The Dynamic Process of Outsourcing Network Construction : Based on Social Exchange Theory

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The Dynamic Process of Outsourcing Network Construction

—Based on Social Exchange Theory

Chao Xu[†]

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1 Introduction

IT outsourcing has undergone a vigorous grow throughout the whole world in the last decades. According to the Gartner's report, the global IT outsourcing revenue reached at the value of US$246.6 billion in 2011 in total, a 7.8% increase comparing with the revenue of US$228.7 billion in 2010. It is in no doubt that the IT outsourcing industry will maintain this robust growth in the following years. In current paper, client refers to the outsourcing firm in the foreign countries, such as the United States, Japan and so on. While provider means the specialized supplier firm that executes business on behalf of the former, at present the providers in India and China dominate the global outsourcing market in a large extant. Standing in the perspective of China's providers is one of characteristics of this article. Each provider should endeavor to hold the chance to compete for a share of this large cake.

In spite of the steady rise of the global market, the providers, especially those in China, also face a lot of severe challenges which make them stay in disadvantageous position. Compared the providers in India, providers in China could not be mentioned in the same breath in many ways, such as scale, capability and so on. This research will explore how to retain and maintain providers' competency via the analysis of inter-organizational relationship in the outsourcing activity.

Kodak's initial outsourcing decision could be considered as the groundbreaking work of the IT outsourcing history(Loh and Venkatraman, 1992). From then on, researches on outsourcing issues have shifted from one to another as time goes by, inter-organizational relationship between providers and clients has absorbed much attention recently. Contract and partnership, which

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represent the formal and informal connections respectively, could be seen as the major coordination method between clients and providers (Lee et al., 2003). Actually, the provider always deals with clients via contract or relation.

There are substantial literatures to research the coordination patterns between clients and providers. Their contribution merely places emphasis on the bilateral relationship, contract link or relation tie (Han et al., 2008), no one had ever conducted the research regard to the inter-organizational relationship between one provider with its clients, completely standing in the perspective of provider. Thus, this paper has two purposes, 1 integrate inter-organizational theory, network theory to build the dynamic model of outsourcing networks of the provider's which could sketch out the coordination condition between one provider with its clients, 2 the prior literatures stress more about the effects either provider or client's internal capability on the mutual relationship (De Vita et al., 2010; Lahiri and Kedia, 2009; Palvia et al., 2010), this article distinguishes itself with those because the effects of some external social mechanisms will be adopted on the construction of outsourcing networks where the provider maintain relationship with clients. Compared with previous works concentrating merely on the static provider-client relationship, this article mentions more the dynamic construction of outsourcing networks.

This research starts to outline the previous work and detail the research content, the definition of outsourcing network and was derived from the coordination theory and network theory by combing characteristics of outsourcing industry. Then network theory and social exchange theory are introduced to design the theoretical framework on the establishment of outsourcing network through dynamic evolution, which is explored and proved in terms of case study concerning Chinese provider, Insigma and American client State Street Corporation(SSC).

2 Theoretical background and research model

2.1 Literature review on inter-organizational coordination

So far, contract and relation are generally acknowledged as the main inter-organizational patterns in outsourcing relationship coordination. The outsourcing inter-organizational coordination and control pattern will be dominated by certain one, contract or relation, in different stages.

Barthélemy, (2003b) proposed that a poor contact could be regarded as one of seven "deadly sins" leading most failed outsourcing efforts. The significance of contract in the outsourcing activity has been advocated by a lot of previous studies and the management of contract often is deemed as the vital component of both provider's and client's capability (Feeny and Willcocks, 1998; Shi et al., 2005). Particularly in the initial period of outsourcing activity, contract is inevitable for both providers and clients, because lacking of sufficient understanding drives them to rely more on the formal contract. Currie and Willcocks, (1998) emphasized that clients should possess suitable contract management ability before obtaining and retaining relationship. To sum up, contract coordination always is relied in the earlier stage of the business cooperation, neither providers nor clients could skip this critical control and coordination mechanism regardless of its capability or reputation. In spite of this, the characteristics of contract, its stiffness clauses and lack of flexibility, are not favorable either for clients or for providers, because both sides require stable, long-term, reliable partners to conduct continuous transactions.

Scholars has mentioned more about this tendency of relation coordination and arrangement in the inter-organizational research, although sometimes different terms, including partnership (Klepper, 1995), alliance (Willcocks and Choi, 1995), relational governance (Lacity et al., 2009), were employed in the previous studies. Social theories, social exchange theory and social capital theory etc, were applied frequently to research the management of inter-organizational arrangement. The determinants and attributes of partnership is dominance stream of this research (Henderson, 1990; Kedia and Lahiri, 2007). It has been confirmed by a lot of studied that relation coordination, particularly partnership has a positive effect on the outsourcing success (Gonzalez et al., 2006; Lahiri et al., 2012; Lee, 2001). As stated by Barthélemy, (2003a), relation is becoming more and more important after the leading role of contracts in the preliminary stage. Thus, considering the significant long-term effects of relation in maintaining and arranging outsourcing activity, providers and clients are encouraged to develop this relation coordination by means of their mutual endeavors. Basically, the inter-organizational relationship and coordination mechanism will shift to relation oriented by means of repeated transactions between them.

It is probable to make a distinction towards the inter-organizational relationship, especially when confronted with specific provider and client. Table 1 gives us a general illustration about the differences between two types of coordination patterns from some typical properties.

As shown in the table 1, comparing contract with relation, there are evident distinctions referring to time-scale, legal enforcement, restriction mechanism, stage, psychology and behavior. Apparently this comparison is not likely to cover all the corners where contract and relation display remarkable differences.

