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ABSTRACT

This study investigates the impact of client firm's IT capability, vendor firm's competence and their fit on the outsourcing success. In theory building, by concretizing the concepts of IT capability and competence based on the resource-based view, the importance of fit between the client's IT capability and the vendor's competence is emphasized. We then hypothesize that both factors are stronger together than the individual impact of either the client's IT capability or the vendor's competence. For validation, 267 client-vendor-matched-pair data were collected. To avoid potential imbalance caused by the bilateral perspective, an exploratory approach, all-possible-subsets-regression method was adopted. The results reveal that the vendor's competence is the most significant factor in outsourcing success, but interestingly, the fit between vendor competence and the client's IT capability is the second most important. The client's IT capability also has a positive impact on outsourcing success but with the smallest explanation power.

Keywords

IT outsourcing, client IT capability, vendor competence, fit, outsourcing success, resource-based view, contingency fit theory.

INTRODUCTION

Over the last decade, one of the most widespread developments in meeting an organization's IT needs is not only financial, but also geographical growth in the practice of IT outsourcing (Oh, Gallivan and Kim, 2006). Therefore, IT outsourcing has become a commonly accepted and growing business practice nowadays (Hall and Liedtka, 2005). In recent years, an emerging stream of IT outsourcing research has focused on managing the relationship between the client and the vendor (Lee, Huynh, Ron and Pi, 2003; Rustagi, King and Kirsch, 2008). These studies emphasized that the management of an outsourcing relationship is crucial to a successful outsourcing project. Using various contextual variables derived from different theoretical perspectives, extensive empirical testing results have been reported to examine the importance of an outsourcing relationship as a key antecedent of outsourcing success (Goo, Kishore, Nam, Rao and Song, 2007; Kern and Willcocks, 2002).

Nevertheless, there are certain weaknesses that have been overlooked in the prior studies: First is the absence of undertaking the capability of client firms in outsourcing relationship research. Though a few studies have conceptually acknowledged the importance of the client firm's IT capability (Kern and Willcocks, 2002), its impact on outsourcing success still remains unexplored. Second, most studies have overlooked the importance of the vendor's competence even in the situation that the role of the vendor in the outsourcing relationship is getting more important (Saunders, Gebelt and Hu, 1997). Some researchers suggested that vendors must possess competence or capability (Levina and Ross, 2003), but their studies were conceptual and exploratory without empirical investigation. Finally, what makes it worse is that both the client's IT capability and vendor competence are not considered at the same time, while understanding both parties can result in getting better outsourcing outcomes (Kern and Willcocks, 2000). Thus, the notion of the capability or competence from the client and the vendor needs to be extended to IT outsourcing relationship and its success.

To fill these research gaps, this study attempts to answer the following questions from a contingency fit perspective: 1) What are the roles of the client firm's IT capability and the vendor firm's competence in outsourcing success? 2) Does outsourcing success come from the fit between the client's IT capability and the vendor's competence? To answer these questions, this study first conceptualizes the client firm's IT capability and the vendor firm's competence, and then hypothesizes the relationships between these factors and outsourcing success. It may be the first attempt to consider them at the same time, and the impact of their fit on outsourcing success. Finally, the proposed hypotheses are tested using a sample of 267 client-vendor-matched-pair responses collected in Korea.

THEORETICAL DEVELOPMENT

Many studies on outsourcing relationships emphasize that the effective management of the relationship between the client and the vendor plays a crucial role in outsourcing success (Aron, Clemons and Reddi, 2005; Grover, Cheon and Teng, 1996). However, only a few studies have capitalized on a client firm's IT capability as a key antecedent to a successful outsourcing project (Kern and Willcocks, 2002). Furthermore, the importance of the vendor firm's competence and its impact on outsourcing success have been conceptually addressed but without empirical validation (Levina and Ross, 2003).

