Association for Information Systems AIS Electronic Library (AISeL)

PACIS 2008 Proceedings

Pacific Asia Conference on Information Systems (PACIS)

July 2008

CONTRACTUAL AND RELATIONAL GOVERNANCE OF SOFTWARE OUTSOURCING PROJECTS: A PROPOSED RESEARCH MODEL AND RESEARCH AGENDA

Jifan Ren *HK Polytechnic University*, steven.ren@polyu.edu.hk

Wang-Ting Ngai *HK Polytechnic University*, mswtngai@polyu.edu.hk

Wing-Sing Cho HK Polytechnic University, msvcho@polyu.edu.hk

Follow this and additional works at: http://aisel.aisnet.org/pacis2008

Recommended Citation

Ren, Jifan; Ngai, Wang-Ting; and Cho, Wing-Sing, "CONTRACTUAL AND RELATIONAL GOVERNANCE OF SOFTWARE OUTSOURCING PROJECTS: A PROPOSED RESEARCH MODEL AND RESEARCH AGENDA" (2008). PACIS 2008 Proceedings. 228. http://aisel.aisnet.org/pacis2008/228

This material is brought to you by the Decific Acia Conference on Information Systems (DACIS) a

This material is brought to you by the Pacific Asia Conference on Information Systems (PACIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in PACIS 2008 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

CONTRACTUAL AND RELATIONAL GOVERNANCE OF SOFTWARE OUTSOURCING PROJECTS: A PROPOSED RESEARCH MODEL AND RESEARCH AGENDA

- Ren Ji-Fan, Steven, Department of Management and Marketing, The Hong Kong Polytechnic University, Hung Hum, Kowloon, Hong Kong, steven.ren@polyu.edu.hk
- Ngai Wang-Ting, Eric, Department of Management and Marketing, The Hong Kong Polytechnic University, Hung Hum, Kowloon, Hong Kong, mswtngai@polyu.edu.hk
- Cho Wing-Sing, Vincent, Department of Management and Marketing, The Hong Kong Polytechnic University, Hung Hum, Kowloon, Hong Kong, msvcho@polyu.edu.hk

Abstract

Organizations are under increasing pressure to exhibit the value of their outsourcing. However, previous IS outsourcing research studies failed to provide evidence on how IT client-provider relationships should be managed to ensure outsourcing success. This article draws on theories of transaction cost and social exchange to develop a model examining outsourcing relationship governance mechanisms. Important determinants of contractual and relational governance and the effectiveness of the control mechanisms on relational outcomes, opportunism and commitment, are examined. This research agenda may theoretically extend IS outsourcing research by incorporating a framework to explore outsourcing relationship management and to practically explain software outsourcing phenomenon.

Keywords: Transaction cost theory, Social exchange theory, Governance mechanism, Opportunism, Outsourcing success.

1 INTRODUCTION

With the development of IS outsourcing, the domain of the client-provider relationship is receiving increasing attention. A number of researchers have listed the client-provider relationship as a key element of successful IS outsourcing (e.g. Grover & Cheon & Teng 1996, Klepper 1995). Conventionally, the outsourcing relationship is viewed as a contractual relationship basing on transaction cost theory (TCT), and outsourcing success is found to be determined by transaction attributes (Wang 2002). Recent IS literature, however, has stressed the importance of developing a partnership-style environment with service provider and a number of models have been proposed for developing and sustaining the relationships (e.g. Lee & Kim 1999).

We found there is a need in IS fields to provide evidence on how IT client-provider relationships should be governed in order to ensure outsourcing success. Actually, literature has noticed that exchange relationships evolving over time may move from discrete, short-term, price-focused transactional end to the multidimensional, social, long-term enduring relational end (Dwyer & Schurr & Oh 1987). This transactional-relational continuum concept, arguing that interfirm relationship can simultaneously involve both relational and transactional governance mechanisms (Cannon & Achrol & Gundlach 2000), may render helps on IT/IS outsourcing relationship management. Hence, based on transaction cost theory (TCT), social exchange theory (SET) and governance studies, this study examined important determinants of contractual and relational governance and the effectiveness of the governance mechanisms on relationship outcomes. The objectives of our framework are to study the following questions:

- What factors would lead to different governance mechanisms?
- What governance mechanisms would the firm choose under different circumstances?
- How should the client-provider relationship be governed to ensure successful outsourcing relationships?

The next section provides the general background of the study, including a brief literature review, and the theoretical basis.

2 LITERATURE REVIEW AND THEORETICAL BACKGROUND

2.1 IS Outsourcing Relationships Studies

In prior IS outsourcing (ISO) success studies, researchers mainly focused on the factors that impact the success of outsourcing from two perspectives:

THE FIRST PERSPECTIVE is from the view of transactional relationship. Case studies of IT outsourcing relationships found that the use of detail contracts, penalty clauses, short term arrangements, IT legal experts were effective mechanisms for establishing a client's power in the relationships and achieving successful outsourcing outcomes (e.g. Lacity & Willcocks & Feeny 1995). Wang (2002) adopting TCT as the theoretical foundation, empirically confirmed the implications of transaction attributes (reputation, uncertainty, asset specificity) on the consequences of post-contractual opportunism and customized software outsourcing success.