When we combine and integrate these two coordination patterns: contract and relation, two problems are necessary to be settled down. The first is the relationship between them. A general notion about this topic is that it exists a complementary relationship between these two (Goo et al., 2009; Poppo and Zenger, 2002; Qi and Chau, 2012), contract lays a foundation for the latter while relation could make up for the deficiency of contract in flexibility. Therefore, outsourcing inter-organizational relationship should depend on the joint contribution of both contract and relation, and both of them should work at the same time. Barthélemy, (2003a) contended that contract refers to the hard side of outsourcing management, while relationship

Table 1: Typical properties of contract and relation in the outsourcing networks

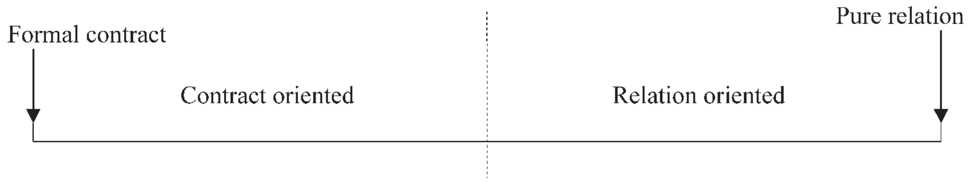
		Contract	Relation
Typical properties	Time-scale	Short-term	Long-term
	Types	Market	Partnership, joint ventures. etc
	Legal enforcement	High	Low
	Restriction mechanism	Laws and norms	Ethics
	Stage	Earlier stage	Later stage
	Psychology	Low trust Low commitment	High trust High commitment
	Behavior	Less shared knowledge Less mutual dependency Loose organizational link	More Shared knowledge More Mutual dependency Tight organizational link

Source: Edited by author

refers to the soft side. The second one is that which one should dominate the inter-organizational coordination in different stages. In order to illustrate the differences and mutual relationship between these two coordination patterns, contract oriented coordination(COC) and relation oriented coordination(ROC) are employed to describe contract and relation respectively. COC refers to the coordination pattern between provider and client is mainly through formal, explicit and normative contract, while ROC is defined as the coordination pattern is dominated by informal cooperation, interpersonal relation in terms of sociological contents, such as trust, commitment and satisfaction so on. In fact, any outsourcing inter-organizational relationship and arrangement is located along the spectrum of relationships between two extremes, formal contract and pure relation (Willcocks and Chong, 1994; Clark et al, 1995). The spectrum of inter-organizational relationship from formal contract to pure relation is presented in figure 1. Any inter-organizational coordination method, COC or ROC in particular period, could be represented by one certain point in this spectrum.

And then the exchange and transaction between client and provider in essence is interaction process rather than static state or some results, inter-organizational coordination pattern in the spectrum is likely to move or evolve from left to right, from contract based to relation based. In fact, standing at the dynamic point to research the change and evolution of inter-organizational relationship will distinguish this work with other prior research. It is accepted that this evolution from contract based to relation based definitely is beneficial for the transaction between provider and client in consideration of the occurrence sequence and its numerous superiorities in the perspectives of psychology and behavior. Unless the provider strives to develop the coordination method into relation based, provider without relational capital possesses no competitive advantage comparing with other rivals in the common market. This notion is in accordance with the analysis (Dyer and Singh, 1998) towards inter-organizational coordination, competitive advantage in alliance is generated when they move the relationship away from the attributes of market. Indeed, there are certain mechanisms to enable inter-organizational relationship to evolve from contract oriented to relation oriented, and in the following context, some social mechanisms will be discussed about their effects in facilitating this evolution.

Fig 1: The spectrum of inter-organizational relationship



Source: Edited by author

2.2 Network theory

The research regarding on network theory could date back to the contribution of sociologists' on social network (Burt, 1976; Emerson, 1976a; Granovetter, 1976), that merely stresses the existence of social exchange or interpersonal relation in such network structure. Gradually, both sociologists and economists found that the market and hierarchy proposed by institutional economics could not work effectively in analyzing the phenomenon of inter-organizational cooperation (Granovetter, 1985; Richardson, 1972; W, 1990). Toward this problem, the explanation from the sociology, that economic behavior is embedded with social relations (Granovetter, 1985), seems to be more acceptable.

What cause the networks coordination emerge and thrive in the inter-organizational relationship? Jones et al., (1997) settled down this problem from the transaction cost theory in four conditions: (1) demand uncertainty with stable supply, (2) customized exchanges high in human asset specificity, (3) complex tasks under time pressure, and (4) frequent exchanges among parties comprising the network. Differ from this, Jarillo, (1988) standing at the point of the value creation, indicated that the more opportunity existing in value creation between two organizations, the more possible the formation of strategic networks. However, from the sociology the appearance of networks is inevitable in economic behaviors and economic organizations, because interpersonal relationship is always accompanying and mixing up with the economic exchange. Besides that, networks as well have significant strategic and economic implications for the inter-organizational relationship as stated by Table 2.

Even though the networks themselves could benefit inter-organizational transactions from the upper multiple levels, it also faces exceedingly sever challenge how to sustain and maintain the

Table 2: The advantages of network (Gulati et al., 2000; Jarillo, 1988; Larson, 1991; Podolny and Page, 1998; Uzzi, 1996)

Strategic benefits	Economic benefits
● Access to other's information and resource ● Share risks with other members ● Enable the organization specialize on its own core business ● Organization learning ● The location in networks ● Long-term exchange relationship	● Lower the transaction costs and other costs ● Improve the efficiency and productivity for members

Source: Edited by author

duration of networks and how to solve the conflicts of organizations in the networks. It is no doubt that mutual trust is as great importance for coordination and cooperation between each side (Gulati et al., 2000; Jarillo, 1988).

So far, there is not a very consistent definition towards the networks from different scholars, even the terms employed for the related research can not come to a consensus. Table 3 just gives a general review of terms and definitions on networks, The network in this paper is defined as a set of informal, long-term collaboration with others members (N＞2) which facilitates the flow of resources and value creation based on mutual trust and commitment socially.

