STUDY ON KNOWLEDGE TRANSFER IN KNOWLEDGE PROCESS OUTSOURCING (KPO)

Weijun Wang, Department of Information Management, Huazhong Normal University, Wuhan, China, wangwj@mail.ccnu.edu.cn

Chunmei Gan, Department of Information Management, Huazhong Normal University, Wuhan, China, xchm20081986@yahoo.com.cn

Abstracts:

As a typical knowledge-intensive service, knowledge process outsourcing (KPO) has gradually recognized by society and showed a rapid development momentum. The success of KPO activities depend on effectiveness of knowledge transfer. This paper describes the concept, characteristic and content of knowledge transfer in KPO, analyzes the process of knowledge transfer; and puts forward a model of knowledge transfer in KPO from three levels: organizational-level, team-level and individual-level; finally it discusses some influence factors of knowledge transfer.

Keywords: knowledge process outsourcing; knowledge transfer; knowledge management; knowledge flow
1 INTRODUCTION

KPO (Knowledge Process Outsourcing) lies in a more advanced stage of service outsourcing, which develops from the extension to knowledge field based on ITO (Information Technology Outsourcing) and BPO (Business Process Outsourcing). Involving outsourcing of specific knowledge-intensive business processes to specialized service provider, it is an outsourcing model referring to knowledge-intensive services, which is extracted from common BPO and requires significant domain expertise and high intellectual activity, such as knowledge-based research, design, analysis, etc. As a new field, KPO has a great development potential, and shows a trend of rapid growth. Under the background of economic globalization and knowledge economy, KPO will undoubtedly play an increasingly important role.

KPO is a typical knowledge-intensive service which belongs to intellectual talent-intensive modern service industry. On one hand, KPO providers rely mainly on specific knowledge, skills and experience, and its outputs are personalized knowledge products. All these processes have been done based on knowledge, which indicates that the essence of KPO is knowledge transfer. On the other hand, KPO clients want not only to provide appropriate knowledge products, but also the transfer of their knowledge to employees so that they could reduce their dependence on the providers during the future operation and enhance their ability to control the knowledge and skills. Meanwhile, KPO providers want clients to feedback their problems and their request for products and services to improve their services quality and gradually establish and consolidate its industry position. Thus, effective knowledge transfer is very important for both KPO clients and providers. It has become the key for the success of KPO activities. But in fact, the result is not always ideal, which doesn’t achieve the desired of both, or even brings about potential risks.

Study on knowledge transfer in KPO is necessary and very crucial. So, this paper attempts to clarify questions as following: what types of knowledge should be transferred? What is the mechanism of knowledge transfer in the process? How to achieve effective knowledge transfer? What influencing factors will affect its realization?

2 CONNOTATION AND CONTENT OF KNOWLEDGE TRANSFER IN KPO

2.1 Connotation of Knowledge Transfer in KPO

As Teece put forward the concept of knowledge transfer in 1977 (Teece D 1977), many scholars have made different interpretations on knowledge transfer from different angles. Szulanski pointed out that knowledge transfer is the transfer or transmission of knowledge in different ways and different organizations or between individuals, which is a planned knowledge, is sharing (Szulanski G 1996). Davenport & Prusak proposed that knowledge transfer is the combination of knowledge communication and knowledge receptivity, receptivity of knowledge means fully understanding of information and acting according to it (Davenport & Prusak 1998). Argote & Ingram pointed out enterprise knowledge transfer is the process of an organization’s experience influencing another organization’s actions (Argote & Ingram 2000).

We put forward that knowledge transfer in KPO refers to the process of relevant knowledge shifting to one body from another body, the bodies contain KPO providers, KPO clients and their employees involved.

Knowledge transfer in KPO has characteristics as follows

(1) Complementarity. KPO clients are possible to outsourcing their business because of knowledge potential difference between KPO providers and themselves, and then knowledge transfer between
them becomes possible. For KPO clients, they lack professional teams, competence, a wealth of achievements and experiences, which is possessed by KPO providers.

(2) Customization. The knowledge products created by KPO providers integrates some specific business, skills, organizational culture and systems, which is to serve specific needs of clients and to apply to some specific organizational scenario.

(3) Interaction. Customization determines that knowledge transfer in KPO is a two-way, continuous feedback process. KPO providers and KPO clients are both knowledge providers and knowledge demanders. For KPO providers, they should be acquainted with their clients’ business process, organizational structure or culture; for clients, they should learn about how to operate the products and its application level.