THE SECOND PERSPECTIVE is partner relationship perspective. Recent research in outsourcing has used social theories, based on trust and commitment, to explain successful long-term IS outsourcing relationships. Grover et al. (1996) examined the relationships between degrees of outsourcing with outsourcing success and found elements of partnership such as trust, cooperation, and communication are important for outsourcing success. Based on a social perspective, Lee and Kim (1999) found partnership quality can serve as a key predictor of outsourcing success. Lee (2001) examined the relationship between knowledge sharing and outsourcing success. The results indicated that

partnership quality plays a critical role as a mediator between knowledge sharing and outsourcing success.

The separated view of examining the relationship as transactional and relational may cause problem. Sanders, Gebelt and Hu (1997) showed evidence in a case study that both tight contracts (transactional relationship) and partnership-style were associated with successful outsourcing outcomes. Furthermore, both contractual arrangements and partnership management are found important to the client-vendor outsourcing relationship (Fitzgerald & Willcocks 1994). Poppo and Zenger (2002) advocated that there is a need to explore and predict the interorganizational exchange relationship between formal contracts and relational governance.

2.2 Governance Mechanisms and Theories

Among research investigating interfirm relationships, two fundamental dimensions appeared to be of key importance for the governance and management of such relationships: contractual and relational governance (Sobrero & Schrader 1998). The conceptual background for these two control mechanisms is found in the combination of TCT(e.g. Coase 1937, Williamson 1975), and SET (e.g. Homans 1958, Blau 1964), the two dominant theoretical perspectives used in the literature on exchange governance (e.g. Joshi & Stump 1999). TCT essentially explains the organization's boundaries by examining the transaction as the unit of analysis with two key assumptions: bounded rationality and opportunism. While SET premises that exchange may involve both social and economic outcomes. SET suggests that there is an alternate form of governance with the relationship that tends to rely more on trust, commitment and relational norms than strictly on written contracts (Heide & John 1992).

As for the consequences of the governance mechanisms, prior literatures identified direct relationship or combined relationship between contractual/relational governance and relational outcomes, such as opportunism (e.g. Cavusgil & Deligonul & Zhang 2004), exchange performance (e.g. Ferguson & Paulin & Bergeron 2005), or relationship success (Vasylchenko 2005).

On the other hand, three sets of determinants of governance mechanisms have been found: transaction factors from TCT, relational attributes from SET, and resource attributes (such as technological capabilities (Ojode 2000)) from resource-based theory (e.g. Barney 1991). The study will focus on TCT and SET perspective, therefore, only first two sets of antecedents were considered. Joshi and Stump (1999) based on TCT, examined and verified the relationship between transaction attributes (asset specificity, market turbulence) and manufacture process control, which is unilateral (formal) governance. Zaheer and Venkatraman (1995) developed a model include the relational variable of trust and transactional variables to explain relational governance. Ferguson et al. (2005) found that the relational factor (boundary-spanner closeness) would be positively related to both relational and contractual governance with relational governance dominated the role. Sobrero and Schrader (1998) in a meta-analysis found that the task characteristics (asset specificity and uncertainty) may influence relational and contractual coordination as exchange governances.

However, it is surprisingly to find that there are few study systematically examined antecedents of contractual and governance mechanisms from both the underlying theoretical perspectives: TCT and SET. Furthermore, few studies have identified what are the crucial factors that determinate the use of relational versus contractual governance. There is also a need verify the relationship between governance mechanisms with relational outcomes. Therefore, this study will fill in the important research gaps by incorporating governing mechanisms in the area of software outsourcing.

2.3 Software Project Study

Johnson (2000) reported that more than 70% of the software outsourcing projects suffered total failure, cost overruns, schedule overruns, or deliver fewer functions than promised. Accordingly, software outsourcing may face even harder challenges. Wang (2002) raised that software outsourcing: (1) may

request specific investment including human capitals; (2) may face many unforeseen contingencies such as, the system's completion date, the cost and the client's responsibilities; (3) opportunism may occur in such uncertainties. It is a field that practitioners face real challenges to cope with contractual and relational control issues. Facing these difficulties, effective ways to manage the IT client-provider relationship are crucial.

3 MODEL DEVELOPMENT AND HYPOTHESES

Therefore, based on two theories, TCT and SET, and related literature (e.g. Anderson & Narus 1984, 1990, Ferguson et al. 2005, Wang 2000), we developed a conceptual model examining outsourcing relationship governance (see figure 1). In order to present the model clearly, we would illustrate the model from four aspects: (1) transactional attributes; (2) relational attributes; (3) governance mechanisms; (4) relational outcomes, outsourcing success and control variables.

