Knowledge Transfer to Vendors in Offshore Information Systems Outsourcing: Antecedents and Effects on Performance

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ABSTRACT

Despite the importance of knowledge transfer for the success of offshore information systems (IS) outsourcing, only limited research has been conducted to date. This research investigates knowledge transfer to vendors from their client, in terms of learning from client and learning about client. More specifically, it examines the effects of client support and vendors’ learning mechanisms on knowledge transfer, along with the impact of knowledge transfer on performance. Results show that client support is important for both types of knowledge transfer. In addition, it is the deliberate cognitive learning rather than the relative passive learning of interaction experience that promotes knowledge transfer significantly. Furthermore, whereas learning about client has a positive impact on vendors’ cost control, learning from client contributes to project quality if a vendor maintains a high level of interaction experience with the client.

Keywords: Information Systems Outsourcing, Knowledge Transfer, Learning Mechanisms, Offshore Information Systems, Vendor Performance

INTRODUCTION

The importance of knowledge transfer for outsourcing success has gained recognition in recent years (Park, Im, & Kim, 2011). Information systems development (ISD) is a knowledge intensive process between the user and the development team (Tiwana & McLean, 2005). In outsourced ISD, it is only through combining the domain knowledge of the client with the technical knowledge of the vendor that project success can be achieved, as both parties possess their unique and complementary sets of knowledge.

For essentially the same reasons, knowledge transfer also plays a key role in offshore outsourcing success (Williams, 2011). It is valuable for decreasing development cost, increasing the vendor’s delivery quality, and developing a strategic relationship (Rottman, 2008). Moreover, absence of effective knowledge transfer may partly account for failure of offshored projects (Dibbern, Winkler, & Heinzl, 2008). In addition, knowledge transfer is also important
for vendors’ capability development and value proposition (Jarvenpaa & Mao, 2008). However, research on knowledge transfer in offshore outsourcing is relatively recent (e.g., Leonardi & Bailey, 2008; Williams, 2011). Other than the few exceptions (e.g., Cha, Pingry, & Thatcher, 2008; Chua & Pan, 2008; Huong, Katsuhiro, & Chi, 2011), there is a paucity of prior research on knowledge transfer in the offshore outsourcing context, especially empirical studies based on large samples. As a result, little is known about factors influencing knowledge transfer, and the contribution of knowledge transfer to the success of offshore outsourcing.

Furthermore, according to conventional wisdom, what a vendor needs most is domain knowledge of the client (Chua & Pan, 2008), whereas the client also hopes to learn from the vendor, who is likely to have accumulated critical IT skills (Cha et al., 2008; Rottman, 2008). However, in the context of offshore IS outsourcing, it is not unusual to transfer project management and technical skills from IT-savvy clients to offshore vendors located in less developed regions. For example, Chinese vendors generally are less experienced than their Japanese clients, possessing lower levels of project management skills and maturity (Jarvenpaa & Mao, 2008). As a result, there exists an outflow of technical know-how from Japanese clients to Chinese vendors, in addition to business requirements. Nevertheless, despite the multifaceted nature of knowledge transfer in offshore outsourcing, the multiple dimensions of knowledge transfer from clients to their vendor is neglected.

Knowledge transfer is costly and difficult due to the ambiguity and context dependent nature of knowledge. The extant literature has explored various antecedents of inter-organization knowledge transfer from several perspectives, such as the relationship context, characteristics of the knowledge, recipient, and source. However, the influence of the recipient’s learning mechanisms is largely overlooked, although it can be an important stimulus for knowledge transfer (Chua & Pan, 2008). These mechanisms include both passive experience accumulation, and deliberate cognitive processes such as knowledge articulation (Zollo & Winter, 2002). In particular, knowledge articulation requires purposeful investment in activities such as formal discussion, design review, analysis of interim results, and project evaluation. Although returns to various learning mechanisms may differ (Zollo & Winter, 2002), there is little evidence on whether investment in knowledge articulation is justifiable. In this paper, we compare the different roles of knowledge articulation and experience accumulation in knowledge transfer.

Additionally, effective knowledge transfer cannot occur without the support from the knowledge source. Therefore, this study also investigates the effect of client support on knowledge transfer. Furthermore, two different types of offshoring business model have been observed in practice, i.e., the direct offshoring model and mediated offshoring model (Holmstrom et al., 2008; Jarvenpaa & Mao, 2008). In the former case, the client is the end-user organization, which directly works with the vendor; in the latter case, the client is not the end-user but an IT company that may do part of the work onshore and subcontract the rest to offshore vendors (Holmstrom et al., 2008; Jarvenpaa & Mao, 2008). Between the two models, the offshore vendor and the client are in different relationships involving different interaction patterns.

Therefore, this study is related to three important factors for inter-organization knowledge transfer, i.e., characteristics of the knowledge recipient and sender, and the nature of their relationship in the context of offshore ISD outsourcing. The research questions are: (1) what are the effects of vendors’ learning mechanisms, client support, and offshoring model on knowledge transfer? and (2) what is the effect of knowledge transfer on the success of offshore IS outsourcing projects? This research contributes to both the knowledge transfer literature and IS outsourcing research by empirically testing the antecedents of knowledge transfer and its performance implications. It extends the understanding of knowledge transfer from the
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