According to the prior literature, the client firm's IT capability consists of IT resources or assets, and its management ability. For example, Bharadwaj (2000) defined the client firm's specific IT resources as IT infrastructure, human IT resources, and IT-enabled intangibles. Ross, Beath and Goodhue (1996) classified the client firm's IT capability into a reusable technology base (technical asset), competent IT skills (human IT asset), and an intimate relationship between a client firm's IT and business unit management (relationship asset). However, there have been few studies that reveal the importance of the client firm's IT capabilities required to successfully engage the outsourcing vendor (Feeny and Willcocks, 1998). One exception is Levina and Ross's study (2003). They explored the value proposition from the vendor's perspective by using a case study approach. They also suggested that client satisfaction is achieved when the application of core competencies to outsourcing projects is enabled by a healthy client–vendor relationship, which is mainly influenced by the vendor's expertise in managing client relationships. Competencies, in turn, grow through the vendor's firm-wide experience gained from controlling a large number of projects, which, in turn, develop the vendor's reputation through its ability to satisfy customers' needs.

Prior studies on client and vender firms' capabilities or competences were mostly conceptual, but the implication is evident for the causal relationship between IT capabilities or competencies of client and vendor firms and outsourcing performance (Bharadwaj, 2000; Koh, Ang and Straub, 2004). That is, the presence of IT capability or competence in client and vendor firms, which includes organization-specific routines, processes, skills, and resources (Heijden, 2001), is necessary to achieve outsourcing objectives. The client firm's IT capability and the vendor firm's competence are more than specific sets of sophisticated technological functionalities but are enterprise-wide capabilities to manage and leverage technologies to gain and maintain competitive advantage. Therefore, both the client's IT capability and the vendor's competence should be involved to ensure the effective management of the outsourcing relationship and outsourcing success.

The basic assumption of this study is that the client's IT capability and the vendor's competence enable the client and the vendor to effectively interact and communicate with each other, eventually leading to better outsourcing performance. On one hand, the client firm's IT capability can ensure that IT resource is appropriately acquired, distributed, and managed to meet organizational requirements. On the other hand, the vendor firm's competence can afford benefits to clients by providing core skills required to build high-quality information systems and by helping to build good relationships with clients (Levina and Ross, 2003). Also, by applying the contingency fit theory to the context of IT outsourcing, this study argues that the fit between the client's IT capability and the vendor's competence could ensure higher outsourcing performance. The research model of this study is depicted in Figure 1.
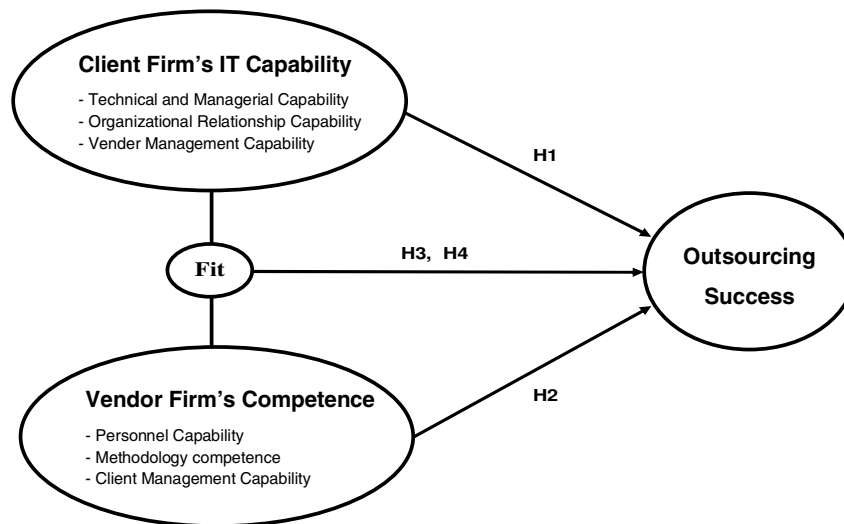