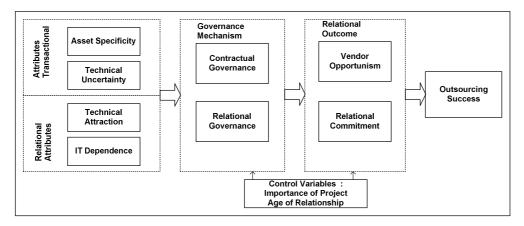


Figure 1. Research model

3.1 Transactional Attributes

TCT is the dominate theory in this section. In describing transactions, TCT relies on three key dimensions: (1) the condition of asset specificity required to support the transaction; (2) the degree and type of uncertainty surrounding the transaction; (3) the frequency of the transaction. Followed Wang (2002)'s study, we excluded the last dimension for describing transactions, frequency. It is because that we focused on software outsourcing projects, which may well be considered as a distinct, one-time event and governed by a single contract at the project level. Hence, only asset specificity and uncertainty as transactional attributes are examined.

Asset Specificity refers to "the degree to which an asset can be redeployed to alternative users and by alternative users without sacrifice of productive value" (Williamson 1989, p142). In software outsourcing, specific asset may be the human capital required from both contractual parties. From client's perspective, the firm may need to train the provider to learn the idiosyncratic business operations, complex customer needs and information requirements in customized software project and to coordinate with the provider. The resources spent on the IT provider might be totally wasted if the contract terminates prematurely. With mass specific investment, the client firm will also be difficult to identify other qualified provider who is willing to make the same specialized investments in the market. Therefore, three will be clear incentives for the client to maintain a long-term relationship than to terminate the contract (Wang 2002).

Even though the client may use contract to protect its rights and benefits for the specific investment legally (Cannon & Perreault 1999), maintenance of long-term relationships will outperform short-term gains for both parties that have invested specific assets. Study also found that firm with specialized investments will make gains from long-term cooperation exceed the compensation from short-term opportunistic behaviors (Lai & Liu & Yang & Lin & Tsai 2005). Therefore, we could conclude that the client firm would prefer to manage the relationship more relationally than contractually under specific investment. Thus, we hypothesize:

H1. The more the specific asset investment, the more the exchange relationship is characterized by relational governance than contractual governance.

Technical Uncertainty is defined as the inability of the client to instruct technical specifications to IT supplier for service operation. In customized software outsourcing projects, the functionalities, development costs, delivery dates and quality dimensions are difficult to determine and measure at the contracting stage (Richmond & Seidmann & whinston 1992). When these problems become severe, the contract will be less comprehensive and require more frequent amendments to the rapidly changing marketing environments (Wang 2002).

Because of the uncertainty of the technology, establishing a complete contract accounting for all the possible contingencies is problematic. Combining uncertainty with market contracts often opens the contracting parties up to self-serving behaviour, opportunism, and excessive transaction costs (Schilling & Steensma 2002). A client's dependence on and long-term orientation toward an IT provider can limit its adaptability to changing technological standards. Therefore, when downstream markets are unpredictable, the client will avoid using relational governance toward the provider (Heide & John 1990).

A potential response to market uncertainty is for the client to synchronize the switching of suppliers with changes in customer composition and preferences (Joshi & Stump 1999), however, since switching provider entails costs, this response can be both inefficient and ineffective for the client (e.g. Heide & Weiss 1995). Instead, evidences were found that the client may be better to cope with the market turbulence by exercising process control (contractual governance) over their suppliers (Joshi & Stump 1999). Therefore,

H2. The more the technological uncertainty, the more the exchange relationship is characterized by contractual governance than relational governance.

3.2 Relational Attributes

SET is the dominate theory in this section. SET is developed from four sets of theories: exchange behaviorism (e.g. Homans 1958), exchange structuralism (e.g. Blau 1964), exchange outcome matrix (e.g. Kelley & Thibaut 1978), and exchange network (e.g. Emerson 1962). The related references of theories and key concepts are displayed in Table 1. According to the exchange outcome matrix research and Anderson & Narus (1984, 1990)'s studies, attraction and dependence (power) were chosen as the relational attributes.

Social Exchange Theory	References	Key Concepts		
Exchange Behaviorism	Homans (1958, 1961); Turner (1986); Münch (1993)	Attraction, Communication		
	Blau (1964); Turner (1986); Ritzer (1983); Münch	Power,	Conflict,	Shared
Exchange Structuralism	(1993)	values,	Trust,	and
		Commit	ment	
Exchange Outcome Matrix	Kelley & Thibaut (1978); Thibaut & Kelley (1959)	Attraction, Dependence		
Exchange Network	Emerson (1962, 1972, 1981); Turner (1986)	Dependence, Power		

Table 1. Related Social Exchange Theories (Referring to Sun (2000)).