Unlike other definitions attaching less importance on the members in network, It must be highlighted here the members in the networks should be at least three individuals or organizations. Network is engaged on the flow, pooling, reuse the resources from others so as to realize focal organization's objectives of value creation, risks sharing and other strategic or non-strategic purposes. Combining the notions of Gulati et al., (2000) from the structure, network itself and three types of its relational characteristics: networks structure, network membership, and tie modality all are important resources for focal firm to utilize.

2.2.1 Outsourcing network

As for the outsourcing industry, each provider as the focal firm also has its own networks, outsourcing network refer to the long-term, social collaboration of the focal provider with its clients in the procedure of value creation. With regard to the focal provider located in the centre of networks, the emphasis of outsourcing network not only could get access to the strategic or economic intentions, but also have the most immediate, direct positive effects on undertaking the orders continuously from the connecting clients within the networks. When it comes to the characteristics or properties about networks, Dubini and Aldrich, (1991) once adopted density, reachability and brokers, these three terms to explain the networks. Gulati et al., (2000) consid-

Table 3: Review of terms and definitions on networks

Authors	Terms	Definition
(Granovetter, 1976)	Interorganizational networks	Organizations are imbedded in the social structure.
(Powell, 1990)	Network forms of organization	Lateral or horizontal patterns of exchange, independent flows of resources, reciprocal lines of communication.
(Miles and Snow, 1992)	Network organization	Cluster of firm or specialized units coordinated by market mechanism.
(Jones et al., 1997)	Network governance	A select, persistent, and structured set of autonomous firms engaged in creating products or services
(Podolny and Page, 1998)	Network forms of organization	Any collection of actors (N＞2) that pursue repeated, enduring exchange relations with one another and, lack a legitimate organizational authority to arbitrate and resolve disputes
(Gulati et al., 2000)	Strategic network	A firm's set of relationships, both horizontal and vertical, with other organization.

Source: Edited by author

ered network structure, network membership, and tie modality as the characteristics of network from the industry level. In order to illustrate the networks' properties from the structural level, this article identifies two compositions, relation oriented ties and nodes, are beneficial for the comprehending the implications of outsourcing network.

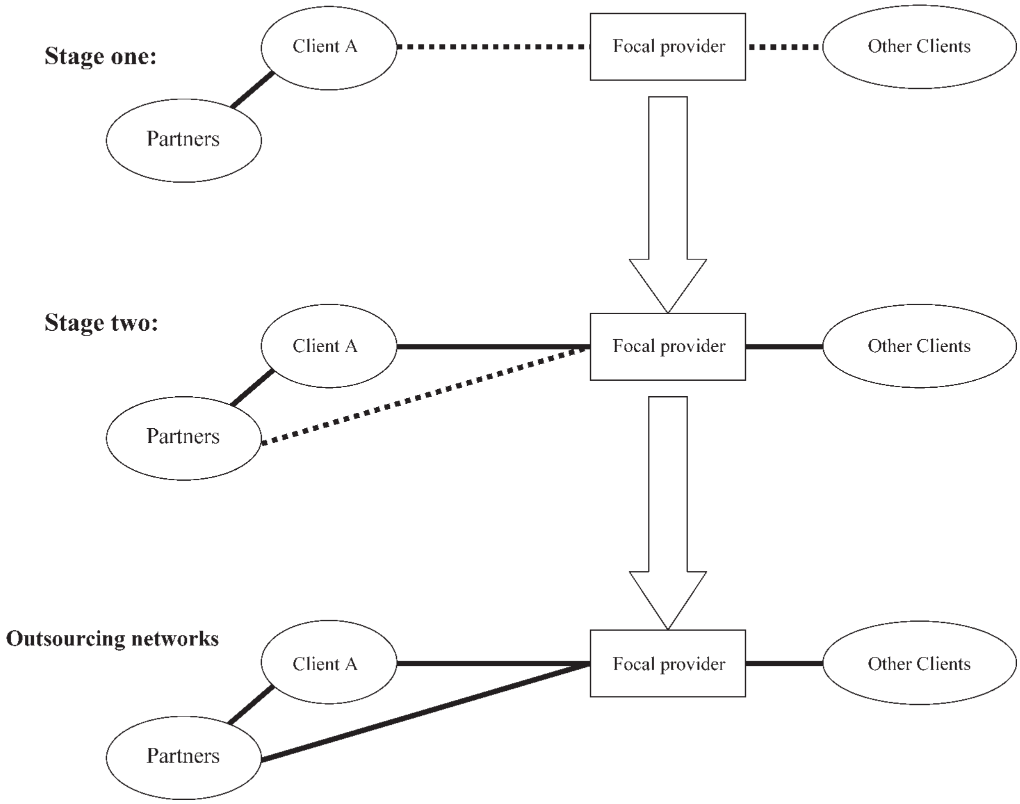
In the level of outsourcing networks, relation oriented coordination tie as one inimitable resource itself portrays the role to connect the focal provider with its clients from aspect of social relationship. The relation oriented coordination tie in outsourcing network itself has specific properties as the strength of ties. Apparently, differing from Granovetter's, (1973) favor for weak ties in obtaining new information efficiently rather than strong ties, strong ties in outsourcing networks are not worse than weak ties for the provider getting access to the orders and realizing mutual value creation. Moreover, the density of ties influences significantly profitability of firms forming the inter-organizational networks (Baker and Faulkner, 1993; Dubini and Aldrich, 1991).