Figure 1. Research Model

The Client Firm's IT Capability

As an important predictor in ensuring high performance with vendors in IT outsourcing, the client firm's IT capability is defined as *the ability to which a client firm effectively acquires, distributes, and leverages IT related resources or assets*. Based on the resource-based view, as in the majority of the prior studies (Feeny and Willcocks, 1998; Lee et al.,1995), it can be conceptualized with three major sub-areas: technical and managerial IT capability, organizational relationship capability, and vender management capability. First, technical IT capability refers to the technical knowledge and skills needed to develop IT applications in the firm (Lee et al., 1995), while managerial IT capability refers to where and how to deploy IT effectively and profitably to meet strategic business objectives (Mata, Fuerst and Barney, 1995). Second, organizational relationship capability reflects the relationship level between IT and business groups within an organization, which enables the business to constructively engage in IT issues (Bassellier, Reich and Benbasat, 2004). Finally, vendor management includes the capability to look beyond the existing contractual arrangement and explore the long-term potentials to create a win-win situation (Feeny and Willcocks, 1998).

The client's IT capability can convince the vendor of the client firms' goal and concern and help clients achieve the goal (Bassellier et al., 2004). The client firm's knowledge on IT trends can encourage vendors to share valuable information with their clients. It is also true that the firm that has a clear IT standardization and blueprint often is in a better position to effectively communicate with its vendors, thereby leading to successful outsourcing. Moreover, the client firm's ability for vendor management helps vendors to successfully implement their services to satisfy all clients' needs. In addition to contractual obligations, formalized outsourcing management processes and work evaluation principles cultivated by effective vendor management are required to create outsourcing benefits (Feeny and Willcocks, 1998). Thus, the following hypothesis is proposed.

H1: The higher the level of the client firm's IT capability, which consists of technical and managerial capability, organizational relationship capability, and vendor management capability, the higher the level of outsourcing success.

The Vendor Firm's Competence

As the outsourcing practice has matured, most firms believe that outsourcing vendors will ultimately deliver value in the long run (Levina and Ross, 2003). However, variations in outsourcing outcomes call for an in-depth investigation of how vendors can create value delivered to clients. In fact, each vendor generally has different predisposition and resources, which result in varied outcomes in similar outsourcing projects (Pinnington and Woolcock, 1997). It is called the vendor firm's competence, defined as *the ability to which a vendor firm effectively identifies, responds, and manages client needs and market demands*.

Despite growing interests in the vendor's competency, prior studies paid little attention on the vendor's competency and how it generates value in outsourcing projects. However, Levina and Ross (2003) conceptually classified the vendor competence into three major areas – personnel capability, methodology competence, and client management capability – to realize the expected outsourcing benefits. First, personnel capability reinforces customer relationship by ensuring that the staff understood and accepted accountability to meet contractual obligations. Second, effective interpersonal skills can help establish right customer expectations, but the vendor's methodology competence is necessary for the consistent delivery of solutions to client problems in the process of IT outsourcing. Finally, the client management capability reduces uncertainty, thereby gaining more value from outsourcing projects.

Therefore, when a vendor possesses distinctive competencies and resources, it can become the dominant player in outsourcing businesses (Pinnington and Woolcock, 1997). It indicates that vendors should have the capability to keep up with ever-changing technologies and maintain higher quality services and relationships (Kim and Chung, 2003). In other words, client satisfaction in outsourcing project is influenced by the vendor's competence in understanding client businesses and managing client relationships (Levina and Ross, 2003). Thus, we hypothesize that:

H2: The higher the level of the vendor firm's competence, which consists of personnel capability, methodology competence, and client management capability, the higher the level of outsourcing success.

