

Intra-organizational learning in public procurement

Petri Klemelä, Katja Koskelainen, Kerttuli Boucht, Soile Pohjonen

*Aalto University, School of Science, SimLab
petri.klemela@aalto.fi*

*Aalto University, School of Science, SimLab
katja.koskelainen@aalto.fi*

*Aalto University, School of Science, SimLab
kerttuli.boucht@aalto.fi*

*Aalto University, School of Science, SimLab
soile.pohjonen@aalto.fi*

Abstract

This paper examines municipal procurement processes applying the concept of organizational learning. Formal municipal organizations rely heavily on hierarchy, but day-to-day procurement operations require inter-departmental connections constituting an informal network organization. We carried out an extensive case and action research study about intra-organizational learning in municipal procurement processes. Existing literature is combined with the empirical data to explore intra-organizational learning of public procurement from different perspectives.

Keywords

Intra-organizational learning, public procurement.

Introduction

This paper examines municipal procurement processes applying the concept of intra-organizational learning. Formal municipal organizations rely heavily on hierarchy, but day-to-day procurement operations require inter-departmental connections constituting an informal network organization. Also legal constraints, the great extent of required administrative knowledge and high financial value of procurements set high demands for the procurement expertise and organizational learning in such informal networks. Procurement of products and services constitutes a substantial part of municipality expenditures, making it a salient target for organizational development efforts.

Research on concept of organizational learning in relation to the public sector is sparse (Rashman et al. 2009). Complex policy and political environment, formal control of politicians and high degree of scrutiny and accountability are distinctive characteristics of public service management (Hartley and Skelcher 2008 cited in Rashman et al. 2009).

Research question

We conducted an empirical study to validate and complement existing literature on organizational learning in public organizations. The research question we address is:

How the referred conceptions of organizational learning occur in intra-organizational procurement collaboration of the case municipality?

Organizational learning

Rashman et al. (2009) reviewed articles discussing organizational learning and knowledge and concentrated on specialties of public service organizations. They describe organizational learning 'as a process of individual and shared thought and action in an organizational context, involving cognitive, social, behavioural and technical elements' (citing DeFillippi and Ornstein 2005, Dodgson 1993, Gherardi et al. 1998, Lave and Wenger 1991, Cyert and March 1963, Huber 1991 and Levitt and March 1988). A noteworthy characteristic of this description is the lack of reference to outcomes of learning. Rashman et al. (2009) remark the ambiguity about the definition of outcomes of organizational learning. They also question the assumption about learning to have always positive outcomes.

Bate and Robert (2002) studied knowledge management and communities of practice in public health service organizations. They describe development projects that had difficulties in attaining the target levels of progress. They identified project teams to have challenges in forming communities of practice to enable exchange of tacit knowledge. Bate and Robert also suggest informal structures to be important for enabling participants to work together to spread knowledge.

Alternatively, differences between learning entities can be seen also positively. Child and Faulkner (1998 cited in Rashman et al. 2009) noted that although different norms, values, technical language and fundamental concepts between learning entities can act as barriers, they can also have a beneficial influence as a stimulus to collective learning.

Rashman et al. (2009) found a shortage of evidence about leaders' role in bringing people together, although the idea was brought out by several articles (e.g. Nonaka 1994 cited in Rashman et al. 2009).

Newell et al. (2003) argue that knowledge about complex social processes cannot be transferred directly to other contexts, because the knowledge generation is needed to remove barriers and assumptions between participants. They argue that knowledge is so tightly connected to its context that the knowledge itself has to be recreated again in other contexts. They see that knowledge sharing is still useful and valuable, as sharing process knowledge can make this recreation of knowledge easier and more efficient.

