Bridging Boundaries in Offshore Outsourcing Organizations: A Case Study of Promoting KM System Initiatives in Wipro Technologies

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Abstract

Despite the increased attention on boundary spanning in organizations, we still know surprisingly little about how boundaries are formed and what spanning activities can be applied in the context of offshore outsourcing organizations. This paper examines the antecedents of boundary formation in this context and also has proposed spanning activities that can help offshore outsourcing organizations to realize return from their IT investment in an effective and efficient manner.

1. Introduction

Offshore outsourcing organizations represent a particular form of distributed working context which is characterized by geographic dispersion, reliance on electronic media, and national diversity [6,13,47]. Given such characteristics, knowledge share and transfer stands a strategic role in organizational competitiveness [1,14]. Previous research depicts that knowing is an ongoing process along with actors engaging the practice process rather than a stable state or static embedded capability [33]. Therefore, actively promoting knowledge management system (KMS) initiatives within an organization through corresponding IT governance and mechanisms has been considered as an effective approach to help organizations achieve their IT-related visions such as permeation of KMS in our case study of this paper.

However, one of the major barriers while promoting KMS initiatives in offshore outsourcing organizations are the boundary differences [5, 26]. Boundary is defined as a broad range of artifacts flexible enough to adapt to local needs yet robust enough to maintain a common identity across sites [42]. Boundary can exist either within the same organization, spanning various departments, such as IT department and engineer department or between two outsourcing organizations, for example the vendor-client boundary in IT outsourcing relationships [26]. Existing discourses on boundaries in organizations have been well established [5,21, 26]. Most of the researches on organizational boundaries focused on the negative effect of boundaries for team collaborations and even though a few researches looked at how to span these boundaries, yet in a static way [26]. In this research paper, therefore, we aim to addresses the following three existing gaps in the literature: 1) the antecedents of boundary formations at the offshore outsourcing organizations are rarely been discussed. Most researchers [18] conducted their research on how to span boundaries, but few looked at how boundaries actually are formed in advance; 2) The interrelationships within these antecedents should also be identified so as to help the offshore outsourcing organization to realize their return of IT investment more straightforward ; 3) how to bridge identified boundaries through effectively utilize the appropriate boundary spanners and boundary objects as well as the dynamic yet strategic boundary spanning mechanisms after implementation of IT strategy.

2. Theoretical Background

2.1 Boundary spanning in the context of IT outsourcing governance

In this paper we apply the concepts of Van Grembergen [46] to define IT governance: “IT governance is the organizational capacity exercised by the Board, Executive Management and IT
management to control the formulation and implementation of IT strategy and in this way ensure the fusion of business and IT. Within the context of IT governance forms, two basic governance designs were discussed: 1) centralized IT governance and 2) decentralized IT governance. According to Brown [4], centralized IT governance design places all the decision-making authority in a central IS organizational body, while decentralized IT governance design places all decision-making authority within individual business units or processes. In the context of offshore outsourcing organizations, decentralized units (i.e. units that are off-shored or resides with the client organizations) in most cases are authorized to make their own IT governance decisions due to the fact that geographic dispersion does not leave many choices for the organizations but decentralize their decision making authority to have an effective way of managing IT strategy [3]. With long term of adopting decentralized IT governance design, however, various boundaries between decentralized units and parent organizations are formed from one to another, resulting in slow return on IT investment within the same organization as a whole.

In addition, software development outsourcing unavoidably requires close interactions between clients and vendors (or between decentralized units who represent their clients and parent organizations) in order to produce and deliver software services agreed. In the process of interacting, knowledge sharing across fields of different working context and practices between IT vendors and clients carries out very frequently so as to match project directions as closely as to the initial agreements of software development. Boundary spanning, therefore, emerges as an organizational capability and stands a strategic important role in enforcing knowledge sharing and integration between two sides and ensuring better return on IT investment [5]. Although the concepts of boundary spanning has been long studied in the administrative science realm [12, 39], it has received much less attention in the context of outsourcing organizations. This study therefore aims to explore how the concepts of boundary spanning can help offshore outsourcing organizations to better realize their IT investment from a decentralized IT governance design.

