

Chapter XX

Evaluating IT–Enabled Transformation in Public Services:

A Case Study on Assessing Information Systems Effectiveness in a Government Organization in Turkey

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ABSTRACT

While the paradigm for organizations evolves into an information perspective and information systems' (IS) role shifts from efficiency to effectiveness, among the top issues of IS management is measuring and improving IS effectiveness. This chapter offers an IS effectiveness evaluation methodology applied on a government organization in Turkey. IS maturity is taken as a reference for determining independent variables of the research. The chapter supports that "IS effectiveness" is a relative term conceptualized by organizational features. The case study suggests future research areas. A number of findings and propositions have been presented, including the alignment of technology and business process, integrating stakeholders' trust and commitment, the significance of top management support, top-down vs. bottom-up approaches, which can enhance the adoption and institutionalization of information systems implementations within a government organization.

INTRODUCTION

The adoption of Information Systems (IS) represents significant financial investments, with alternative perspectives to the evaluation domain coming from both the public and private sectors (Sahraoui, Ghoneim, Irani and Ozkan, 2008). As a result of increasing IS budgets and increasing expenditures on computers and computer based information systems and the emphasis shift from “doing things right” to “doing the right things”, assessment of the value added to organizations by IS assets, namely the effectiveness of information systems, has become a perennial issue for practitioners, researchers and managers (Ozkan, Bilgen, Hackney, 2007; Srinivasan, 1985; Scott, 1995; Yuthas and Eining, 1995; Seddon 1999; Kumar, 1990; Khalil and Elkordy, 1996; Ferrat and Agarwal, 1996, Malik and Goyal, 2001). Rau (2004) goes further and states that: “*never has demonstrating the value of IT to an organization been as imperative as today*”. Despite the need for IS effectiveness evaluation, an agreement does not occur on a well-defined, deterministic and commonly acknowledged success framework for all systems and organizations. In addition to the motives for the IS effectiveness assessment, it should be highlighted that it is more urgent for developing countries as confined financial resources have been allocated for the expensive information technology instead of providing food and education even vaccine for the babies. It is evident from the literature that research on the implementation of information systems in government is rather limited, which could be due to the general misconception of the public sectors as rigid and risk-averse establishments (Kim, Pan and Pan, 2007).

The majority of the findings on information systems effectiveness and the correlated aspects are generally derived from the research in developed countries. These findings are required to be analyzed by cross-cultural studies to be operated in other countries which have different charac-

teristics (Khalil and Elkordy, 1996). While communication means increase global perspectives, local approaches are also getting importance more than ever. Success stories and frames can not be replicated considering that the same outputs will be gained without country-specific adjustments (Sahay and Avgerou, 2002). As a consequence, with globalization, researchers have begun to analyze the aspects to adapt management practices across physical and cultural distances (Teng et.al, 1997).

For developing countries, information technology involves challenges as well as advantages. In developing countries, it is often experienced that computer systems may be used only for automation of existing business processes without their optimization resulting in gross inefficiencies (Yahya, 1993). The reason that developing countries have problems in IT use is that, in so-called “developing” countries IT investments may be realized without considering the reasonable needs of organization because of the general problematic political atmosphere surrounding the organization and country (Yahya, 1993; Sahay and Avgerou, 2002). Although it is not necessarily reasonable to allege that Turkey is experiencing the same problems in the same degree as presented above, it may be argued that Turkey still has some problems in exploiting the full potential of computer-based systems, particularly in the public sector. It enhances the objectivity of assessment to notice whether some organizational transformation practices like business process reengineering or total quality management is performed to make use of IS effectively or not. In other words, despite the wide usage of IS development methods and project management tools and techniques, an information system whose effectiveness is to be evaluated may have development phase problems like insufficient requirement analysis, problematic business process modeling or implementation fallacies.

Since there is no explicit formulation to assess effectiveness in complex socio-technical systems,

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