Spanning the Boundaries of Benefit Management: A Case study

Kenneth M. P. Nielsen

Department of Computer Science, Aalborg University, Denmark

The management of benefits of investments in IT and in IS is of increasing importance in practice as well as in research. Recent research on benefits management focuses on activities, competencies, and methods, yet there is still a lack of research seeking to explain its complexities and difficulties. In this paper we report from one case study of a Danish public organisation where benefits have been explicitly addressed in a business case and where deliberate activities have pursued the realisation of these benefits. In addition to background data provided by a large action research study, specific data about the case of benefits management were collected through qualitative interviews. The benefits management in the case is based on what benefits are and how they should be pursued in the municipality. This process is then analysed through the lens of theory of boundary spanning activity and with a particular focus on boundary object and boundary actors. The analysis shows the nature of the boundary spanning activity. The paper thus contributes with a detailed understanding of benefits management as a boundary spanning activity. This understanding is explained in terms of new propositions that are related to the existing literature.

Keywords: Business case, benefits management, boundary spanning, boundary object, boundary actor.

1 Introduction

The primary goal of implementing a new information system (IS) for most organisations is to gain benefits from it. This is not a trivial matter, and it has been explored for some time within the IS field [25]. Different ways have been uncovered to approach the problem of gaining and maximising the value of IS. This is not only a question of engineering the proper system from a technology viewpoint. Changes enabled by IS must occur in the organisational activities, before real benefits can be achieved [12]. Creating this match between what IS enables, and the organisational changes with value creation as a consequence, is enhanced by a broader complimentary fit with the organisational, individual, and technological setting [3].

Several methods and frameworks have been proposed on managing this match with a focus on gaining value. This paper is based on the ideas and frameworks behind Benefits Management (BM). These have a particular managerial focus on benefits realisation and argue that it improves the link between IS investments and
business objectives, actual changes in organisational activities, and obtaining a real value from new IS [12], [23], [29]. This has led to methodologies [17] providing prescriptive guidelines for the application of techniques and organisational management of the process. However, research on these methodologies is still rather immature and further work is needed, particularly on BM in practice and considerations to other related research streams [7].

One aspect of IS implementation projects is the typical inclusion of actors and stakeholders from multiple organisations and departments. These participants often have different backgrounds, different goals, and may not share a common language. The difference between these groups can be referred to as boundaries [33], which must be spanned when collaboration is needed in order to effectively share knowledge and solve a common goal. Research has shown that boundary spanning affects IS implementation projects [22] and success rate of IS projects [13]. BM is directly related to both implementation and success, and we therefore argue that BM can be analysed through the lens of a boundary spanning framework. Investigating boundary spanning in benefits management would therefore contribute to a better understanding of how to manage for benefits.

In this paper we present a case study of a cross departmental IS project, where data was collected on benefits management efforts, which were analysed to characterize the boundary spanning activities that occurred during the process. The detailed understanding of the boundary spanning activities are then explained in terms of new propositions. Thus, we aim to contribute to the understanding of BM in practice, and further develop the link between BM and other research streams.

The paper is organized as follows: First we outline BM to provide an overview as well as the theoretical framework of boundary spanning. The research approach is described and a short description of the case municipality follows. Afterwards, we present the analysis of boundary spanning in the case project, and these findings are subsequently discussed and their implications for practice and research.

2 Benefits Management

Benefits management has been defined as "The process of organizing and managing such that the potential benefits arising from the use of IT are actually realized" [39]. In organisations, the efforts of justifying potential benefits are far more common than the process of ensuring that the anticipated benefits are actually realised [14]. Several models and frameworks have been developed with a focus on changing this practice and actively manage for a match between proposed benefits and actual realised benefits.

The most dominant framework originated from the work of researchers at the Cranfield School of Management [40]. A process model of management focused on the realization of benefits of IS investments with five linked steps: Identifying and structuring benefits, planning benefits realisation, executing the benefits realisation plan, evaluating and reviewing results, and potential for further benefits. Similar models for realizing IS benefits have been developed such as Active Benefits Realisation [31], model of Benefits Identification [10], and The IT Benefits
Measurement Process [1]. These models have a managerial focus on a benefits realisation process with similar steps and tools. The initial Cranfield process model has later been expanded into a number of tools and methods positioned under strategic planning and portfolio management with an integrated link to change management methods, systems development methodology, project management methodology, risk management techniques, and investment appraisal [39].

