Chapter LXIV
IT Evaluation Issues in Australian Public-Sector Organizations

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INTRODUCTION

Public-sector organizations are one of the top spenders in information technology (IBM, 2006). According to an IDC report, global public-sector IT spending will exceed $138 billion in 2006, representing 12.2% of overall IT spending (IBM). In the United States, public-sector IT spending is likely to grow to $92 billion in 2010 from $71 billion in 2005 (Pulliam, 2005). Despite the huge and growing IT spending by public-sector organizations, the resulting benefits from these IT spending are still not clearly understood (Gunasekaran, 2005). This is often due to the poor IT investment evaluation process implemented by these public-sector organizations (Hall, 1998). In other words, there is a lack of understanding of the impact of the proper IT investment evaluation processes of IT projects in the public-sector organizations. The IT investment evaluation is an ongoing process that seeks to identify best practice and use it as a basis for evaluating public-sector IT project performance in order to set up clear goals and identify areas for improvement (Gunasekaran, 2005). For example, without undertaking proper IT investment evaluation processes, organizations are at the risk of failing to establish clear IT project goals and design. Therefore, research in the public-sector organizations is becoming critical, especially in how these organizations evaluate their IT projects and ensure that benefits expected from these projects are eventually delivered.

The main objective of this chapter is to identify evaluation issues that are critical in the implementation of IT projects by public-sector organizations. A key contribution of the chapter is to identify and examine evaluation issues and other key factors faced by public-sector organizations undertaking IT projects. The key issues presented are of interest to senior public-sector

executives concerned with making decisions about IT investments and realizing IT benefits.

BACKGROUND

IT Investment Evaluation

While organizations continue to invest heavily in IT, research studies and practitioner surveys report contradictory findings on the effect of the expenditures on organizational productivity (Osei-Bryson & Ko, 2004; Thatcher & Pingry, 2004). Therefore, it is not difficult to see that the measurement of the business value of IT investment has been the subject of considerable debate by many academics and practitioners (Sugumaran & Arogyaswamy, 2004). Although some IT productivity studies have produced inconclusive and negative results, and the interpretation of the results may have depended on many factors (e.g., Zhu, 2004), many research studies have indicated that IT spending is directly related to organizational performance (e.g., Hu & Quan, 2005).

In addition, the complex role and scope of IT investment decision-making processes are often the major constraints and difficulties in IT investment evaluation and benefits realization processes (Lin, Lin, Huang, & Kuo, 2006; Sugumaran & Arogyaswamy, 2004; Tsao, Lin, & Lin, 2004). Many private-sector IT projects fail to deliver what is expected of them because most organizations focus on implementing the technology rather than the adoption of the tools necessary to help to track and measure the IT projects (Hillam & Edwards, 2001). For example, a study by Sohal and Ng (1998) has found that in large Australian organizations, the potential of IT has not been utilized to meet the competitive challenges due to inadequate and inappropriate evaluation of the proposed IT projects. Moreover, they have reported that 59% of the responding organizations did not determine whether expected benefits were being realized.

There have also been a lot of reports on public-sector IT project failures. One of the major reasons for IT project failure is that most organizations fail to properly monitor and evaluate IT projects (Ballantine & Stray, 1998; Domberger, Fernandez, & Fiebig, 2000; Perrin & Pervan, 2004). It should be understood that IT investment evaluation in the public sector is highly complex, due in part to legal requirements that govern organizational processes (Khalfan, 2003), but also because it is a very politically sensitive process with many stakeholders holding very different and often conflicting perspectives (Allen, Kern, & Mattison, 2002; Heeks, 1999). While IT investment evaluation processes in the private sector is generally seen as something normal, there are special characteristics of the public sector that makes it inappropriate or extremely difficult (Bannister, 2001; Kouzmin, Loffler, Klages, & Korac-Kakabadse, 1999). Sullivan and Ngwenyama (2005) have found that some public-sector guidelines do not effectively address IT investment performance monitoring and evaluation. According to Jones and Hughes (2001), IT investment evaluation techniques are not widely used in public-sector organizations. However, according to Forrester Research, only 55% of public-sector organizations have intended to increase their efforts in evaluating their IT investments (IBM, 2006). Hence, the inability of many organizations to measure and apply IT both inter- and intra-organizationally is resulting in missed opportunities and a lack of business value (van Grembergen & van Bruggen, 1998).

IT Benefits Realization

While IT investment evaluation processes are important, they are insufficient in terms of ensuring that the benefits identified and expected by organizations are eventually realized and delivered (Lin, Pervan, & McDermid, 2005). The essence of benefits realization is to organize and manage so that the potential benefits arising from the use of IT can actually be realized (Ward, Taylor, & Bond, 1996).