ABSTRACT

The purpose of the study is to investigate the existence of network governance in the software as a service value network. The study analyzes the processes of Software as a Service solution implementation through participatory design methodology. The study followed the participatory design methodology to analyze how the existence of four conditions: uncertain demand with stable supply, customized exchange high in human asset specificity, complex task under intense time pressure and frequent exchange among parties, lead to the emergence of network governance. The study further tries to find out how the social mechanisms for coordination and control emerge through network governance in the context of SaaS value network. The study found that network governance enabled coordination, control and safeguarding through social mechanisms of restricted access, macro cultures, collective sanctions and reputation. The major research implications is that network governance acts as a partial substitute to formal contracts and complements relational governance mechanisms in network product/service chains. The main contribution of the study is to investigate the emergence of network governance in a real life context of the software as a service value network through a case study.

Keywords: ASP, Contracts, Contractual Governance, Formal Contracts, IS Outsourcing, Net-Sourcing, Network Governance, Relational Contracts, Saas, Software as a Service

INTRODUCTION

The ever increasing Internet bandwidth and the fast changing needs of businesses for effectiveness and integration within and with the partners and the distributed /mobile employee force is leading organizations to adopt information systems infrastructures that are cost effective as well as flexible (Chang 2013; Dubey et al. 2007). In software as a service (SaaS) business model of software provisioning, the consumer does not manage or control the underlying information systems infrastructure including network, servers, operating systems,
storage, or even individual application capabilities, with the possible exception of limited user-specific application configuration settings (Mell et al. 2011). SaaS takes advantage of the thin customer technology and provisions SaaS based upon the Internet and semantic technologies, where all the software and the data reside on the server and the customer side needs an interface application like the browser, as against the packaged software provisioning model where the software is sold as a product. Some of the successful examples of SaaS are Salesforce.com and NetSuite. Although there are pure SaaS service providers, i.e. only provide SaaS, such as Salesforce and NetSuite, but some traditional packaged service providers such as Oracle, Microsoft, SAP and IBM are fast adopting hybrid SaaS i.e. Provide SaaS as well as packaged software to accommodate customer expectations and preferences (Barett 2010). According to the Sand Hill Group and McKinsey & Company report (Dubey et al. 2008), the SME organizations are the biggest adopters of the SaaS model. The key to a SaaS model is economies of scale, which makes the solution sustainable for the service provider (Chang 2013; Sääksjärvi et al. 2005; Walsh 2003) and lowers cost of acquisition for the customer (Susarla et al. 2009; Walsh 2003).

Implementation of e-Governance in developing countries like India, is a highly complex process requiring provisioning of context specific e-government programs in addition to hardware, software, and networking (Alateyah et al. 2014; Weerakkody et al. 2007). Most of the public organizations lack funds to be able to develop, implement and deliver specific e-government services. Software as a service based e-governance can prove to be a cost effective solution to the problem but IS/SaaS sourcing has inherent problems, such as management of contractual governance, associated with outsourcing. Since the based e-government service is customized to the department, the provisioning of the service in the SaaS mode requires some degree of standardization so that it can be replicated over many departments. In the study we propose the provisioning of the e-government services through SaaS value networks as a solution for the same.

Contractual governance has long been a focus area for research in information systems outsourcing (ISO) literature (Ang et al. 1993; Barthélémy et al. 2006; Goo et al. 2009). The adoption decisions of IS outsourcing/ASP/SaaS are based upon the proper management of contractual governance. Whereas market governance mechanisms rely on formal contracts, hierarchies rely on internal control mechanisms and network governance are intermediate forms of organization structure which use social mechanisms for control and safeguarding exchanges among network members i.e. the service provider, client and the other members in the network. Network governance has been talked about by various researchers’ using terms like inter-organizational networks, networks, business groups, social networks, network organizations or network forms of organization (Granovetter 2005; Jones et al. 1997; Uzzi 1997). Network governance uses social mechanisms as a means of safeguarding, controlling and coordinating exchange between network members. The more structurally and relationally embedded the structure of the network; more effective are the processes of safeguarding, coordinating and controlling exchange among members in a network.

This study proposes that the presence of network governance (Jones et al. 1997) mechanisms can substitute for complex formal contracts between the client and the service provider. Although relational mechanisms also rely on social mechanisms like trust and relationship, but they are more suitable to dyadic relationships. In a network the various members may or may not be directly connected to each other through dyadic relationships, but still rely on each other indirectly to complete the provisioning of the product or the service as a whole, and social mechanisms like macro-cultures, reputation, restricted access and collective sanctions play to govern the exchange relationships and to safeguard, control and coordinate exchange between network members (Jones et al. 1997).
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