Chapter 11
Outsourcing of Community Source:
The Case of Kuali

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ABSTRACT

Community source (a community-based open source) has emerged as an innovative approach to developing enterprise application software. Different from the conventional model of in-house development, community source creates a virtual community that pools human, financial, and technological resources from member organizations to develop custom software. Products of community source are available as open source software to all members. To better understand community source, the authors studied the Kuali project through interviewing its participants. The interview analysis revealed that community source faced a number of challenges in project management, particularly in the areas of staffing management and project sustainability. A viable solution to these issues, as supported by the findings in the interview and the literature review on the drivers and expected benefits of outsourcing, is outsourcing software development in community source projects. The authors accordingly proposed a research framework and seven propositions that warrant future investigation into the relationship between community source and software outsourcing.

INTRODUCTION

Due to an increasingly competitive business environment, organizations demand customized application software that can meet their specialized and strategic requirements. If they cannot find suitable one in a commercial market, organizations feel compelled to develop the software in-house. According to the study of Perry & Quirk (2007), however, the overall cost of in-house development is so much higher than that of buying commercial software that many organizations cannot afford the former approach. Furthermore, it is impractical for many organizations to achieve all the necessary competence for building software themselves. As a result, they seek out strategic alliance to jointly develop their desired software. Strategic alliance is a formal relationship between two or more parties to pursue a set of agreed-upon-goals or to meet critical business needs while the parties remaining independent organizations (Yoshino & Rangan, 1995). The concept has recently been applied to the development of open-source enterprise application software (EAS) (Agerfalk & Fitzgerald, 2008). The new model of software development is referred to as community-base open source, or "community source," in which member organizations invest and collaborate with each other to develop custom, open-source EAS. A community source project is "an open source project that requires significant investments from institutional partners in both human resources and cash contributions" (Liu, Wang, & Zhao, 2007).

Community source is a unique form of open source: First, rather than relying on commercial software vendors, the member organizations of a community source project pool their monetary and human resources together in order to develop EAS; second, comparing with an institution developing software independently, the organizations in a community source project can have better control over the software development; and third, developers in a community source project are employees of the member organizations, who are designated to work on the project. Due to these unique features, however, community source projects face a couple of challenges. On one hand, it is optimal for a community source project to attract as many participating organizations as possible in order to share resources, reduce costs, and minimize risks. On the other hand, the management of the community source project becomes increasingly complicated and difficult with the increasing number of participating organizations. In order to understand these challenges well, we studied a real-world ongoing community source project Kuali (www.kuali.org). The Kuali case offered us a great opportunity to look into the project management issues of community source in a higher education setting. Upon completion of this study, we were able to propose that outsourcing the software development in a community source project could be a viable solution to those issues.

The primary research question of this study is: What are the motivations and potential benefits of outsourcing software development in community source? In the following sections, we first introduce the background of community source and the case of Kuali; we then present the literature review on open source/community source and outsourcing of software development; after we present the research methodology of the study and the interview results from the Kuali case, we propose a research framework and seven propositions derived from the findings of the Kuali case study. The chapter concludes with the implications of the study and suggestions of future research directions.

BACKGROUND

Community Source and the Case of Kuali

Community source model requires formal collaboration among member institutions via a virtual mechanism. It also requires significant

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