However, one challenge of studying boundaries is that offshore outsourcing organizations often have numerous boundaries, such as geographic, temporal, structural, knowledge, cultural, historical, social and political [33]. Thus, it becomes impractical to cover all boundaries in a single study. Therefore, we focus on three specific boundaries, which are significant to the context of promoting KMS initiatives in offshore outsourcing organization: structural, subcultural, and knowledge.

Structural boundaries are present when organizational structure lacks of power distribution and direct communication. Subcultural boundaries are present when organization groups lack of agreements in identities and norms [40]. Knowledge boundaries are present when organization employees lack of common knowledge and transactive memory. The lack of common knowledge is partially contributed by diverse tenure and varying types of functional expertise [33].

2.2 Boundary spanners, boundary objects and boundary spanning processes

Previous literature on offshore outsourcing organizations has pointed out the significantly important role of individuals in the process of realizing boundary spanning [15, 34]. In such, individuals who actually are appointed or managed to span boundaries are called boundary spanners. Based on Levina et al. [26]'s work, there are two kinds of boundary spanners from the nominated and practical perspectives. The nominated boundary spanners are defined as agents who were assigned by the empowered agents in a field to perform certain roles in spanning boundaries of diverse fields. In contrast, from the practical perspective, boundary spanners-in-practice are defined as agents who, with or without nomination, engage in spanning (navigating and negotiating) boundaries of diverse fields.

The concept of boundary objects were presented by Star and Griesemer [42] to address the limitations derived from the reliance on boundary spanners who may have different kinds of constraints to span the boundary in reality. Two kinds of boundary objects are distinguished: (1) designated boundary objects, which are defined as artifacts named as their specific expected valuable design and properties for boundary spanning of diverse fields; (2) boundary objects-in-use, which are defined as artifacts with both a local usefulness and a common identity in practice. Such two parts of the definition of boundary objects-in-use also express the necessary conditions for their emergence [26].

Within the characteristics and performance of boundary objects, the boundary spanners using boundary objects actually embed their situated practices [5, 26]. However, few researches examine
how artifacts turn to be boundary objects in practice and how the boundary objects transform over time. Similar to nominated boundary spanners, the designated boundary objects are selected to be valuable for the boundary spanning by the agents who have power in related fields, but not necessarily leading to boundary objects-in-use. Previous research concludes that boundary objects-in-use should “emerge a new joint field of practice” so that realizing boundary spanning. When agents perform negotiating and creating the new joint field, they become the boundary spanner-in-practice and the objects they use become boundary objects-in-practice [26].

Finally, the boundary spanning process is necessarily proposed to connect boundary spanners with boundary objects in providing mechanisms of bridging boundary. Therefore, our definition of boundary spanning in the offshore outsourcing context includes three building blocks: Spanners, objects and processes [5].

3. Research Methodology

The case research methodology is particularly appropriate for this study for a number of reasons. First, our research questions are “how” questions [48] that delves into the process of boundary formations and spanning mechanisms. Second, as both implementation of KMS initiatives and formation of boundaries in offshore outsourcing organizations are complex, multi-faceted phenomena that are inextricable from their organizational context [35], an objective approach to research may be difficult, making it more appropriate to examine the phenomenon by interpreting the shared understanding of the relevant stakeholders [23].

A case study on the implementation of knowledge management in the Wipro Technologies was chosen for the following number of reasons. First, the case organization selected for this study must have, of course, decentralized units which use the same KMS as its parent organization. Second, the promotion of KMS in the decentralized units should have been encountered some issues relating to different working characteristics as this allows us to identify a broader range of possibilities for spanning boundaries. Therefore, the case of Wipro technologies is particularly appropriate for our purpose as it implements a KMS in its decentralized units which manifest rejections to the KMS due to various boundaries formed.

