Title: The knowledge acquisition for innovation beyond the IT strategic outsourcing contract

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Abstract

The aim of this case-study based research is to study companies envisioning external tacit knowledge, product of parties interaction in an IT strategic outsourcing, as a source of innovation generation, beyond the explicit knowledge inherent to the contract, through constructs such as knowledge exchange, spillover, externality and absorptive capacity.

Keywords

Knowledge transfer, absorptive capacity, innovation.

Main Subject

Much has been studied in terms of customer-supplier relationship, within the concept of supply chain (Mentzer et al. 2001). Although some researchers have studied the subject knowledge exchange (Szulanski 1996) in the supply chain (Roy et al. 2004, Dyer and Nobeoka 2000) and the potential generation of innovation from knowledge (Nonaka and Takeuchi 2008), there has been an academic and business gap in the Brazilian market of "outsourcing" segment (Quinn and Hilmer 1994, Holcomb and Hitt 2007) in Information Technology (Kern and Willcocks 2000),
specifically in the analysis of this type of contract generating innovation not agreed by several authors (Earl 1996, Miozzo and Grimshaw 2005). The study of the relationship between the parties (customer and supplier) becomes more intriguing when knowledge sharing is not intentional, also called "spillover" and even as externality of knowledge (Fallah and Ibrahim 2004).

From the perspective of knowledge exchange, Inkpen and Tsang (2007) argue that companies that outsource their operations lose knowledge, intentionally or not, and therefore, strategic alliances should provide mechanisms of appropriation and information blockade. On the other hand, Norman (2004) reports that when companies protect their information, with the fear of someone appropriating them, their partners do the same, and thus the less information comes, receive less information in a "negative spiral "reduction of knowledge.

Thus justifies the relevance of the project to be working with constructs and objectives that will enable a differentiated analysis of the outsourcing industry in the Brazilian market, increasingly relevant theme day against the growing phenomenon of networks, whether individual or corporate (Granovetter 1973, 1982) and innovation generated from the knowledge exchanged between the parties, whether this exchange as provided in the contract or not. Analysis of Inter - organizational relationship (IOR) (Cropper et al. 2010, Parmigiani and Rivera-Santos 2011) becomes increasingly important and the study of the impact of knowledge generated and acquired by the company too (Paiva et al. 2008). Partnerships and alliances (Dyer and Nobeoka 2000) are established based on trust (Morgan and Hunt 1994, Uzzi 1996, Roy et al. 2004, Miguel and Brito 2010), and collaboratively invest in specific assets ratio (Dyer and Singh 1998, Dyer and Hatch 2006). In the specific case of outsourcing often the relationship between the companies the emphasis is in transaction costs (Williamson 1975, 1983) and the constituent elements, such as search, contract monitoring and enforcement. It is also observed that, increasingly, beyond products, inputs and raw materials are traded on supplies, services and processes that ultimately can be decomposed into routines of knowledge chain, according to the evolutionary view of Nelson and Winter (1982).

The market segment is the study of service industry as having sub segment information technology ("T-KIBS" stands for technical Knowledge Intensive Business Services as Howells, 2000 and technical Knowledge Intensive Business Services as Hertog, 2000), and even more specific sub-segment of the outsourcing in this case is using the concept of Holcomb and Hitt
(2007) as an arrangement that emerges when firms rely on intermediate market relationships to provide specialized capabilities that supplement existing capabilities along supply chain. The author suggests that strategic outsourcing creates value within the supply chain, beyond that achieved through cost savings, potentially sought in the relationship. Specifically on Information Technology outsourcing, first, is placed as a barrier to the generation of innovation (Earl, 1996, Miozzo and Grimshaw 2005), and on the other hand, presented as an element of generation innovation including the creation of new business units or even new companies (Diromualdo and Gurbaxani 1998).