Based on their references Rashman et al. (2009) identified four common processes of organizational learning extending across different levels of analysis:

1. Individual intuition, thinking and reflection
2. Development of shared understandings and perspectives at a group level through communication and interaction
3. Diffusion through organizations via organizational routines, communication and interaction
4. Application, institutionalization and embedding of learning through organizational routines

Public procurement

Public procurement is regulated by legislation, which sets outlines for the tendering process of procurement. The main law regulating the public procurement in Finland is Act on Public Contracts. The public procurer is obligated to follow the principles of equality and nondiscriminatory treatment of all parties, to act in a transparent way and ensure proportionality of procurement procedures considering the purpose of the procurement. The process starts with planning phase of procurement, where the needs of the buyer are determined and market conditions are investigated. In addition, extent of the procurement is defined, including possible cooperative arrangements with other buyer organizations.

A contract notice and invitation to tender define the requirements of the product or service and the procurement process. In addition, tender comparison criteria are disclosed. The competitive tendering phase is followed by contracting and contract execution phases. Procurement process has to be done according to legislation, but operational purpose of the procurement is to get the needed products or services cost efficiently. There are at least two different areas of expertise required to reach this target, the legal and the substance. The legal expertise of public procurement is developing and changing quickly, making it practical to collect this knowledge to specialized procurement experts. This way procurement expertise can be used all around the municipal organization. There is also the downside of arranging procurement operations around specialized procurement specialists. These specialists have to rely completely on experts on other departments of the municipality for substance knowledge to define and understand the target of the procurement.

Even though these procured products or services are used by the municipality, it is not obvious that there even exists the needed knowledge inside the municipal organization to define the requirements for procurement. For example dentists use X-ray equipment, but have no education to understand, collect or update required knowledge to specify X-ray equipment with precision needed for the public procurement. In this context it is clear that whoever is coordinating the procurement process, needs to be an effective orchestrator of networks, to be able to locate the best available experts for the procurement process and to motivate them to contribute to procurement process.

Empirical research

Case descriptions

Our case organization was a municipality located in Finland. We studied three procurement processes organized around the procurement center of the municipality. The role of the procurement center is to conduct tendering processes in cooperation with other municipal departments and stakeholders. The procurement center has expertise in legislation and tries to ensure the correctness of the tendering process. Municipal departments on the other hand have to define the content of the procurement and the outcome of the procurement is their main interest in the process. Intensive collaboration of both parties is needed, because quality of the product or service being procured often has a profound effect on how the municipality is able to produce its services for the benefit of its inhabitants.

The three procurement processes were studied, that took place during year 2010. These three cases were selected to elucidate the extent of different working methods of procurement practices within the studied municipality.

The first process was procurement of healthcare products made by dental technician. The public dental care organization was the accountable participant of the procurement, but the tendering process was carried out by a procurement expert of procurement center. The procurement consisted of three sections. Creating product definitions for these sections required a vast amount of professional dental expertise.

The second process was procurement of bakery products, which had been organized jointly among with the municipality and eight other public organizations. Neighboring municipalities, hospital district and some public utilities were collaborating to make procurement of food supplies together, including this procurement of bakery products. The participant organizations had mandated procurement center to be responsible for these procurement contracts. The cooperation was organized around the working group consisting of representatives of each organization.

The third process was occasional procurement of education sector, consisting woodworking and metal working machinery for a shop class of an elementary school. Compared to the two other cases of continuous procurement, this was a one-time purchase. The case was an example of 'apprentice' pilot, where an employee of educational department had worked with the procurement expert to learn procurement practices. The idea of this pilot was to build procurement expertise in one service sector of

the municipality, as procurement center does not have enough resources to take care of all procurements. Besides managing procurement processes the apprentice is supposed to act as a contact person between the service sector and the procurement center. Headmaster of the above mentioned elementary school is an example of officials whose duties include procuring and who could in turn benefit from the aid of the apprentice.

These three procurement processes represent different kinds of contexts for intra-organizational learning where learning can be studied.

Methods

We carried out an extensive case and action research study. The municipality participated in a simulation project conducted by a researcher team of SimLab during fall 2010 and spring 2011. The study was supplemented by using the SimLab business process simulation game. This method is useful for supporting joint knowledge creation and has been developed by SimLab researchers to provide an interactive learning environment for intra- and inter-organizational participative process development projects (Smeds et al. 2001).