A total of 26 interviews were conducted with the middle and top management of Wipro Technologies and its subsidiaries, as well as the employees in the decentralized units that use the KMS. To allay any fear of speaking, every interviewee was assured of the confidentiality and anonymity of the data provided, especially when potentially sensitive information is sought [49].

4. Case Description

Wipro Technologies (WT) is the global IT services and products division of Wipro limited, headquartered in Bangalore, India. WT generated revenues of US$943 million for the financial year ended March 31st 2004 and at the year of 2008 employed more than 30,000 people, from 18 nationalities. WT provides a host of IT solutions including software application development and maintenance, research and development services, package implementation and so on to over 350 global clients. To better serve its global clients, Wipro established business units called offshore development centers (ODCs), each of which provides services to a specific client according to the status of client organization.

Between the years 1998 and 2000, WT grew rapidly with many complex projects, as a result the need from employees to access information increased radically from double sized employees. To provide shorter delivery periods for customers and keep accesses among different expert knowledge, WT found it essential to create a formal structure to manage the growing knowledge resources. Till around mid-2000, WT had almost no formal ways to manage knowledge among the whole organization.

In September 2000, the top management of Wipro set up a full-time KMS implementation team (KM team) to promote KM initiatives. Therefore, the KM initiative has evolved gradually, and revolves around the IT-based KM applications accessible through the organization-wide knowledge portal called KNet. The KM team plans for new IT-based KM applications while refining the existing ones on a continuous basis based on the feedback from the organizational business units. The implementation team also employs various metrics that track the participation of organizational members in the KM initiative and in the process, attempts to measure the business benefits of the organization-wide KM initiative. ODCs are geographically distributed from the inshore units, leading to different working context, different task and emphasis during work, and different team culture. Considering the business secrets of client organizations and strong IT capability, ODCs in the past seldom share knowledge with other business unit and build their own KM
tools for internal communication. During such an organization-wide implementation of such KM initiative in both inshore and offshore business units (ODCs), it turns that implementation was well received by most inshore members, while the implementation was questioned and put aside in many offshore units.

5. Data Analysis and Discussion

5.1 Boundary Formation

Phase 1: Structural Boundary. The functionality and responsibility of ODCs are completely different from other business units in the organization as they have a client-centric policy and work independently from the organization. For example, the onus is on Wipro to protect the intellectual property of its client organization by making sure that all forms of proprietary knowledge stay within the boundaries of ODC team working for the particular client organization. As one of the informant commented: “At the ODC level, we are relatively isolated from the rest of the organization. Over the last many years, I know more people from my client organization than from Wipro. This is a very important part of the ODC’s functioning and so we are in a world of our own.” Another software engineer at ODC V2 also noted: “We got separate e-mail IDs as through we belonged to the client organization.”

The establishment of ODCs brings up physical dispersion and uniqueness in the functionality that eventually leads to structural boundary between ODCs and the rest of the organization. Prior literature has suggested that the formation of structural boundary was primarily stemmed from physical dispersion or geographic distribution [16, 18, 20]. From our findings, however, uniqueness in functionalities of business units can also give rises to structural boundary. On the premise of physical dispersion, uniqueness of functionality in offshore-outsourced units accentuates the “mental dispersion” that shifts the main emphases of the employees’ work away from the rest of the organization. In turn, due to lack of mutual trust between decentralized units with the rest of the organization [20], high levels of conflicts will be experienced as the consequences of structural boundary [8]. These conflicts are results of weak interpersonal bonds between sites, unshared context and poor knowledge sharing [17]. For example, a software engineer with ODC V2 in Wipro noted: “I am not sure that the KM implementation teams are up to. In fact, I do not believe that they are doing anything useful like what we are doing.”