Other key concepts, such as communication, conflict, shared values, trust and commitment are not incorporated as determinants of control mechanisms because some of them (communication, conflict

and shared values) may work as (or overlap with) components of relational governance (Heide & John 1992), and some of them (trust and commitment) may work as relational outcomes (Anderson & Narus 1990).

Technical Attraction. According to SET, the willingness to build up the exchange relationship is influenced greatly by the rewarding and attraction through the interaction. In one of the most main streams of SET studies, a concept tool is used for analyzing dyadic interaction of two parties in the exchange relationship: the outcome matrix (Thibaut & Kelley 1959). In the matrix, two constructs are worked as bases for evaluation of the outcomes obtained from a particular relationship: the outcomes given comparison level (CL) and the comparison level for alternatives (CLalt). CL is used to measure the attraction of the client-provider relationship. We focus on technical attraction in this study, which is the technical service evaluation outcomes given by the client according to the comparison of expectations and real service level performed by the provider (Anderson & Narus 1984, 1990).

Klepper (1995) believed that attraction is the positive outcomes developed from partnering relationships. Anderson and Narus (1990) found if the comparison level of current relationship outcome is satisfied (above the *CL*), then the two parties will have more faith in developing the partnership relationship, which would lead to a preference on relational governance based on trust and commitment. Under the competitive environment, the client firm would rather maintain the relationship with a satisfied provider than to seek an alternative firm that can not guarantee their service level. Hence we propose that:

H3. The higher technical attraction the provider shows, the more the exchange relationship is characterized by relational governance than contractual governance.

IT dependence. Power and dependence have been focal issues in traditional and relational research (Dwyer et al. 1987). Anderson and Narus (1984, 1990) used the comparison level for alternatives (*CLalt*), as the measure of dependence. In this study, IT dependence is defined as a standard that represents the average service quality of outcomes that are available from the best alternative exchange relationship among IT providers.

Mohr and Spekman (1994) found that the more the benefits that the interacting parties acquired from the relationship, the more dependence they will be, consequently, the frequency and importance level of the partnership will increase. Hence, long-term oriented relationship will be preferred when the client firm is depended on the service provider to fulfill the most critical technical functions in the software projects. Therefore, we propose:

H4. The more the IT dependence shows, the more the exchange relationship is characterized by relational governance than contractual governance.

3.3 Governance Mechanisms

The concept of a transactional-relational continuum provides an important conceptual context for understanding interfirm exchanges in particular (Morgan & Hunt 1994) and relationship in general (Nevin 1995). The conceptual background for the continuum is found in the combination of TCT and SET.

Contractual/Relational Governance. Formal contractual governance involves precisely and rigidly administering the substantive and remedial rules of control (e.g. Black 1998), and relies on the written law as the standard and authority (Black 1976). In this study contractual governance is considered as terms of hard, explicit, formal, and written contracts. On the other hand, relational governance is an endogenous mechanism that can enhance exchange performance by embedding private and public information flows in a matrix of social ties rather than by resorting to contract or its enforcement by a third party (Uzzi 1999). The social governance of a relationship involves the common values or norms that exist among parties (e.g. Ouchi 1979), which represent important social and organizational mechanisms for controlling exchange relationships (Gundlach & Achrol 1993).

Though TCT prescribes that contracts can work as safeguards which decrease opportunism, empirical studies reveal mixed results for the effectiveness of formal contractual governance on opportunism (Hawkins & Wittmann & Beyerlein 2007). Dahlstrom and Nygaard (1999) supported TCT by finding effect from written contracts reduce the opportunism. Vasylchenko (2005) also found formal control benefits financial/technical/strategic exchange performance. On the other hand, several studies found opposite effect that increased bureaucratic structuring (control) or contractual governance actually increases opportunism (e.g. John 1984), especially when the exchange parties are disagree with governing regulations (Gilliland & Manning 2002). However, we found that these "negative" effect of contractual governance are mostly based on assumptions of a malfunctioned usage of formal control, such as an undue reliance on contract (Macneil 1980) or an usage of detailed contracts without a well developed social relationship (Cannon et al. 2000). Normally we believe that contractual governance will decrease opportunism according to TCT.

As for relational governance, previous studies found it positively associated with customer-based assessments of exchange performance (e.g. Cannon et al. 2000), and could help to develop shared goals, flexibility, mutuality, toleration, and other social patterns that guide the relationship (Black 1998). These cooperative relationships can build trust and commitment (Morgan & Hunt 1994), which mitigate the chance of opportunistic behaviors.

Furthermore, several studies argued that well negotiated contract can serve as a foundation for the successful IT outsourcing relationship (e.g. Kern & Willcocks 2002). In a meta-analysis study (Sobrero & Schrader 1998) and an empirical research (Poppo & Zenger 2002), researchers found that contractual and relational control mechanisms fulfil different but complementary roles in governing the relationship. Hence we could conclude that both control mechanisms will benefit the client-provider relationships by mitigating the opportunism and building relational commitment. Therefore, we hypothesize that:

H5-6. Contractual and relational governances will negatively influence the degree of provider opportunism.

