THE ROLE OF PARTNERSHIPS IN DEVELOPMENT OF E-SERVICES
- HIGHLIGHTING PUBLIC SECTOR ORGANIZATIONS

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Abstract

In public sector organizations there is a need for providing services electronically through the internet. However, pressure to do with ever smaller resources is a reality, especially in IS departments of smaller municipalities. Here we suggest that cooperative arrangements with other public sector organizations, external service providers and businesses should be considered – they can be helpful in IS management and development activities. This is the case also in development of e-services. Understanding the needs of users, citizens or clients is also increasingly important in providing successful e-services.

Keywords: information technology, information systems, management, partnership, cooperation, e-services, public sector

1. Introduction

In public sector organizations there are pressures to provide services to citizens through internet [Atkinson and Leigh, 2003]. With information technology it is possible to improve transparency of the organizations by providing up-to-date information, integrate scattered services and give better access to the public [Cullen, 2001], [Asgarkhani, 2005]. Electronic services can be oriented to information delivery, allow downloading of documents and forms, and include collecting of complaints and suggestions, or increase participation in general [Atkinson and Leigh, 2003], [Asgarkhani, 2005]. The most sophisticated services enable transactions which earlier required one to go to the service counter in order to have things done [Ancarani, 2005]. Development of these services is not an easy task; there are infrastructure, interoperability and policy issues that have to be resolved in public sector organizations [Layne and Lee, 2001].

In this paper the focus is on challenges that information systems management faces in development of electronic services – e-services - in public sector organizations. These organizations include municipal organizations and state offices, those organizations which provide services to citizens. The term e-service is defined as an interactive, content-centred service which takes advantage of the internet [Rust and Kannan, 2002], [Rust and Kannan, 2003]. Here we look at services which are provided by public sector organizations, and are available for public use [Orman, 1989], [Sundgren, 2005]. Typically, these services need to be integrated into processes and technologies of the organization that provides them, in particular if the

services are transaction-related [De Ruyter et al., 2001]. The underlying information systems, applications, infrastructures and merging services may be owned, maintained or developed by public or private organizations [Ancarani, 2005], [Sundgren, 2005]. As result, there are several actors involved in management and development of e-services in public sector organizations (see also Sundgren [2005] for definition of public information systems).

Typically, the development of e-services starts from information-delivery related applications and later moves towards more complex, transactional services [Atkinson and Leigh, 2003], [Asgarkhani, 2005]. These services require different types of knowledge, and often transactional services call for deep technical expertise because they need to be integrated other existing systems. This is a challenge especially in smaller public sector organizations where IS people are usually acting as contact persons to external service providers, and few are doing programming work. Here skills related to selective buying, supplier management and controlling service from outside partners are increasingly important [Lacity et al., 1996], [Quinn et al., 2000]. Doing everything in-house is seldom possible, and alternative models in organizing IS activities are needed. We suggest that cooperative arrangements and partnerships can be the solution in this situation.

1.1. Motivation and Goals

The goal of the paper is to find ways to organize information systems management when the available resources are scarce. Discussions with IS-professionals and executives have motivated us to focus on challenges of information systems management in public sector organizations. We found out that in many cases there were pressures to develop e-services. This has prompted us to take an in-depth look at these themes and make a literature review in order to better understand the challenges that will be faced in this context. As a result, the questions of interest are a) what is the role of partnerships in information systems management and b) can development and management of e-services be empowered through external partnerships.

1.2. Structure of the Paper

This paper has been divided into sections which look at partnerships, e-services and challenges in developing them. The first chapters define the scope and purpose of the paper. The second main chapter is about concepts and definitions related to partnerships in IS management. Here is also discussion about the roles of partnerships.

The themes of the paper are further elaborated in the third chapter. The ideas which are presented here are not based on literature alone, they are also result of discussions with IS managers and other key persons from public sector organizations in Finland. This chapter together with the next chapter highlights the challenges of information system management, and discusses how partnerships may help out the problems.

2. Towards Partnerships

Partnerships among organizations are becoming increasingly important: 94 % of the technology executives believed that alliances are becoming more critical to their strategy, yet every second alliance turns out as a failure [Kelley et al., 2002]. However, the relatively high number of failures and disappointments in partnerships indicate that better understanding of inter-organizational relationships is needed.

