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Factors Causing Project Cost Overrun in the Telecommunications Industry in Oman

Zahra A. Al Zadjali

Oman Telecommunication Company (Omantel), Oman

Hamdi A. Bashir

University of Sharjah, UAE

Ali A. Maqrashi

Albanah Global LLC, Oman

ABSTRACT

Several studies have been carried out to investigate the causes of project cost overrun in different industries worldwide. This paper reports on the results of a study investigating the factors causing project cost overrun in Oman. Data required for this study were collected from 44 project engineers and managers of client and contracting companies involved in telecommunications projects. According to the analysis of results, 14 out of 37 factors are identified as major causes of project cost overrun. While most of the identified factors could affect any types of projects carried out in any country, one of the factors, namely lengthy tendering process might be unique to the projects carried out in Oman. Moreover, this study investigates the association between company size in terms of number of employees and causes of project cost overrun. The results show that there is no strong evidence to suggest that the causes of cost overrun differ significantly according to company size.

INTRODUCTION

A project is a temporary endeavor undertaken to create a unique product or service within interrelated triple constraints: time, cost, and scope. For a project to be successful, these three constraints (also known as the triple constraints of project management) must be in equilibrium (Dinsmore & Cabanis-Brewin, 2006; Crosby, 2012). Unfortunately, cost overrun is one of the most common problems in all types of projects. For instance, Flyvbjerg, Bruzelius, & Rothengatter (2003) reported that 9 out of 10 projects had overrun; overruns of 50 to 100% were common; overruns were found in each of 20 nations in five continents. According to 1,500 IT project managers in the UK across all industry sectors surveyed by Chris Sauer and Christine Cuthbertson, 59% of the projects were over budget (Marshall, 2006). Whitfield (2007) reported that 105 outsourced public sector IT projects suffered significant cost overruns. Moreover, 57% of contracts experienced cost overruns through delays and terminations had an average percentage cost overrun of 30.5%. Azhar, Farooqui, & Ahmed (2008) stated that cost overrun is a very frequent phenomenon and is associated with almost all projects in the construction industry. This trend is more severe in developing countries where the overrun sometimes exceeds 100% of the anticipated cost of the project.

Project cost overrun affects public and private companies' financial statements and reputation and can even lead to bankruptcy. Moreover, companies' balance sheets and even government balance-of-payments accounts can be affected for years due to cost overrun in projects.

Identifying the risk factors is the first step towards minimizing the severity of project cost overrun. Since these factors could vary from country to another, several studies have been conducted worldwide to investigate the causes of project cost overrun in different industries, e.g. civil and structural engineering construction (Mansfield, Ugwu, & Doran, 1994; Kaming, Olomolaiye, Holt, & Harris, 1997; Frimpong, Oluwoye, & Crawford, 2003; Flyvbjerg et al., 2004; Koushki, Al-Rashid, & Kartam, 2005; Creedy, 2006; Azhar et al., 2008; Enshassi, Al-Najjar, & Kumaraswamy, 2009; Kaliba, Muya, & Mumba, 2009; Le-Hoi, Lee, & Lee, 2008; Nega, 2008; Ali & Kamaruzzaman, 2010; Wang & Yuan 2011), information technology (Whitfield, 2007; Mähring & Keil, 2008; Zhang, Keil, Rai, & Mann, 2003), oil and gas (Jergeas, 2008; Jergeas & Ruwanpura, 2010), Software (Keil, Mann, & Rai, 2000; Keil, Rai, Mann, & Zhang, 2003; Schmidt, Lyytinen, Keil, & Cule, 2001), and telecommunications (Ameh, Soyngbe, & Odusami, 2010).

The study by Ameh et al. (2010) is perhaps the only study that focused specifically on telecommunications projects. In that study, a survey was conducted to identify the causes of cost overrun in 53 telecommunications projects in Nigeria. The used survey form listed 42 possible causes under five major categories: factors related the environment, factors, related to construction, factors related to construction items, factors related to cost estimate, and factors related to financing. Lack of experience of contractors on telecommunications projects, high cost of imported materials, and fluctuation in the prices of materials were ranked as the top key factors causing project cost overrun.

RESEARCH OBJECTIVES

The telecommunications industry is one of the most dynamic industries where technological advancements seek faster connectivity and greater efficiency. The challenges that an operator faces are connected to its ability and competency in adapting to and managing inevitable changes, and subsequently maintaining a competitive edge over its competitors.

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