The Fit between Client's IT Capability and Vendor's Competence

The contingency fit theory is one of the dominant scholarly studies in the management area. While it varies widely in subject matters, it has the common proposition that organization outcome is the consequence of a fit between two or more factors. That is, the contingency theory necessarily involves the concept of a fit (Drazin and Van de Ven, 1985). The prior literature on the theory indicated that more effective organizations achieve maximal fit configuration among contextual, structural, and strategic factors (Katsikeas, Samiee and Theodosiou, 2006). In this sense, this theory led us to believe that the fit between the client firm's IT capability and the vendor firm's competence will significantly contribute to the outsourcing success. That is, the client firm's IT capability should be appropriately aligned with the vendor firm's personal capability, methodology competence, and client management capability. The synergy through the fit between them will be captured necessarily in the sense that vendor competence will be exerted more effectively under the productive environment afforded by the client firm's

IT capability. The client firm's favorable interorganizational atmosphere with business people will allow the vendor firm's personnel to better communicate with them. In addition, the client's personnel capability can be better exercised to meet customer requirements. Similarly, the vendor firm's methodological competence can be utilized better if the client can appreciate methodologies and know how to manage them. It also makes sense that the vendor firm's client management competence can work better when the client is ready. Therefore, we hypothesize that:

H3: The higher the level of fit between the client firm's IT capability and the vendor firm's competence, the higher the level of outsourcing success.

When the client firm's IT capability and the vendor firm's competence are fitted well, a synergy effect, which is generated from effective and efficient communication, knowledge sharing, and co-relationship management, can be expected. In the situation that either the client firm is capable of managing an outsourcing project alone, or the vendor holds well-trained IT staff and well-designed methodologies alone, it is possible that both companies are likely to become independent and cease to function as mutually supportive elements. However, if the competence and capabilities of both companies show acceptable fit levels with each other, they can enjoy the synergy effect that the valuation of a combination of agents exceeds the sum of valuations for stand-alone agents (Massini and Pettigrew, 2003). Accordingly, a joint implementation of several activities between the client and the vendor may result in better performance. Positive reinforcement between the client firm's IT capability and the vendor firm's competence can enhance both parties' abilities to make their outsourcing project more successful and beneficial. Thus, the following hypothesis states:

H4: The impact of fit between the client firm's IT capability and the vendor firm's competence on outsourcing success will be greater than those of client firm's IT capability and vendor firm's competence as separate entities.

RESEARCH METHODOLOGY

Measures
The survey instrument was developed either by adapting existing measures to the research context or by converting the definitions of the constructs into a questionnaire format. A five-point Likert-style questionnaire was developed for all measures. With these initial items, two pilot studies were conducted: First, the initial version of the questionnaire was pretested by faculty members, managers of IT organizations, and IT staff members. They reviewed each item to improve content and construct validities. Second, survey data were collected from 25 outsourcing project teams in five Korean IT firms to test convergent and discriminant validities of the items. The research model and the items were refined based on the two pilot testing results. The final instruments are shown in Appendix.

Data Collection
The main survey was conducted with IT outsourcing project teams in Korea. The unit of analysis was set as the outsourcing project between the client and its vendor. The project sites were chosen by the authors with the help of the senior executives from the five major IT outsourcing companies in Korea. Since the questionnaire contains diverse items requiring considerable efforts and time to answer, it would have not been possible to capture quality data without the strong encouragement of the senior executives.

(a) Outsourcing Project								(b) Outsourcing Types and Client Firm's Industry			

Outsourcing Period (Year)		Outsourcing Contract Amount (Million Korean Won)		Client Firm's Industry		Outsourcing Type	
Less than 1 year	65	Less than 100	14	Manufacturing	38		
1-3 years	83	100-500	22	Government/Public	85	Application development	153
3-5 years	75	500-1,000	73	Banking/Finance	25	Application maintenance	89
3-5 years	37	1,000-5,000	89	Construction	15	Network	12
5 year and above	7	5,000 and above	69	Transport/Warehousing	34	IT Consulting	5
				Service	45	Others	8
				Others	25		
Total	**267**	**Total**	**267**	**Total**	**267**	**Total**	**267**