In this paper the term partnership refers to inter-organizational arrangements which have been formed for some specific purpose. For example, development of a library information system to send the library user notification on new books to user's mobile phone might involve cooperation of several different organizations – it is a partnership issue. In partnerships the cooperation ranges from occasional meetings to active and frequent collaboration between organizations [Gay and Essinger, 2000]. This is also called the 'continuum of shared services' [Quinn et al., 2000]. The important issue here is that partnerships are based on commitment to cooperation and trust [Blomqvist, 2002].

2.1. Partnerships – The Key Elements

In general, partnership refers to a situation where individuals from different organizations meet when they are working with a project or task. The partnership formation is a process, which is affected by the environment, by the knowledge and capabilities of the organizations and by the individuals involved [Blomqvist, 2002]. According to Blomqvist [2002] the interaction in partnership formation consists of four key elements: communication, trust, commitment and adaptation. Furthermore, the role of power is also important in partnerships [Hart and Saunders, 1997]. Let us look at these elements closer.

Communication is a key success factor in a partnership. Open communication helps in developing mutual understanding and is the basis of relationship building between individuals and organizations. Communication is needed in exchanging information of partner's motivation and future goals, and is vital for trust to emerge. Efficient and open communication helps in aligning expectations and developing the relationship as sharing information is needed throughout the interaction.

Trust is a central concept in partnerships [Hart and Saunders, 1997]. In business relationships competence and goodwill are needed for trust to develop [Blomqvist, 2002]. Competence is a key antecedent in technological partnerships whereas complementary knowledge, skills and expertise are resources that are behind the partnership arrangements. These ingredients are basis of a successful partnership, and if they are missing cooperation that benefits all partners cannot develop [Blomqvist, 2002].

As the partnership evolves, the participants gain experiences, commit, learn and start to uncover the potential of the relationships. Trust makes it possible to commit and adapt to the relationship, and it is the core element for the bonding process between the organizations. Trust is a fragile issue because of its emotional nature: once broken it can be very difficult to achieve again [Scanzoni, 1979]. Trust among the partners is a "make-or-break" element in partnerships, and especially in long-term relationships it is the cornerstone of cooperation [Jones and George, 1998], [Varghese and Farris, 1999], [Ariño et al., 2001].

The interactive approach to inter-organizational partnerships focuses on the cooperative and trusting viewpoints of human behavior [Möller and Wilson, 1995], as opposed to the more opportunistic perspective of the transaction-cost approach [Williamson, 1987]. If other people are seen opportunistic and untrustworthy there is little room for partnership to develop. Trust is the element that can carry the relationships over misunderstandings and thread of opportunistic behavior. Gradually interaction becomes institutionalized and part of the processes and traditions [Håkansson, 1989], [Blomqvist, 2002].

Commitment is in this context seen as a future oriented investment in the relationship development, in terms of management time, procedural adaptation or

physical resources. Commitment and trust have a self-enforcing mechanism; some trust is needed for commitment and related investments, and these in turn are increased through trust [Blomqvist, 2002].

Adaptation is typical to a developing partnership [Möller and Wilson, 1995]. Usually, the level and amount of adaptation increases as the partnership develops, and it can lead to strong connection of the partners [Huston and Burgess, 1979]. It is possible that attitudes and even managerial values may be adapted in the course of the process [Möller and Wilson, 1995].

In inter-organizational relationships *power* is a central concept. It relates to dependency on the other participants in the relationship, and to expertise or availability of resources. Organizations providing scarce resources have power relative to those organizations which are highly dependent on these resources [Hart and Saunders, 1997]. Power can exist potentially, being a source of influence even when not actively used. In this case the less powerful organization may aim to act proactively to its own advantage. The more powerful organization can also use power actively. Power can be exercised persuasively, or more coercively where focus is on punishment rather than benefits or rewards [Hart and Saunders, 1997].

