

# Chapter 16

## Common Problems and Lessons Learned from Managing Large-Scale US Government IS/IT Projects

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### ABSTRACT

*To promote sustainable development, many government agencies initiated large-scale government projects. However, managing such government projects to their success is often a challenge to many project managers. Many projects fail because of their large scope and high degree of complexity. The failure of these government projects has significant impact on sustainable development, both at the organizational level and the public at large. To enhance the success of government projects, this study investigates the management of selected government IS/IT projects in the US; identifies common problems; discusses some lessons learned; and provides propositions for future research. The results of this study will provide significant contributions to the literature and implications to practitioners.*

### 1. INTRODUCTION

Among many important issues, sustainable development is the issue that concerns many government and international agencies. Many projects were initiated by these agencies to promote eco-

nomic, social, and environmental sustainability (World Bank, 2010). Besides the concern at the government and global levels, sustainable development is also a major concern at the corporate or organizational level. Referring to the societal notion of sustainable development, the corporate

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sustainable development is achieved through the combination of: (1) environmental integrity through corporate environmental management, (2) social equity through corporate social responsibility, and (3) economic prosperity through value creation (Gladwin et al., 1995; van Marrewijk & Werre, 2003; Bansal, 2005). To achieve corporate sustainability, firms have to maintain and grow their economic, social, and environmental capital base while actively contributing to sustainability in the political domain (Dyllick & Hockert, 2002).

To promote sustainability, many projects were initiated at international, government, and corporate levels. These projects, especially at the government and international levels, are typically large in scope and scale (World Bank, 2010). Some of them can be categorized as “megaprojects,” which often refers to an extremely large-scale project that its cost is usually more than one billion dollars (Flyvbjerg et al., 2003; Koppenjan, 2005). With its large scope, uncertainty, complexity, politically-sensitivity, and involvement of multiple partners, successfully managing these projects are very challenging. The projects typically attract public attention because of their substantial impacts on communities, the environment, and its budget (Flyvbjerg et al., 2003). With the above challenges, the large-scale government projects often ended up with poor performance (Flyvbjerg et al., 2003). Sometimes, the project fails to deliver in the terms that justify the needs of the customers. Since these projects were initiated to promote sustainability, their performance directly impact the accomplishment of sustainability set forth by government and international agencies.

To help promote the success of the government projects, the objective of this study is to identify common problems in managing large-scale government projects. At this stage, our primary focus is on the IS/IT projects of the US government. Five projects were randomly selected from different US government agencies. Besides their contribution to the literature, the

research findings may provide practitioners with a better understanding of common problems in managing large-scale IS/IT projects so that they can take appropriate measures to prevent such problems. The success of the projects may, in turn, contribute to the accomplishment of sustainable development. To better understand the issues in managing large-scale government projects, the literature on large-scale project management is reviewed in the next section, followed by the sections on research method, descriptions of projects in this study, findings and discussion, managerial implications, and conclusion.

## **2. BACKGROUND**

Many researchers have studied the management of large-scale projects and indicated that a majority of them have ended up with poor project performance. Studies have also been conducted to investigate the causes of poor performance. The results show that the main causes of cost overruns of megaprojects stemmed from a lack of realism in initial cost estimates, low level of contingencies, insufficient consideration on changes in project specifications, designs, and exchange rates, and undervaluation of price changes, expropriation cost, and safety and environmental demands (Flyvbjerg et al., 2003). The major causes of schedule delay of a major public transportation project came from lack of owner’s abilities and strategies to manage hi-tech megaprojects, lack of appropriate scheduling tools, underestimating the technical requirements, and public resistance due to environmental concerns (Han et al., 2009).

Project complexity is also one of the main causes of poor performance (Jolivet & Navarre, 1996). Besides possible technical difficulties, the complexity of large-scale projects stems from a range of ambiguous and uncertain external and internal forces. Researchers have found that often times, the project teams managed projects to

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