Table 1. Profile of the Responses

In this study, the client firm's IT capability was assessed by the vendor's project managers, while the vendor firm's competence was assessed by the client's project managers to elicit a neutral and unbiased dataset (Gómez, Kirkman and Shapiro, 2000). Finally, the client's project managers measured outsourcing success because the ultimate goal of IT outsourcing is the satisfaction of client firms. Four hundred copies of the survey questionnaires were distributed to project team managers in both clients and vendor firms. Each project manager favorably underwent the process of the survey, and collected the responses to survey questionnaires. In total, 282 client-vendor-matched-pair responses were gathered. 15

responses were discarded owing to incomplete data. Finally, 267 matched responses could be used in the final analysis (see Table 1).

Reliability and Validity of the Measuring Instrument

Three types of validity were used to assess the measuring instruments: content validity, convergent validity, and discriminant validity. Content validity was established by ensuring the consistency between the measurement items, extant literature, and pilot testing of the instrument. Convergent and discriminant validities are tested with a two-step exploratory factor analysis: First, exploratory factor analysis in the subconcept level was conducted. It reveals 37 items under seven concepts. After confirming the concept-level validities, we tested and confirmed variable-level validities (*The results of factor analyses for all variables are available upon request*). In addition, convergent validity was evaluated by the item-to-total correlation. Internal consistency, Cronbach's alpha, was calculated to assess the reliability of the measuring instrument (Hair, Anderson, Tatham and Black, 1998) (see Table 2).

Measures	**Items**	**Reliability** (Cronbach's Alpha)	**Convergent Validity** (correlation of item with total score-item)	**Discriminant Validity** (factor loadings on a single factor)
Client Firm's IT Capability	**(3)**	**(0.79)**		
Technical and managerial capability	6	0.90	0.689; 0.772; 0.720; 0.705; 0.699; 0.694	0.788; 0.852; 0.812; 0.800; 0.796; 0.793
Organizational relationship capability	4	0.85	0.652; 0.746; 0.716; 0.734	0.798; 0.865; 0.847; 0.858
Vender management capability	5	0.92	0.766; 0.788; 0.819; 0.816; 0.824	0.850; 0.866; 0.888; 0.886; 0.892
Vendor Firm's Competence	**(3)**	**(0.81)**		
Personnel capability	4	0.85	0.797; 0.780; 0.739; 0.729	0.893; 0.881; 0.854; 0.847
Methodology competence	5	0.89	0.712; 0.756; 0.765; 0.698; 0.800	0.816; 0.851; 0.857; 0.807; 0.879
Client management capability	4	0.86	0.723; 0.734; 0.728; 0.714	0.851; 0.859; 0.849; 0.839
Outsourcing Success	**9**	**0.92**		

Table 2. Reliability and Validity of the Measures

ANALYSIS AND FINDINGS

For hypotheses testing, we adopted the exploratory data analysis approach, rather than the confirmatory one, for two reasons. First, because the data were gathered respectively from two sides, we could not confirm that they were in the same level of assessment (Koh, Tay and Ang, 1999). Second, because we did not have sufficient information about their base relations, we could not confirm the type of fits that should be determined based on the number of variables and their criteria specificity (Venkatraman, 1989).

Adopting the exploratory approach is then realized through the all-possible-subsets-regression method of selecting the variables for inclusion in the regression model that considers all possible combinations of the independent variables (Hair, Anderson, Tatham and Black, 1998). This method is selected because there is not yet an established method to normalize bilateral biases. By heuristically comparing the significance levels of the regression equations in relative terms, this study investigates the comparative impacts of the variables and their fits. Also, fit as moderating and fit as matching are selected for the candidate variables because these are two most commonly cited forms of bivariate fit in IT research (Oh and Pinsonneault, 2007) and they are differentiated whether or not they correspond with any specified criterion (Venkatraman, 1989). In addition, regression analysis technique is selected for statistical significance test for its adequateness to test causal effect among variables when no significant direct effect among independent variables is assumed (Hair et al., 1998). With these rationales, we formulate 15 regression equations (see Table 3).

