Study on the Influence Mechanism of Social Capital to Informal Knowledge Transfer among Individuals

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Abstract—Informal knowledge transfer among individuals is a crucial section of organization knowledge management. Informal knowledge transfer among individuals exists in the social relationships. After summarizing the theories of knowledge management, this paper proposed that knowledge transfer opportunities, motives and capacity are the decisive influential factors to informal knowledge transfer among individuals. Based on the theoretical perspective of social capital, and integrating the essential ideology of social network theory, this paper constructed a theoretical model to make a study about the influence mechanisms of social capital to informal knowledge transfer among individuals, and elaborated separately that how to improve effectively informal knowledge transfer among individuals to enhance organization performance from the three dimensions of social capital.

Index Terms—social capital; knowledge transfer; informal knowledge; informal knowledge transfer among individuals; organization performance

I. INTRODUCTION

After Teece proposed the ideology of knowledge transfer in 1977, in a large number of literatures, many scholars emphasized the importance of knowledge transfer. Kogut and Zander(1992) hold that the capability of organizations to transfer knowledge is the crucial reason of organizations existing. Drucker(1999) also printed out that capability of modern enterprises to develop, cultivate and maintain the competitive advantages depends on the capability of enterprises to create, transfer and apply knowledge. In the research about information flow in the R&D lab, Allen found that 40% of the concept and potential solutions considered come from individual contact with the outside world in R&D projects[1]. When Tsai & Ghoshal did research on an large-scale electronic corporation, they found that the correlation coefficient between knowledge resource exchange of cross-team’s individuals and enterprise product innovation reached 0.146(p<0.15)[2]. Therefore, informal knowledge transfer among individuals has a crucial significance on knowledge flow of cross-organization and cross-team, improvement of individual efficiency, and promotion of organizational technical innovation.

However, about knowledge transfer, on the one hand, owing to conflict between individual and collective rationality, a typical characteristic of knowledge transfer is that it has good for knowledge’s recipients while it has bad for knowledge’s providers[3]. So knowledge providers are often lack of the willingness to share knowledge with others. On the other hand, the intangible nature of knowledge leads to that knowledge is hard to be observed by the third-party except knowledge transfers. People often can not know who owns knowledge they need. Furthermore, the economic incentive mechanisms of promoting knowledge transfer cause that the staffs will lean to transfer explicit knowledge and reduce knowledge transfer behavior in informal occasions, which brings the issue of incentive distortion. Thus informal knowledge transfer among individuals can not be inspired directly by the economic mechanisms. Knowledge transfer of informal channels often depends on social interaction of individuals, so it is more reasonable to explain knowledge transfer research from the perspective of social capital than others. Except some literatures, the prior research about informal knowledge transfer among individuals has some shortage in China: (1) Scholars do not explicitly focus informal knowledge transfer on individual level. (2) Most of research does not concern with the factor of social relationships among individuals. (3) Management issues about people do not become a focus.

So, based on social capital theory and knowledge transfer theory, we proposed a theoretical model about the influence mechanisms of social capital to informal knowledge transfer among individuals and elaborated separately that how to improve effectively informal knowledge transfer among individuals to enhance organization performance from the three dimensions of social capital.

II. THE INFLUENCE FACTORS OF INFORMAL KNOWLEDGE TRANSFER AMONG INDIVIDUALS

About the informal knowledge transfer among individuals, there is no a clear definition, generally it is regarded as the private knowledge assistance. Allen hold that distinguishing of knowledge transfer among individuals between informal and formal occasions is the pure private nature, which is independent of organization structure, policies and formal cooperation. By the study on the staffs of R&D who have common interest, Hippel(1987) found that the informal network is the
principal channel of an individual to access to knowledge. From the perspective of social capital, we defined the informal knowledge transfer among individuals as the behavior of regulating knowledge transfer by private relationship rather than the organizational system.

A complete knowledge transfer behavior consists of knowledge providers, knowledge recipients, a channel of knowledge transfer, etc. Nonaka et al. had separately studied the informal knowledge transfer among individuals. At the same time, Tsai & Ghoshal et al. studied the informal knowledge transfer among individuals from different perspectives. By inducing these theories and literatures, we can know that knowledge transfer opportunities, motives and capacity are the decisive influence factors.

A. Knowledge transfer opportunities

Knowledge transfer opportunities mainly contain difficulty degree of knowledge search and richness of channels, which provides the possibility of knowledge transfer among individuals and is the precondition of knowledge transfer. The close ties among individuals can shorten psychological distance of each other, and then be good for each other to searching needed knowledge fast and accurately. Generally, an individual located in the center of social relation network has more channels and is easier to searching knowledge, which means more knowledge transfer opportunities.