The viewpoints of Blomqvist [2002] and Hart and Saunders [1997] may be complemented with a several other classifications on critical factors in partnerships. For example, the fit of managerial and organizational values is an important issue [Schein, 1992]. Bruce et al. [1995] identify choice of partners, establishment of ground rules, process-related factors (like communication, trust and flexibility, for example), equality in contribution, benefits and power, people and their personal relationships and commitment, and environmental factors as success factors in inter-organizational partnerships. Slowinski et al. [1993] identified strategy-related goals, mutual understanding of weaknesses and strengths, information, intellectual property rights and exit strategies. An additional viewpoint is proposed by Dwyer et al. [1987]: they emphasize the long-term relationship over the transactional exchange.

2.2. Partnerships and Outsourcing

Partnerships include different kinds of cooperative arrangements ranging from outsourcing to joint ventures between organizations [Quinn et al., 2000]. Partnerships can increase organization's flexibility to adapt to changes in operations and environment. They can also make it possible to access knowledge and expertise that otherwise might not be available [Greaver, 1999]. From this perspective are partnerships closely related to outsourcing.

In information systems outsourcing the objectives are often connected to cutting costs, or focusing on core operations instead of technology, or getting rid of the maintenance of legacy systems [Earl, 1996]. It is also expected that partners are able to provide high-quality service. Outsourcing is expected to free management time: when maintenance of selected non-strategic functions has been outsourced to outside partners, organization can focus and put its energy to core activities [Feeny and Willcocks, 1998], [Johnson, 1999, 24].

In partnerships and outsourcing are the key questions similar: what tasks and functions should the arrangements concern, and in what degree [Earl, 1996], [Lacity and Hirschheim, 1995], [Lacity et al., 1996]. It is also important to notice that outsourcing is more than deciding what to do in-house, it can impact the organization thoroughly. In this way outsourcing is a partnership issue [Johnson, 1999], [Quinn et al., 2000].

2.3. Role of Partnerships

Partnerships are an increasingly important part of organizational processes. Many activities are based on cooperation. Discussions with IS managers reveal that surprisingly many systems, applications and services are run and developed together with service providers. The need to focus on core tasks, outsourcing and taking advantage of outside services highlight the fact that cooperation between organizations is important – and it also can have a significant impact on development activities. The results of cooperation may also become visible to the citizens, clients or users as new services, for example.
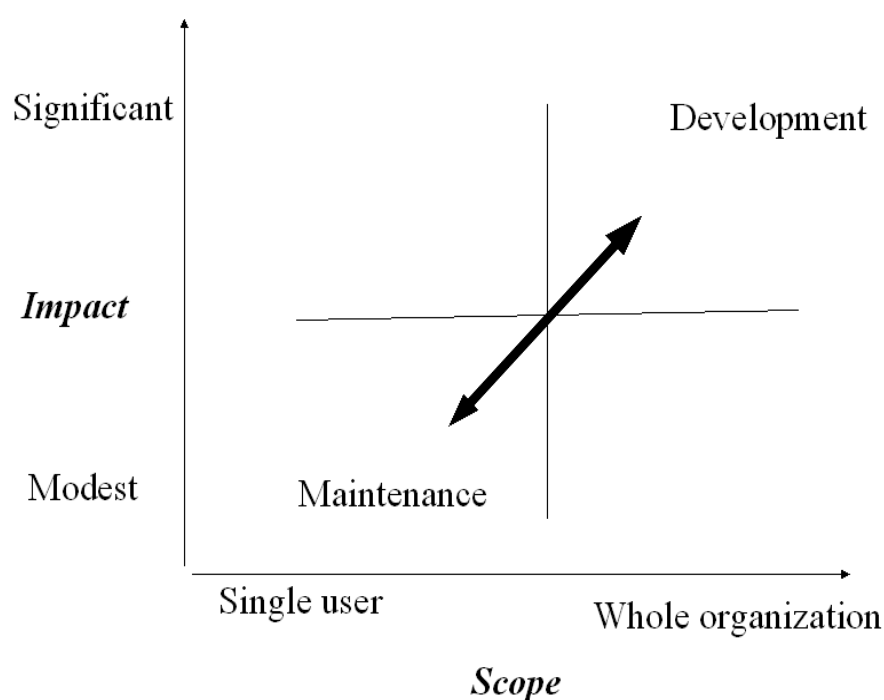

Figure 1. Role of partnerships.

