Chapter 6

Measuring IT Service Management Performance: A Model Development

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ABSTRACT

Prompted by the realisation that IT is now seen as a service, with a customer focus and process orientation, the authors propose a model to measure IT service management (ITSM) performance. Measuring ITSM performance will enable organisations to demonstrate the benefit from their investment. The model is based on a systematic literature review that progressed from considering the general areas of organisation performance measurement to examining commonly used performance metrics. Although there are a number of studies on ITSM implementation, only a few considered the performance measurement of ITSM. A structured method for the design of the model was adopted through a three-level analysis. A comparison of existing performance measurement frameworks was first made to identify those that are suitable for ITSM and that would facilitate communication between the business and IT function. This was done using appropriate dimensions from past work of various performance measurement researchers. The frameworks were then classified along these dimensions to identify their completeness, eliminate unnecessary dimensions, and identify the natural dimensions for ITSM.

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INTRODUCTION

We have taken a holistic view in development of the model, in integrating approaches such as the balanced scorecard (BSC), broad economic perspectives and service oriented ITSM. The integrated approach caters for the wide range of variables of interest and the large number of stakeholders involved in the performance of ITSM. It is envisaged that the proposed model will provide a basis of standardisation and performance comparison for organisations implementing ITSM. In the next stage of the research the proposed model will be evaluated by ITSM practitioners for its relevance and usefulness.

Information systems (IS) academics and IS practitioners have grappled with the measurement of effectiveness and performance of IT/IS function. The motivation for this interest is explained by DeLone and McLean (2003) who state “the measurement of IS success or effectiveness is critical to our understanding of the value and efficacy of IS management actions and IS investments.” More broadly Richard, Devinney, Yip and Johnson (2009, p. 719) state that “organisational performance is the ultimate dependent variable of interest for researchers concerned with just about any area of management.”

At the organisational level the challenge of measuring performance has been recognised and many performance measurement frameworks and models have been proposed such as SERVQUAL (Parasuraman, Zeithaml, & Berry, 1985), Sink and Tuttle model (Sink & Tuttle, 1989), results and determinants framework (Fitzgerald, Johnston, Brignall, Silvestro, & Voss, 1994), balanced scorecard (BSC) (Kaplan & Norton, 1992), performance pyramid (Lynch & Cross, 1993) and the performance prism (Neely, Adams, & Kennerley, 2002).

Approaches to resolving the challenge of performance measurement of the IS function have also taken many forms, for example, IS success (DeLone & McLean, 2003), IS productivity (Dedrick, Gurbaxani, & Kraemer, 2003; Weill, 1992), IS quality (Chang & King, 2005; Pitt, Watson, & Kavan, 1995), IS effectiveness (Scott, 1995; Seddon, Graeser, & Willcocks, 2002) and IS performance (Marchand & Raymond, 2008; Saunders & Jones, 1992; Son, Weitzel, & Laurent, 2005; van der Zee & de Jong, 1999).

We will focus on the performance measurement of IT service management (ITSM). Performance measurement of ITSM concerns the effectiveness and efficiency of the IT capabilities and use of IT resources in terms of productivity, profitability and quality. We apply the recommendation of Tangen (2005, p. 40) that performance measurement should be understood as a broad term that “covers both overall economic and operational aspects.”

The objective of this chapter is to propose a model that can be used by academics and practitioners to measure the performance of ITSM. Our model is developed from reviewing management and information systems literature.

BACKGROUND

The growth of the service economy has resulted in service oriented thinking as organisations attempt to increase value delivered to their customers. This shift in service orientation is manifested in IT/IS as information technology service management (ITSM) (Galup, Dattero, Quan, & Conger, 2009). Organisations are faced with the challenge of managing IT as a collection of services delivered to the customer, by administering a complex portfolio of capabilities, resources and offerings. IT/IS organisations can no longer solely focus on the composite technologies and systems but need to manage the resultant IT services. IT services are provided by IT/IS departments internal to the organisation as well as managed by service providers external to the organisation. An example of managed services is observed in cloud computing which has three service models: cloud software as