

An Analysis of a Shared Services Centre in E-government

Marijn Janssen and René Wagenaar
School of Technology, Policy and Management,
Delft University of Technology,
Jaffalaan 5, NL-2600 GA, Delft, The Netherlands,
Tel. +31 (15) 278 1140/8077, Fax. +31 15 278 3741,
E-mail: Marijn@tbm.tudelft.nl, Renew@tbm.tudelft.nl

Abstract

Information systems engineering projects in e-government are confronted with high costs, lack of expertise and developing similar functionality over and over. A shared services centre might provide common services to local government organizations without affecting the autonomy of organizations and providing the flexibility to enhance and include additional functionality. As such a SSC promises tremendous economies of scale and scope. A promise is however not sufficient, research yields ambiguous results. A sound analysis of motives to use a shared services center and management issues determining success and failure is necessary.

The goal of the research presented in this paper is to explore the concept of a shared services center by investigating the motives and management issues determining its successful implementation. We explore the concept by investigating a SSC at the Dutch judicial organization.

1. Introduction

In current economical situation budgets are reduced and opportunities for gaining efficiency are investigated. Inevitable the costs of control and maintenance have become the prime concern of public management [4]. The emphasis in e-government is shifting from innovation to cost efficient operations of service or data centers [11]. Information managers in public organizations become increasingly dissatisfied with the returns obtained from their investments in ICT, costs are rising too rapidly and technology seems to be changing so quickly that one organization could hardly keep up with the latest developments. This has sporadically resulted in collaboration between small municipalities to avoid duplication of efforts and to establish one shared back-office. The main motivation seems to be cost reduction and concentration of

expertise. Services cannot be provided cost effectively and implemented on only a local level as budget and expertise are limited. Small organizations cannot develop all the desired services and have all kinds of expertise, by sharing services and expertise among organizations, a larger number of services desired become available. As technology spread new organizational arrangements into a Shared Services Center (SSC) has become feasible. The SSC has been advocated to achieve operational efficiency and gained considerable attention from politicians and other government representatives [4],[7],[15]. For human resource management the Dutch cabinet already decided to introduce a SSC [1].

The basis premise for a SSC seems to be that services provided by one local government can be provided to others with relatively few effort. This should lead to decreasing costs and increasing service levels. The introduction of a SSC is a critical decision on a strategic level. It implies a long-term decision between the SSC and clients with considerable complexity and risks. The SSC can be viewed as a particular kind of outsourcing arrangement between many clients and one vendor, in contrast outsourcing literature often addresses the relationship between one client and one or more vendors. The need for funding and difficulties with acquiring critical knowledge and expertise are the main drivers for outsourcing [10]. In outsourcing arrangements, the intended benefits are often not met and many projects fail [3],[8].

Much can be learned from outsourcing literature and already existing SSCs. The challenge is to help government agencies to adopt and adapt shared services by providing insight into the impact of a SSC. The *goal* of this paper is to explore the concept of the shared services center by analyzing the motives for starting a SSC and management issues determining success and failure.

The structure of the paper is as follows. In the following section we discuss the research methodology. In section three we discuss the

theoretical background, which is used in section four to analyze the SSC concept in practice, by conducting a case study into a SSC at the judicial organization of the Ministry of Justice. In section five we discuss the SSC from various points of views. Finally in section six conclusions and recommendations are drawn.

2. Research methodology

The object of this research is to analyze the impact of a SSC on e-government. This analysis can be used as input to organizations, like Dutch municipalities, who are considering the introduction of such a center. A shared services center should be analyzed from a multidisciplinary point of view. Gurbaxani [10] concludes that nature of outsourcing is changing in significant ways and that the strategies and options managers can pursue are becoming more divers and varied. He also concludes that outsourcing solutions that are appropriate in one instance may be counterproductive in others. Exploratory research was chosen due to the scarcity of empirical work about shared services centers, the need to investigate the nature and our goal is to analyze the concept for the purpose of theory building.

Case study research was chosen as it is a suitable instrument for studying a contemporary phenomenon in its natural setting, and investigating a wide range of variables [21]. Single case studies are often seen as inferior to multiple case studies with respect to generalizability, however, when selected with care, a limited number of case studies, or even a single case study may be very successful in terms of theory formulation and theory testing [32].

We investigated a case study of a SSC within the Ministry of Justice. We used reports, semi-structured interviews with employees of the local courts, Ministry of Justice and SSC. In total 12 persons from two local courts, including judges, prosecutors and administrative staff, the quality, standards and architecture department, account management, application and services center were interviewed during the period April till June 2003.