**Knowledge Transfer**

Fallah and Ibrahim (2004) comment that there are several classifications of knowledge exchange between the parties, among which were three here. The first classification is a formal and deliberate exchange of knowledge between the parties, e.g., via an outsourcing service, the service provider needs to know the scope of the role of the client company, so it is expected that provider thoroughly learn all the routines of the function that the client will outsource. The second type of knowledge exchange, called "spillover " occurs when knowledge exchanged is not restricted to the parts provided in the link, as seen in the case of Japanese industry (case study company Toyota) settling in the United States, presented by Mesquita et al. (2008) that shows a bit of the knowledge acquired by the supplier of the automaker is reused by the supplier when the company provides services to other automaker, i.e., there is an "overflow" of the knowledge acquired in a relationship to another relationship.

Finally, the third situation, there is the use not originally intended by the parties, i.e., the externality of knowledge, where for example, the provider absorbs some new knowledge, not foreseen by the contract and explicit, it is therefore a tacit knowledge. The two authors (Fallah and Ibrahim 2004) that the latter two situations ("spillover" and external) are potential generators of innovation.

**Innovation**

With regard to innovation, there are many elements that can facilitate the creation of innovation (Crossan and Apaydin 2010, p. 1167), such as: the involvement of leadership (ability of CEOs
and Members of the Council to encourage innovation), the managerial levers (mission, goals, strategies, structure, systems, resource allocation, organizational learning and knowledge management, organizational culture for instance), business processes (portfolio management, development and implementation, project management, marketing) and yet the market conditions to generate innovation, such as those presented by Malerba and Orsenigo (1993), in terms of opportunity, ownership and cumulative conditions and complexity of the knowledge base of the company. And not least, the conditions of acquisition of knowledge as an engine for innovation source (Nonaka and Takeuchi 2008). We focused our study on this last aspect, i.e., the generation of innovation through knowledge.

The Firm and the Resource Based View

We begin with the premise that the firm within its boundary limits (Coase 1937) contain a number of fundamental elements (resources) that the resource-based view theory (RBV) (Peteraf 1993) applied seamlessly combined (heterogeneous) with imperfect mobility (difficult to access the market and competitors), preferably inimitable, allow the creation of a barrier to competition and a competitive advantage. Barney (1991) defines the firm's resources as all assets, capabilities, organizational processes, knowledge and attributes that promote the achievement of its strategic and operational objectives. We will use the knowledge, as a resource will generate the differentiation.

Inter-organizational Relation and Innovation

As per extensive literature review regarding the forms of relationships between organizations conducted by Parmigiani and Rivera-Santos (2011, p. 1115), companies seek relationships between the parties in order to obtain information, acquire, create new or strengthen existing knowledge. And considering that the conditions for the exchange of knowledge exist between the parties and that knowledge is an input to the generation of innovation, as presented in Nonaka and Takeuchi (2008), we postulate the following proposition:

P1: The more intense the exchange of knowledge, more innovations will be generated.
In this article, we are not getting into the merits of that kind of innovation can be generated if product innovation, organization, in the process, among several types presented, such as in the case of Shawney et al. (2006) which show the 12 different types of innovation, or even without going into the merits here which dimension refers to the analysis of innovation is seen as a process or an outcome (Crossan and Apaydin 2010).

Absorptive Capacity, Knowledge Transfer and “spillover”

Knowledge as one of the vital inputs to firms, either associated with your strategy, operations or performance, is increasingly studied. Paiva et al. (2008) present study related to information and knowledge, internal and external, and extracting this study related to our part article, we apprehend that both external information such as external knowledge play key role in a company oriented to knowledge and premise to the study mentioned that knowledge is good to better firm performance factor.

In seminal work Cohen and Levinthal (1990) introduced the concept of absorptive capacity arguing that companies have the ability to recognize the value of new knowledge (external to the company), assimilate it and apply it for commercial purposes. Against the background of its trajectory path ("dependency path"), that is, about their prior knowledge, their internal knowledge base (or often also called a repertoire), the complexity of knowledge, the ability of appropriability (mechanisms protection such as patents), technological opportunity (that exists on the market), amount of knowledge and proper routines for the process of knowledge acquisition to occur (Nelson and Winter, 1982). And, as is the least explicit knowledge to be acquired will be more difficult absorption (Szulanski, 1996) that is, if we're talking about tacit knowledge as "Know How", which is more complex, more difficult to be to transmit and absorbed (Nelson and Winter 1982, Dyer and Nobeoka 2000, Szulanski 1996). About the main barriers to knowledge transfer between companies, Szulanski (1996) notes that the main factors (barriers) are: low absorptive capacity, causal ambiguity and difficult relations between the parties. Finally, Tsai (2001) confirms the proposition that sharing of information and knowledge provide more innovation and better firm performance (Di Serio and Vasconcelos 2009). Thus we postulate:

