Chapter 14
Examining the Role of Stakeholder's in Adopting Enterprise Application Integration Technologies in Local Government Domain

Muhammad Kamal
Brunel University, UK

Vishanth Weerakkody
Brunel University, UK

ABSTRACT

The realisation of innovative technological transformation in providing electronic services (e-Services) has often been associated with the presence of a number of prime stakeholders who perform their requisite functions in the organisation. In context of this research, the authors examine the potential role of key stakeholders involved in the Enterprise Application Integration (EAI) adoption process. Literature exemplifies that EAI technologies are large, comprehensive solutions that are complex to adopt and manage. Similar to adopting other technologies, there are several stakeholders involved with adopting EAI solutions, each with specific domain knowledge and expertise that are crucial to the success of EAI projects. In this regard, it would be judicious to give greater contemplation to research examining the role of stakeholders in the EAI adoption process in Local Government Authorities (LGAs). This paper applies concepts of the stakeholder theory to analyse the importance of stakeholders during the EAI adoption process with regards to EAI adoption factors. To conduct this research, the authors follow a qualitative multiple case study approach. Empirical findings highlight that each stakeholder involved in the EAI adoption process has a significant role utilising their expertise by contributing towards the success of EAI projects.

DOI: 10.4018/978-1-4666-1568-7.ch014

INTRODUCTION

Enterprise application integration has emerged to overcome integration problems at all levels, e.g., data, object and process (Lam, 2005; Linthicum, 2000). EAI provides substantial benefits, such as assisting with business process integration, facilitating e-Service based transformation, supporting collaborative decision-making, reduced integration cost and delivering flexible, and maintainable integrated Information Technology (IT) infrastructures (Irani et al., 2003). Regardless of EAI vendors promoting their products as 'plug and play' (Linthicum, 2000), there are no 'off-the-self' EAI solutions that offer 'out-of-the-box' (automated) integration (Zahavi, 1999). In addition, there is no single EAI technology efficiently supporting all integration levels (Ring & Ward-Dutton, 1999). Some EAI technologies are more effective at one level of integration, whereas others are at another level of integration. Therefore, permutations of EAI technologies are needed to overcome integration problems (Duke et al., 1999). There is much confusion regarding the permutations of integration technologies that can be used to piece together Information Systems (IS) (Themistocleous, 2004). The reason for this is that there are integration technologies that overlap in functionality but differ in the quality (e.g., portability, flexibility, scalability) and efficiency of their solutions (Themistocleous, 2004).

Moreover, the majority of applications that are pieced together differs in integration requirements, which means that the permutations of EAI technologies are not only based on their functionality, but also on integration requirements and constrains. Despite representing large and comprehensive solutions, EAI is often considered high-risk and complex to adopt and manage, involving several stakeholders and resources (Janssen & Cresswell, 2005; Ruhe & Du, 2004; Themistocleous et al., 2004). Chatterjee (2008) also highlights that complexities of technologies and distributed nature of EAI projects make EAI solution development, deployment and trouble-shooting more challenging than any other application development. These conceptions exemplify that from a technical perspective, EAI projects have many significant differences (e.g., from adoption to implementation to managing) comparing to other IT projects (Lam, 2005; Janssen & Cresswell, 2005).

Particularly, research studies on the stakeholders involved in EAI projects, such as (a) top management and decision makers, i.e., head of IT, who take decisions to invest in EAI, (b) project managers and project champions, i.e., who lead the EAI projects, (c) development support engineers and service delivery managers, i.e., who are actively involved in the implementation of EAI projects, and (d) system integrators i.e. who apply their technical expertise etc, have been advocated in recent local government literature (Kamal et al., 2009a; Kamal & Themistocleous, 2009; Themistocleous et al., 2005; Pardo & Scholl, 2002). However, past research on this area of research has been on a small scale with each group considered individually (Sathish et al., 2004). Janssen and Cresswell (2005) and Schneider (2002) highlight that in reality such projects involve many different stakeholders, both from within (directly) and outside (indirectly) the organisation, who possess knowledge and expertise, which facilitates their roles during the projects and interactions with one another. Massey et al. (2001) also supports that the knowledge and expertise of stakeholders consists of relevant information that is actionable and based on experience on different projects. Given their importance as sources of knowledge and expertise, any EAI project model should thus include them, so LGAs can consolidate and reconcile their intellectual capital, or knowledge assets, for organisational advantage (Kamal et al., 2009a; Kamal & Themistocleous, 2009). In the context of integrated e-Service delivery, several researchers have highlighted the importance of involving stakeholders (Evans & Yen, 2006; Carter & Belanger, 2005). The authors argue that although such stakeholder studies may seem obvi-