Eight Types of Relationships between Stakeholders in ERP Development Networks: A Case Study of Three Large Enterprises

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Abstract. ERP projects are complex socio-technical endeavors that cannot be implemented and used in isolation. Instead, many stakeholders are involved in the implementation of ERP systems. However, the ERP research often concentrates on relationships between two stakeholders only. In this study we take a broader viewpoint to relationships between external stakeholders in ERP development networks. We investigated the ERP development networks of three global enterprises and revealed eight types of relationships between the stakeholders. Understanding of what types of relationships exist is important for locating potential problems. As an example, we describe how an overtrusted relationship can lead to technical challenges.

Keywords: ERP development network, case study, stakeholders, relationships.

1 Introduction

The adoption and use of ERP systems involve many stakeholders but ERP research often concentrates on the viewpoint of one stakeholder only [1]. Being a complex information system, an ERP system requires support from many levels and organizations including the flagship organization (e.g. SAP, Microsoft, Oracle) [2], consultants, 3rd party development organizations, and IT support and administration. All these and other stakeholders altogether form an ERP network of stakeholders with dissimilar culture, practices, and processes but united by the same goal of implementing and deploying an ERP system.

It has been identified that ERP projects often have key players and without these players an ERP project is prone to failure [3]. However, the ERP research community is lacking evidence about ERP development networks, their challenges, and interactions and mainly concentrates on ERP failures [4] and success factors [5] from the perspective of the system user only. The research on human interactions in systems development also focuses primary on single organizations and their internal communications [6].

Being an example of a socio-technical endeavor that involve both social interactions between stakeholders and technical aspects of implementation and...
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integration [7], ERP systems require deeper understanding of the complex process of ERP development, its participants, and relationships between them. In this paper, we focus on the latter part by making an inquiry into ERP development in three global enterprises. We analyze three ERP development networks (EDNs) in order to identify the types of relationships between stakeholders. The selected enterprises use both customized ERP systems from flagship organizations and fully customized ERP systems developed from scratch. This allowed us to investigate different kinds of ERP networks. They had variation in their groups of stakeholders, where e.g. the flagship organization or the development partner was emphasized differently.

The paper is organized as follows: we introduce the related work in Section 2. The research process and case study design are described in Section 3. The main findings are presented in Section 4, followed by the discussion of the results in Section 5. Section 6 concludes the paper.

2 Related Work

The term ERP development network is not commonly used in ERP research. However, there are similar terms like ERP community introduced by Sammon and Adam and defined as a group consisting of ERP vendors, consultants, and implementing organizations [8] or ERP ecosystem defined as the network created by collaborative partnerships between and among organizations [9]. Koch uses both terms ERP network and ERP community but mainly focuses on ERP vendors [10]. In general, an ERP development network (EDN) can be understood as a dynamic group of stakeholders from different levels and organizations involved into the lifecycle of an ERP system. The network includes ERP vendors that provide expertise and tools [4], consultants participating in the adoption of the system [11], 3rd party developers [12], and others.

As any network, EDN consists of nodes (stakeholders) and edges (relationships between stakeholders). Gefen studied the ERP implementation relationships between clients and vendors and identified that trust is an important component for building strong business relationships between the vendor and the client [13]. Sammon and Adam state that the implementing organization, the ERP vendor and the ERP consultant are the most important stakeholders and their relationships are critical for the success of ERP [8]. In contrast, Sarker revealed that other stakeholders like 3rd party organizations, hardware providers, and local partners also contribute to the ERP success [14].

Outsourcing has been widely used and studied from different perspectives in the development of ERP systems [15]. For example, Nam et al. investigated two levels of IS outsourcing: the initial outsourcing decision and the intention to continue the relationships [16]. They named four types of outsourcing relationships as reliance, alliance, support, and alignment based on the level of strategic impact of IS applications and the extent of substitution by vendors. Additionally, the authors concluded that continued relationships are possible only when vendors are not only technically competent but also trustworthy [16].