The case study was carried out by using qualitative data collection and analysis methods, including 22 semi-structured interviews, observation of group discussions during the simulation day, and analysis of transcribed interviews and discussions. Follow up interviews are planned to be executed later to analyze and verify the effect of the development project.

Analysis

We examined the transcribed discussions and notes of the simulation day to identify conversations in relation to intra-organizational learning or network organization. Participants did not directly mention the concepts of inter-organizational learning or network organization during the conversations, but properties of these concepts from the earlier literature were used to identify conversations about similar phenomena.

After the relevant pieces of conversation were identified, understanding of those conversations was deepened by related comments from the interview material. References of simulation day conversations to intra-organizational learning and network organization were extended with the comments from the interviews. This way we got several viewpoints to each theme or event, which is necessary in understanding these phenomena better from the organizational viewpoint instead of just personal opinions. These themes were then discussed together with our theoretical

background, and the themes that had a strongest impact on understanding of our theoretical background were selected to be presented in the next chapter.

Triangulation was done in several phases to ensure the validity of findings. Interviews of all relevant stakeholders in addition to discussion of same themes in interviews as well as during simulation day give a good confidence that there are no intentional or unintentional fundamental errors in the empirical data. Having several researches to develop and challenge analysis of data iteratively builds confidence furthermore.

Results

In our case organization, the procurement director had emphasized the importance of the investigation of market conditions, but still this part of procurement planning was found inadequate in all three cases. According to the interviews there was confusion about who should conduct this task. Employees of procurement center regarded that it should be responsibility of the buyer departments to offer all substance knowledge of the procurement, even if they acknowledged challenges in assigning this responsibility for the departments. Buyer departments regard it as an integral part of the procurement process, which should be handled by the procurement center. Thus the need for investigation of market conditions was identified on individual level of four processes by Rashman et al. (2009), but there were lot of things to be agreed to attain the second level of shared understanding of execution. Interestingly, the lack of specific expert knowledge needed to specify product requirements in the invitation for tenders was mentioned by both buyer departments and procurement center.

The above mentioned four processes identified by Rashman et al. (2009) were found useful in structuring learning occasions from the data. A list of processes makes it easier to analyze the successful part of learning occasions, even when some other part has been problematic. In the previous example, the first successful individual learning process which identifies the need to better investigate market conditions is easily missed. This is probably due to problems in the second process of creating a shared understanding, which easily attracts more attention.

The above described discussion on the responsibility to investigate market conditions acts as a good example of Child's and Faulkner's (1998 cited in Rashman et al. 2009) notion on different norms, values, technical language

and fundamental concepts between learning entities acting as barriers for collective learning. On the other hand they argue that these differences may be considered as stimuli for learning. Indeed, expertise of these different parties seems to be complementary; the buyer departments have practical experience on the use of products, whereas procurement center possesses expertise in procurement regulation and contract management. The current working method exemplifies also the notion of Bate and Robert (2002) about challenges in collaboration to form a community of practice.

Our data supported Bate's and Robert's (2002) proposition on the advantages of emergent and informal structure for knowledge transfer. In all three of our studied cases there were challenges in the fluency of collaboration. In the health sector procurement the employees of the procuring department and procurement center worked together for the first time creating informal and emergent methods for collaboration. According to the interviewees, difficulties in finding mutual understanding were detected at the beginning of this procurement collaboration. However, representatives of both organizational departments perceived that the collaboration improved during the process.

The working group work of the procurement of bakery products was also perceived challenging e.g. responsibility for verifying the product specifications was inaccurate. The working group had worked together for two decades without thoroughly questioning the adapted ways of working. Comparison of these cases support the proposition of Bate and Robert (2002) that tacit knowledge of efficient working methods is better transferred in more informal structures compared to more formal group.

However, it should be noted that also the more formal group in this case identified its challenges in collaboration and presented in the interviews several improvement ideas for the upcoming procurement collaboration. In this study, the formal working group, with about dozen members, was larger than the informal one that consisted of three members. The size of the collaborative group might as well have an effect on the speed in improvement of collaborative procedures.

