub-systems. Which systems are relevant and which systems are really critical? Do we need to make any investments or do we have what we need? Are our systems in accordance with the strategy? If this work identifies a need for investments, it is really important that this is aligned to all relevant strategies, including the IT/IS strategy.

5.3 Partner alignment

Three aspects can be identified explaining why the framework is useful in B2B standards implementation concerning partner alignment: to establish partner readiness; to establish legal contracts; and to form cross-organisational teams. For each of these, table 5 presents applicable guidelines.

Partner alignment is all activities involving more than one organisation. Basically, it concerns redoing quite a lot, but this time with the external perspective in mind. Firstly, one aim concerns establishing partner readiness, which enables organisations to more accurately calculate the time needed for implementation. In brief, readiness refers to organisations' awareness of what they become involved in, what human and technological resources it will require, as well as how much time it will demand. The framework should be used to identify both the project goals, and what requirements that are placed on each partner. This should be done by establishing common project goals in joint meetings, along with what kinds of preparations each partners need to do, and then matching the requirements against conducted internal preparations. The second aim concerns legal aspects, in which case the framework is not applicable. Any legal issues need to be resolved by involving legal expertise to draw up the contracts. If "skeleton agreements" exist within an industry, these should be used.

Table 5. Applicable guidelines in strategic planning

| Aim | What the framework supports | Guidelines for B2B practice |
|------------------------------------|---|---|
| To establish partner readiness | To identify project goals and requirements placed on each partner | <ol style="list-style-type: none"> 1. Establish common B2B project goals in a meeting with all partners 2. Identify what the project will require from each partner in terms of preparation and work 3. Establish readiness by matching requirements and internal preparations |
| To establish legal contracts | The framework is not applicable | <ol style="list-style-type: none"> 1. Establish connections between legal expertises to draw up contracts. |
| To form cross-organisational teams | To identify relevant stakeholders | <ol style="list-style-type: none"> 1. Agree on the team structure and boundaries in terms of number of people, skills required, mandate, resource requirements, etc. 2. Assign appropriate team members based on internal preparations in other phases |

The third and final aim concerns the formation of cross-organisational teams. In this case, the framework should be used to identify relevant stakeholders, by firstly, agreeing on team structures and boundaries, and secondly, by assigning the appropriate team members from each partner. Stakeholder identification helps facilitate the management of organisational relationships in standards implementation, and the joint teams enable orchestration of implementation activities.

6. DISCUSSION OF RESULTS

This paper has focused on the problem of managing critical success factors in organisations involved in standards-based B2B. The goal was to investigate whether or not an existing framework for managing organisational CSF in IS development is applicable in planning for the implementation of B2B standards-based solutions, and if so, to develop guidelines for this work. The analysis was conducted by comparing a B2B standards implementation model to a framework aiming to support preparation in IS development in general (Aggestam, 2004). The analysis clearly shows that the framework is applicable in B2B planning, and guidelines were developed accordingly. Not all guidelines can be identified from the graphical description of the framework (see fig. 5), but they are embedded in the basic foundation thereof.

In particular, the framework is useful in the three phases: strategic planning, process analysis, and partner alignment. The framework does not deal with economic or technological issues, but focus on organisational ones. Despite this focus, results show that the framework can be utilized implicitly for managing economic and technological issues as well. It should be noted, however, that IT systems are central to B2B, and that they, as an enabling technology, are part of our guidelines in, for example, business process analysis. However, the framework does not cater enough for these issues, and a complementary tool is therefore needed.

Future work will consist of empirical validation, further detailing the guidelines in order to develop a practically useful “tool” for managing CSF in a B2B standards implementation.

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