The SSC has already a history of 20 years from being a small center towards becoming a mature center offering services to various groups, like courts, high courts and other specialized courts (taxes, insurance, ...) but also to criminal, civil and administrative law. The advantage of this case is that we can investigate the evolution towards becoming a mature and accepted SSC. This avoids the pitfall observed by Lacity and Hirschheim [16] in outsourcing literature that over simplification appears when looking only at experiences during the 'honeymoon period' when

agreements between customers and service providers are made.

3. Theoretical background

The ability to share ICT resources has its origin in computer science. In computer science often services like DNS, proxy cache service, time service, distributed file systems, shared database are quite common [26]. In the last decade the idea migrated to the consolidation of services such as human resource, payroll, and accounting, into shared services. As such, services are provided by a central organization and shared among local organizations at the same horizontal level. The service center takes care of activities, such as development and maintenance of a payroll system, necessary for service provision. The employees at local organization make use of the services, such as adding a new employee to the system or updating wage information, where after the payment of wages is automatically processed.

Shared services have large potential for a variety of other public and commercial applications [26]. Shared use can make IT infrastructure management and application exploitation and use more efficient [4]. Sharing of services introduces new opportunities for, especially small government organizations, to (1) outsource non-core activities, (2) dimension the capacity of their ICT infrastructures efficiently and (3) to access and use ICT resources currently out-of-reach.

On-line reuse of generic application services can considerably ease networked application creation and deployment. Applications will more and more evolve into sets of interoperable services. These sets can be assembled and configured, on the fly, over the Internet to perform functions or execute business processes. Ideally, this allows organizations to easily compose, adapt and orchestrate lower level generic services into specific, customized higher-level applications.

The theoretical motivation of the shared services concept is closely related to outsourcing literature [3],[17],[18],[20]. Outsourcing is about the contracting out or selling of the organizations IT function to a third party vendor who in return provide the service for a certain time period and monetary fee [30].

The basic idea of outsourcing is based on the *transaction cost theory* of Coase [5]. Transaction costs result from the transfer of property rights between parties and exist because of friction in economic systems [5],[31]. A firm will tend to expand until the cost of organizing an extra transaction within the firm becomes equal to the costs of carrying out the same transaction on the open market. The use of communication network and integration technology

decrease the transaction costs and enables organizations to focus on their core competencies.

The SSC can gain economic benefits from *specialization* [2]. The SSC specializes in providing certain services in the relationships with customers. After bearing large system-development costs, the SSC will face relatively small incremental costs as new government organizations make use of the systems, thus obtaining substantial *economies of scale*. Furthermore the technological and organizational resources and expertise acquired during the development and operation of a system may be transferable to other systems, resulting in *economies of scope*.

Principal-agent theory deals with the relationship between the principal and agent based on the division of labor, information asymmetry and environment and partner behavior [14]. Local government organizations, are the principle and the SSC is the agent. The agent makes decisions, which influence the local organizations. This theory takes the agency costs, the principal costs of monitoring and control and agents' guaranteed costs as remaining welfare loss, as efficiency criterion and recommends those institutional arrangements, which minimize the agency costs [14]. This theory draws the attention to the relationship between principal and agent, and need for managing these relationships using service level agreements, contracts and benchmarking. By managing the relationships between client and vendor and improving communications risks can be prevented. It is impossible to spell out every possible scenario in contracts, and relationships are often beyond rules, agreements and exceptions and rested on trust, commitment and mutual interest [19].

The transactions cost and principal-agent theories are based on rationality, an efficiency criterion is used for explaining outsourcing structures. *Political organizational theories* are used for explaining organizational arrangements and include social, coordination, risk and strategic management theories [10]. These view actors as political entities having various degree of power to each other [25]. Political theory, especially resource dependency theory, is used to explain motives for outsourcing [12]. Companies should retain core capabilities, but non-core capabilities do not have to be owned or controlled. Although this view provides meaningful implications and suggest frameworks for analysis of partnerships relationships, it failed to explain why a large percentage of partnerships did not succeed [10].

Nowadays it is generally accepted that outsourcing should be analyzed from all perspectives to explain motives and management issues [10],[19]. The integrative view benefits from the cost efficiency of

the economic view, the relationships and contracts of the principal-agent theory and the mutual trust and competitive gain of the political view [10].

To develop an understanding of SSC, it is necessary to analyze the underlying motives to start a SSC. These motives are not only related to financial factors, but also to socio-technical factors [12]. Baldwin et al. developed a taxonomy of four motives for outsourcing decisions [3], which will be used to analyze the SSC case study, these are (1) technical, (2) economical (3) strategic and (4) organizational, and political motives.