During the research project the interest of the representatives of the department towards the procurement process grew as their understanding of its logic increased. This observation is consistent with the finding of Newell et al. (2003) how generation of knowledge about current practice is a precursor of developing that practice.

The formal working group as a collaborative working method faced a challenge related to how members of the working group were determined. The case municipality has adopted a collaborative regional policy which defines the members of the working group. When asked, all interviewees were not able to indicate on what terms working group members were assigned to the group. It is easy to understand the challenges in developing the collaboration procedures, if these kind of essential underlying assumptions of collaboration are not perfectly clear for the group members.

In the case of the procurement of shop class machinery some challenges were detected. The machinery procurement was part of an investment project of a school building enlargement, which represents an unique procurement event in an educational buying department. As the headmaster of the buying school acted as the representative of the buying department and end users, he had a central role in the procurement process. However, a headmaster is naturally not a procurement professional. The headmaster's individual knowledge on investment projects and procurement accumulated during the procurement collaboration, but more effective representation of end users would have required better knowledge about the process as a whole. This process knowledge would have helped to indicate the appropriate periods or times of intervention regarding different decision makings and work distributions between municipal departments.

The involved headmaster had after this experience learned how to act in such a position. However, the individual headmaster is not likely to need the acquired knowledge in future, whereas other headmasters of the city are probably going to face similar procurement situations. In future it should be specified what kind of structure should be developed to share this knowledge among the headmasters of the municipality. The development of new structures could begin by following Newell's et al. 's (2003) argument that knowledge sharing should concern at the minimum process knowledge on how to create needed knowledge in new collaboration settings and not only discrete perceptions from the prior project. Apprentice pilot was considered promising. However, the apprentice needs to be involved in the internal education of the procurement center, so that his expertise can develop and widen along with that of the experts in the center.

Rashman et al. (2009) found a surprising shortage of evidence about leaders' role in bringing people together to support organizational learning. In the studied context, this was a direct consequence of a hierarchical organization, where procurement requires lateral horizontal contacts

between different departments. Only the upper most managers of the municipality would have the formal authority to assemble the required people into the procurement process, but these managers are very distant to daily procurement execution. Obliviousness to procurement execution is understandable at the uppermost level of management, but without their formal support collaboration relies on voluntariness. Inter-departmental procurement collaboration requires the right people of the relevant departments to understand the necessity and importance of the collaboration.

Conclusions

We conducted an empirical study to validate and complement existing literature on organizational learning in public organizations. More specifically we addressed question how the referred conceptions of organizational learning occur in intra-organizational procurement collaboration of the case municipality.

The empirical data from public procurement processes was used to filter and interpret existing literature to combine essential understanding of intra-organizational learning of public procurement activity. Single theoretical construction was not adequate to clarify diverse aspects of intra-organizational learning in public procurement. Instead we discussed three different perspectives of intra-organizational learning in public procurement inspired by existing literature. First perspective, the four common processes (Rashman et al. 2009) is useful in understanding the progress of intra-organizational learning in public procurement, whereas second perspective of informal structures and communities of practice is needed to make intra-organizational learning to take place in practice (Bate and Robert 2002). Third perspective is about knowledge that cannot be shared directly, but sharing of process knowledge (Newell et al. 2003) should be used to make knowledge creation as efficient as possible.

Our study supports earlier research in many ways. In comparison to earlier studies, our work develops a more thorough and in-depth analysis of intra-organizational learning in public procurement.

Rashman et al. (2009) remark that differences in configurations of public service organizations may limit the generalizability of findings. In public procurement this affects at least possibilities of adapting ways of organizing public procurement directly from one organization to another as differences in regulations of different municipalities cause different requirements,

responsibilities and procedures of policymaking. Further research should be carried out to study these differences in public procurement organizations, and their theoretical implications for intra-organizational learning.

On the other hand, there are also lots of similarities between public organizations, as practical examples from this work supporting earlier studies from different public organizations illustrate. Studies and theories about intra-organizational learning in public sector are emerging, but further studies are needed to validate and extent the existing conceptions.

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