The above figure (Figure 1) illustrates the role of partnerships in organizations. The tasks and functions that are targets of the partnerships may be maintenance related, more non-core issues, or there may be development activities involved. In the latter case the expertise of the partners can be a key element in the development work.

The business impact of cooperation can range from modest to significant. On the other hand, arrangements may concern only some units, functions and people, or they can have a major scope and affect all employees throughout the organization. This is the case also with e-services: when more services are being made available electronically the organizations need to look at their internal processes [Doherty and Horne, 2002].

Partnerships change over time, therefore we must consider also the time dimension. Open communication is critical in initial phases of the cooperation: understanding the goals and guidelines of the cooperation are the basis of any partnership. The formation and development of partnerships relies on communication, trust, commitment and adaptation [Blomqvist, 2002]. Mutually agreed targets develop joint ownership and increase commitment. Respecting partner's opinions and

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requirements – or adaptation – helps further in developing the cooperative arrangement [Möller and Wilson, 1995]. The relationship normalizes as partners learn to trust each other and find the added value of cooperation [Ariño et al., 2001], [Blomqvist, 2002]. On the other hand, negative experiences can be critical, especially in the early stages of the partnership. It takes years before failures are tolerated, and even here rapid solutions and involvement are required or the continuity of the partnership is at stage. Small success stories are needed to increase trust in the relationship, positive experiences make it possible to further expand the cooperation. As a result, the development of the relationship is tentative [Blomqvist, 2002].

3. IS Management in Public Sector Organizations

3.1. Challenges Facing IS Management

There is the structural change going on in many public sector organizations. Here we focus on public sector organizations in Finland, but similar issues are relevant also in other western countries. Demographic and economical changes call for new ways in organizing public sector organizations and services. Issues like quality, effectiveness, efficiency, availability and technological advancements are required in future services provided by public sector organizations. The financial position of municipalities has clearly deteriorated during the past years, and this prompts to look for alternative ways to organize things [Ministry of the Interior, 2007]. Cooperation and collaboration between public sector organizations is important in this context. [Ministry of the Interior, 2007]. Let us look at the challenges of IS management.

In public sector organizations information systems management faces a number of challenges. Firstly, the *resources are limited*. In many public sector organizations IS budgets are tight, the IS department is small and the pressure to manage complex systems is increasing. For example, moving into IP-phone systems can put IS people in charge of telephone system of the organization. These pressures force prompt IS managers to 'think outside the box'. Discussions with IS managers and other key persons from public sector organizations reveal that this is a important issue, especially smaller municipalities and organizations in public sector are confronted with scarce resources and are therefore prompted to look for advice and expertise from the outside. In this setting cooperation and mutual understanding of goals and priorities is an important issue in successful information systems development [Sirkemaa, 2005]. Also interaction between individuals, and individuals and their environment is of key importance [Nonaka et al. 2000].

Secondly, *systems providers are active in proposing and building customer groups* and joint organizations which use their solutions. In fact, in several case organizations there had been discussion about joining forces with other customers – and the proposals had been initiated by systems vendors. It may be noticed that the organizations here were public sector organizations, they are not rivals or competitors with each other. In addition, today many larger information systems providers integrate their products as result of acquisitions and other joint ventures. Large vendors have further strengthened their position by buying smaller companies, and soon thereafter their products have disappeared or been integrated into mainstream products of the buyer as stated by one of the interviewed IS managers. On the other hand, acquisitions can also lead to disintegrated products: buyers purchase various applications which can be very heterogeneous - for example built with different programming languages – and still they need to be supported and integrated into

existing product-portfolio. Based on this it is understandable why vendors may want to focus development efforts on only few main products and product-families.

The integration and disintegration challenges related to products together with building larger customer groups challenge systems providers to develop services in order to keep existing customers and provide high-level service for their clients. The *customers on the other hand, are confronted with changes* in the field, in products and services. However, *customers are also expected to cooperate and develop partnerships with other customers*.