2.2 Content of Knowledge Transfer in KPO

As knowledge products of KPO have a strong characteristic of intelligence and situationality, therefore in the entire process of KPO, both KPO clients and KPO providers need to constantly engage in the exchange of knowledge. For KPO providers, they must be familiar with their clients business processes, organizational structure or organizational culture, et al.; for KPO clients, they need to understand how to use the knowledge product and its application.

2.2.1 Contents transferred to KPO providers from KPO clients

KPO clients need to provide necessary knowledge resources to KPO providers when necessary, which involves the following three types of knowledge:

(1) Requirements: The key element of success of knowledge transfer is to grasp clients’ needs. Clients need to clearly express their own needs, and effectively pass it to KPO providers.

(2) Related knowledge about business process and domain expertise: these are the basis of knowledge products to be created. Integrated with specific business process, KPO providers combine abstract knowledge with specific operational situations, so that they can provide customized knowledge products.

(3) Clients’ organizational structure and its background information: these are necessities to create appropriate intellectual products. KPO providers can provide products that fulfill specific situations in the circumstances of fully understanding clients’ specific situations.

On different stages of knowledge transfer, knowledge transferred to KPO providers from clients is different. In addition, different methods are required to promote knowledge transfer due to different characteristics of these three types of knowledge.

2.2.2 Contents transferred to KPO clients from KPO providers

Knowledge products fulfilling needs of clients are knowledge resources that clients are most in need of. In the process of their creation and delivery, knowledge that may be involved of includes: product service manuals, documentation of expertise, knowledge base and other explicit knowledge; individual experience and other tacit knowledge. Provision of this knowledge will give powerful support and insurance to the successful application of knowledge products.

3 PROCESS AND MODEL OF KNOWLEDGE TRANSFER IN KPO

3.1 Process of Knowledge Transfer in KPO

Many scholars have studied on knowledge transfer process and have proposed a number of process models. Szulanski put forwards a four-stage model: initiation, implementation, ramp-up and
integration (Szulanski 2000); Gilbert & Cordey proposed another four-stage model: acquisition, communication, application and assimilation (Gilbert & Cordey 1996). This paper constructs a five-stage model of knowledge transfer in KPO (Fig. 1) based on these two models, in combination with its characteristics.

![Figure 1. Five-stage model of knowledge transfer in KPO](image)

1. **Initiation.** KPO clients are likely to consider outsourcing when they find their knowledge gap. Clients will find suitable KPO providers using their resources, and assess their reliability and credibility; then they will start the first communication with some potential KPO providers. And KPO providers will keep contact with their potential clients and assess their own ability in order to determine whether they can satisfy the clients’ needs and establish cooperation relationship with them. On the other hand, KPO providers will also choose some marketing way during this phase. Their sales person will search for potential clients, mine their requirements and potential demands, and contact with them appropriately to change them into their actual clients.

2. **Implementation.** As cooperation relationship has determined, KPO providers will identify and grasp their clients’ needs accurately and efficiently through a variety of ways and means. They will establish a dedicated project team to start their specialized research, collecting client-related knowledge systematically and integrating their own knowledge.

3. **Creation.** This stage is to achieve knowledge innovation, which is the core of knowledge transfer. KPO project team will integrate all relevant knowledge and try to achieve ramp-up of knowledge, making knowledge products meet their clients’ needs or exceed their expectations.

4. **Application.** Knowledge products generated need to be delivered to clients to reflect their value. KPO providers will delivery knowledge products on this stage, help their clients master some necessary skills, so that their clients could benefit from the knowledge products, diffuse, assimilate new knowledge and make them be part of everyday work within the organization.

5. **Feedback.** After clients use the knowledge products, they will assess them. They will find problems with the products, feedback them to appropriate stage; and KPO providers will re-consider those problems until their clients satisfy with them.

### 3.2 Model of Knowledge Transfer in KPO

As a key element of KPO, effective knowledge transfer could integrate knowledge resources, improve interaction efficiency, promote effective knowledge flows and knowledge integration and ultimately improve KPO providers’ capability of rapid response to market. This means transferring right knowledge to right people to produce right action at the right time and in right place. So, this paper presents a model of knowledge transfer in KPO (Fig. 2).

