Offshore Vendors’ Software Development Team Configurations: An Exploratory Study

Suranjan Chakraborty, Towson University, USA
Saonee Sarker, Washington State University, USA
Sudhanshu Rai, Copenhagen Business School, Denmark
Suprateek Sarker, Washington State University, USA
Ranganadhan Nadadhur, Wipro Technologies, USA

ABSTRACT

This research uses configuration theory and data collected from a major IT vendor organization to examine primary configurations of distributed teams in a global off-shoring context. The study indicates that off-shoring vendor organizations typically deploy three different types of configurations, which the authors term as thin-at-client, thick-at-client, and hybrid. These configurations differ in terms of the size of the sub-teams in the different distributed locations and the nature of the ISD-related tasks performed by the distributed team members. In addition, the different configurations were compared on their inherent process-related and resource-related flexibilities. The thick-at-client configuration emerged as the one that offers superior flexibility (in all dimensions). However, additional analysis also revealed contingencies apart from flexibility that may influence the appropriateness of the distributed ISD team configuration, including the volatility of the client organization’s environment and the extent to which the ISD tasks can be effortlessly moved to the vendor’s home location.

Keywords: Distributed Teams, Global Software Outsourcing, Information Systems Development, Off-shoring, Team Configurations, Virtual Teams

INTRODUCTION

In the last decade, the emergence of distributed software development practices has significantly transformed the landscape of Information Systems Development (ISD) within organizations in many developed economies (Sahay, Nicholson, & Krishna, 2003). This form of development is often enabled through global software outsourcing (GSO), wherein the responsibility of development is delegated...
to third-party vendors based in countries such as India, Ireland, and Israel. These vendors tend to have specialized expertise, access to a large pool of qualified human resources, and/or provide significant cost advantages (Davis, Ein-Dor, King, & Torkzadeh, 2006; Robinson & Kalakota, 2004; Carmel, 1999). The fact that global outsourcing is a $550 billion industry (King, 2003) with 95% of Fortune 1000 firms engaging in this practice (Ventoro, 2005) provides a firm indication that offshore outsourcing can no longer be considered an unproven model (Robinson & Kalakota, 2004). In fact, Davis et al. (2006) characterize this as a trend that will “continue and even increase for some time” (p. 774).

Given the popularity in off-shoring of IT work amongst organizations over the last few years, researchers within the IS and related disciplines have widely investigated this topic, leading to a maturation in the state of research in this area. Much of this literature has focused on the benefits/disadvantages of this practice to the organizations outsourcing some (or all) of their IS/IT tasks to offshore vendors, examining the financial benefits and costs associated with this venture, the factors driving the organization’s decision to outsource offshore, and developing strategies for effective management of offshore projects. For example, Aron, Clemons, and Reddi (2005) examined the different kinds of strategic risk factors that affect the senior management’s decision-making in terms of developing off-shoring and outsourcing contracts; Sakhivel (2007, p. 69) explored the different “risks associated with offshore development and suggests how to manage them to achieve development objectives.” Another parallel trend in the research in offshoring has been to examine the offshoring organizations and vendors’ risks of engaging in such projects (Davis et al., 2006). Both the offshoring organization and the vendor organizations which provide the offshore services have to deal with structural, cultural, and financial risks (Davis et al., 2006), leading to the numerous studies focusing on the specific types of risk, and developing strategies for mitigating them. In addition to the wide range of research foci related to offshoring mentioned above, special issues on outsourcing and offshoring in IS academic journals stand testimony to the fact that research in this area has matured. Meyer, Tsui, and Hinings (1993) argue that when a field or a particular phenomenon of interest matures, “systematic classification” is critical for the consolidation of the “existing state of knowledge in a discipline” (p. 1179). They propose that researchers should focus on understanding the configurations of the phenomenon of interest, in an attempt to “order and make sense … by sorting things into discrete and relatively homogeneous groups” (Meyer, Tsui, & Hinings, 1993, p. 1179). Tyranian (1968) also emphasizes that the development of configurations is necessary to help make order “out of the potential chaos of discrete, discontinuous, or heterogeneous observations” (p. 178).

Given the wide range of issues that are pertinent to IS/IT offshoring, the key question is what type of configurations should researchers focus on? It is a widely known fact that IS/IT offshoring involves the use of distributed ISD teams by the vendor organizations (Carmel, 1999). Given the variety of work practices and arrangements being adopted and implemented by the offshoring vendors (especially, in their team formations) (Davis et al., 2006), understanding the primary configurations of these distributed teams would help researchers interested in this area make a systematic and ordered sense of various insights (provided by earlier research) surrounding this phenomenon. We would like to especially note that our interest in configurations is consistent with recent literature on distributed teams, which has investigated the role of the structural configurations of these teams on their performance (O’Leary & Cummings, 2007). In light of these above assertions, the focus of the current study is to examine the following: What are different distributed ISD team configurations adopted by offshoring vendor organizations? Further, drawing on prior configurational theorists, in addition to the identification of the configurations, we also seek to explicitly compare the different configurations. As we are all aware,
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