The most important aspect in gaining benefits of IS investments is that IS on its own does not deliver benefits [40]. The benefits occur as a change in how things are done, where IS is an enabler [16]. In BM, the importance of stakeholders and their inclusion into the process has been emphasised [17], [29], [39]. It is therefore necessary to understand who is affected in the implementation of IS, how they are affected, and what the dynamics between them are. Multiple stakeholder analysis techniques with a focus on change management could be applied [39]. Another approach is analysing dependencies between investment objectives and requisite benefits anchored with specific stakeholders [29]. The influence stakeholders have on understanding, predicting the benefits accurately and later realise them is also an important step [17]. However, these techniques lack a focus on the challenges on knowledge sharing and collaboration between the stakeholders.

The benefits management literature has a prescriptive nature in the aspect of stakeholder activities, where the focus lies on what needs to take place. However, the literature is vague on the difficulties this represents. Different research streams have sought to uncover these difficulties from their own vantage point. It would be useful to extend BM to include such insight. In this regard, it would be particularly useful to look at a line of research that focuses on collaboration and knowledge sharing between groups that play different roles in the process.

3. Boundary Spanning

The concept of boundaries is intuitively understood, at least when it comes to physical or visual boundaries, such as country borders and house lots. It is clear that each side is different in some way and it takes effort to cross this. In organisational science the concept of boundaries extends beyond this simple understanding. In the seminal works of Star and Griesemer [33], and Carlile [9] the boundaries are set within a context of understanding knowledge and transferring knowledge. They argue that boundaries exist between different social groups, who each have their own dialect and knowledge. A social group may be distinguished by a difference in location, knowledge background, culture or the functions that they perform. [33]. An example could be research groups at the same research institute, each with their own research agendas and possible outlets. The tendency is that communicating, coordinating, and collaborating across boundaries is done with some difficulty if one or more of these distinguishing factors differ.

There are two general ways in which to overcome this boundary of communication and knowledge transfer. Either the boundary is eliminated through acculturation, or a spanning of the boundary is facilitated. Acculturation may include colocation or cultural changes over time, where the knowledge background, skill sets and social
worlds blend together to form a new cohesiveness. However, for many reasons, acculturation may not be possible, or even desirable. Thus, spanning the boundary has been of great interest in organisational science and research fields connected to organisations [32].

Boundary spanning is important, since in most work environments there is a significant value in successful communication, coordination, and collaboration between different social groups. Examples may be collaboration in a museum [33], new product development [9], collaboration in public service [27], innovation efforts [34], and IS projects [13]. In the context of IS projects and realising the benefits of these projects, there are multiple arguments for focusing on boundary spanning. Firstly, many IS projects take place as a collaboration between organisations, either between separate organisations or within larger organisations that include a number of sub organisations in separate locations. A number of different knowledge backgrounds and skill sets may be represented. Even if the implementation of the projects is isolated to a single organisation with a cohesive social group, there are usually actors from IS departments or vendors and actors from the implementing organisation mixed into the process. Secondly, the overall management of benefits realisation is an alignment of processes and people towards a common goal, where the capability of realising benefits is connected to the benefits realisation competences and benefits realisation practices [2].

The spanning of boundaries is facilitated in two general ways; either through objects that mediates communication and knowledge or actors, who often have unique properties. Boundary objects (BO) has been referred to as a translation device [15], as an interface between different individuals and/or organizations [20], information artifacts used to communicate between teams enacting an influential role as a guide for team collaboration [30], an important means of transforming knowledge and changing practice across specialist knowledge domains [26]. Star, who originally coined the term, defines BO as an object with a relevant scale and scope, which derives its existence by the interaction that it facilitates between groups [32]. It is this definition we follow in this article when referring to BO. Boundary actors (BA) are sometimes referred to as boundary spanners or boundary spanning individuals. They are distinguished by their ability through skills and knowledge to effectively communicate on both sides of the boundary [35]. They can take on a specific role either through nomination or in practice [22]. We refer to BA as actors who have ability to cross boundaries, either through inherent competencies and familiarity with involved social groups, or through effort to achieve competencies and familiarity during the process. These actors then facilitate communication and knowledge sharing by performing a boundary spanning role.