#### 3.2.1 Knowledge Transfer in Organizational-Level

This level refers to knowledge transfer activities between KPO clients and KPO providers. As shown in Figure 2, “organizational-level” describes this knowledge transfer. The knowledge interaction between clients and KPO providers depends on arise of business process needs. Clients find knowledge gaps leading to some unfinished business, thus generate outsourcing demands. Clients need to transfer their objectives with business-related knowledge to KPO providers. KPO providers will produce some specific products and transfer them to clients, using their resources and capacity advantages. Clients will apply them in some specific business scenarios.
3.2.2 Knowledge Transfer in Team-Level

This level refers to knowledge transfer activities between team members of KPO providers or KPO clients. Their team has a specific objective, which is consist of knowledge workers of different roles, such as decision-makers, implementers and so on. Different knowledge workers have unique knowledge resources and also need other types of knowledge. This is the basis and premise of knowledge transfer occurring in the team level. Moreover, this involves collective knowledge, such as the convention, atmosphere and knowledge bade formed in the team. They need to interact to jointly accomplish specific business goals, and then form knowledge flows, as shown in Figure 2, “team-level”.

3.2.3 Knowledge Transfer in Individual-Level

This level refers to knowledge absorption and innovation of individuals within the team. Individual is the basic element of a team, so it is the key point of knowledge creation. According to SECI model, knowledge flow in individual-level mainly depends on four stages to achieve knowledge innovation: Socialization-Externalization-Combination-Internalization (Fig.2, individual-level). Individuals exchange and communicate constantly with each other, transfer their own knowledge to others and achieve socialization of their own tacit knowledge; form explicit knowledge that could be used with excavation of team members’ tacit knowledge, and achieve externalization of knowledge; then integrate scattered individual knowledge and create new knowledge through continued spread, utilization and sharing of those knowledge, and achieve transformation of knowledge; after integration of knowledge, individuals combine with their own knowledge to create new knowledge and update their own knowledge base, and achieve internalization of knowledge(Zhang Cuiying & Yang Zhixia 2008). Individuals need to update their knowledge at any time according to changes in various stages in the process of knowledge flow. For KPO providers, effective individuals’ knowledge flow could contribute to generate knowledge products more quickly; for KPO clients, it could help better application of knowledge products.

3.2.4 The relationship between the three levels

From the above analysis, we can see that knowledge transfer between individual-level, team-level and organizational-level is inter-related and interdependent. Effective knowledge transfer in individual-level could accelerate knowledge using and sharing between individuals in team-level, and effective knowledge transfer in both individual-level and team-level could promote knowledge transfer in organizational-level, manifests in responding to clients’ business needs quickly and providing...
appropriate knowledge products timely. In addition, the goal of knowledge transfer in individual-level and team-level is for knowledge transfer in organizational-level, namely client-oriented business needs and achieve personalized knowledge products for clients.

4 INFLUENCE FACTORS OF KNOWLEDGE TRANSFER IN KPO

Knowledge transfer in KPO is a multi-dimensional process: at the conceptual level, knowledge transfer is a cognitive process; at the management level, knowledge transfer is an interactive process; at the economic level, knowledge transfer is a process of resource transactions (Gong Yi & Xie En 2005). Under different dimensions of knowledge transfer, there are different influence factors (Fig. 3). From the cognitive process, characteristics of knowledge and specific situations (such as relationship between distance, cultural differences, et al.) will affect knowledge transfer; from the interaction process, characteristic of KPO providers and clients, channels of transfer will affect knowledge transfer; from the trading process, price of outsourcing services will affect knowledge transfer.

Figure 3. Influence factors of knowledge transfer in KPO

4.1 Characteristics of knowledge

The characteristic of knowledge transferred is key elements which impact knowledge transfer, and has long been focus of research. It affects whether or not knowledge is easy to be transplanted, understood and absorbed. It mainly includes implicit, complexity, specificity and usefulness of knowledge. Different characteristics of knowledge determine the ease and effectiveness absorbed and utilized by bodies in the transfer process. Normally, knowledge with high degree of hidden, large complexity, stronger specificity, and great value is more difficult to transfer.

The process of KPO always accompanies by exchange and sharing of knowledge between KPO providers and clients. It includes organization's explicit and tacit knowledge, and individual’s. Explicit knowledge is easy to encode and store, which can express through language and text, such as project brochures, business processes, professional terminology, et al; tacit knowledge is difficult to code and mining, which has individual characteristics, such as individual professional skills, project experience, and organizational culture and so on.

4.2 Characteristics of KPO providers and KPO clients

KPO providers and clients have different roles in different stages in the KPO activities. As a knowledge sender or knowledge receiver, characteristics of clients and KPO providers affect quality and quantity of knowledge transfer.