B. Knowledge transfer motives

Knowledge transfer motives contain transfer willingness and reputation interests.

1) Transfer willingness

Knowledge transfer willingness is the willingness of an individual to transfer his or her knowledge to others. Partly, owning particular knowledge means owning a certain kind of power. When an individual owns knowledge needed by others, he or she owns the high status in the organization or group, which causes that knowledge providers are concerned with the loss of their own specific value. When they might incline to not to transfer knowledge. Guisheng Wu(2001) thought that the degree of knowledge transfer willingness directly influence the quantity and quality of knowledge transfer. The weaker of knowledge transfer willingness, the less knowledge transfer motives.

2) Reputation interests

Individual reputation interests are that an individual builds up personal reputation by transferring knowledge, and anticipates getting some interests from personal reputation. When transferring knowledge, providers do not only enhance recipients’ capability of solving problems but also obtain admiration from others. An individual gets more reputation interests from the process of knowledge transfer, and then an individual has the stronger knowledge transfer motives.

C. Knowledge transfer capacity

Knowledge transfer ability is mainly about knowledge absorptive ability and imparting ability.

1) Absorptive capacity

Absorptive capacity means personal ability to distinguish knowledge value, get external information, digest and then make use of knowledge. Individual knowledge absorptive capacity was thought that it relates to cognitive ability formed by individual knowledge accumulation before and knowledge distance with knowledge providers. Szulanski found that personal absorptive capacity has an important impact on the best practice transfer among organization[5], which shows that individual knowledge absorptive capacity relates to knowledge transfer performance and the higher absorptive capacity has better for promoting knowledge transfer performance.

2) Imparting capacity

Imparting capacity is that whether knowledge providers can appropriately express knowledge, and then promote knowledge recipients’ study and absorption by various ways. This concept focuses on that imparting capacity is an ability of an individual to transfer and express knowledge, and how to carry out effective knowledge transfer. So the knowledge providers must not only own particular professional knowledge skills but also transfer knowledge in the way that receivers can easily understand and absorb.

III. The study on the influence mechanisms of social capital to informal knowledge transfer among individuals

A. The theory of social capital

Social capital is assets of social structure resources owned by an individual[10], consists of the elements which constitute social structure and exists in social communities and social relationships. The bigger scale and heterogeneity of social network an individual owns, the more abundant social capital he or she has. Then an individual can have the stronger ability of getting resources.

Nahapiet & Ghoshal[2] divided social capital into social structural dimension, social relational dimension and social cognitive dimension and built a clear research framework when they did a study on how social capital promotes the establishment of intellectual capital. Although scholars has different views on social capital’s components, by summarizing prior research, we can know that the three dimensions of social capital proposed by Nahapiet & Ghoshal can almost cover all the research results of scholars. Table 1 summarizes the components of social capital.

B. The influence of structural dimension of social capital to knowledge transfer opportunities

The structural dimension of social capital relates to the connection circumstances of individuals and the integral structural pattern in social network. Because structural dimension of social capital is an invisible and abstract
concept, we can not measure it directly, so we should make it specific and detailed. According to the method of social network analysis, this paper divided the structural dimension of social capital into three variables: tie strength, network density and network centrality.

Tie strength describes association frequency of individuals in social network. The stronger private relation is good for forming trust, which can help an individual to know who own relational knowledge and lower the difficulties of knowledge search. The higher association strength and network density can increase contact opportunities and promote understanding among individuals, enhance integral knowledge transfer quantity, and then improve probability of knowledge transfer among individuals. Network centrality means the position of an individual in social relational network. An individual owns more connections than others, and locates in the centre of network, so he or she can be easier to get various knowledge or information from a lot of channels, and then increase knowledge transfer opportunities.

C. The influence of relational dimension of social capital to knowledge transfer motives

Relational dimension of social capital is about assets built up by relationships among individuals. As the most important part of relational dimension of social capital, trust always is paid attention by scholars. So, this paper considers trust of individuals of informal network as index of relational dimension of social capital.

When an organization is full of trust, an individual is willing to provide others useful knowledge[11]. Trust makes knowledge providers believe that knowledge recipients will take the same way to makes up them. Due to anticipation of payback, people have interest motives of getting payback by knowledge transfer behavior to establish good reputation. In a word, private trust is good for an individual to form strong knowledge transfer motives, which contains transfer willingness and reputation interests, and can promote knowledge transfer motives.