The framework for analysis in this paper identifies and characterises social groups and their boundaries, boundary actors, and boundary objects. Social groups are defined by differences in their location, knowledge background, culture, and functions they perform [33]. The strength of a boundary is further classified by the novelty and uncertainty of the collaboration [8]. This classification from least to most novel and uncertain includes; a syntactic boundary, a semantic boundary, and a pragmatic barrier. A syntactic barrier only requires a transfer of knowledge, since common language is mostly shared. A semantic boundary requires a translation of knowledge, since common language is no longer shared. This is best done by actors spanning the
boundary. A *pragmatic* boundary requires a *transformation* of knowledge, *since* common language is no longer shared and a transformation is required before it can be *translated*. In extension the classification of BOs follow the same pattern. Boundary objects can support a spanning of syntactic boundary, a semantic boundary, or a pragmatic boundary. The classification of *Boundary actors* is adopted from Fisk, et al., where actors may act in a boundary spanning role and have a competence that can span IS and business [13]. Boundary spanning roles include: *ambassadors* who represent their group and interact with external groups, *coordinators* who facilitate knowledge flows between groups, *scouts* who seek out knowledge from external sources. Thus the strict business/IS competence scale used by Fisk et al. is expanded to differentiate between different business competencies. This is necessary, since our group definitions extend to more than business and IS groups. This classification is useful to identify if a particular beneficiary mix of competences is facilitating boundary spanning between groups.

4. Research Approach

Relevance of information systems research is a primary concern and engaged scholarship is an overarching research methodology where the focus is on creating relevance for practitioners. Engaged scholarship is defined as “a participative form of research for obtaining the different perspectives of key stakeholders (researchers, users, clients, sponsors, and practitioners) in studying complex problems”, and it focuses on this particular challenge for research [36]. Van de Ven argues that the theory-practice gap, which often occurs, can be countered by a closer collaboration between scientists and practitioners.

Action research, which has previously been applied in IS research, is a group of research methods where practitioners become engaging practitioners [4], [11], [19], [24]. The premise of action research is both to intervene into and address a problem in a specific setting while at the same time contributing to academic knowledge. We applied action research [24] in a research project focusing on the values created by IS in the context of Danish municipalities. As advocated by Mathiassen, an action research project can serve as the research setting in which data can be collected and analysed for a case study.

The study presented in this paper is a case study [5], [21], [38] of IS benefits management performed within the larger action research project. The case study was conducted in a municipality that was partaking in the action research. The data collected were case study data, because the municipality participants were the only actors, and the researchers were acting as participant observers as well as interviewers. Hence, the researchers had a broader background from the action research in which the case studies were embedded. The study was thus designed as a case study based on qualitative data and on interpretation as the primary strategy for data analysis [37]. Interpretive research allows us to see boundary spanning of benefits management in its organisational context as socially constructed and thus open to several interpretations by organisational actors but also to as researchers [18].
Within the municipality, a case of benefits management was chosen, having as primary requirements were the following: benefits management had to be spanning multiple departments or groups within the municipality; the information systems had to be commissioned and in use; benefits management had to be on-going. This would allow an exploration of the boundaries crossed between department and groupings, and during the period from the initiation to after the commissioning of the system.

The data collection was designed to capture the essence of the collaboration between actors and how objects are used, and to this end, qualitative interviews with key actors were conducted. In addition, documents potentially serving as boundary objects were studied in detail. The interview strategy was a mix between an interview guide approach and a standardized open-ended interview [28]. According to Patton, this mix allows for comparability and important topics are answered, and at the same time flexibility is needed to complement the standardized open-ended interview lacks. Asking the same questions with the same wording can alienate some social groups, thus making it difficult to obtain the worldview of the subject. The strategy was therefore to structure the interviews with an interview guide, but extending this with a sequence of “must ask” open ended questions pertinent to the investigation topics, that are customized to the social group that the subject is believed to be a member of. Five key actors were interviewed. The interviews were from 30 to 60 minutes in length and were audio recorded and later transcribed.