There is still considerable debate on best practices that distinguish success from failures [12]. Many studies have used empirical methodologies to understand outsourcing [3],[12],[17]. Types and extent of outsourcing can be different. Baldwin et al. conclude that whatever decisions are made, eventual success or failure can only be measured by looking at the relationships between stakeholders themselves [3]. Measuring of perceived benefits and risk of outsourcing is difficult as it is often impossible to measure actual outcomes and only respondents' perceptions can be measured [12]. The management issues associated with the choice of an IT sourcing strategy are often murky, hidden behind euphemisms, perceive differently by different stakeholder groups, and generally not easily analyzed [12]. Often not easily quantifiable factors, as 'frustration', loss of faith', 'expectations', 'political obstacles', 'freedom and 'power determine success or failure [3]. A case study is explored in the following section to get a better grip on the motives for using a SSC and management issues determining success and failure.

4. Case: Shared Services Centre

The judicial organization has already a long history with outsourcing to a central facilitating organization, which has gradually developed into a SSC. As such they are ahead of other organizations, like the Dutch municipalities, who are preparing the decision-making to establish a SSC. The predecessor of the SSC started in the early nineties as a computer centre providing services to the local courts. This computer centre maintained a dedicated communication network connecting the court and hosted several monolithic systems, which could be accessed using dumb terminals. With the rise of personal computers in the early nineties, the court introduced all kind of local systems not only for office automation, but also for supporting their core businesses. The courts began hiring their own ICT staff and in some larger district courts and high courts both judges and public prosecutors started to develop their own information

systems. Note that judges are an autonomous power and can make decisions independent of politicians. Judges and public prosecutors are used to fight each other and therefore started to develop their own information systems. Some were controlled and maintained in the computer centre, other by local courts. In this way a hodgepodge of hardware, operating systems, applications and communication protocols was created.

In the mid nineties this organization merged with an organization within the judicial organization providing consultancy and project management expertise. In this period a further professionalization of the organization took place. SLAs (Service Level Agreements) were introduced, the courts strengthen their principal roles by introducing information managers, and the SSC introduced account managers who are responsible for regular communication with the information managers and user community and formulation of project proposals.

At the end of the nineties, the computer center became gradually a SSC. All 22 large information systems became controlled and maintained by the SSC. The ICT personnel belonging to the local organization were shifted to the SSC, however, most of them stayed in their current geographical location. Due to the rise of the Internet, the necessity to exchange data between islands of information systems appeared. Data formats were standardized to ensure interoperability, message brokers were introduced and data was exchanged. An application server was introduced to some large applications to make them accessible using a web-browser.

4.1. Organization structure

The SSC consist of a number of departments as shown in figure 1. The SSC has more departments than might be initially expected. Account management is responsible to have regular contact with the management and information managers of the local organizations and also responsible for formulation of project proposals. Communication is responsible for promoting the activities of the SSC to local organizations, as the activities might be invisible for many users and for creating a shared culture, as the employees are geographical dispersed around the whole country. The department quality standards and architectures, is responsible for monitoring service and other quality levels and for advising improvement, enforcement of the use of standards and providing architectural consultancy. The application center develops, controls and maintains 22 large information systems. The national infrastructure department

controls and maintains the communication network between local organizations and within local organizations. The local branches consist of local support for solving problems at the location of the customers. The services center provides resources, such as information analysts, testers, trainers, educators and project managers, to the application center, national infrastructure and incidentally to the local branches departments. The services center has also a law sub-department responsible for spotting changes in law that may lead to changes in information systems or changes in configurations. The SSC has complete expertise for managing development projects, including implementation and education.

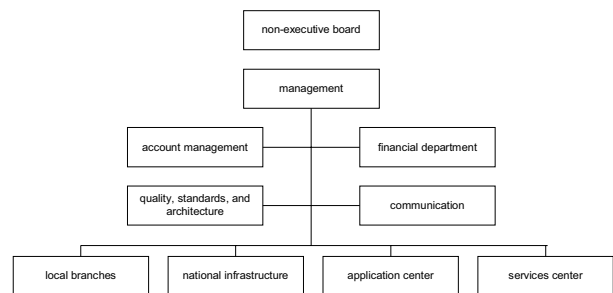


Figure 1: SSC organization

The principal-agent theory draws the attention to the management of relationships between clients and vendor. The distributed nature of the SSC across organizational borders leads to the need for coordination between these organizations. At a strategic level, the non-executive committee of the SSC consists of members of the local organizations, one judge and one public prosecutor and of members of the Ministry of Justice. This ensures that the SSC targets are aligned to targets of the local organizations. At a tactical level a number of groups exist responsible for spotting changes necessary and new services needed. There are 22 groups, the same amount as the number of information systems. Groups consist of one account manager, a number of technical experts, and a user group. This last group consists of administrative staff, one judge, and one prosecutor. The composition of this group is dependent of the problems under review. At an operational level, users can send requests, such as changes needed in user lay-out, to a central helpdesk which take care of redirecting the request to the appropriate department or person and monitoring the progress.

