

## Chapter 10

# Why do E–Government Projects Fail? Risk Factors of Large Information Systems Projects in the Greek Public Sector: An International Comparison

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### ABSTRACT

*This paper presents an empirical study of the risk factors of large governmental information systems (IS) projects. For this purpose the Official Decisions of the Greek Government Information Technology Projects Advisory Committee (ITPAC) concerning 80 large IS projects have been analyzed and interviews with its members have been conducted. From this analysis 21 risk factors have been identified, and further elaborated and associated with inherent particular characteristics of the public sector, extending existing approaches in the literature. A categorization of them with respect to origin revealed that they are associated with the management, the processes, and the content of these projects. Results show that behind the identified risk factors there are political factors, which are associated with intra-organizational and inter-organizational politics and competition, and can be regarded as ‘second level’ risk sources. The risk factors identified in this study are compared with the ones found by similar studies conducted in Hong Kong, Finland, and the United States, and also with the ones mentioned by OECD reports. Similarities and differences are discussed.*

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## **1. INTRODUCTION**

Organizations of both private and public sector are making big investments for the development of various kinds of information systems (IS), in order to support and enhance their internal functions and also their communication and transaction with their external environment. However, they experience huge problems in their IS development projects: many of them fail to deliver the expected technical performance, functionality and business benefits within budget and schedule (partial failure), or even are abandoned (complete failure) (McFarlan, 1981; Boem, 1991; Standish Group, 1995, 2001, 2004; Dalcher & Genus, 2003; Gauld, 2007). For this reason there has been considerable literature about IS projects failure, which is reviewed in the next section. However, this previous literature is focused mainly on the private sector, though government organizations experience such problems as well, of similar or even higher magnitude (Poulymenakou & Holmes, 1996; Cabinet Office, 2000; Heeks, 2003; OECD, 2001, 2003; Gauld, 2007) emphasize that in its member states governments have big problems when implementing large IT projects. These problems are regarded by OECD (2001, 2003) as 'the Hidden Threat to E-Government' and it is concluded that 'Unless governments learn to manage the risks connected with large public IT projects, these e-dreams will turn into global nightmares'. Also, previous literature is focused mainly on private sector enterprises of a few highly developed and technologically advanced countries (e.g. USA, Great Britain, etc.), and recently mainly on software development projects.

Therefore the scope of this research should be broadened. Additional research is required concerning the risk factors of government IS projects as well, in multiple cultural and socioeconomic contexts, covering the whole range of activities of the IS projects and not only software development. Also, taking into account that the limited research conducted on the risk factors of government IS

projects has mainly the form of case studies, it is necessary to conduct further research on this topic based on bigger samples of projects in order to draw more generalizable conclusions.

In this direction the research objectives of the present study are:

- To investigate empirically the risk factors of the large government IS projects, based on a big sample of such projects implemented in the Greek public sector,
- To understand the main sources of risk in the large government IS projects,
- To compare with risk factors identified by similar studies conducted in other national contexts, and to identify and analyze similarities and differences.

The results of the present study are generally interesting and useful to researchers, practitioners, professional societies, educational institutions and consulting companies in the areas of public administration and information systems. It is of critical importance to reduce drastically the abovementioned high failure rates of IS projects, by systematically studying and understanding their risk factors, and by developing appropriate strategies for managing them, so that the high and ambitious IS investments made by governments of many countries (Commission of the European Communities, 2005 and 2006; United Nations, 2008) can offer the expected high levels of benefits.

This paper is organized as follows: initially in section 2 the main streams and conclusions of the previous literature on the risk factors of IS projects are briefly reviewed. Next in section 3 the research method and data are described, while in section 4 the results are presented, concerning the risk factors of large Greek Government IS projects. In section 5 these risk factors are analyzed and categorized in order to understand the basic origins of risk. In section 6 the above results are compared with the results of other similar studies conducted in other national contexts, and similar-

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