The overall principle of the data analysis follows the assumptions of interpretivism [37]. This is based on the view on knowledge of reality as socially constructed, particularly when dealing with human action and interaction in organisations. Analysis was performed on the recordings of the interviews, which were encoded using the following process:

- Identify social groups with a particular focus on groups sharing knowledge and at the same time identify boundaries.
- Identify boundary spanning objects and actors.
- Analyse the boundaries, boundary spanning objects, and boundary spanning actors using the theoretical frameworks, cf. boundary spanning section.

By narrowing down the theoretical frameworks and using these to frame the data collection, a data-theory link has already been established. Analysis could then proceed by frontloading the theory, which also framed the data collection. In this process the within-case data is analysed inducing the theoretical output of the study [6].

5. Case

The case municipality has a population of around 70,000 inhabitants situated in 25 km², a suburb of the Danish capital with a reputation of being a wealthy neighbourhood. Multiple awards have been given to the municipality on IT initiatives and it is generally known for being on the cutting edge in e-government. The largest population group of the suburb is 40-49 year olds, with a large group of 10-19 year
olds as well. The housing is roughly 2/3rds apartment buildings and 1/3rd single family houses. Large houses are twice as common here compared to the country average. The municipality employs roughly 6,270 and has a tax income of 538,000,000 euros. The administration is centralized in one location, in which IT projects are managed by a centralized IT administration.

5.1 Case Project

The organisational implementation of a citizen service system for allocation of day care has been underway for 3 years. Day care placement refers to the services provided by the municipality, where parents enroll for childcare, and are then assisted in finding and allocating the best possible placement for them. Prior to the case project this was handled by a team at the municipality service centre. The system is specialised and developed from scratch, and it includes a front end on the web, where citizens can process the requests and ultimately the assignment of day care places of children. Additionally, a backend was included for managing capacity control in the day care centres. The budget of the project was under the threshold of a mandatory public procurement procedure, which in turn would otherwise have mandated the whole process including increased uncertainty around the external partners.

At the initiation phase partial funding for the project was acquired from a public fund. The funding was provided on the basis of an application form that required, among other things, a description of expected benefits and how to reach them. This means that incentive for early analysis and awareness of benefits was present even before the actual project implementation was started. These benefits included in short:

- Payroll cost decrease by removing the service team previously handling placement.
- Payroll cost decrease by removing buffer childcare, as a result of better capacity control.
- Less coordination meetings with centre managers due to automation.
- Increased service and transparency for citizens.
- Increased level and access of information required for capacity control.

The implementation of the project achieved these stated benefits and was deemed a success. However, some benefits were only reached through an additional effort and addition to the system after initial commission.


In the benefits management of the organisational implementation five social groups were involved. Each separated by a difference in one or more of the four boundary
creating properties (location, knowledge background, culture, and functions performed). A label and an outline of the groups and their defining differences follows:

- **Management**: the municipal departments participating in the project each are represented by managerial staff participating in steering committee, project ownership, or other decision level positions. These are a part of one of the social groups. The distinguishing differences here are the knowledge background (management and economy mainly, some business domain knowledge) and their function (manage and working with each other to administrate the municipality).

- **IS**: The second group consists of IS personnel (in this case referring to members of the digital solutions team and IT city hall). The distinguishing differences here are knowledge background (knowledge of IS endeavours in municipalities and IS project management) and their function (staff/support and coordinating/collaborating across organisations).

- **Service**: the third group consists of the service team that used to perform day care placement, having as distinguishing differences knowledge background (customer service, the service orientated administrative systems, the Danish day care system) and function (customer service).