Each variable is tested eight times within 15 equations. With a significance level of 90%, the vendor's competence regresses to IT outsourcing success eight times, while the client's IT capability does seven times, fit as moderating six times, and fit as matching three times. The R square values show that at most 35% of IT outsourcing success can be explained by the variables, while the vendor firm's competence alone explains more than 30% of the success (see Table 4).

Regarding the hypotheses, three out of four hypotheses are supported. Among the eight equations on the client firm's IT capability, six ($Y_1, Y_5, Y_7, Y_{11}, Y_{12}, Y_{15}$) show a significant positive impact on IT outsourcing success, thus supporting H1. The vendor's competence is significant in all the equations tested ($Y_2, Y_5, Y_8, Y_9, Y_{11}, Y_{12}, Y_{14}, Y_{15}$), which support H2. Also, the fit as moderating is significant in six cases ($Y_3, Y_6, Y_8, Y_{10}, Y_{13}, Y_{14}$), thus supporting H3.

Equation	Constant	Client Firm's IT Capability	Vendor Firm's Competence	Fit as Moderating	Fit as Matching
$y_1 =$	$\beta_0 +$	$\beta_1 \cdot x$			
$y_2 =$	$\beta_0 +$		$+ \beta_2 \cdot z$		
$y_3 =$	$\beta_0 +$			$+ \beta_3 \cdot x \cdot z$	
$y_4 =$	$\beta_0 +$				$+ \beta_4 \left| x - z \right|$
$y_5 =$	$\beta_0 +$	$\beta_1 \cdot x$	$+ \beta_2 \cdot z$		
$y_6 =$	$\beta_0 +$	$\beta_1 \cdot x$		$+ \beta_3 \cdot x \cdot z$	
$y_7 =$	$\beta_0 +$	$\beta_1 \cdot x$			$+ \beta_4 \left| x - z \right|$
$y_8 =$	$\beta_0 +$		$+ \beta_2 \cdot z$	$+ \beta_3 \cdot x \cdot z$	
$y_9 =$	$\beta_0 +$		$+ \beta_2 \cdot z$		$+ \beta_4 \left| x - z \right|$
$y_{10} =$	$\beta_0 +$			$+ \beta_3 \cdot x \cdot z$	$+ \beta_4 \left| x - z \right|$
$y_{11} =$	$\beta_0 +$	$\beta_1 \cdot x$	$+ \beta_2 \cdot z$	$+ \beta_3 \cdot x \cdot z$	
$y_{12} =$	$\beta_0 +$	$\beta_1 \cdot x$	$+ \beta_2 \cdot z$		$+ \beta_4 \left| x - z \right|$
$y_{13} =$	$\beta_0 +$	$\beta_1 \cdot x$		$+ \beta_3 \cdot x \cdot z$	$+ \beta_4 \left| x - z \right|$
$y_{14} =$	$\beta_0 +$		$+ \beta_2 \cdot z$	$+ \beta_3 \cdot x \cdot z$	$+ \beta_4 \left| x - z \right|$
$y_{15} =$	$\beta_0 +$	$\beta_1 \cdot x$	$+ \beta_2 \cdot z$	$+ \beta_3 \cdot x \cdot z$	$+ \beta_4 \left| x - z \right|$

x: client firm's IT capability; z: vendor firm's competence
x * z: fit between client firm's IT capability and vendor firm's competence as moderating
|x-z|: fit between client firm's IT capability and vendor firm's competence as matching