Apart from these formal mechanisms, informal communication appears such as bilateral relations between employees of the SSC and court and the development of a shared culture by having trips and

activities with employees from the SSC and local organizations. Regularly switching form job position helps to create a shared culture e.g. some account managers of the SSC are coming from operational staff of the courts.

4.2. Shared services

The SSC is responsible for service provision to the courts. All courts, independent of the type of law and type of cases, make use of workflow services. Workflow services orchestrate the law chain that always involves the judging and execution steps. Shared workflow services include the timely alerting when deadlines defined by law come nearer. Changes in deadlines are maintained by the law sub-department of the services departments. Members of the local organization alert often changes to this sub-department. Other shared services include the automatic generation of the content of summons, printing and submission by post when a trial has been scheduled.

Some services are only shared between courts at the same level, i.e. courts, district courts and county courts, other services are shared based on the type of law, i.e. criminal, civil and public. County courts share often the same workflow, as they have to deal with similar cases, such as speeders and neighbor disturbances. District courts share the same workflow too, this workflow is much more complex than in county courts and involves a larger number of hearings and more law codes. When looking at the type of law, only the criminal law involves the transfer of documents from the police to the judicial organizations. Shared services for the transfer process include the scanning and digitizing of documents.

Shared services are provided using a modular architecture. Modularity is often associated with the new paradigm of web-services. With web-services, functionality can be package up as web-services and assessed using a request-response protocol. The services-oriented paradigm promises to offer many benefits to enterprises. The creation of a class of enterprise services allows us to create services that are modular, accessible, well-described, implementation-independent and interoperable [9]. Modules can be found, described, discovered, and integrated using web-services technology. Service oriented business integration enables the on demand composition of new business processes using already existing services possibly provided by other parties. In service-based applications, services are configured to meet a specific set of requirements at a certain point in time, executed

and then disengaged. Services only 'exist' during execution, modules provide services.

The level of standardization of the shared services can differ, as shared services can be configured to some degree, thus customized for customers. Each court can have their own kinds of meta-data about documents. Prosecutors and judges can have their own data format, as due to habit to fight each other in court, they do not want to have the same data formats. The user at the bottom of figure 2 is able to edit document templates to customize generated documents for its own purposes. Administrative staff or judges can change position of text, add their own sentences or even a courts logo to a document.

5. Motives

The motives directing courts to a shared services center are of importance for the decision-making process for other government organizations to introduce a similar concept. Many of the motives that will be discussed support the promotion of the SSC, however, when viewing the management issues the motives are challenged on several aspects.

As a theoretical background the four categories and motives for outsourcing decisions suggested by Baldwin et al. [3] are taken. During the interviews the implicit motives for establishing a shared services centre have been discussed and the list was updated. The results are shown below and thereafter discussed. The motives marked with an asterisk are similar to the motives found by Baldwin et al. [3].

Strategic and organizational motives

- Local courts can focus on their core business *
- Clear control and eliminate local and complicated control of IT function *
- Gain access to high quality IT services and skills *
- Concentration of innovation and exploit new technology *
- Share risks *
- One-stop shop
- Standardize functionality and processes among courts
- Disseminate and impose successful practices
- Reduction of complexity

Political motives

- Enhance credibility *
- Solve internal conflicts *
- Increase controllability

Technical motives

- Concentration and access to technical and project management expertise *
- Poor performance of local ICT staff *

- Higher services levels *
- Consolidate experiences
- Escape from legacy systems
- Standardization of platforms and application vendors
- Better information security and authorization by centralizing

Economical motives

- Lower control and maintenance costs *
- Accountability of control *
- Control of costs (cost predictability) *
- Economies of scope and scale
- Reduction of overcapacity by consolidation of systems

5.1. Strategic and organizational motives

The interviewees working in the courts indicated that the SSC helps them to focus on their core business and makes control of the ICT function more clear. In the past the ICT- and business-related costs were not easily separated, by paying to the SSC based on their service provisioning the ICT-related costs have become clearer. The interviewees found the service-based cost structure that they have with the SSC better accounting for the relationship between costs and services. This does not mean that they were completely satisfied with the service provision of the SSC. On the contrary, in their opinion listening to user requirements is badly done and the process for requesting new or updated services is too cumbersome and long lasting. All of the interviewees agreed on the benefit of the SSC as being a one-stop shop. The SSC is a synthesis of several products and services, such as office automation, dedicated application, connectivity, web hosting, system integrations, extended support and help desk.