H7-8. Contractual and relational governance will positively influence the degree of relational commitment.

Even though we believe that both governance mechanisms will affect exchange relationship outcomes, their effects on opportunism and commitment may be different. Cavusgil et al. (2004) found that formal contracts are negatively related to opportunism but with a nonsignificant effect, while trust as relational governance significantly deterred distributor opportunism. Ferguson et al. (2005) also identified that relational governance is the predominant governance mechanisms associated with exchange performance compared to contractual relationship. Therefore, we propose that

H9-10. Relational governance will outperform contractual governance on controlling provider opportunism and building relational commitment.

3.4 Relational Outcomes, Outsourcing Success and Control Variables

Opportunism is the one of assumption of TCT and a central construct of transaction research. Relational commitment as a relational outcome construct is important in the area of management (e.g. Mohr & Spekman 1994), marketing (e.g. Anderson & Narus 1990) and IS outsourcing (e.g. Lee & Kim 1999). Therefore those two constructs were selected as relational outcomes of exchange relationships. Prior empirical studies have found vigorous supports for the relationship between opportunism and outsourcing success (Wang 2002), and between relational outcomes and outsourcing success (e.g. Morgan & Hunt 1994). The relationship between relational outcomes and outsourcing success were not the focus of this study, therefore, they are not hypothesized.

Provider Opportunism. Williamson (1985) defined opportunism as self-interest seeking of a strategic nature undertaken to redirect profits from vulnerable partners. According to TCT, the phenomenon of opportunism encompasses a wide range of specific behaviors or elements: (1) distortion of information, such as lying, cheating and stealing, or misrepresenting information; (2) reneging on

explicit or implicit commitments such as shirking, and obligations. Jap and Anderson (2003) found that either party in an exchange can engage in opportunism. This study we focus on provider opportunism.

Relational Commitment. Commitment refers to the willingness of trading partners to exert effort on behalf of the relationship (Porter et al. 1974). Blau (1964) believed that the firms would try to find the most profitable scheme, but once they deem they find it, they will commit to this exchange relationship and stop trying to find other alternatives.

Outsourcing Success, the dependent measure of this research, refers to the overall organizational advantage obtained from IS outsourcing. Grover et al. (1996) measured outsourcing performance attainment in three aspects of software outsourcing: strategic, economic and technological.

Two **Control Variables** would be considered which could influence governance mechanisms and relational outcomes, including importance of the project to the client, age of the relationship. Performance can be greater in buyer-seller exchange when the buyer regards the seller or the seller's goods most important (Cannon & Perreault 1999). Age of relationship could be an indicator of a psychological dependence a close and trustworthy partner (Ferguson et al. 2005).

4 MODEL VALIDATION

4.1 Sample

In order to find the answers for research questions and empirically test the research model, a crosssectional postal questionnaire was developed for collecting customized software outsourcing data from a group of firms in Chinese Mainland. The questionnaire will ask the top IT executives of the firms to answer the survey questions, basing on a major customized software outsourcing project of which she/he had the best understanding of the nature and the consequences of the project. Because they are typically the most knowledgeable individual concerning a firm's major outsourcing projects, and should also have sufficient ability and information to assess various aspects of outsourcing deals, therefore, they were selected as the key informants of the study.

The survey questionnaires will be mailed to more than 1200 top IT executives in randomly selected industries obtained from an online Chinese Enterprises and Products Databases (see <u>http://easyaccess.lib.cuhk.edu.hk/login?url=http://hk.wanfangdata.com.cn/wf/swxx/index.html</u>). The targeted firms should be large firms with more than 500 employees. In order to avoid the low response rate, a follow-up mailing will be initiated. It is followed with personal contact by calling the informants of those companies that have not returned the questionnaire. The model will be tested by the statistical method of structural equation modeling (SEM). The component-based SEM software, partial least square (PLS) will be chosen to test the research model. ANOVA techniques will also be used to analyze the comparison relationships.

4.2 Measures

Most constructs included in this study are abstract and possibly multidimensional, succinct measures were adapted to the current study whenever available in the literature. Table 2 lists their definitions and literature.