Nodes involve the members connected by ties namely in networks, which consist of the focal provider and the offshore clients in outsourcing network. Actually the clients embedded in networks determine the type, volume of resources accessible to focal provider. Consequently, holding several powerful nodes, which means have some powerful and efficient clients like Microsoft, IBM etc embedded in this network, declares the competitiveness and profitability of this overall network. Furthermore, network membership is also one kind of inimitable resources according to the research of Gulati et al., (2000), because the existing partners in networks are able to control the future relationship with focal firm and lock other potential entrants out. Besides the lock in and lock out effects, the nodes embedded in the network themselves are also deemed as crucial resources for focal provider in introducing new and potential clients. In outsourcing industry, some clients are very willing to bring their reliable partners into the structure of outsourcing network, enabling these partners to be the potential clients of the focal provider.

Besides the analysis above, how to set up its own outsourcing network for focal provider will make sense for its development, in spite of different analysis touching upon this topic. Kreiner and Schultz, (1993) proposed that the process is composed by three stages: Stage one is characterized by the discovery of collaborative opportunities; stage two by the exploration of these opportunities; and stage three by the crystallization of collaborative relations. Larson, (1991) stated that the formation of network should include two stages: one is the trial period and the other is the partnership period. The figure 2 describes the general dynamic process of the formation of outsourcing network.

Based on the analysis from the compositions of outsourcing network, ties and nodes, for the focal provider how to perfect its own outsourcing networks dynamically depending on extending and reinforcing ties with powerful nodes should be the core of its endeavor in capability improvement. Therefore, providers are likely to build and perfect its own outsourcing network through two stages, one is to gain contract oriented coordination tie with new clients, which means that providers should devote themselves to build relationship with new clients adopting any valid methods. In China, providers chiefly set up new contracts with new overseas clients by their overseas branches to exploit actively or by the international exchange conference sponsored by governments. In this paper, much attention is focused on the providers' own glamour granted by some social mechanisms in attracting new clients. The other stage is to develop the existing COC tie to ROC tie. The pattern emphasizes both providers and clients ought to strive to make progress in the shift of the point in the inter-organizational coordination spectrum. Some social mechanisms are employed to explain this evolution from COC tie to ROC tie.

Fig 2: The dynamic process of the construction of outsourcing network



Note 1: ▪▪▪▪▪ refers to the contract oriented coordination tie.
Note 2: ▬▬ refers to the relation oriented coordination tie.
Source: Edited by author

Table 4: Differences between Stage one and Stage two

	Stage one (COC)	Stage two (ROC)
Exchange persons	Communication among managers	Multi-level exchange from general staff to managers
Exchange contents	Implement the project according to requirements of contract	Exchange of management and technological knowledge etc beyond contract
Cultural exchange	None	Participants are eager to conduct cultural exchange programs

Source: Edited by author

2.3 Social exchange theory

The analytical framework of this paper is based on the social exchange theory, which is prevalent in the research of inter-organizational relationship. (Goo et al., 2007) adopted social exchange theory to investigate the determinants which influence partnership quality. Kern and Willcocks, (2000) integrated social exchange theory and other theories to develop a conceptual model of outsourcing relationship and summed up its properties from several aspects. Sun et al., (2002) ever employed social exchange theory to investigate the factors influencing information systems outsourcing partnership. Differ from the broadly employment in outsourcing research of economic theory, two reasons are able to account for why the paper uses the social exchange theory to investigate the issues in outsourcing activity. 1: compared with economic theories, including transaction cost theory, resource-based view and cost agency theory, social exchange theory can explain the on-going outsourcing inter-organizational relationship based on multiple interactions between provider and client. 2: In China's business atmosphere, business activity is not only economic exchange normally, but also involves social exchange more. People place more emphasis on the social relation bond in the business activity. Outsourcing providers are deeply aware of the social relation's effects on business success. Therefore, they are willing to be engaged on setting up and improving the relationship with its clients.

Owing to the significance of inter-organizational relationship in the outsourcing activity, the widely employment of social exchange theory on the research of outsourcing relationship becomes more and more acceptable. Just as stated by the social exchange theory, two causes, functional specialization and scarcity of resources, give rise to the exchange relations(Cook, 1977). This notion is highly consistent with the prior studies with respect to motives of outsourcing. That is because clients value more on the outsourcing's effects in focusing on core capabilities and accessing to providers' resources apart from the most common and accessible intent, cost reduction. Apparently, this consistency gives more or less impetus to the analysis of outsourcing relation.

The social exchange theory rooted in the contributions of some other disciplines, such as sociology and social psychology, and initially concerned more on research of interpersonal relations. Because of the different disciplines and different actors involved in scholars' studies, there is not a unanimous definition towards the exchange. Given this current paper's attention on economic activity, the extention of research about scope of social exchange from individuals to groups and corporations (Cook, 1977; Emerson, 1976a), seems like more significant. At the same time, consulting from the prior papers about the relations between social exchange and economic exchange, we are able to get access to several evident differences between these two dominant exchanges. 1: social exchange refers to longitudinal exchange relations based on personal ties and social ends, while economic exchange is determined by ahistorical individual decisions. 2: economic exchange theories will lose its validity more or less under the imperfect market incorporating social relations, but social exchange is inherent to handle these imperfections. 3: social exchange value more on the reciprocity, and economic exchange relied more on the equity. 4: the existence of negotiation as well is likely to distinguish economic exchange with social exchange. 5: Unlike economic exchange based on transaction, social exchange based on trust could generate some unspecified return from its contribution (Blau, 1964; Cook, 1977; Emerson, 1976a). No one will doubt that Outsourcing activity is not the economic activity, and this could be perceived easily in terms of the motives of outsourcing. Nevertheless, inter-organizational relationship demonstrates more and more features of sociology.