The risks for developing new systems and services are reduced by concentration of innovations and learning from experiences. The courts use the SSC as an instrument to share risks among each other. As important risk reduction technique, the interviewees found it a major advantage that successful business practices are imposed on new projects.

5.2. Political motives

The political motives were particularly important for interviewees representing the Ministry of Justice. In their view a main advantage of the SSC is the increase of the controllability of the ICT costs and the solving of conflicts about which court should have how much budget to develop what system. The ICT

staff of the SSC located at the local courts often mentioned the credibility for their activities as an important political motive.

5.3. Technical motives

A major advantage seems to come from the SSC as centre of expertise attracting a community of interest in a certain area. Developing shared services centrally and involving local experts creates a community. Central experts often provide the technological, and project management expertise, including experience from past projects. Local experts contribute by providing business knowledge and user requirements. The experts in the various areas adhere to an organizational structure stimulating re-use of development, control and maintenance experience and incidentally already developed functionality. For example the experience of a workflow system for the criminal law is used to develop a workflow system for the civil and administrative laws. The SSC seems to be better equipped than local organizations to keep pace with new technologies, skills and processes. From a court perspective the management of expertise get off their direct management responsibilities. A shared services center can be viewed as a means of obtaining and developing expertise. The SSC should be viewed as an expertise-managing phenomenon.

The courts are connected using a dedicated network controlled by the SSC. In the past there was a hodgepodge of policies and security systems, which led to insecure submitting of messages over networks and to problems with remote authorization. By standardization of this network, including the security and authorization systems and by having one uniform policy, better security and authorization is realized.

5.4. Economical motives

We were not able to prove that a SSC lead to large cost-savings, as no information of the situation without SSC was available and even of the current situation on some shared services are cost calculation available, which would enable comparison. Literature argues that there is unlikely an agreement of cost-savings among stakeholders, due to differences in opinion about what should be measured and how it should be measured, and to which situation it should be compared [18]. Some of the interviewees questioned the cost-benefits and argued that in their view other benefits are of more importance. Some courts representatives perceived the costs of the SSC as high, but most of them expects that the cost would be higher without a SSC. The interviewees from the local courts seem to be satisfied

with the SSC as they were relieved of cumbersome tasks like getting access to legacy systems and the year 2000 problem. The interviewees indicated that especially the control and maintenance costs are reduced as the total number of employees has decreased by centralizing and sharing services. The reduction of development costs led to miscellaneous answers, as local courts can still initiate development and some projects have failed. In contrast to outsourcing, no self-reinforcing cycle occurs, for the SSC is not able to increase their number of clients to broaden skills and drive costs further down, as all courts are already customer.

5.5. Conclusions

As suggested by outsourcing literature (e.g. [3],[12],[17],[20]) it seems that other motives than efficiency improvement and access to expertise are of importance for using a SSC. While the economic rationale legitimizes the SSC the true economic benefits are far from obvious, and cannot easily be calculated. The technical, strategic and political motives seem to be important for explaining the continued use of a SSC as organizational arrangement.

The concentration of expertise, better information security and authorization, one-stop shop and risk reduction motives are in contrary to motives mentioned in outsourcing literature [3]. An explanation could be that a SSC can be characterized as a one-vendor situation and outsourcing literature generally addresses multiple vendor situations. Moreover, in outsourcing the risks are often shifted to the vendor, while in our situation the SSC is used to share risks among courts and SSC. In contrast to the outsourcing motives of Baldwin et al. [3], the reduction of backlog of projects and responsiveness to ICT needs was not perceived as an advantage by the interviewees. This could be explained by the fact that there is no reduction of backlog projects when comparing the current backlog with the backlog of 5 and 10 years ago. The interviewees were generally dissatisfied with the responsiveness to add new or update existing services, which could explain the mismatch with the second benefits.

6. Management Issues

In this section we discuss the management issues, which are not already mentioned in the preceding parts, based on the theoretical background of section three.

6.1. Transaction cost theory

Transaction cost theory has addressed the risk of *lock-in, opportunism and asset specificity* [31]. During the years a lock-in relationship between courts and SSC has emerged. The switching cost to another vendor would be high. The employees of the SSC have knowledge about the business of and processes at the judicial organization. Most interviewees indicated that they did not find this lock-in a major problem, as there is a tight relationship between courts and SSC via the non-executive, who are in control of the SSC. Although the SSC can be viewed as a one-vendor approach, the SSC have hardly any incentive to behave opportunistically. However, most of the interviewees from the local organizations indicated that competition should be introduced. One of them commented that the introduction of competition should only be used as pressure mechanism and not really introduced.

