

Chapter 20

Knowledge Management in Public Construction Project Initiation

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ABSTRACT

Despite the importance of knowledge integration in construction project management, it rarely happens in reality. This chapter describes two case studies involving knowledge management of a public construction project for two universities in Finland. There were many different stakeholders involved in the projects. Although much effort has been put into the project during the initial stages, the projects' starts were delayed. This chapter gives underlying reasons for the delays followed by proposing an approach where co-creation of value for knowledge integration can be used to overcome the problems with the conflicting interests of the stakeholders. The other project introduces a small project where the initiator is a facility owner. This study shows how the selection of the stakeholders for decision-making was a challenge.

INTRODUCTION

Requirements-specification in projects is volatile, resulting in project scope and focus evolving considerably during the course of a project. Realising requirements for project development is often impractical prior to commencing design activities. The amount of needed new knowledge depends on the novelty and uniqueness of the project being

created. When this new knowledge is learned and embedded into individuals and organizational processes, the value of this knowledge will increase. The learning process depends on the contextual settings of the project.

Requirements elicitation is a key to the success of the development of new facilities. There are some tools or models developed to help the building owner to define requirements in order to design the facilities (Ann *et al.* 2011; Kamara *et al.* 2002; Shen *et al.* 2012). These models guide

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inexperienced clients to define requirements and help the designer-client communication. These requirements contain client, site, environmental, regulatory, design and construction requirements (Figure 1). Client requirements are, for example employer’s requirements, developer’s requirements, user requirements and the lifecycle requirements for operating, maintaining and disposing of the facility. Also the site gives requirements and these models are not created for decision makers to decide whether to start the building project or not.

Professionals involved in the management of public project organization can provide professional knowledge, skills and services for the public body. On the other hand, it can change the game of information asymmetry to a game of information symmetrical between public and private parties. The game is also close to equal between the professionals who commissioned by the public organisation and the private construction professionals. The information on professional knowledge of both sides is symmetrical. (Xiuling 2011)

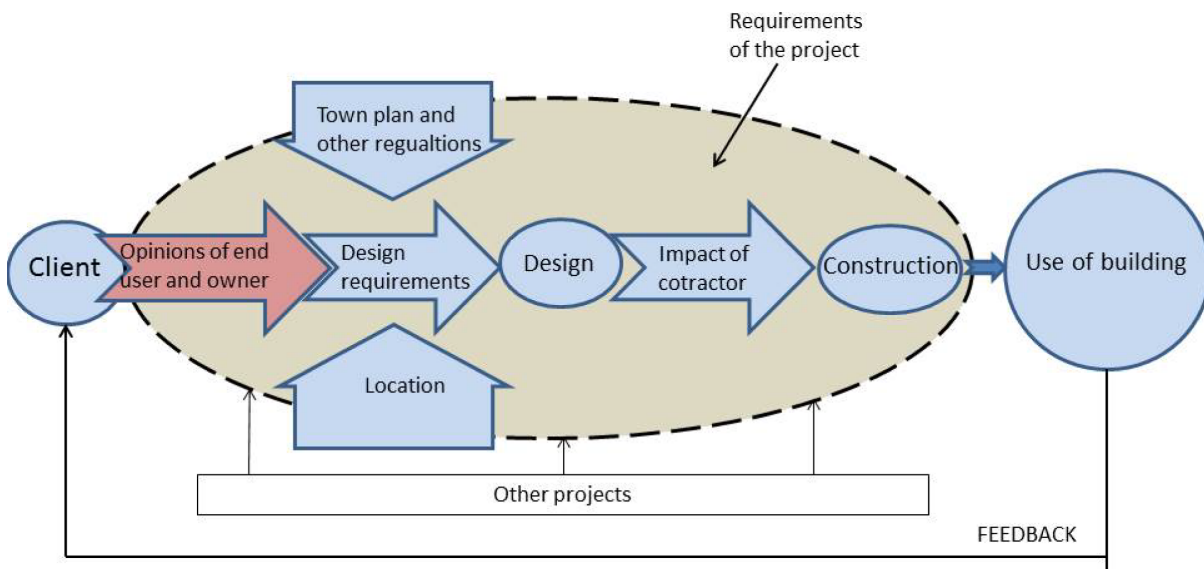
A public project includes always also uncertainty. This uncertainty means lack of information, knowledge and understanding of the results of a

decision, an action and an event (Xiuling 2011). The public project stages are as follows: project approval and initiation stage, project pre-evaluation and planning stage, project implementation and control stage, performance evaluation and ending stage, and the last stage: project maintenance and management stage. This paper focuses in the first stage of the public project.

In construction industry projects are delivered by temporary project organisations comprised of different functional groupings, such as design and construction parts (Loosemore et al, 2006). This means that also in public construction projects the knowledge is possessed and used by each organisation in temporary project organisations where the knowledge is transferred to the other parts for effective project performance (Maqsood et al. 2006). The benefits of public sector adaption of knowledge management are organisational quality and efficiency; reducing costs; and decreasing interagency fragmentation (Edge 2005).

Most established techniques, however, do not adequately address the critical organisational and ‘softer,’ people-related issues of software systems. This is particularly important when the project

Figure 1. Interrelationship between project requirements (adapted from Kamara, et al., 2002)



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