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Examining Factors Influencing IT Outsourcing Success in Malaysian Organizations

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Abstract

In recent years, information technology (IT) outsourcing continues to receive favourable acceptance to maximize organization's benefits. There is strong concern on the level of success of IT outsourcing endeavours and past researches indicated inconclusive findings on the influencing factors. This research investigates the relationships between partnership quality, service quality and IT outsourcing arrangements and IT outsourcing success. It was tested using a sample from IT managers in 143 Malaysian organizations. The findings of the survey provide evidence that partnership quality and service quality are important predictors for IT outsourcing success, while IT outsourcing arrangement, particularly the degree of integration and the length of the contract, are found to have insignificant influence on IT outsourcing success. .

Keywords

IT Outsourcing, IT Outsourcing Success, Partnership Quality, IT in Malaysia

INTRODUCTION

IT outsourcing (ITO) has been a widely-publicized practice. According to IDC, a technology research media, the outsourcing deals for 100 largest European organizations were worth USD40.5 billion in 2005, which indicates a strong demand for IT outsourcing (IDC, 2006). In addition, their findings noted the government, manufacturing and financial services sectors dominate the 100 outsourcing contracts in 2005.

Without exception, Malaysia, an emerging player in the outsourcing arena, was reported to attract at least RM11.4 billion (USD3 billion) of the global outsourcing business that is projected to be worth RM1.9 trillion (USD500 billion) by 2008 (Cheong, 2003). Interestingly, Malaysia's private sector and government agencies are seeing a rising trend in engaging IT outsourcing relationships involving significant amount of deals. However, despite the large uptake of IT outsourcing in the country, the level of success of these endeavors are not clear. In fact, empirical investigation on IT outsourcing in Malaysia in general is scarce. Hence, this research attempts to fill the gap by gathering empirical evidence on factors influencing IT outsourcing success in the Malaysian setting.

This paper firstly, provides a review of relevant literature on IT outsourcing success and several factors that influence its success. The research model is then presented followed by the research method. Next, the results of data analysis are described and discussed before conclusions were drawn.

LITERATURE REVIEW

IT Outsourcing and Success

There are many definitions of IT outsourcing. In this study, we adopt the definition of IT outsourcing articulated by Dibbern, *et al.* (2004) which describes it as "the organizational arrangement instituted for obtaining IT services and the management of resources and activities required for producing these services". IT services refer to the manner in which IT products are delivered and the provision of IT functions. Organizational arrangement refers to the formal structure of the responsibility and delegation of tasks within the IT function (Lacity and Hirschheim, 1993).

IT outsourcing success has always been a salient justification to information systems outsourcing research (Lacity and Hirschheim, 1993b). Outsourcing success is defined as the satisfaction with benefits from

outsourcing gained by an organization as a result of deploying an outsourcing strategy (Grover *et al.*, 1996). Lacity and Willcocks (2001) judged outsourcing as successful when “the outcome of IT sourcing decisions met expectations”. Lee and Kim (2003) defined outsourcing success as ‘the level of fitness between the service receiver requirements and outsourcing outcomes delivered by the service provider’.

Generally, IT outsourcing researchers commonly cited three strategies in attaining optimal IT outsourcing success even though the focus may varies from one company to the next (Lee, 2001; Lee and Kim, 2003). It is observed that taking benefits into considerations during the implementation of outsourcing will increase the possibility of success. Outsourcing is motivated by the promise of strategic, economic and technological benefits. Strategic benefit is defined as ‘the ability of a firm to focus on its core business by outsourcing routine IT activities’ (Lacity *et al.*, 1998; Willams, 1998). Economic benefit is ‘the ability of a firm to use expertise and economies of scale in human and technological resources of the service provider and to manage its cost structure through unambiguous contractual arrangement’ (Klepper and Jones, 1998; Bryson and Ngwenyama, 2000). Finally, technological benefit is referred to as ‘the ability of a firm to gain access to leading-edge IT and to avoid the risk of technological obsolescence that results from dynamic changes in IT’ (Lacity and Willcocks, 1998, Aubert, *et al.*, 1999, Lee *et al.*, 2000).

Factors Influencing IT Outsourcing Success

Many past researches have explored factors that influence IT outsourcing success, particularly in the context of North America, Europe and Australia. Amongst others, Lee and Kim (1999) put forth that the partnership quality is a key predictor of IT outsourcing success. Sun *et al.* (2002) investigated the factors influencing outsourcing partnerships and how it is associated with IT outsourcing satisfaction. The change in relationships between the clients and the service providers is the most imperative (Levina & Ross, 2003, Cullen *et al.*, 2005). Many researchers reported that closer relationships resulting from more frequent and relevant knowledge exchange were prevalent among high performance partners. Partnerships can create a competitive advantage through strategic sharing of organizations’ key information (Probst *et al.*, 2000, Lane *et al.*, 2005). Knowledge sharing through outsourcing partnership also contributed to outsourcing benefits (Sengupta & Zviran, 1997, Lee, 2001, Lee & Kim, 2005). Based on literature rooted from works of Nonaka and Takeuchi (1995), knowledge sharing (explicit and tacit) had been considered as one of the predictor in several IT outsourcing research (Lee & Kim, 2005).