D. The influence of cognitive dimension of social capital to knowledge transfer capacity

Cognitive dimension of social capital is about common code and language, common narrative, common value ideology and expectation, etc. Because the channels of knowledge transfer are informal network, individuals’ relationships do not belong to an organization or a team. So, this paper focuses on the knowledge distance of cognitive dimension of social capital.

Knowledge distance is about similar level of knowledge providers and knowledge recipients. Cohen and Levinthal(1990) proposed the concept of absorptive capacity, which reveals that knowledge foundation of individuals determines the capacity of absorbing external knowledge. Individuals’ cognitive ability and knowledge distance are crucial factors of influencing knowledge imparting capacity. Knowledge distance is smaller among individuals, which means that knowledge transfer capacity (knowledge absorptive and imparting capacity) is stronger in informal knowledge transfer.

E. The research model on the influence mechanisms of social capital to informal knowledge transfer among individuals

Structural dimension, relational dimension and cognitive dimension of social capital, respectively, through the intermediate variable: opportunities, motives, capacity of knowledge transfer, have an indirect influence on informal knowledge transfer performance among individuals. Individuals who have strong knowledge transfer motives, a lot of knowledge transfer opportunities and strong knowledge transfer capacity can generate better effect of knowledge transfer performance.

Based on the above theory analysis, this paper proposed an overall research model on the influence mechanisms of social capital to the informal knowledge transfer among individuals (Figure 1).

Figure 1. The research model on the influence mechanism of social capital to the informal knowledge transfer among individuals

IV. THE IMPLICATIONS OF PROMOTING INFORMAL KNOWLEDGE TRANSFER AMONG INDIVIDUALS
Structural dimension, relational dimension and cognitive dimension of social capital, respectively, through the intermediate variable: opportunities, motives, ability of knowledge transfer, have an indirect influence on informal knowledge transfer performance among individuals. According to this idea, we elaborated three main implications of promoting informal knowledge transfer among individuals, which provided some useful guidance for an organization to enhance organization performance.

A. Construct a close relation network

Close relation among individuals can strengthen the links, promote each other’s feelings and provide more knowledge transfer opportunities. An organization needs to provide some necessary space for informal communication among individuals, such as opening some specialized lounges and cafés, to create an open office environment for staffs and let staffs have a chat place and communicate smoothly at any spare time. “Conservation room” does not hold any formal meetings and is designed for occasionally encountered people to chat arbitrarily [12].

B. Build a trustful organizational culture

In order to improve informal knowledge transfer performance among individuals, an organization must let staffs have knowledge transfer motives firstly. The key of formation of knowledge transfer motives depends on the trust degree of individuals, so an organization needs to strengthen communication of staffs, enhance feelings of staffs and promote trust among staffs. Through promotion of mutual recognition level, interpersonal trust can weak mutual expectation of income and cost of knowledge transfer and then improve mutual knowledge transfer motives [13]. In order to cultivate trust feeling among individuals, 3M encourages staffs to break project teams to communicate with others. 3M does not limit in formal organization communication, and provides a certain private activities conditions for staffs to communicate.

C. Enhance knowledge transfer ability of staffs

In order to enhance knowledge transfer capacity, first, an organization needs to increase training investment. Invite experienced staffs to impart their knowledge and experience to other employees, especially for cross-team members, which will promote the spread of knowledge in an organization. Second, an organization should develop effective learning methods, systematic learning model, and encourages staff to apply new knowledge by exchanging and cooperation. Third, an organization should construct learning organization, building learning corporation culture to promote knowledge transfer. An organization should encourage members to take part in knowledge communities and combine knowledge acquisition, sharing, diffusion, integration and innovation [14]. Encourage members to build professional associations in accordance with their interests, hobbies, which known as the “practice of community” [15] in foreign countries can increase the stock of knowledge, and improve staff quality of transferring knowledge. In short, an organization needs to improve knowledge transfer capacity.

V. CONCLUSIONS AND LIMITATIONS

Our study showed social capital has a crucial impact on the informal knowledge transfer among individuals. Compared with prior research of knowledge transfer, this study focused on the individual level, informal knowledge transfer and social relationships. Our research put more emphasis on the management of aiming at people, which is hotspot of knowledge management research and future research trend. We did not consider the potential cross-impact between social capital dimensions and knowledge transfer elements. This makes our research have some limitations.

REFERENCES