By recognizing the structural boundary, our findings suggest that the antecedents of forming structural boundary also give rise to knowledge boundary from which the functionality and responsibility of the decentralized units are differed. Employees at ODCs have drawn much attention merely on what happens at ODC level, regardless of the organizational change at organizational level such as KMS. As one of the KM manager commented: “Members in ODCs are always keen on letting everyone know their unique position as a unit that works for important clients. So, they tell us that they already have a knowledge repository of their own just like KNet and suggest that KNet may not be very useful either for them or their clients.”

Figure 1. The formation of Structural Boundary

Phase 2: Knowledge Boundary. With the formation of structural boundary, knowledge boundary starts to emerge gradually. The knowledge differences required to accomplish certain tasks or jobs inhibit the promotion of KMS initiatives cross organizations [20]. One of interviewees revealed that: “We have our own portal for managing knowledge at the ODC level, so we do not find any necessity to associate ourselves with KNet.”

Considering the knowledge privacy of client organizations with ODC, company has rolled out a policy that keep customer sensitive knowledge strictly within each ODC team to protect intellectual property. Such policy imperceptibly has formed one layer of knowledge boundary that separate ODC from others. As result, even though general knowledge from ODC can be hardly shared with the rest of organization as employees treat them either confidential or useless to others. As one of employees at ODC V1 mentioned “The technology that we are working on is an uncommon one and not something which the rest of the organization is into.” However, KM manager still insisted that ODC members should at least share “general knowledge.” Prior literature has suggested that the difficult transferability of knowledge [44], the tacit nature of knowledge [32, 36], and its stickiness [19] have resulted in the difficulties of managing knowledge.

More specifically, these difficulties formed barriers to transfer knowledge across organizations thereby further formed knowledge boundary. In contrast, the foregoing findings further proves that
idiosyncratic knowledge defined as confidential knowledge in this case spurs organizations on to constitute policy for protection of intellectual property. As a result, the idiosyncratic knowledge at decentralized units enlarges the knowledge gap and further forms another layer of knowledge boundary. The importance of penetrating knowledge boundary has been well-recognized in the information system realm, as one of researcher commented “Knowledge boundary is not only a critical challenge, but also a perpetual necessity because much of what organization produces has a foundation in the specialization of different kinds of knowledge” [5].

As the formation of structural boundary and knowledge boundary turns to be clearer, according to our findings, the antecedents that formed these two boundaries also have partial impact on formation of subcultural boundary, such as “differences of functionality” and “protection policy”. Those antecedents are fostered to transfer the main onus of jobs at ODC gradually away from the rest of the organization and thus subcultural boundary starts to emerge as time passes.

Phase 3: Subcultural Boundary. In our case, the subcultural boundary is recognized as the ultimate boundary that deeply inhibits the promotion of KMS initiatives at decentralized level in offshore outsourcing organizations. The antecedents of foregoing two boundaries indirectly led to the formation of subcultural boundary and are easily resolved in comparison to subcultural boundary which limits the social interactions between different “communities of practice” [50]. Previous research has identified three major subcultures that may enhance or inhibit the KMS implementation at subunit level [29, 37], which are enhancing subculture, Chameleon subculture and countercultural subculture. According to our findings, two proposed subcultures, enhancing subculture and countercultural subculture are reflected at ODC level. The majority of employees belong to the countercultural subculture which plays the vital role of bringing up subcultural boundary. As one informant commented: “such initiatives give the organization a good name in the public eye. But I am totally turned to my client organization and I am fairly doubtful if I have the time to get myself involved in KM at the organizational level.”

However, enhancing subculture can be sensed from a few employees’ cooperation at ODCs, as one senior project manager noted: “At least in my team, I do not see any resistance to the KM initiative.”

These three boundaries have been recognized as the major barriers to the transformation of organizational KMS in outsourcing organizations, each of which inhibits the KMS initiatives in different ways. In efforts to effectively disseminate transformed KMS initiatives, organizations are urged to across these boundaries through pointed mechanisms and activities that have been broadly discussed in the information system realm [20, 27, 31, 38].