The classification of social exchange in a large extent enables us to comprehend some basic characteristics of social exchange. Molm et al., (1999) conceived that exchange consists of two types of exchanges, negotiated exchange and reciprocal exchange. Negotiated exchange emphasized joint decision-making by actors in advance to confirm the transactional details, probably including the time, content, address etc. In contrast, reciprocal exchange stressed the contribution of actors to the exchange without any negotiation. Thus, contract tie is more similar with the negotiated exchange, relational tie depends more on the reciprocal exchange via mutual trust, commitment etc. Emerson, (1976b) developed three types of exchange, isolated exchange, negotiated exchange and production exchange. Isolated exchange involves one type of negative connection between actors, in which exchange survives on only one actor's altruistic act. Negotiated exchange and production exchange can represent the positive connection between actors. From this respect, both contract link and relation tie should be positive connections full of positive expectations from both sides. Consequently, inter-organizational relationship between clients and providers matches the negotiated exchange and production exchange well (Sun et al., 2002). For outsourcing industry in China, economic exchange indicates those specified, negotiated transactions performed by both providers and its foreign clients, both sides should obey the contracts negotiated previously. For example, Providers should shoulder the responsibility to complete certain software coding or business process service, and in return clients should offer corresponding payment and some assistance in management and technology. Unlike the former, social exchange represents the unspecified, nonnegotiated, reciprocal, long-term relationship based on mutual trust, commitment, risk sharing. Providers count upon this relationship with existing clients to reap a steady flow of outsourcing orders or new clients. Take Neusoft as an example, its relationship with Alpine Electronics, one Japanese client, always brings new orders from the initial foundation of Neusoft, surpassing the expectation of itself. Furthermore, the behaviors of some clients introducing its partners for the provider also have no negotiation in advance, totally beyond the return of providers' contribution. Of course, social exchange existing in this activity also endures providers to reciprocate clients with excellent service and products, which not only satisfy but also exceed the clients' requirements unexpectedly.

2.4 Research model

Social exchange existing in the inter-organizational relationship also declares the efforts of some principal social mechanisms in improving their relationship and facilitating transaction. This article is about to converge on the effects of some social mechanisms in the construction of outsourcing networks. As listed in Table 5, four main social mechanisms, reciprocity, macroculture, and reputation, are going to be discussed the impacts on the construction of outsourcing network. The prior studies once utilized these social mechanisms to stress their efforts in resolving problems in exchange process, including reducing exchange cost, coordinating and safeguarding exchange (Das and Bing-Sheng, 2002; Jones et al., 1997). What is different, this paper not only pays attention to their efforts in coordinating exchange, but also lays more emphasis on these social mechanisms' efforts in establishing new exchange and improving existing exchange relationship.

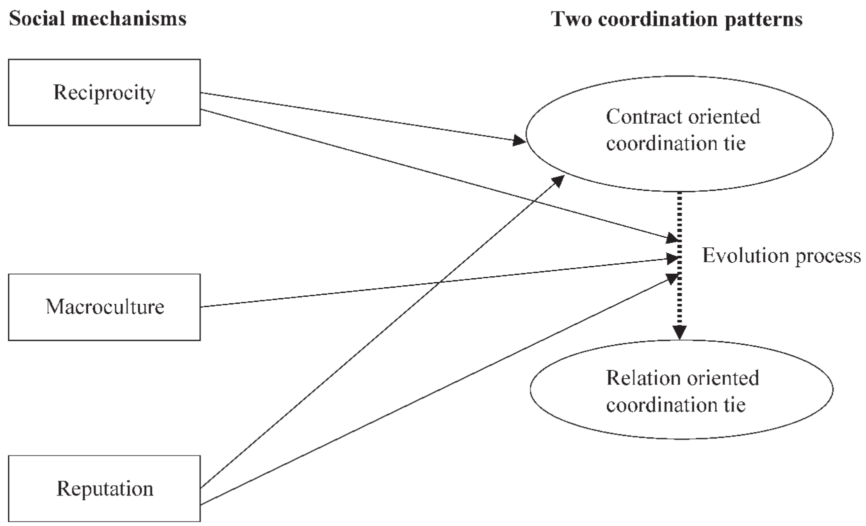
Table 5: The definitions and effects of social mechanisms

	Definition	Effects in the construction of outsourcing networks
Reciprocity	Utilizing its own generous or kind actions to reward other's generous or kind actions (Cox, 2004; Falk and Fischbacher, 2006)	● Gaining COT: clients reciprocate the provider through recommending new clients. ● Facilitating evolution from COT to ROT: Reciprocity provides the basis for the process of trust and solidarity building.
Macroculture	A system of widely shared assumptions and values, comprising industry-specific, occupational, or professional knowledge, that guide actions and create typical behavior patterns among independent entities. (Jones et al., 1997)	● Facilitating evolution from COT to ROT: cultural exchange enhances communication and eliminate misunderstandings
Reputation	An estimation of one's character, skills, reliability, and other attributes important to exchanges and is important under exchange conditions of uncertainty and customization. (Jones et al., 1997)	● Gaining COT: the spread of provider's information could attract more new clients. ● Facilitating evolution from COT to ROT: monitor the opportunism behavior

Source: Edited by author

As shown in Fig 3, we build the basic theoretical framework of this research, figuring out how social mechanisms build outsourcing network through dynamic interaction. There is one evolution process from contract oriented coordination tie to relation oriented coordination tie that is indispensable for establishment of outsourcing network, because only COC tie is the exclusive type of outsourcing network. According to table 5, social mechanisms, reciprocity, macroculture and reputation, play different roles in the process of network establishment, either in gaining favor from new clients, building contract oriented coordination tie, or in facilitating the evolution of tie property from contract oriented coordination tie to relation oriented coordination tie.