- **Administration**: the fourth group involved are administrative members of the department of children and young people. The distinguishing properties here are the knowledge background and their function. The knowledge background is focused on legislation in their area, how to administrate, the care taking system, and other areas covered by their department. Their function is to administrate.

- **Day care**: The last group consists of the centre managers of the care taking facilities. The distinguishing properties here are the knowledge background, location, and function. The knowledge background is focused on pedagogy, child care, and administration of a day care centre. Their function is to interact with children and personnel in the centre, other centre managers, and occasionally the administration of children and young people.

In the process of realising benefits multifaceted boundary spanning occurred. Management spanned the boundary to IS and administration. IS in turn spanned the boundary to management, service, administration, and day care. Administration spanned the boundary to service and IS. Service spanned boundaries to administration and IS. Finally day care spanned boundaries to service and administration. An overview can be seen in figure 1.

The boundaries spanned had a varying degree of strength. The boundary between management and IS was the weakest boundary, since common language is mostly shared and collaboration is not novel in nature. Knowledge transfer between the two groups was pre-arranged to a certain degree with a structure of meetings and documents serving as boundary objects. This makes the boundary syntactic in nature and boundary spanning occurred as a transfer of knowledge. Novelty is increased on the remaining boundaries. Collaboration is novel in nature and common language has to be developed. The boundary takes a semantic nature, where knowledge is translated across boundaries.
6.1 Stages in the Benefits Management Process

Analysing the process of benefits management through the lens of boundary spanning revealed that crucial boundary objects and actors changed over time. This is the case not only in the interaction they had in the process, but also in a change of the actual objects and actors. These changes happened due to a change in importance of the participating groups at any given stage, and a change in the boundary spanning needed to facilitate the crucial knowledge transfer and collaboration at any given stage. In the analysis of these, it is useful to see the benefits management process as a timeline with three different stages: a project initiation stage, a project stage, and an operation stage.

Initiation stage:
In the initiation stage the BM activities were centred on the identification and structuring of benefits, as well as planning the benefits realisation. The important aspects here are the accuracy of the proposed benefits and feasible plan for how to achieve the benefits realisation. This requires knowledge of the business domains affected by the implementation as well as knowledge concerning feasible IS solutions. In this case the idea originated from members of management and members of IS collaborating on innovations in digitalisation. Here knowledge from the business domain and municipality management was represented by members of management, and knowledge of feasible IS solutions was represented by members of IS. These served as the primary BAs in the role of ambassadors and spanned the boundary between each other by transferring knowledge. This led to the identification of possible benefits in investing in the case system. This prior constellation reduced the need of acquiring knowledge compared to other idea inception paths, such as purely from a political, management, or IS starting point.

Later in the initiation stage, the semantic boundary to service, administration, and day care was spanned through a member of IS serving the role as scout seeking relevant information from administration and service. This resulted in an increase in knowledge by translation, which was later transferred by ambassadors from IS to management. A BO was constructed to facilitate this transfer in the form of an application form for external funds. The information represented by the application form was later used in other BOs. These served to facilitate boundary spanning between IS and management, as well as in the boundary spanning actors from IS performed later in the project. These BOs were a project initiation document (PID) form and later a business case for the project. The use of the BOs of the application...
form, the PID, and the business case primarily served as a transfer of knowledge between the syntactic boundary of IS and the managerial group.

Project stage:
In the project stage the BM activities were centred on executing the benefits realisation plan. While management still played a part, in this phase the importance shifted towards service and administration. The participation of these groups was primarily aimed towards development, testing and adjustment of the system. However, at a glance these activities seem directed towards development of the system, rather than a part of the benefits management process. It is important to realise that a correct system, and thereby a system that supports the changes required, is directly related to the successful execution of a benefits realisation plan. Thus, while the activities of this stage are anchored in the previous one, the need for collaboration and knowledge sharing shifts closer to the business domains. Members of IT and management still performed roles of ambassadors collaborating with each other, thus spanning the syntactic boundary between them by transferring knowledge. Boundary objects in the form of a business case, as well as minutes from project and steering group meetings assisted in this effort. The result of this boundary spanning was a continuous evaluation of planning and executing of the benefits realisation plan. Actors from IS performed a dualistic role of coordinator and scout. In the role of coordinator the actors assisted in the collaboration effort and boundary spanning through translation between administration and service. Prototypes of the system itself became a BO used as a translation tool in the collaboration effort coordinated by IS between administration and service. In the role as ambassador the actors from IS spanned the boundary from IS to administration, and from IS to service. This facilitated the translation of domain knowledge and knowledge pertaining to the execution of the benefits realisation plan, the latter being a two-way knowledge translation. These efforts resulted in a closer match between planning and executing the benefits plan. An actor from service served as ambassador, spanning the boundary with the IS coordinator. This effort further increased the knowledge translation between service and IS.