5.2 Boundary Spanning Activities

The existing discourses have recognized the importance of boundary spanning across different functions at organizational level as coordination and translation among diverse group and different functional group can be achieved through boundary spanning activities [11, 42]. As reviewed in the literature section, the theoretical basis for investigating approaches of spanning boundaries is formed by boundary spanners, boundary objects and boundary spanning processes [9, 26, 31, 50].

5.2.1 Approaches Taken to Span Structural Boundary. Structural boundary has been well-recognized as the physical dispersion of organizational units that influences the rest of the organization in allocating the resources required by KMS [20]. However, our findings suggest that the structural boundary has also induced the mental dispersion by which employees at decentralized units (ODCs) feel isolated to effectively cooperate with the
promotion of KMS initiatives across organization, resulting in negative atmosphere to contribute at the decentralized units. On account of divergent goals at decentralized units, linking decentralized unit interest with superordinate interest is considered as an effective approach to diminish group bias caused against the organization [18]. Therefore, strong shared identity [21] among decentralized employees has been linked to reduce conflict, particularly interpersonal conflict that caused by structural boundary in the perspective of physical dispersion. In physically distributed teams, team members are likely to pose negative evaluation over what is currently happening at the organizational level. Strong shared identity served as an important mechanism for ameliorating conflicts and problems associated with structural boundary. As one KM manager commented in the interview: “I am putting in a lot of time and effort, trying to brand our KM initiative within the unit. I attend most of the meetings that take place in the unit and communicate to the middle lever managers the scope and reach of our KM initiative.” KM manager strives to build up strong shared identity with the decentralized units in order to get decentralized members actively participate in KMS initiatives.

As for mental dispersion at ODC, spontaneous communication that refers to informal and planned interactions occurs among team members, can be applied to form more collaboration between different units [24]. The importance of spontaneous communication has been argued by numerous scholars as an effective approach to bind the rest of the organization with the decentralized units [30]. In our case, Wipro is suggested to conduct more opportunities of spontaneous interactions between ODCs and the rest of the organization via periodically internal exchange visit. Current situation of KMS initiative promotion at Wipro relies solely on the efforts of the KM team whom the top management trusts alone. Spontaneous communication is considered as a much more effective way than instructions and duties given by the KM team. Based on concepts of boundary spanners and boundary objects [26], our case suggests that the nominated boundary spanner in this stage would be employees working at decentralized units, whereas KM managers took the role of boundary spanner in practice. In the context of boundary objects, fully implemented KMS is considered as the designated boundary object and ended up exchange visit policy took the role of boundary object in use.

5.2.2 Approaches Taken to Span Knowledge Boundary. There are two types of knowledge observed in our findings, namely: idiosyncratic and confidential knowledge, residing at the decentralized units in outsourcing organizations and acting as the first antecedent forming the knowledge boundary. Confidential knowledge refers to client private knowledge that keeps client organization competitive to outperform other competitors. Due to such privacy, outsourcing organizations are required to set up firewalls within the ODC in an attempt to retain designated client sensitive knowledge only among each ODC team. The head of KM initiative elaborated on some of the policies: “Yes we need to be careful about customer sensitive knowledge. Assume that client A and client B are competitors and that Wipro works for them as ODC A and ODC B. The Wipro teams at ODC A and ODC B are kept within their own firewalls. ODC A teams are allowed to access/contribute only to ODC A’s internal knowledge repositories and are encouraged to do so by the organization. But they are not allowed access to the ODC B’s repositories. However, both teams can access/contribute general information to KNet.”

The knowledge boundary induced by confidential knowledge is ineluctable in outsourcing organizations due to the protection of client’s privacy. However, norms of reluctance to share are gradually established due to long-time of protecting, resulting in reluctance to share even general information which might be useful to the rest. As one of members at ODC noted: “There is a strong bonding among people in our ODC. So generally, when everything’s going well in our relationship with the client organization, we are happy about everything and organizational KM is not on top of our minds.”

