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Chapter XI

Fundamental Risk Factors in Deploying IT/IS Projects in Omani Government Organisations

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ABSTRACT

Deploying IT systems has always presented a combination of challenges and risks to decision-makers. Many IT projects have failed to accomplish their cost, schedule, or technical performance objectives. However, the factors that are encountered in deploying IT/IS projects in developing countries differ from those encountered in developed countries due to cultural and organisational reasons. Oman is one developing country that has started, slowly, exploring the use of computer systems to help in improving their business. The case is made that Oman needs to have a coherent IT strategic vision at the national level. Implementing this vision into detailed strategies depends on the high awareness of the positive role IT can play in the economy, counterbalanced by the ability to manage the associated risks. The factors that are associated with implementing IT/IS in Omani government organisations are: human resource deficiency, organisational inefficiencies, and the immaturity of the IT business culture. The risk factors that arise in the context of the Omani culture are contrasted with those that have been reported in the literature.

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INTRODUCTION

The software industry is full of experiences about software projects that miss their deadlines, exceed budget, are low in quality, and are delivered not to customer satisfaction: for example (Dutton, 1980, Myers, 1995; Brooks, 1995; Flowers, 1996; Glass, 1997; & McBride, 1997). These problems are usually caused by risks to the project that were not anticipated and identified early enough. However, as each software development project involves at least some degree of uniqueness and our technology changes continuously, uncertainty about the end results will always accompany software development (Kontio & Basili, 1996). It is generally accepted that risks, if not managed properly and successfully, may cause IS projects to fail (Charette, 1989; Boehm, 1991; Fairley, 1997). Therefore, the factors that contribute to IT/IS project failure have to be examined since they are sources of project risks. The success and failure of IS/IT projects have been extensively covered in the IS literature (Dutton, 1980; Pinto & Slevin, 1987; Abdel-Hamid & Stuart, 1990; Poulymenakou & Holmes, 1996; Flowers, 1996). Several authors have examined the issue of IS failure for the purpose of gaining detailed understanding of the nature, issues and factors affecting failure (Ginzberg, 1980; Lyytinen, 1988; Ewusi-Mensah & Przasnyski, 1995). Several frameworks have been proposed (Ginzberg, 1980; Lyytinen, 1988; Flowers, 1996; & Karolak, 1996).

Our current research work is investigating risks at the implementation stage of IS projects in Omani government organizations. It aims to answer the following questions: What are the cultural/organisational risk factors involved in implementing IT projects in Oman? And what strategies are needed to deal with those risks? A review of the IS literature suggests that most research that has concentrated on exploring the factors affecting IT implementation can be characterized by the following.

First, it concentrates on businesses. However, public administration theory and management literatures argue that business organizations face a different environment than government organisations, which in turn leads to observable differences in organizational behaviour and management that surrounds the IS implementation.

Second, most studies in IT implementation have been conducted in developed countries like the U.S. and UK. Much of the technology designed and produced in industrialized countries is culturally biased in favour of their social and cultural systems; consequently, developing countries encounter cultural and social obstacles when transferring technology into practice (Hill et al., 1998). There are significant cultural, and organizational differences between organisations in developed and developing countries (Palvia & Palvia, 1996). The aim of this chapter is to contribute to a broader understanding of the IT implementation process by focusing on government organizations in a developing country (in this case, Oman). The analyses of these factors will enable us to recommend mitigation strategies to deal with them.

In this chapter, the cultural and organisational factors affecting IT/IS deployment in Omani government are examined. To provide a context we outline the IT culture of the country. We then establish the theoretical background for the importance of the cultural and organisational factors in the success and failure of IT/IS. The different characteristics of implementing an IS in commercial companies and government organisations in Oman will also be highlighted. Then we discuss specific factors that are relevant to Omani culture. Our focus will be on the cultural and organisational factors: we then conclude with a list of recommended solutions to minimise the difficulties of IT deployment.

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