Operation stage:
In the operation stage the BM activities were centred on evaluating and reviewing results, as well as ensuring that the benefits were solidified. Importance was shifted even more towards the business domains. Two primary actors were instated in a post implementation effort to evaluate the system and ease transition. These actors, one from service and one from child care, acted as ambassadors. Assisted by the system serving as a boundary object, they spanned their boundary and collaborated on translating the knowledge on the match of the system to the desired benefits. The day care ambassador also spanned the boundary to and from his peers. This helped increase a match between system and domain, as well as benefits planned and benefits realised, as feedback and training occurred from and by other day care managers. A member of the IS group acted as a coordinator to further facilitate this collaboration between the two ambassadors. This actor in turn functioned as an ambassador and translated knowledge from this constellation to management. This resulted in a
revised business case on a system change, when it was discovered that initial benefits were not realised.

6.2 Boundary Actor Competence

Boundary actors and members of the social groups involved in general had competencies closely linked to the knowledge background and function of their groups. Members of IS had a natural inclination towards boundary spanning activities, since their function was a coordinating one. No particular competence in the business domains was found in the members of IS, though. Colocation and similar culture might have contributed to an easy collaboration with members from the other groups, and thus a further increase in boundary spanning capability disjoint from direct relation to competencies was present.

In general, ambassadors from the other groups facilitating boundary spanning during the process possessed same tendency to have an overwhelming competence in their domain. The exception was perhaps ambassadors from management, who possessed some competence in the possibilities of IS. The boundary between IS and management was also the weakest between the groups, partly because collaboration and knowledge sharing was not novel to them. This might have caused the added competence within management. The ambassadors from service and child care were both if not with a competence in the possibilities of IS, then they were inclined and interested in implementing the project. This was a deciding factor in these individuals becoming ambassadors. No such strong ambassador existed in the administration group and knowledge sharing suffered as a consequence. A lack in knowledge from the administration group was the major cause of the mismatch in the initial system that caused a secondary project to be initiated, in order to realise the remaining expected benefits.

7. Discussion

Through the analysis of the case municipality, we demonstrated the framework of boundary spanning, which provided an insight into the dynamic between different identified groups participating in the process. Similar attention has been brought to participants within the organisation that is implementing IS projects in BM literature [17], [29], [39]. These participants, often referred to as stakeholders, are stated as having a significant impact on the ability to realise benefits. The findings of the analysis presented in this paper represent an extension to this literature on understanding the dynamics of the participants. The case study also contributes to the empirical understanding of benefits management in practice.

Three main findings can be taken from the analysis.

- Boundary objects and actors vary over time in benefits management.

In the BM literature there are at least four steps in the process: identifying and structuring benefits, planning the benefits realisation, executing the benefits
realisation plan, and evaluation result with a focus on discovering potential unrealised benefits [39]. The underlying elements to this process are that a system is usually implemented, changes might occur in the organisation as a consequence, and someone starts using the system. The analysis showed that the actors doing the planning (IS and management) differed from the actors that supplied knowledge for the implementation of the system (primarily administration and service). Similarly the actors with the main connection to the system post implementation differed from the others (service and child care). The analysis also showed that the boundary objects used to facilitate knowledge sharing pertinent to the benefits management process differed. Different documents were in use, as well as the system itself. In BM literature there is an emphasis on coherence in the different stages so expected benefits match actual realised benefits [39]. The finding that objects and actors vary over time is important in that implies a risk of losing the coherence between stages.