Evidence from the case suggests that team members at decentralized units need to actively share their idiosyncratic knowledge and tacit experiences with the rest of the organization. The reluctance of sharing at ODC level stems from lack of common behavioural norms [20] and cogitative ability to the important role of spanning knowledge boundary played on innovation in the dynamic IT industry. The knowledge boundary was spanned by developing a common language [10]. Common language exists when team members have access to the same information and share the same tools, work cultures and work processes. Therefore, in addition to shared identity set forth in spanning structural boundary, the outsourcing organizations are suggested to provide opportunities for employees at ODC level to have common context with the rest of the organization. Shared context can reduce the likelihood that
misunderstandings and divergent approaches emerge [18].

On the top of spontaneous communication identified in the structural boundary, another approach to span knowledge boundary found in our case possesses the concept of mutual learning [20, 28] by which employees at decentralized units acquire useful knowledge outside their own expertise area via KMS to create redundancy [32] with others. Mutual learning between ODCs and other business units can be facilitated through various specific systems and training courses. In efforts of facilitating mutual learning and shared context in Wipro, frequent communications between two sides are critical in diminishing the separation mindset existing in decentralized units, whereby further bridge the mental dispersion at the maximized effect. Nominated boundary spanner at this stage remains the same: employees at decentralized units. However, boundary spanner in practice turns to be middle level managers in this case. In the context of designed boundary object, repository at KMS took the role. In contrast, training courses and communications acted as the role of boundary object in use.

5.2.3 Approaches Taken to Span Subcultural Boundary. Based on previous two boundaries, subculture differences gradually formed due to sluggish elimination process undertaken by the organizations and further countercultural subcultures emerges. In bridging such boundaries, evidences from our cases suggests that bottom-up approach [7] proposed by [37] in solving countercultural subcultures did not always appear to be the most appropriate approach. Instead, we suggest two different mechanisms in an attempt to diminish the countercultural subcultures. First, building mutual trust between decentralized with the rest of the organization while promoting the KM initiatives. Our case echoes that reluctance to contribute with KM initiative to organizational level only resides in one-sided party (i.e. Decentralized units), and they are reluctant to share knowledge due to lack of trust to what they can receive from the organizational KMS and other business units.

Second, implementing legitimate power at decentralized unit is an effective measurement in commanding employees to contribute. A senior project manager at ODC unit V1 said: “What we need to overcome is the indifference, which I am able to do by articulating to my team how we could benefit from the KM initiative. Now, for people in my team KNet is a part of their everyday work, whether it is with regards to uploading documents or sharing information or re-using artifacts.” Aiming at overcoming such indifference, outsourcing organizations are advised to institutionalize policies to make contributing to organizational KMS as employees’ routine jobs on a day to day basis. In relation to boundary spanners and boundary objects, the role of nominated boundary spanner in this phase is taken by employees at ODC level but top management plays the role of boundary spanner in practice. As for boundary objects, the role of designed boundary object are taken by KMS, and institution is the boundary object in use.

6. Discussion and findings

Concluding different patterns of organizational boundary formation and spanning mechanisms across three different temporal phases, an integrated model of process of boundary formation and spanning activities in promoting KMS initiative can be inductively derived respectively (Refer to Figure 4 and Figure 5). The formation model suggests that the formation of boundaries is an evolutionary process that can be decomposed into three distinctive streams across which each formation of boundary is interrelated, i.e., the antecedents of structural boundary may also give rise to knowledge boundary and subculture boundary but not vice versa, and antecedents of knowledge boundary may also cause the subculture boundary. With the formation of three boundaries, the management level of outsourcing organizations encounters serious barriers to promote KMS initiatives at decentralized units effectively.
discussed earlier can be applied to penetrate these boundaries.

![Diagram of Boundary Spanning and Role Transformation]

**Figure 5. The Process of Boundary Spanning and Role Transformation of Boundary Spanners and Objects**

Based on our previous work on activities of boundary spanning [18, 20, 37], boundary spanners and objects [26], we have then proposed another process model that summarizes forgoing propositions to measure mechanisms and the role transformation of boundary spanners and boundary objects across different phases of boundary spanning.