Thirdly, *users of public information systems expect high-quality e-services*. When compared to e-business applications there has been noticeable delay in development of e-services in the public sector [Hasan and Tibbits, 2000], [McIvor et al., 2002]. Consequently, there is a demand for development of e-services. The first versions of electronic services are often information delivery –oriented. Over time more features may be added to existing e-services [Atkinson and Leigh, 2003], [Asgarkhani, 2005]. However, *when the services become more sophisticated the development work becomes technically demanding* [Howard, 2001]. One of the critical parts is providing transactional services to users; it requires connecting services to underlying information systems. Using outside expertise, and getting advice from other organizations, for example from a nearby municipality, can be of great advantage in the development work.

3.2. Meeting the Challenges through Cooperation

Management of information systems in public sector involves more than IS knowledge alone – there are several actors that are connected to development and management of public information systems (Figure 2). Effective cooperation is needed here so that each actor can contribute to the development of e-services.
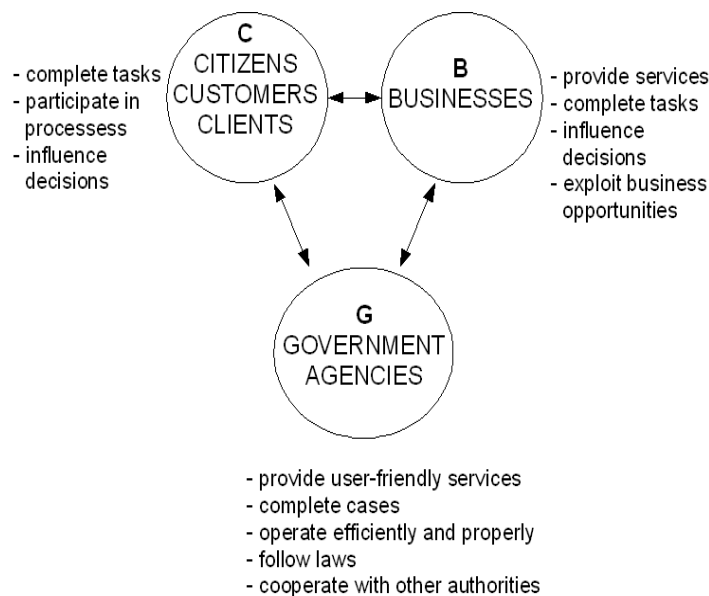

Figure 2. Actors in public information systems [Sundgren, 2005].

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Ideally, services should be organized by the user needs and not based on different agencies, separate systems or organizational boundaries [Howard, 2001]. Citizens, customers or clients are a critical part of the process – the understanding of their needs is the cornerstone of successful development of e-services [Howard, 2001; Rust and Kannan, 2003]. Value to the user, personalization and customization, user control, privacy and security are ingredients of e-service quality. Measurement of services, products and customer assessment are further required to better understand user expectations and develop the service [Rust and Kannan, 2003]. *More cooperation with users and discussions with other organizations is needed, for example with similar agencies developing e-services, help in understanding the user perspective.* The development of e-services affects also other areas than IS-department: increasing user expectations calls for more efficient services and transactions in the customer contact areas [Rust and Kannan, 2003].

Secondly, *businesses or external service providers and experts can have an important role in information systems development: they provide services and complete tasks that might be unwise to do in-house*. The advantages related to outside expertise, which in some cases may turn to outsourcing arrangements, may exceed the potential drawbacks [Johnson, 1999], [Quinn et al., 2000]. For example, outside service providers may influence decisions and exploit public sector organizations. Despite this external partners are needed because of their knowledge and expertise, and limited resources in organizations own IS departments [Greaver, 1999].

Thirdly, *cooperation with other public sector organizations (agencies) can bring benefits; joining forces gives a better position to negotiate prices and service offers. Another important benefit is related to resources and expertise.*

4. Discussion

Partnerships can be a valuable resource in information systems management and development activities. Partnerships among organizations rely on communication, trust, commitment and adaptation [Blomqvist, 2002]. Partnerships have the potential to increase organization's flexibility to adapt to changes in operations and environment. It is also possible to access knowledge and expertise that otherwise might not be available [Greaver, 1999]. Partnerships are closely related to outsourcing; in both of them are actors depending on others. In addition, there is a need to understand what the core activity is and the importance of it [Johnson, 1999], [Quinn et al., 2000]. On the other hand, dependency on the other participants in the relationship may affect the cooperation [Hart and Saunders, 1997].