Table 3. All-possible-subsets-regression Equations

Equation	H1 - Client Firm's IT Capability B_1	H2 – Vendor Firm's Competence B_2	H3, H4 – Fit between Client IT Capability and Vendor Competence		R Square
			Fit as Moderating B_3	Fit as Matching B_4	
y_1	0.385***				0.148
y_2		0.556***			0.310
y_3			0.535***		0.287
y_4				0.061	0.004
y_5	0.181***	0.479***			0.336
y_6	-0.327**		0.819***		0.313
y_7	0.550***			0.333***	0.232
y_8		0.357***	0.248**		0.331
y_9		0.576***		-0.080	0.316
y_{10}			0.576***	0.186***	0.320
y_{11}	0.645*	0.865***	-0.723		0.343
y_{12}	0.230**	0.442***		0.066	0.339
y_{13}	-0.157		0.701***	0.135*	0.323
y_{14}		0.283*	0.320**	0.061	0.333
y_{15}	0.621*	0.813**	-0.655	0.027	0.343

$P<0.001***$; $p<0.01**$; $p<0.1*$;

Table 4. Regression Analysis Results

DISCUSSION AND CONCLUSION

From the results, we bring up the following discussions. First, there are hierarchies among the impacts of the client firm's IT capability, the vendor firm's competence, and their fit on IT outsourcing success. Vendor competence is proved to be the most critical factor in outsourcing success while fit is the second most critical, and the client's IT capability is the least

critical. All the tests significantly support the vendor's competence with or without the competing variables (Y_2, Y_5, Y_8, Y_9, Y_{11}, Y_{12}, Y_{14} and Y_{15}). As conceptually addressed in Levina and Ross (2003)'s study, the vendor's competence level perceived by the client most sensitively affects outsourcing success. Furthermore, regression results of Y_1, Y_3, Y_6, and Y_{13} show relatively stronger impacts of the fit between the client's IT capability and the vendor's competence than that of the client's IT capability. It implies that outsourcing success can be better ascertained when the vendor's competence fits with the client's IT capability rather than based on the vendor competence alone. Interestingly, the client's IT capability alone does not strongly affect outsourcing success. However, it could leverage vendor's competence to generate a synergy effect. It is also validated from the higher R square values in the equations that include the terms of fit as moderating, in addition to the vendor's competence.

The second discussion is about the comparative perspectives on fit as moderating and as matching. While many studies adopt either moderating or matching to compute the level of interaction, this study accepts both as candidates and compares them in specified cases. Among 12 equations with fit variables, fit as moderating is significant in six cases, while fit as matching is significant only in three cases. As a result, we derive that fit as moderating rather than matching has greater explanation ability on the outsourcing success. Technically, fit as matching does not much consider the absolute levels of two variables but compare them relatively by estimating the difference of the two. However, fit as moderating elaborates the absolute levels of the two variables by multiplying them. Thus the greater explanation ability of fit as moderating suggests that we should consider capability and competence levels of client and vendor firms in an absolute perspective than a relative manner. The appropriateness of fit as moderating in our model is also in line with the previous literature that moderation is used widely in estimating any interaction effect (Chan, Huff, Barclay and Copeland, 1997).

From the above discussion, this study concludes that the impact of the vendor's competence on outsourcing success is the most important factor while the client's IT capability and the moderating fit between them also have significant impacts on the success with a certain level of instability. Especially, the moderating impact of the client's IT capability as a fit with the vendor's competence can be interpreted as follows. Though the firm's IT outsourcing could exploit the broad IT capability that they cannot maintain internally, the client's IT capability can guide the vendor's effort in a more business performance-enhancing direction. In addition, a client firm's cooperative, inter-organizational relationship environment can encourage a business group to engage in IT projects more actively to reflect business needs more accurately by the outsourcing vendor. Vendor management capability could also help vendors exert their competence more effectively for the success of the IT outsourcing project. As such, the client's IT capability contributes to outsourcing success to generate the synergy in terms of moderating the vendor's competence as a fit.