Variables	Definition	References
Technical	Technical service evaluation outcomes given by the	Anderson & Narus (1984, 1990);
Attraction	client according to the comparison of expectations and	
	real service level performed by the provider.	
IT	A standard that represents the average IT service	Anderson & Narus (1984, 1990), Lee

dependence	quality of outcomes that are available from the best	& Kim (1999), Mohr & Spekman		
	alternative exchange relationship among IT providers.	(1994)		
Asset	Degree to which an asset can be redeployed to	Joshi & Stump (1999), Wang (2002),		
Specificity	alternative users and by alternative users without	Zaheer & Venkatram (1995)		
	sacrifice of productive value.			
Technical	The inability of the client to instruct technical	Joshi & Stump (1999), Schilling &		
Uncertainty	specifications to IT supplier for service operation.	Steensma (2002), Wang (2002)		
Contractual	Precisely and rigidly administering the substantive and	Cannon et al. (2000), Ferguson et al.		
Governance	remedial rules of control.	(2005), Gilliland & Manning (2002)		
Relational	An endogenous mechanism that can enhance exchange	Cannon et al. (2000), Ferguson et al.		
Governance	performance by embedding private and public	(2005), Heide & John (1992), Lai et al.		
	information flows in a matrix of social ties rather than	(2005),		
	by resorting to contract.			
Provider	Self-interest seeking of a strategic nature undertaken to	Jap & Anderson (2003), John (1984),		
Opportunism	redirect profits from vulnerable partners.	Lai et al. (2005), Wang (2002)		
Relational	The willingness of trading partners to exert effort on	Lee & Kim (1999), Mohr & Spekman		
Commitment	behalf of the relationship.	(1994), Sun (2000).		
Outsourcing	The overall organizational advantage obtained from IS	Grover et al. (1996), Lee 2001, Lee &		
Success	outsourcing.	Kim 1999, Wang 2002.		

Table 2. Measures of Main Constructs

5 DISCUSSION AND IMPLICATIONS

This article drew from TCT and SET to develop a model examining client-provider relationship governance mechanisms. There are several theoretical implications:

- The study based on TCT and SET, develops a novel relationship model for investigating the management of the client-provider relationship in software outsourcing. It extended IS literature by explaining the relationship from transactional/relational attributes to governance mechanisms and to relational outcomes. The study offers a potential comprehensiveness lacking in IS outsourcing fields through integration of the attributes, interacting relationship governance and relational outcomes.
- Scholars have pointed out the importance of effectively managing IT outsourcing provider. (Heckman 1999). This study theoretically expands the knowledge of outsourcing management by identifying the role of governance mechanisms on exchange outcomes. Empirical evidence will be added to IS fields by identifying which control mechanism would be more effective on reducing opportunism or building relational commitment.
- Furthermore, the study from a holistic perspective examined determinants for use of contractual versus relational governance. Based on TCT and SET, asset specificity, technical uncertainty, technical attraction, and IT dependence are proposed as antecedents of relationship control mechanisms. Importantly, the study also proposed hypotheses on the preferred governances that would be used to manage the client-provider relationship under different circumstances.
- Lastly, there is a growing interesting in opportunism studies, since it is a central construct in exchange theory (Jap & Anderson 2003). The model contributes to opportunism studies by providing efficient ways to control provider opportunistic behaviors.

Managerial implications are also found:

- The findings of this study show that both control mechanisms place a limitation on opportunism and promote commitment. In practice, it is better for the managers to use contractual as well as relational governance to manage the relationship.
- The study revels that depend on formal control would not be efficient as governing the relationship in a partnering way to control opportunistic behaviors and to form relational commitment.
- Analyses of governance antecedents will manifest itself for practitioners to choose proper management mechanisms when different situation occurs. For example, we propose that when the

software project faces technological uncertainty, contractual governance will be a better way of relationship management for the client firms.

6 FUTURE RESESARCH AND CONCLUSION

Some suggestions for future research are listed as below.

- Firstly, the study investigated only the customized software outsourcing. However, since outsourcing of other IS functions such as the system operations may relate to different transactional or relational attributes, comparison studies of relationship management between different IS functions are valuable.
- Secondly, Cavusgil et al. (2004) raised the possibility of examining the interaction effect of both governance mechanisms. Cannon et al. (2000) also proposed plural form of governance would the exchange performance. Therefore, future research on investigating the interacting effect of governance and their effect on relational outcomes will be interesting.
- Thirdly, since most of small businesses who experience resource poverty in the areas of finance, IT/IS skills, time, and planning (AI-Qirim 2003) would be more reluctant to enter into long-term relationship than their larger counterparts, studies on relationship governance mechanisms in small business would also be an attractive research area in IS field.

All in all, based on a review of IS outsourcing relationship studies, this study proposed a model on how client-provider relationship should be governed to ensure a successful outsourcing relationship. We believe that the research agenda we have put forward will be a workable means of helping to provide better understanding of the governance mechanisms, its relationship with determinant attributes and relational outcomes. Significant benefits could result from further work on both theories and empirical studies on the outsourcing client-provider relationship management.