Trust is a central issue in all partnerships and cooperative arrangements [Hart and Saunders, 1997]. Partners learn to trust each others through cooperation, and this further strengthens the relationship. Consequently, there is a built-in a self-reinforcing mechanism in a successful partnership. It is still evident that roles of the actors need to be well defined, and in the long run the continuity of cooperation depends on the management of the partnerships [Johnson, 1999].

The role of cooperation is very important in IS departments in public sector organizations; for example, development of electronic services to the citizens is result of cooperation between several actors. There are three kinds of actors in this setting [Sundgren, 2005]: other public sector organizations, businesses and external service providers together with clients, customers and citizens. Here cooperation and partnerships are especially important in development of services. For example, services can be connected to several underlying databases which requires planning, coordination and programming. The services are also expected to be robust – an issue

which calls for good cooperation between all partners involved in development and maintenance issues (see figures 1 and 2).

In partnerships with other public sector organizations the cooperative arrangements can be broad. To begin, discussions with colleagues can be fruitful and open eyes for new practices and better ways to organize processes. One possible form of cooperation is joining forces in competitive bidding. This could lead to discounts and better service than in a case where the organizations would negotiate alone with systems providers. In this way, as systems providers are joining forces and integrating their products, the same strategy may bring added value to customers as well.

Typically, businesses and external services providers take care of a specified process or function. It is worth noticing that there are different kinds of external service providers and businesses; some specialize to individual applications and systems while others provide larger systems which integrate different technologies, applications and data-bases. Especially the development of transactional e-services calls for both types of knowledge; detailed technical expertise in underlying technologies is required, but at the same time the services need to be integrated into other back-office systems [Howard, 2001], [Asgarkhani, 2005. Here cooperation and partnerships is the key to successful e-services.

In public sector the cooperative arrangements are also strengthened by systems providers' integration and focus to selected products, and public sector organizations pressures to manage with shrinking resources. The result is increased partnership and cooperation with businesses and service providers. The situation will also prompt to joining forces with other public sector organizations.

The role of clients, customers and citizens in development of information technology empowered services cannot be overemphasized [Atkinson and Leigh, 2003], [Rust and Kannan, 2003]. Understanding the needs of the users is a key success factor in development of e-services – ultimately the services are intended to make operations of public sector organizations more transparent and make it possible to use services that can be accesses through the internet.

Based on discussions with IT managers and other key persons in municipal IT organizations it seems evident that cooperation is a key ingredient in development of e-services, especially in smaller municipalities and cities. The increased sophistication of technology impacts the management and development process: more sophisticated services require more organizational change, and at the same time the technological complexity increases. For example, while it is relatively straightforward to construct a web-presence which gives information, interaction and transaction-rich e-services call for programming expertise and involve integrating the web-interface to databases and other back-office systems in the organization [Howard, 2001]. Also issues like security and maintenance become critical in these stages [Rust and Kannan, 2003].

5. Conclusion

In this paper we have discussed the role of partnerships and cooperation in public sector organizations. The focus has been on information systems management, here the development of electronic services that take advantage of the internet – e-services - is the issue of interest.

In general, information systems management in public sector organizations is trying to meet the needs of citizens, customers and clients with limited resources - especially in contrast to the variety of tasks, activities and processes IS people are expected to manage. Despite this development of new systems, applications and services is needed Based on discussions with IS managers in public sector

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organizations there are real challenges here as in many public sector organizations resources are scarce. The solution proposed in this paper is cooperation and partnerships with key actors in public information systems, with other public sector organizations and different service providers. For example, cooperation with nearby municipalities can give insights in development of e-services. Similarly, expertise of the web-service provider and database provider can be most helpful when e-services are being connected to underlying information systems in the organization. In this way cooperation can be a viable solution to problems related to scarce resources, as one IS manager stated.

Cooperation and partnerships can be a valuable resource for IS management and development. Whereas development of e-services is concerned there is a need for various skills and knowledge, and here cooperation can be helpful as it makes it possible to access expertise from partner organizations. On the other hand, partnerships mean also that there is a dependency on other organizations. Therefore, management of the partnership is an important issue. Another important partner in development of e-service is the user or customer – the needs of the users must be understood in order to develop successful e-services.

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