It is worthwhile to note the following limitations, some of which offer opportunities for future research. The first limitation is the composition of the sample. Somehow it lacks randomness in the sense that the number of project units is limited, and they are selected mostly via personal acquaintances. However, we believe that it does not significantly harm the research findings because of the high-quality data that were randomly distributed and collected. Second, this study was conducted as a snapshot research without considering the dynamic nature of the outsourcing relationship. We can further elaborate the results with additional data collection and more in-depth interpretation of the testing results, especially for the fit, moderation impact, and indirect effects. Finally, the results may include some bias since the sample was restricted to Korea. Thus, the results of the study may have to be carefully interpreted, and replication of this study in other countries is needed to improve the generalizability of the findings.

This study has the following contributions. First, it initiates the fit research in IT outsourcing from a bilateral perspective. In measuring vendor's competence and client's IT capability, we not only collected data from both sides, but also satisfied the reciprocity of the data. This reciprocity in the collected data provides solid support for the concept of fit, thus enabling the research as empirically testable. Secondly, the study adopts an exploratory approach adequate to examine the relations without a strong pre-conceptualization. Since we are aware of the potential but generic partiality existing between the client and the vendor, to reduce those systematic bilateral biases in the data and draw conclusions with flexibility, the all-possible-subsets-regression technique for the validation process is used. As a result, we could illustrate the detailed features of the fit impact that is seemingly complex, and have meaningful discussions about it. Lastly, this study extends the existing capability perspectives of both the client and the vendor to IT outsourcing and its empirical validation. Although the understanding of both parties in outsourcing relationships is a must (Kern and Willcocks, 2002), the studies on the vendor's role have been conceptual and exploratory without empirical investigation (Levina and Ross, 2003). This study conceptualized the vendor firm's competence and empirically tested its impact, combined with the client's IT capability, on outsourcing success. Thus, this study, as the first empirical attempt, provides a better understanding on the role of the client's IT capability, the vendor's competence, and their fit in IT outsourcing.

(*The reference list is available upon request*).

APPENDIX: MEASUREMENT INSTRUMENTS

Variable	Question
Client Firm's IT Capability	
Technical and Managerial Capability	Our client firm has the ability to standardize information technologies
	Our client firm has the ability to integrate various information technologies
	Our client firm has the ability to understand IT trends
	Our client firm has the ability to identify IT functional requirements
	Our client firm has the ability to leverage IT as strategic competency
	Our client firm has the ability to constantly update IT strategy with business environment change
Organizational Relationship Capability	In our client firm, the IT department and the management communicate well
	In our client firm, the IT department's decisions reflect operational users' opinions
	In our client firm, the IT department and operational users communicate harmoniously
	In our client firm, the IT department and operational teams trust each other
Vendor Management Capability	Our client firm has a standardized process for vendor selection
	Our client firm has the ability to evaluate outsourcing performance
	Our client firm has the ability to manage outsourcing processes
	Our client firm has a systematic process for contract management
	Our client firm has a systematic process for vendor management
Vendor Firm's Competence	
Personnel Capability	The project team members of our vendor firm have core technical knowledge necessary for our project
	The project team members of our vendor firm know a methodology for conducting our project
	The project team members of our vendor firm have the ability to apply related technologies to our project
	The project team members of our vendor firm generally have competent technical skills
Methodology Competence	In our vendor firm, tasks are performed with systematic methods in knowledge bases
	Our vendor firm has standardized outsourcing processes to generate project outputs
	Our vendor firm has the ability to systematically solve problems using area experts
	Our vendor firm has a systematic education system for project team members
	Our vendor firm's methodology for our project is generally acceptable
Client Management Capability	Our vendor firm sincerely shares the status of our project with us
	Our vendor firm clearly understands each other's roles in our project
	Our vendor firm provides us with valuable comments and feedbacks on our project
	Our vendor firm has coordination mechanisms to solve problems with us
Outsourcing Success	
	We have been able to refocus on core business
	We have enhanced our IT competence
	We have increased access to skilled personnel
	We have reduced the human resource management cost
	We have increased efficiency in IT expenses
	We have increased efficiency in expenses
	We have reduced the risk of technological obsolescence
	We have increased access to key information technologies
	We are satisfied with our overall benefits from IT outsourcing