6.2. Principal agent theory

An important aspect of principal-agent, but also of political organizational theories, is the *relationship* between courts and SSC. When looking at the principal-agent relationships, trust, commitment (cooperation) and power are important parts of the relationship [22]. When viewing the history, at first some local organizations were not happy with the SSC initiative. They were afraid that their authority and responsibilities would diminish. Another complication was that public prosecutors and judges are used to fighting each other in court, instead of cooperating in system development and sharing services. They were very afraid that sharing services means sharing information that could be misused by the other. Only after years the SSC became accepted and viewed as a trusted agent, providing services to both judges and prosecutors. During time the functions and processes executed by the SSC were broadened. The SSC needs to prove constantly that it is a trusted cooperator. This depends on reliability, openness, keeping to the commitments of agreed service levels, and also providing insight into their activities.

One of the main reasons of the lack of trust and resistance of the interviewees in the beginning seem to be the lack of understanding of the opportunities provided by the SSC. Some interviewees had no realistic view of the SSC and were very afraid that service levels would fall. For these people doing things right the first time seem to be essential for keeping trust. The initial trust of users might drop quickly once too many mistakes have been made. A positive and constructive attitude of the employees of the SSC

towards the local organization seems to be necessary to gain the necessary credits to solve the initial problems.

Frustration at the user-level and *alienation* between SSC and local courts is a great problem. The interviewees indicated that from their perspective the SSC does not listen enough to user requirements. In the period from 2000-till now, the SSC has had an emphasis on communication. For example, although user in courts had not to worry about the year 2000 problem, there was a large communication plan for making customers aware of the year 2000 problem and making sure they understood the activities of the SSC to deal with this problem. Although another strategy could be to solve the problem without involving any customers, it was found that this helped to understand the position of the SSC. Users understood why no new services were introduced in the period prior of January 2000. The communication helped to manage the customer expectation. Interviewees indicated that their current experiences with the existing organization are not all positive, but most of them belief that problems will be solved in the long-term and the employee of the SSC have the best *intentions*.

There is a large need to *stay close to the customers* to continually elicit new and update existing customer requirements and to react quickly in case of support needed or calamities. The SSC established groups, consisting of staff of local courts and SSC, to ensure a close user relationships. These groups are responsible for a smooth processing of the daily operations. Also an account manager function was created who was responsible for monitoring user satisfaction, regular meet and discuss opportunities with staff of local courts and communicate with the management with the courts. When looking at the history, the transfer of ICT staff from courts to the SSC took gradually place. First the coordination between ICT staff and the other staff in local courts was rearrangement by introducing, account managers, a central help desk and formal meetings. Thereafter the responsibility of the staff was put under the SSC. Both measures did not infect the geographical location of the ICT staff, in this way the non-ICT staff at local courts had still the idea that the ICT department belonged to them. Only nowadays ICT-staff is moved from local courts to the SSC. We were not able to investigate the effects as this is still going on.

Apart from formal communication, there are many *informal mechanisms* that might not be obvious at first hand. For example, members of the local court alert often changes in law to the law sub-department of the services department. This can be viewed as a pre-alert for need for changing services and enables a better planning for the development of new systems and services. A good understanding between local courts

and the SSC seems to be a condition for success. Informal communication is encouraged by shared activities, like a sports day, having collective drinks etc.. Also the communication strategy contributes to informal communication, as one of the aims is to be open and give staff at courts insight into the activities of the SSC. Openness and transparency encourages positive involvement and consensus among actions taken.

6.3. Political theory

Political organizational theories draw also the attention to *risk sharing and reduction*. Initially a number of development projects failed due to the lack of controls and arrangements to deal with the interactions between courts and the predecessor of the SSC. In a later stage the before discussed organizational arrangements were made.

Failure of services provision can result in a shut down of critical operations and result in a major loss of productivity at courts. It can even result in a premature release of prisoners when the law system failed. The management of the SSC took measures like having duplicate versions of systems and an emergency communication network to avoid the single-point-of-failure problems. The SSC is probably better able to guarantee availability of systems than courts would be as they have better expertise. The SSC has a complete test sub department that takes care of testing, before a new or updated service is made available. As already mentioned, the courts use the SSC to concentrate innovation and as a risk reduction mechanism to share risks among multiple courts.

The management of the SSC regularly *benchmarks the performance* of the SSC with other similar organizations. A third party performs these benchmarks and the results are shared among all the local courts. The distribution of these results is an explicit part of the communication strategy. This helps to reduce the number of complaints about the high cost of the SSC, as the expectations are set conform market standards. The results are also used to initiate discussions about possible improvements. In this way it is not only assured that price and quality are competitive, but also that the managers and users of local organizations are aware of the fact that prices and quality are competitive. In this way realistic expectations are set that can be met by the SSC.