Fig 3: How social mechanisms build outsourcing network for provider



Note1: Contract oriented coordination tie can evolve into relation oriented coordination tie
Source: Edited by author

3 Methodology

This research will explore the social mechanisms' effects on the building of outsourcing network with case study. The case from one powerful provider in china, Insigma, will be introduced in this paper and its cooperation with the famous US bank, State Street and other offshore clients gives us lessons about this topic. Insigma, founded in 2001, currently ranks the second in the business process outsourcing industry and ranks the fourth in the information technology outsourcing industry in China. There are some reasons for adopting this case as research content, (1) both companies are very powerful, influential in respective business field, Insigma as top outsourcing provider in China and State Street Company as giant financial client in the USA. (2) Their cooperation history, lasting more than ten years, could represent offshore outsourcing cooperation process and contains more details concerning research scope than others.

The qualitative data was gathered chiefly by means of documents searching and face to face interview with the firm's managers. For the case, we firstly search related basic and critical information with respect to two companies and cooperation history in the internet including annual reports and press comments. Then we interviewed face to face with four participants drawn from Insigma, including project manager, external consultant, technical manager and staff representative. This survey was conducted by using semi-structured questionnaire encompassing some open-ended questions and all the respondents are anonymous in order to promote open answers. In the process of interview, all the discussions were recorded and then confirmed with respondents if there are uncertainties. In spite of this, in order to acquire up-to-date documents and information with regard to mutual cooperation, web interview was conducted with previous respondents via emails from time to time. This survey method could ensure to develop a qualitative, interpretative case research and the case will be detailed in next part of current paper.

4 Case study: Insigma and State Street Company

Insigma Technology Company ltd, powered by Zhejiang University's comprehensive technological capabilities, is a leader in the China-based IT service and outsourcing industry. Insigma was rated by IAOP the 40th among 2011 Global Outsourcing 100. In 2011, Insigma was ranked among China's Top 10 Leading Outsourcing Companies by the Ministry of Commerce of the P.R. C, and 8th among China's Top 100 Software Companies by the Ministry of Industry and Information Technology of the P.R. C.

State Street, which was founded in 1792, is one US-based powerful financial services holding company. There are two branches constituting State Street Corporation, State Street Bank acting as a custodian bank to institutional investors and State Street Global advisor providing investment management services to mutual funds and other asset managers respectively.

4.1 Rudiment period

Although State Street is world-renowned for providing financial service to institutional investors, the effect of IT has become more and more important so that SSC sometimes describes itself as being sort of "a technology company with a banking license". This title comes out with several reasonable causes, SSC has grown to manage 700 business applications, 5000 IT staff and 2.7 million trades per month, and the IT cost could accounts for 20%-25% of the bank's annual operating expense budget. Around 1997 or 1998, State Street realized it is necessary to access to high-level technology skills with an appropriate cost, therefore, it seek to cooperate with one Chinese university in Hangzhou, Zhejiang University. Because there is related collaboration experience with Harvard University since 1980s, SSC decided to adopt similar method to cooperate with Zhejiang University. The selection of Zhejiang University had some foundations based on the individuals social relationship, the founder of computer science in ZJU, He Zhijun, met one professor from Boston University in one international academic conference who become CTO of SCC in several years, and since then they built well personal relationship.

In 2001 SSC and ZJU set up State street/Zhejiang University Technology Center (SSZJTC) jointly in response to the bursting of the dot-com bubble which met the requirements of the technology skills of SSC in a large scale. So many old applications were improved in the aspects of scalability, extensibility and velocity with an affordable, valuable cost. Take the application lattice as an example, SSC estimated it would cost between $5 million and $10 million to replace Lattice with a new system which is a crossing engine for equities trading desks built in late 1980s. However, SSC was able to keep, reverse-engineer, and move original application to an IBM AIX platform in 10 months and at a cost of just $90,000 by giving this program to SSZJTC. Eventually, the old Lattice was renewed and improved beyond the expectations with a higher quality and a less cost.

4.2 Development period

In order to retain the staff in SSZJTC, Zhejiang university built one new outsourcing provider called Universesoft through their subordinate enterprise Insigma, which is exclusively working for SSC. Through this way, Universesoft could hire the graduates who wanted to continue with SSC projects. At that time, Insigma is already one leading IT software company mainly providing offshore outsourcing service to Southeast Asia.

Although the existence of Unversesoft solved some personnel problems for SSC, it also brought some threat that some competitor would acquire Unversesoft. In April 2006, SSC purchased all the ownership of UniverseSoft and replaced the name with SSTZ which acted the role of its commercial technology center for its full-time employees.

4.3 Maturity period

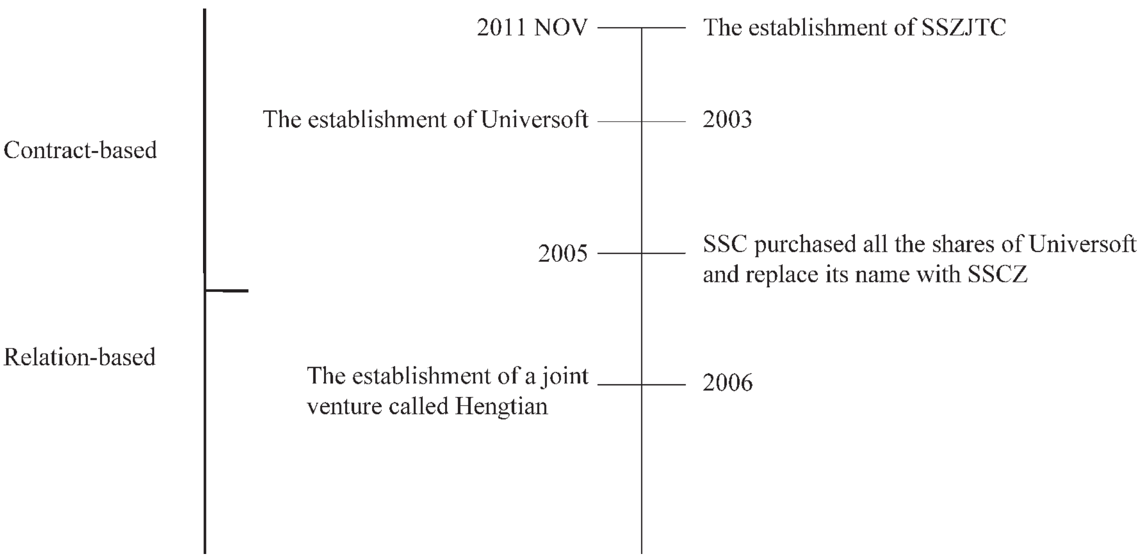
In 2006, Insigma and SSC created a joint venture called Hengtian which is focused on IT outsourcing from third parties recommended by SSC. From that on, the cooperation model between Insigma and SSC is more and more mature due to the effective allocation of outsourcing business. Business allocation to different institutions, including SSTZ, SSZJTC and Hengtian, is decided by a project management committee hosted by SSC's CTO and the senior executives. The table 6 gives an elaboration with respect to the differences among these cooperation institutions, and pays much attention on aspects of institution type, service content and service staff.