References

- AI-Qirim, N.A.Y. (2003). The strategic outsourcing decision of IT and ecommerce: The case of small business in New Zealand. Journal of Information Technology Cases and Application, 5(3), 32-56.
- Anderson, J.C. and Narus, J.A. (1984). A model of the distributor's perspective of distributormanufacturer working relationships. Journal of Marketing, 48, 62-74.
- Anderson, J.C. and Narus, J.A. (1990). A model of distributor firm and manufacturer firm working partnerships. Journal of Marketing, 54(1), 42–58.
- Barney, J.B. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99-120.
- Black, D. (1976). The Behavior of Law. Academic Press, New York.
- Black, D. (1998). The Social Structure of Right and Wrong. Academic Press, San Diego.
- Blau, P. (1964). Exchange and Power in Social Life. Wiley, New York.
- Cannon, J.P., Achrol, R.S. and Gundlach, G.T. (2000). Contracts, norms, and plural form governance. Journal of the Academy of Marketing Science, 28 (2), 180-194.
- Cannon, J.P. and Perreault W.D.Jr. (1999). Buyer-seller relationships in business markets. Journal of Marketing Research, 36, 439-460.
- Cavusgil, S.T., Deligonul, S. and Zhang, C. (2004). Curbing foreign distributor opportunism: An examination of trust, contracts, and the legal environment in international channel relationships. Journal of International Marketing, 12(2), 7–27.

Coase, R. (1937). The nature of the firm. Economica, New Series, 4(16), 386–405.

- Dahlstrom, R. and Nygaard, A. (1999). An empirical investigation of ex post transaction costs in franchised distribution channels. Journal of Marketing Research, 36(2), 160–170.
- Dwyer, F.R., Paul H.S., and Sejo O. (1987). Developing buyer-seller relationships. Journal of Marketing, 51,1-27.

Emerson, R.M. (1962). Power-dependence relations. American Sociological Review, 27, 31-41.

- Emerson, R.M. (1972). Exchange Theory, Part I: A Psychological Basis for Social Exchange and Exchange Theory. Part II: Exchange Relations and Network Structures. In Sociological Theories in Progress, (Berger, L., Zelditch, M. and Anderson, B. Ed.), p38-87, Houghton-Mifflin, Boston, MA.
- Emerson, R.M. (1981). Social Exchange Theory. In Social Psychology: Sociological Perspectives, (Roseenberg, M. and Tuner, R.H. Ed.), p30-65, Basic Books, New York.
- Ferguson, R.J., Paulin, M. and Bergeron, J. (2005). Contractual governance, relational governance, and the performance of interfirm service exchanges: The influence of boundary-spanner closeness. Journal of the Academy of Marketing Science, 33(2), 217–234.
- Fitzgerald, G. and Willcocks, L. (1994). Contract and partnerships in the outsourcing of IT. In Proceeding of the Fifteenth International Conference on Information Systems. Vancouver, British Columbia, 91-98.
- Gilliland, D.I. and Manning, K.C. (2002). When do firms conform to regulatory control? The effect of control processes on compliance and opportunism. Journal of Public Policy and Marketing, 21(2), 319–331.
- Grover, V., Cheon, M. J. and Teng, J. T. C. (1996). The effect of service quality and partnership on the outsourcing of information systems functions. Journal of Management Information Systems, 12(4), 89-116.
- Gundlach, G.T. and Achrol, R.S. (1993). Governance in exchange: Contract law and its alternatives. Journal of Public Policy & Marketing, 12 (2), 141-155.
- Hawkins, T.G., Wittmann, C.M. and Beyerlein, M.M. (2007). Antecedents and consequences of opportunism in buyer-supplier relations: Research synthesis and new frontiers. Industrial Marketing Management, upcoming.
- Heckman, R. (1999). Organizing and managing supplier relationships in information technology procurement. International Journal of Information Management, 19, 141-155.
- Heide, J. B. and John, G. (1990). Alliances in industrial purchasing: The determinants of joint action in Buyer-Supplier Relationships. Journal of Marketing Research, 27, 24-36.
- Heide, J. B. and John, G. (1992). Do norms matter in marketing relationships. Journal of Marketing, 56(4), 32–44.
- Heide, J.B. and Weiss, A.M. (1995). Vendor consideration and switching behavior for Buyers in High-Technology Markets. Journal of Marketing, 59, 30-43.
- Homans, G.C. (1958). Social behaviour as exchange. The American Journal of Sociology, 597-606.
- Homans, G.C. (1961). Social Behavior: Its Elementary Forms. Harcourt Brace Jovanovich, New York.
- Jap, S.D. and Anderson, E. (2003). Safeguarding interorganizational performance and continuity under ex post opportunism. Management Science, 49(12), 1684–1701
- Johnson, J. (2000). Chaos in the New Millennium: The Ghost of Christmas Future. The Standish Group, West Yarmouth, MA.
- John, G. (1984). An empirical investigation of some antecedents of opportunism in a marketing channel. Journal of Marketing Research, 21(3), 278–289.
- Joshi, A.W. and Stump R.L. (1999). Transaction cost analysis: Integration of recent refinements and an empirical test. Journal of Business-to-Business Marketing, 5 (4), 37-69.
- Kern, T. and Willcocks, L. (2002). Exploring relationships in information technology outsourcing: the interaction approach. European Journal of Information Systems, 11, 3-19.
- Klepper, R. (1995). The management of partnering development in IS Outsourcing. Journal of Information Technology, 10, 249-258.
- Kelly, H. and Thibaut, J.W. (1978). Interpersonal Relations: A Theory of Interdependence. Wiley, NY.
- Lacity, M. C., Willcocks, L. P. and Feeny, D. F. (1995). IT outsourcing: maximize flexibility and control. Harvard Business Review, 84-93.
- Lai, C.S., Liu, S.S., Yang, C.F., Lin, H.W. and Tsai, H.W. (2005). Governance mechanisms of opportunism: Integrating from transaction cost analysis and relational exchange theory. Taiwan Academy of Management Journal, 5(1), 1–24.
- Lee, J.N. (2001). The impact of knowledge sharing, organizational capability and partnership quality on IS outsourcing success. Information & Management, 38, 323-335.