6.4. Organizational theory

From an organizational perspective it seems essential for success that although existing roles and

functions are reallocated, new roles need to be created, and informal mechanisms are promoted to guarantee a close relationship with users. Also a communication strategy aimed at providing transparency and openness seems to be important.

Although it might be not a conscious, the strategy of the judicial organization has been to *incrementally* develop a SSC. The basic idea is to implement the SSC by leveraging existing expertise. In a later stage, when the model has been proven successful it's full implementation could be outsourced. The Ministry of Justice and representatives of local courts control the management of the SSC. The Ministry of Justice assigns in cooperation with local courts budgets for system and service development and other investments necessary for innovation. Local courts pay only for services they make use of. In a following stage the innovation budget might also be allocated to local courts. The advantage of this construction is that local courts are encouraged to be interested in innovation and it might better ensure that money is allocated to innovations that are of direct interest for local courts. A disadvantage is that the innovation budget will be fragmented over courts and consequently allocated in a fragmented way.

This incremental development strategy takes into account that relationships are evolving and dynamic. This provided the opportunity for the SSC to gradually develop its role and for users to gradually get used to the role of the SSC. In this way a balance is sought between central service provisioning and local courts using the services.

7. Conclusions

In this paper we explored a shared services centre in e-government by analyzing the motives and management issues using a case study. Outsourcing literature was taken as a theoretical background. The SSC deals with the relationship between many clients and one vendor, in contrast outsourcing literature addresses the relationship between one client and one or more vendors. Although a case study methodology cannot claim to offer prescriptive solutions of guidelines and best practices, it does link theory and practice and allows us to raise a number of points and make a number of suggestions.

Services provision cannot be effectively implemented on only a local level as initiatives are fragmented and budgets and expertise of local organizations are limited. A SSC is not a panacea for everything, and the benefits might be on other areas than initially expected by politicians, who focus on cost reduction and concentration of expertise. Control

and standardization of business processes at local government organizations, better security and authorization and uniform policies, increased accountability, sharing of risks, control of costs and to disseminate and impose successful practices were important motives in our case study.

Obtaining the promised benefits is not easy accomplished and can require considerable changes in organizational arrangements, coordination mechanisms, new processes and allocation of responsibilities. From an organizational perspective it seems essential for success that although existing roles and functions are reallocated to a shared services center, new roles need to be created to guarantee a close relationship with users. As business and technologies evolve, the ambition and organization of the SSC changed in our case study. Users and SSC should understand and adapt new roles and new coordination mechanisms should be established. Frustration at the user-level and alienation between SSC and customer organizations is a great risk and might outweigh the advantages.

Although the SSC seems viable from a number of views it brings a number of problems with it. Initially a number of projects failed due to the lack of controls and arrangements to deal with risks. In our case study it took more than 10 years to establish an accepted and fully operating SSC, which found the balance between local customization and central facilitation. For Dutch municipalities and other agencies, it might be difficult to effectively move the concept from the drawing board, and to obtain the benefits promised when implementing a SSC.

The quest towards successful SSC for e-government just started. The generalization of the results in our research is limited. For each project it should be determined if a SSC is viable and involved stakeholders should be convinced to give up their autonomy in favor of cost-effectiveness. Based on these outcomes it may be worthwhile considering alternative arrangements. More in-depth research into organizational arrangement of the SSC is necessary. Considering the complex nature of the SSC, future research can be aimed at developing a framework for analyzing a large number of practices to systematically learn from organizations coping with similar difficulties.

8. References

- [1] Automatiserings gids, "Kabinet kiest voor shared services P&O", *Automatiseringsgids*, no. 37, 7 February, 2003.