For KPO clients, clients are knowledge sender of business process knowledge, business expertise knowledge and organizational culture, and are receiver of KPO knowledge products. As a knowledge sender, clients need capability to articulate and deliver knowledge which will have a direct impact on the quality of knowledge transfer; and their motivation and communication ability with KPO providers will affect quantity and quality of knowledge transfer. As a receiver of knowledge, clients’ absorptive capacity, maintain capacity and usage capacity on knowledge will have important effects
on knowledge transfer. Capacity of knowledge absorption refers to the clients' understanding, acceptance and digestion of knowledge products; Capacity of knowledge retention is storage knowledge within the organization by some certain way; Capacity of knowledge Utilization refers to explicative knowledge products, translate it into practical productive and improve enterprise efficiency. Only when the transferred knowledge is well absorbed and preserved by clients, usage and innovation of knowledge is possible.

By contrast, for KPO providers, KPO providers also take roles of knowledge receiver and knowledge sender. As a receiver of knowledge, learning ability of project team and individual, knowledge internalization capability will directly affect whether they can well understand the needs of users and specific background. As a knowledge sender, knowledge source of KPO providers is project team to provide professional services, individual and existing knowledge base and so on. Capability of knowledge innovation, knowledge socialization will affect quality of knowledge transfer; incentives of knowledge transfer, capability of knowledge externalization and communication skills will affect quantity and quality of knowledge transfer; What is more, due to characteristics of KPO activities, sometimes KPO providers need to assign employees to client organization to carry out collaborative work, namely "staff" transfers. Thus, knowledge, expertise and project experience of employees will also be knowledge sources, and subjective intent, inspired extent will directly affect results of knowledge transfer.

4.3 Specific Scenarios of KPO providers and KPO Clients

Scenario is what Nonaka Ikuijiro & Noboru Konno has proposed, the concept of BA (Nonaka & Noboru 1998). Scholars emphasize that location distance, cultural distance, institutional distance and knowledge distance in the BA will influence knowledge transfer processes from sociology and anthropology (Ma Feicheng & Wang Xiaoguang 2006). The specific scenario between KPO providers and clients includes cultural distance, knowledge distance and relationship distance.

(1) Different organizational culture are often different, so knowledge transfer between different organizations generally exists cultural distance. Cultural distance refers to differences in cultural background, language background and cognitive patterns. The smaller the differences, the smaller cultural distance, and the easier knowledge transfer.

(2) Knowledge distance refers to similarity of knowledge structure, cognitive ability and thinking ability. When knowledge bases of knowledge receiver and knowledge sender have appropriate overlap, knowledge transfer will be more effective.

(3) Relationship distance refers to tightness of relationship between KPO providers and clients. Relationship of outsourcing will be divided into three types: market relationship, intermediate relationship and partnership, according to asset specificity, uncertainty and transaction frequency (Robert & Wendell 2003). Different relationship will affect efficiency of knowledge transfer. Market relationship has the worst efficiency; knowledge interaction between them is the least. Partnership has the best efficiency; knowledge interaction between them is the most.

4.4 Transfer Channels

Choice of knowledge transfer channels will also affect effectiveness of knowledge transfer. It depends on characteristics of knowledge and tasks, transfer scenario. For example, explicit knowledge can be available through formal channels (FTP, knowledge base, email, et al.), tacit knowledge can be available through informal channels (face to face communication, real-time communication tools); For important tasks, KPO providers need more informal communications with clients; for partnership clients, KPO providers can assign some dedicated staff to service for them, or even let their staff work with the clients in their company for long-term follow-up services. Select an appropriate and effective transfer channel is necessary for knowledge transfer.
4.5 Price of KPO outsourcing Service

It cannot be neglected that price of KPO outsourcing services also affects knowledge transfer (Chen Fang 2007). KPO providers will spend much human capital in the creation of knowledge products, so they must consider cost-efficiency, and this will affect the degree of knowledge transfer to some extent. On the other hand, clients will spend some money on different levels of knowledge services and knowledge products.

5 CONCLUSION

As a typical knowledge-intensive service, KPO is increasingly obtained attention of government, business and academic. Efficient knowledge transfer is the key to ensure effective KPO activities. This paper attempts to explore some related issues about knowledge transfer in KPO, which describes connotation and content of knowledge transfer, analyzes its process and proposes a knowledge transfer model, then discusses its influence factors. However, this paper has only done a preliminary theoretical study. The models mentioned in the paper, are to be further verification and amendment. What is more, as an emerging field, knowledge transfer activities in KPO are bound to face more new challenges. How to solve these problems needs further in-depth study and more scholars to participate in.

Acknowledgement

The authors gratefully acknowledges the financially support of the Program for New Century Excellent Talents in University(NCET-07-0351), self-determined research funds of CCNU from the colleges’ basic research and operation of MOE (No.CCNU09B02003).

Reference