- Lee, J.N. and Kim, Y.G. (1999). Effect of partnership quality on IS outsourcing success: conceptual framework and empirical validation. Journal of Management Information Systems, 15 (4), 29-61.
- Macneil, I.R. (1980). The New Social Contract: An Inquiry Into Modern Contractual Relations. New Haven, Yale University Press, CT.
- Mohr, J. and Spekman, R. (1994). Characteristics of partnership success: Partnership attributes, communication behavior, and conflict resolution techniques. Strategic Management Journal, 15(2), 135-152.
- Morgan, R.M. and Hunt, S.D. (1994). The commitment-trust theory of relationship marketing. Journal of Marketing, 58, 20–38.
- Münch, R. (1993). Sociological Theory: From the 1850s to the Present. Nelson-Hall Publishers, Chicago.
- Nevin, J.R. (1995). Relationship marketing and distribution channels: exploring fundamental issues. Journal of the Academy of Marketing Science 23 (4), 327-334.
- Ojode, L.A. (2000). A Resource-Based View of Strategic Alliance: Organizational Capabilities, Governance, and Performance, Unpublished Ph.D. Dissertation, University of Illinois, Illinois.
- Ouchi, W.G. (1979). A conceptual framework for the design of organizational control mechanisms. Management Science, 25 (9), 833-848.
- Porter, L., Steers, R., Mowday, R. and Boulian, P. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. Journal of Applied Psychology, 59, 603-609.
- Poppo, L. and Zenger T. (2002). Do formal contracts and relational governance function as substitutes or complements? Strategic Management Journal, 23(8), 707-725.
- Richmond, W.B., Seidmann, A. and Whinston, A.B. (1992). Incomplete contracting issues in information systems development outsourcing. Decision Support Systems, 8, 459–477.
- Ritzer, G. (1983). Sociological Theory. McGraw-Hill, Inc., New York.
- Saunders, C., Gebelt, M. and Hu, Q. (1997). Achieving success in information systems outsourcing. California Management Review, 39 (2), 63-79.
- Schilling, M.A. and Steensma, H.K. (2002). Disentagling the theories of firm boundaries: A path model and empirical tests. Organization Science, 13(4), 387–401.
- Sobrero, M. and Schrader, S. (1998). Structuring inter-firm relationships: A meta-analytic approach. Organization Studies, 19 (4), 585-615.
- Sun, S.-Y. (2000). Factors Affecting IS Outsourcing Partnership-A Study based on the Social Exchange Theory, Unpublished Ph.D. Dissertation, National Sun Yat-Sen University, Taiwan.
- Thibaut, J.W. and Kelley H. (1959). The Social Psychology of Groups. John Wiley and Sons. Inc., New York.
- Turner, J.H. (1986). The Structure of Sociological Theory. The Dorsey Press, Chicago.
- Vasylchenko, O. (2005). Relationship Governance Mechanisms of the IT Outsourcing Deals: Transaction Cost and Relational Exchange Perspectives, Unpublished Ph.D. Dissertation, Concordia University, Canada.
- Wang, E.T.G. (2002). Transaction attributes and software outsourcing success: An empirical investigation of transaction cost theory. Information Systems Journal, 12(2), 153–181.
- Williamson, O.E. (1975). Markets and Hierarchies: Analysis and Antitrust Implications. Free Press, New York.
- Williamson, O.E. (1981). The economics of organization: The transaction cost approach. American Journal of Sociology, 87(3), 548–577.
- Williamson, O.E. (1985). The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting. The Free Press, New York.
- Williamson, O.E. (1989). Transaction Cost Economics. In: Handbook of Industrial Organization, Schmalensee, R. & Willing, R (eds). Elsevier Science, Amsterdam.
- Uzzi, B. (1999). Embeddedness in the making of financial capital: How social relations and networks benefits firms seeking financing. American Sociological Review, 64, 481-505.

Zaheer, A. and Venkatraman, N. (1995). Relational governance as an interorganizational strategy: An empirical test of the role of trust in economic exchange. Strategic Management Journal, 16(5), 373-392.