Table 6: Mature cooperation model

Institution Name	Type	Service content	Service staff
SSTZ	wholly owned by SSC	Internal functions of SSC, production support or maintenance	Full time employees of SSC
SSZJTC	Lab in ZJU	R&D project	Graduate students and professors in ZJU
Hengtian	Joint venture	Outsourcing service for external clients of SSC	Employees of Hengtian

Source: Edited by author

Fig 4: Timeline of cooperation history between Insigma and SSC



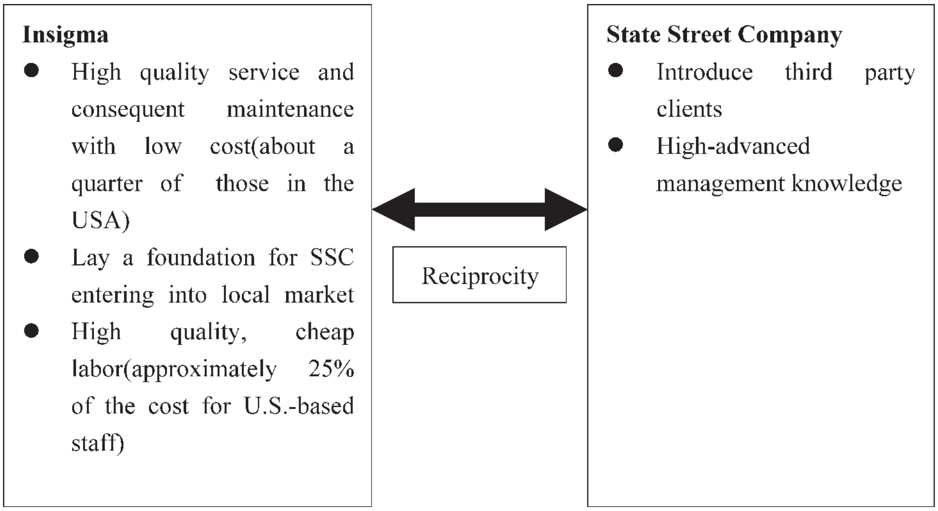
Source: Edited by author

5 Discussion

5.1 The effects of reciprocity

According to the definition of reciprocity, one side is supposed to do the kind and generous actions in order to repay the other side's kindness and generosity. In the process of cooperation between Insigma and SSC, both companies struggle to reciprocate each other with their existing superiority. As we can see in Fig, Insigma chiefly provide high quality, cheap service and staff to SSC based on ZJU, which could cut a lot of cost compared with the implementation in the USA. In addition to that above, Insigma also facilitated SSC to strengthen its overall commercial position and improve its market reputation in the local market. Simultaneously, SSC offered enough management knowledge to Insigma through the cooperation and accumulated experience with top financial service provider is beneficial for the future development of Insigma. Besides inter-organizational business reciprocity, inter-personal reciprocity could not be ignored in this analysis, the cooperation between Insigma and SSC is initiated by the interpersonal relationship between Professor He and CTO in SSC, apparently inter-personal reciprocity emotionally also is one important part of this cooperation.

Fig 5: Reciprocity contents between Insigma and SSC



Source: Edited by author

One respondent, who witnessed early cooperation process, said:

"When we finished the first program in light of requirements of SSC, they are surprised by project quality and low costs, therefore, they decided to transfer more projects to us"

In the contract-based period which could also be named run-in period, Reciprocity between each other played an important role in improving the mutual relationship. There were many managers from SSC indicating the reciprocity contents, high quality service, talents and low cost are the reasons which drive the SSC to maintain and deepen the cooperation with Insigma. Therefore, both sides endeavored to form the relation-oriented coordination tie and establish mature cooperation model based on three principal parts, Hengtian, SSTZ and SSZJTC. On the other side, Insigma is able to get access to some other new clients and build contract-oriented coordination tie with these third-party clients through reciprocity activity of SSC of introducing its partnerships.

5.2 The effects of macroculture

For outsourcing activities, particularly the offshore outsourcing involves cross-cultural communication owing to the different languages and customs. In the operation process of outsourcing project, most issues are not technical ones but rather unskilled cross-cultural communication problems, which could increase the cost and thus pose a potential risk to clients. In most cases, cultural misunderstanding, inadequate communication or lack of meeting clients expectations probably lead to project mistakes, reworking and inefficiency. One respondent described that:

"Communication between us is more critical for project success, sometimes communication obstacles result from that we could not understand each other completely"

In order to get rid of the communication barriers resulted from different culture and languages, Insigma and SSC has invested much to build efficient exchange mechanism through a cultural communication program, in which they share the value and culture between China and the US with each other. In China, Insigma lays particular emphasis on the training with its own personnel and provide ten times of courses on English language and western culture every one week. Meanwhile, both Insigma and SSC sponsor their employees to have an exchange visit, every year around 150 employees pay visits to the US and 20-30 US clients do so to China. Moreover, Insigma also send Chinese language professors to its US clients and establish a "cultural center" in Boston which will give lectures with regard to Chinese language, Chinese culture and business etiquettes, especially its links to the universities in Boston area portray a significant role in cultural exchange.