P2 : The higher the absorptive capacity of the company it will generate more innovation.
Like other forms of knowledge transfer, unintentionally have called "spillover", i.e. when knowledge extrapolates (or overflowing) the specific relationship (between client vendor), or the "externality" of knowledge, i.e., when knowledge is used unintentionally to the parties (Fallah and Ibrahim 2004). So we come to the following proposition:

P3: The higher the "spillover", more innovations will be generated.

P4: The greater the externality, more innovations will be generated.

RESEARCH METHODOLOGY

Qualitative empirical research with case study will be conducted. According to Yin (2010, p. 39) this methodology is "an empirical inquiry that investigates a contemporary phenomenon in depth and in its real life context, especially when the boundaries between phenomenon and context are not clearly evident". We are using an abductive method (Van de Ven 2007, Peirce 1975), i.e., we start from a initial theory and after the field study, data collection and analysis, we verify if "anomalies" are found in theory which need to feedback and adjust the initial theory, performing this process iteratively, producing a new theory. At this time we will investigate companies belonging to the t-KIBS segment.

CASE STUDY: THE COMPANY A

Company A is a large multinational information technology that provides outsourcing contract for large enterprises. IT has a structure of relationships and service to its customers through Account Managers. If its client is a big company, it will allocate a single Account Manager per client. If they are small businesses as customers, it will have an account manager assigned to manage the multiple accounts.

DATA COLLECTION AND VARIABLES OPERATIONALIZATION
A semi-structured questionnaire addressing the constructs was used as a guide for conducting interviews. For reasons of space was taken the quiz. Interviews were conducted confidentially, aiming to preserve the anonymity of the respondent as well as your company. This is necessary to note targeting potential discrepancies between what is expected as a formal company response, and possible criticism of the individual, allowing space to potential gap.

PARTIAL RESULTS AND FINDS

Initial interviews with company A show that the company observes the relationship of knowledge transfer beyond the explicit knowledge provided by the outsourcing contract scope. Clearly observed that in the delivery service structure of the accounts (the provider) realizes additional knowledge beyond the contract and incorporates the knowledge in the current contract. The company A stimulates the account managers (relationship structure) to increase the scope of the current contract. Still, this additional knowledge is embedded and transferred to other customers, confirming the proposition innovation arising by "spillover". However this transfer of learning from one account to another account occurs only when the same account manager has more than one account. But the transfer of knowledge acquired from an account manager to another account manager does not occur frequently and is very dependent on the individuals, because there is no incentive mechanism for this exchange to occur between professionals.

Also, it has been found the absorptive capacity is a facilitating factor of acquisition of knowledge in regard to knowledge base (in a general way using software system and specifically dependent of individual by individual who manage the account. With regard to the transmission of knowledge between among managers it depends on the leader who manages and not as a general and formal company policy.

LIMITATIONS AND FUTURE WORKS

The study presented here focuses on a single industry segment, information technology and, more specifically, in outsourcing (t-KIBS, technological KIBS) services which makes it very restricted and allows the creation of bias behavior of respondents and minimizes its replicability (generalization) or external validity. It is therefore recommended that the same study is conducted in other industries or segments.
The intrinsic limitation of a case study, regarding the external validity and replicability.

As a recommendation and it will be a next step later this qualitative study will be conducted in quantitative methodology with several companies in order to validate the theory here proposed or adjusted validating their applicability to other companies.

Still, one can also make an analysis of the client side, i.e., studying if it clients of an outsourcing contract acquires additional knowledge in your relationship with your outsourcing provider.

REFERENCES