- [2] Bakos, J.Y. A Strategic Analysis of Electronic Marketplaces. *MIS Quarterly*, vol. 15, no. 3, 1991, pp. 294-310.
- [3] Baldwin, L.P., Irani, Z. and Love, P.E.D. "Outsourcing Information Systems: drawing lessons from a banking case study", *European Journal of Information Systems*, vol. 10, no. 1, 2001, pp. 15-24.
- [4] Borgers, M. Het bestaansrecht van het IT-servicecenter. Informatie, March, 2003, pp. 14-19.
- [5] Coase, R., The Nature of the Firm. *Economia*, no.4, 1937, pp. 386-405.
- [6] Davis, F.D. "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology", *Management Information Systems Quarterly* September, 1998, pp. 319-340.
- [7] Expertise Centrum, *Het heft in Eigen Handen*. Report HEC for the Association of Dutch Municipalities, HEC, 2002.
- [8] Fowler, A. and Jeffs, B. "Examining Information Systems Outsourcing: A case study from the United Kingdom", *Journal of Information Technology*, vol. 13, 1998, pp. 111-126.
- [9] Fremantle, P. Weerawarana, S. and R. Khalaf "Enterprise services. Examine the emerging files of web services and how it is intergraded into existing enterprise infrastructures", *Communications of the ACM*, vol. 45, no. 20, 2002, pp. 77-82.
- [10] Gurbaxani, V. "The New World of Information Technology Outsourcing", *Communications of the ACM*, vol. 39, no. 7, 1996, pp. 45-46.
- [11] Leganza, G., *IT Trends 2003, Midyear Update: Enterprise Architecture*. Report Giga group, 2003.
- [12] Hirschheim, R. and Lacity, M., "The myths and realities of information technology insourcing", *Communications of the ACM*, vol. 43, no. 2, 2000, pp. 99-107.
- [13] Hoffman, D.L., Novak, T.P. and Peralta, M. "Building Consumer Trust Online", *Communications of the ACM*, vol. 42, no. 4, 1999, pp. 80-85.
- [14] Jensen, M. and Meckling, W. "Theory of the Firm: Managerial behavior, agency costs, and capital structure", *Journal of Financial Economics*, vol. 5, 1976, pp 305-360.
- [15] Kreizman, G., *E-Government: Hype and reality*. Report Gartner Group, <http://www3.gartner.com/Init>, 2002.
- [16] Lacity, M.C. and Hirschheim, R., *The information Systems Outsourcing: Myths, Metaphors and Realities*. Wiley, Chichester, 1995.
- [17] Lacity, M.C. and Willcocks, L.P., "An Empirical Investigation of Information Technology Sourcing Practices: Lessons from Experience", *MIS Quarterly*, vol. 22, no.3, 1998, pp. 363-308.
- [18] Lacity, M.C. and Willcocks, L.P., *Global IT Outsourcing: In search of business advantages*. Wiley, Chichester, 2002.
- [19] Lee, J.N., Huynh, M.Q., Kwok, R.C.H. and Pi, S.M. "IT Outsourcing Evolution. Past, present, and future", *Communications of the ACM*, vol. 46, no. 3, 2003, pp. 84-89.
- [20] Matlus, R. and Maurer, W. *Outsourcing can work: Ask the city of Chicago*, Rapport Gartner Group, 2002.
- [21] Marshall, C. and Rossman, G.B., *Designing Qualitative Research*. Sage Publications, Thousand Oaks, 1999.
- [22] Morgan, R.M. and Hunt, S.D. "The Commitment-Trust Theory of Relationship Marketing", *Journal of Marketing*, vol. 58, 1994, pp. 20-38.
- [23] Overheid and ICT, *Gemeenten Delen steeds vaker ICT*. Magazine Ministry of Internal affairs, The Netherlands, 2003 (in Dutch).
- [24] Peristera, V. and Tarabanis, K. "Towards an enterprise architecture for public administration using a top-down approach", *European Journal of Information Systems*, vol. 9, 2000, pp. 252-260.
- [25] Pfeffer, J., *Power in Organizations*. Pitman, Marshfield, Massachusetts, 1981.
- [26] Reumann, N.J., Mehra, A., Shin, K., and Kandlur, D. (2000). Virtual Services: A New Abstraction for Server Consolidation. In *Proceedings of the 2000 USENIX Annual Technical Conference*. <http://citeseer.nj.nec.com/reumann00virtual.html>.
- [27] Singhoj, A., "Goriska e-region a new vision that can be accomplished by educating citizens and improving e-security", *Proceedings of the fifteenth Bled Electronic Commerce conference*, 2000, pp .629-635.
- [28] Thompson, J.D., *Organizations in Actions*. McGraw-Hill, New York, 1967. Trees, G.W. and Lawrence, C.S., *Designing Systems for Internet Commerce*. Addison-Wesley, Reading, Massachusetts, 1998.
- [29] Walden, E.A., *On the structure and function of outsourcing contracts: an integrative analysis of the economics behind vendor-client relationship*. Working paper, <http://ericwalden.net/>, 2002.
- [30] Willcocks, L.P. and Kern, T. "IT Outsourcing as Strategic Partnering: The case of the UK Inland Revenue", *European Journal of Information Systems*, vol. 7, 1998, pp. 29-45.
- [31] Williamson, O.E., *Market and Hierarchies, Analysis and Antitrust Implications. A study in the economics of internal organization*. Macmillan, New York, 1975.
- [32] Yin, R.K., *Case Study Research: Design and methods*. Sage publications, Newbury Park, California, 1989.