According to our findings, the role of nominated boundary spanners has always been taken by employees at decentralized units across all three different phases of boundary formation as top management ideally expect employees at ODC level are able to adjust themselves with the change of structure accordingly. The role of boundary spanner-in-practice transforms over time and follows the trend of power increase, from knowledge manger to middle manager and finally reaches top management, as the curve identified in figure 5. It echoes that the need of power should be drawn close attention to outsourcing organizations as the level of difficulty to bridge boundaries increases over time so that the bridging activities carried out by the organizations ought to be powerful enough to make sure the implementation put in place effectively. Owing to the role transformation over time, the level of techniques identified as boundary objects in use increases across different phases as well, from self-acting enrollment to regulation constituted by top management. With the encapsulations of boundary objects, boundary spanners as well as boundary spanning activities as three modules over different phases, our model suggests that outsourcing organizations, with the ability and motivation to bridge boundaries at decentralized units, should adopt different module of spanning mechanisms in accordance to various boundaries.

7. Conclusion

7.1 Limitation and future research

However, this study has its limitations. Single case method adopted in this study has been considered as a “typical and legitimate endeavor” in qualitative research [25], a common criticism of the methodology is the problem of generalizability or external validity [49]. However, while it must be readily acknowledged that single case study methodology lacks of statistical generalization, we nevertheless assert that our study is valid and has its generalizability beyond a singular context as the proposed process model is not only based on an empirical study of a real world organization, but also corroborated by relevant literatures from management and IS realm. As such, our study invokes the principles of “analytic generalization” [52].

7.2 Theoretical and Practical Implications

By addressing the research questions set forth at the beginning of this study, this paper has several important theoretical contributions. First, by proposing two models of boundary formation and boundary spanning processes for promoting KMS initiatives in context of offshore outsourcing, this study fills an important gap in the literature. Recent works on boundary topics focused on how to build organization memory reconfigurations in spanning boundaries within particular domain of expertise [20, 27] and some works have proposed the role of boundary spanners and boundary objects as well as their use in practice [26, 38, 43]. However, the concepts of boundary have been rarely explored in the field of managing IT outsourcing relationship. Our contribution to this literature is made through our study of how the various boundaries are formed and bridged in the context of offshore outsourcing organizations where boundary concepts further help to realize return of IT investment in an effective and efficient manner.

The second contribution of this paper is to provide boundary spanning mechanisms for organizations who adopt decentralized IT governance
design during the implementation of IT strategy. The notion of the decentralized systems has been well understood [3, 41], however relevant issues and mechanisms when adopting decentralized IT governance were rarely addressed substantively. By relying on the concepts of boundary spanning, this paper, therefore, insightfully provides the different role of boundary spanners, objects as well as mechanisms to help organizations effectively manage the post-implementation of IT strategy, thereby addresses possible issues when decentralized IT governance design is adopted in offshore outsourcing organizations.

Third, our study has theoretical contributions to the knowledge management field as well. Current discourses on knowledge sharing primarily either focus on knowledge transfer processes [1] or explore a singular knowledge boundary [5, 22]. Our paper draws on the boundary spanning concepts to take a comprehensive and different view of issues and IT mechanisms that can be applied to offshore outsourcing organizations in promoting KMS initiatives.

In terms of practical implications, our model suggests that for an offshore outsourcing organization who adopted IT governance decentralized design has both geographic and structural differences, the organizational stakeholders must accordingly adopt different levels of legitimate power to make regulations and training courses for employees at decentralized units acquiring and contributing knowledge in other domains and areas. In addition, the organizations are suggested to attempt to resolve some of the antecedents that potentially forming the organizations are suggested to attempt to resolve the love triangle of organizations, individuals, and information technology, MIS Quarterly, (27), 2003, pp 265-287.

8. References