- The primary boundary spanning objects are: a business case, project control documents, and the information system.

The analysis demonstrated a use of boundary spanning objects to facilitate boundary spanning activities. In the case of the system as a BO in the operational stage, there would be no knowledge sharing without it. The business case captures the benefits contract that the implementation is abiding. Thus, it serves as an anchor for the premise of the project and constantly feeds back into the process. In a successful benefits management process the knowledge sharing must take place. In some cases there is a need for objects to translate knowledge, transfer it, or otherwise solidify it in the process.

- Primary boundary spanning actors are: IS managers (coordinators), business manager (ambassadors), and actual users (ambassadors).

The analysis demonstrated that boundary actors were necessary to facilitate the knowledge sharing and collaboration. The IS managers were particularly important in the knowledge sharing within the benefits management process, where they mostly served as coordinators. They spanned the boundary to each of the other groups, often bringing the knowledge gained into new groups. In BM literature the topic of ownership in implementation projects is important. When business managers effectively serve as ambassadors, as in this case, the benefits management effort is supported by the knowledge they bring to the project. Similarly with active users who acts as ambassadors in a timely fashion will assist in the knowledge sharing in relation to the implementation scenario.

We believe this case to be representative in nature for successful benefits management. Thus, the results might be generalisable, though further case studies are required to test the robustness of the framework as an analytical tool.

7.1 Implications for Research

The framework used in this paper to analyse boundary spanning in the case benefits management process showed analytical power to identify boundaries, boundary
objects, and boundary actors. The boundaries represented challenges that were overcome and the boundary actors and objects represented solutions to these challenges. If we transfer the understanding of boundary spanning analysis to Ward and Daniels stakeholder analysis [39], it would increase chances to anticipate potential challenges and plan solutions for them. In its current form the stakeholder analysis is based on a change management perspective, which assumes resistance and need for inclusion. Management approach is then based on the knowledge of stakeholders affected by the implementation and their perceived resistance. This does not take into account the difficulties of boundaries. From an analytical standpoint this causes a reactive approach in dealing with boundary challenges. Amending the stakeholder analysis with a boundary spanning analysis would change the approach to preventive. If Carlile's [8] understanding of boundaries as syntactic, semantic, and pragmatic is applied for instance, then there would be an increased foundation of a successful planning of actor and object uses through the process. If a boundary was syntactic, then that would imply that simple information transfer objects could be used. If a boundary was semantic, an increased focus on finding a suitable actor for translation could be found. If a boundary was pragmatic, prototyping objects could be combined with suitable actors for translation. The analysis indicated that the lack of initial realization of benefits was caused by a missing strong boundary spanner in administration.

In a similar situation, an analysis using the boundary spanning framework could have identified this challenge, and a solution could be facilitated beforehand. Similarly, the analysis showed a weak boundary between IS and management, which helped facilitate the initiation of the project and a good understanding of the IS possibilities. In a hypothetical situation with the adverse situation, an analysis would identify this challenge, so a proper solution could be found. Investigations to expand the boundary analysis to external organisations such as IS vendors or collaboration partners would also be a natural step.

7.2 Implications for Practitioners

A focus on boundary spanning would alleviate the challenges performing successful IS implementations through benefits management. An understanding of the different boundaries would facilitate initiatives to meet the challenges in a timely manner, especially in environments where novelty in the implementation projects is high. This is particularly true in the environment of municipalities where the organisation is populated by many different business domains and knowledge backgrounds.

Conclusion

We have applied a case study on benefits management and analysed it through a lens of boundary spanning. This was done in order to expand on the understanding of the challenges in the collaboration between different social groups in cross organisational benefits management processes. The analytical framework presented for identifying groups, boundaries, boundary actors, and boundary objects resulted in an analysis that
led to the following findings: An understanding of a benefits management process as a dynamic process with changing actors and objects; an identification of primary actors with distinguishing roles, an identification of primary objects with distinguishing roles. Although further research is needed, we showed that the framework has potential as a post analytical tool as well as a preventive analytical tool.

References