Table 7: Macroculture programs

In China	In the US
English language course and western culture course	"Cultural center" in Boston
20-30 SSC employees exchange visits to the US clients	150 Insigma employees exchange visit to the US every year

Source: Edited by author

It is no doubt those existing macroculture programs is beneficial for improvement of mutual relationship. Insigma repeatedly demonstrated macroculture programs aim at eliminating the misunderstanding and communication issues created by the cultural gap and linguistic difference, which facilitates the communication of multiple levels of employees from managers to general staff and the coordination from COC to ROC.

5.3 The effects of reputation

Reputation is very important for any enterprise so that each company invest much to promote its market reputation every year. As for the outsourcing market, the reputable providers obviously are competent to initiate new contracts with new offshore clients. In order to improve its reputation and attract more new clients, Insigma has done a lot of work. Insigma collaborated with government, Zhejiang University and SSC to host annual event called International Conference on Information Technology for Financial Service(ICITFS), inviting scholars, technical and business experts from world-leading financial companies to discuss on the latest information technologies and technical concepts and analyze the new market trends to jointly promote the development of international financial information service industry. This seminar has successfully been held for more than ten sessions until now and this conference has become one stage for Insigma to show its successful outsourcing cases to numerous participants from potential powerful clients.

In addition to the conference hosted in China, Insigma also actively sponsored and participated in some overseas far-reaching outsourcing exhibits and events like IAOP's Outsourcing world summit, CIO summit, Gartner ITxpo and Seller Management Summit. Besides those above, the outsourcing research forum and CIO roundtable conference hosted by Duke University and the Management School of Florida University also draw Insigma to attend actively every year for enhancing its international influence of Insigma brand and laying a good commercial foundation for its exploration on the US financial market. Moreover, Insigma intended to advertise its corporate videos on the US media so as to improve its popularity throughout the whole US.

Although the cooperation with SSC brought a huge sum of revenue every year, the intangible reputation enhancement is immeasurable which have assisted to initiate new contracts with some new clients. So far, through the step by step reputation improvement in the USA, some famous financial companies like AIG, DST, Thomson Reuters etc, have already sought to cooperate with Insigma and build contract-oriented coordination tie with it. Besides those above, one respondent indicated that:

"We also intend to resort well cooperation case with SSC to raise its market reputation owing to the substantial influence of SSC in global financial service market. Therefore, we did our utmost to improve bilateral relationship and satisfy SSC's requirements as possible as we can."

These words are able to prove reputation plays the role in monitoring opportunism behavior of firm's and improving mutual relationship. Insigma strived to facilitate the evolution of coordination tie so as to enhance its own reputation by virtue of SSC's influence and leadership in global market.

Table 8: Insigma's Reputation improvement methods

Domestic	Overseas
● Holding ICITFS jointly every year in Hangzhou, China. ● Cooperating with government and Inviting powerful multi-national companies to attend business forum	● Sponsoring and participating overseas outsourcing exhibits and events with global influence ● Participating in authoritative outsourcing research and CIO roundtable conference in the USA ● Advertising in the US media ● Establishing US subsidiary in Wall Street.

6. Conclusion

This study analyzed the outsourcing inter-organizational relationship between providers and clients, contract and relation are two basic coordination patterns, drawing more focus from previous research. Essentially, contract is the formal, necessary, unavoidable coordination pattern between both sides in the early stage owing to lack of understanding between them, however, based on valid, complete contract, relation coordination is more advanced, beneficial, mature for both providers and clients. Furthermore, the analysis creatively raises that the coordination pattern in outsourcing activity is able to evolve continuously from contract coordination to relation coordination thorough the efforts from both sides.

Outsourcing network as the emphasis in this study is put forward firstly here, representing inter-organizational relationship between one focal provider and its existing and potential clients, of which node refers to client and tie involves the coordination pattern including contract oriented coordination tie and relation oriented coordination tie respectively. Apparently, every provider has its own outsourcing network through which the focal provider conducts outsourcing projects granted by offshore clients. The constitution of outsourcing network, the quality of nodes and the property of tie, is extremely important for focal provider in the global competition. What is more important that the outsourcing network is dynamic but static, which means the node and the property of tie could change and evolve with time goes by.

The case with regard to the cooperation between Insigma and SSC elaborates how provider forms its own outsourcing network dynamically based on social exchange theory and the effects of several social mechanisms including reciprocity, macroculture and reputation. Specially, reciprocity plays a very important role to facilitate the relationship between Insigma and SSC from contract-oriented to relation-oriented, which also brought many contract-oriented new third-party clients through the introduction of SSC. Macroculture is crucial for both sides to improve the bilateral relationship because cultural and language gap are principal challenge in offshore outsourcing activity. The macroculture programs initiated by both Insigma and SSC efficiently eliminate the misunderstanding caused by different cultures and languages, and develop the coordination pattern from contract-oriented to relation oriented. The final social factor, reputation, especially global reputation influences the establishment of outsourcing network dramatically and the process of cultivating good reputation requires a hard work. New contract-oriented coordination clients often seek to cooperate with Insigma by virtue of the market reputation. Although this research primarily employed the social exchange theory to explore the effects of social mechanisms on establishment of outsourcing network, we could not ignore the resources and knowledge exchange in the process of outsourcing. Consequently, in the future much attention will be paid on the resources and knowledge acquisition under the framework of outsourcing network by utilizing resource based view.

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