Outsourcing success can also be assessed by the quality of offered services because organizations pursue outsourcing for higher quality services (Lee and Kim, 2003). Therefore, a proper analysis of service quality in building a relationship with the service provider is imperative for a successful outsourcing project. The smaller the discrepancy between service receiver and service provider, the greater the quality achieved. Service quality is defined as the overall support delivered by the service provider, regardless whether such support is handled by the IT department, a new organizational unit or outsourced to an Internet service provider (DeLone and McLean, 2003). Grover *et al.* (1996) found that service quality had a direct effect on IT outsourcing success.

Past researches also indicate that IT outsourcing configuration model influences IT outsourcing success. IT outsourcing configuration involves a variety of choices that may result in different types and forms of outsourcing arrangements (Lacity & Willcocks, 1998; Dibbern *et al.*; 2004, Cullen *et al.*, 2005b). IT outsourcing arrangements examined in this study are degree of outsourcing and duration of contract. As highlighted by past researchers (Lacity & Hirschheim, 1993; Lacity & Willcocks, 1998; Klepper & Jones, 1998), the degree of outsourcing may be broadly categorized as total, selective and minimal outsourcing, based on the percentage of IT budget being outsourced. Studies by Lacity & Wilcocks (1998) in US and UK and a study by Cullen, *et al.*, (2002) in Australia found similar finding that selective outsourcing is preferred and more successful. However, contrary to previous findings, a follow-up study conducted by Lee *et al.* (2004), with sample drawn from firms in South Korea found no support to the hypothesis that selective outsourcing is more successful than minimal or comprehensive outsourcing. Related to duration of the contract, some studies indicate that short-term contracts yield more cost savings than long-term contracts (Lacity & Willcocks, 1998). Lee *et al.* (2004)’s study, however, found that long-term contracts were more successful than short-term contracts, but not more successful than medium-term contracts. Inconclusive findings related to IT arrangement and success warrants more investigation on the issue.

IT Outsourcing in Malaysia

Malaysian enterprises are seriously looking at ITO as a means of leveraging on professionally managed IT resources to enhance their processes and increase competitive advantage. The willingness to pay for IT outsourcing services is high, especially among those in banking / insurance, manufacturing, healthcare and government sectors (www.marketresearch.com). It is noteworthy to recognize that the banking and financial sectors are among the active players in the IT industry in Malaysia. Bumiputra Commerce Bank (BCB) has

become the first bank in Malaysia to outsource its IT function, with a USD250 million 10-year contract with EDS in 1999. Other major IT outsourcing contracts in the private sectors include Maybank with RM1.3 billion deal, the RM440 million Malaysian Airline System Bhd (MAS) deal, and Permodalan Nasional Bhd. (PNB) RM32 million extension contract (Cheong, 2003).

The Malaysian public sector experience a drastic beginning with outsourcing, largely driven by Malaysia's strategic framework known as National IT Agenda (NITA) formulated in 1996 and the Multimedia Super Corridor (MSC). Among early Malaysian government's large-scale systems integration projects were for Malaysian Postal Office and Amanah Saham Nasional Berhad for Permodalan Nasional Berhad (PNB). IT outsourcing project also includes the Malaysian Smart Schools which was awarded to Telekom Malaysia Consortium (EDS Release, 1999), and the Generic Office Environment (GOE) project which was awarded to Electronic Data Services (EDS) Malaysia.

In the global scene, Malaysia is ranked as the third most attractive destination for Shares Services and Outsourcing (SSO) closing behind on India and China, who are the world's premier outsourcing spots, according to the latest study reports by AT Kearny, a management consultancy (Lee, 2004). Establishing a presence, the recent World Congress on Information Technology (W.C.I.T) 2006 held in Texas, USA, saw Malaysian Prime Minister Dato' Seri Abdullah Ahmad Badawi, in his keynote addresses the launch of 'Outsourcing Malaysia'. He further expressed the motivation as an initiative to pool the resources and expertise of all the players within the Malaysian SSO industry to promote Malaysia's global visibility in the outsourcing industry (Salmy, 2006).

Despite the widespread IT outsourcing practice both in the private and public sectors in Malaysia, research on this phenomenon was not extensive. Success stories are also scarce which lead to scepticism whether the numerous large-scale IT outsourcing projects were beneficial. This research is considered to be the first empirical investigation on IT outsourcing success factors in the country. Specifically, the following research questions are explored:

- 1) Is there a relationship between service quality and IT outsourcing success in Malaysian organizations?
- 2) Is there a relationship between partnership quality and IT outsourcing success in Malaysian organizations?
- 3) Is there a relationship between IT outsourcing characteristics and IT outsourcing success?

RESEARCH MODEL

The main purpose of the study is to examine Malaysian organizations that outsource their IT function and attempt to identify some variables that affect the level of its success. The basic model studied the relationships between partnership quality, service quality and IT outsourcing arrangements, and IT outsourcing success. The research model is shown in Figure 1.

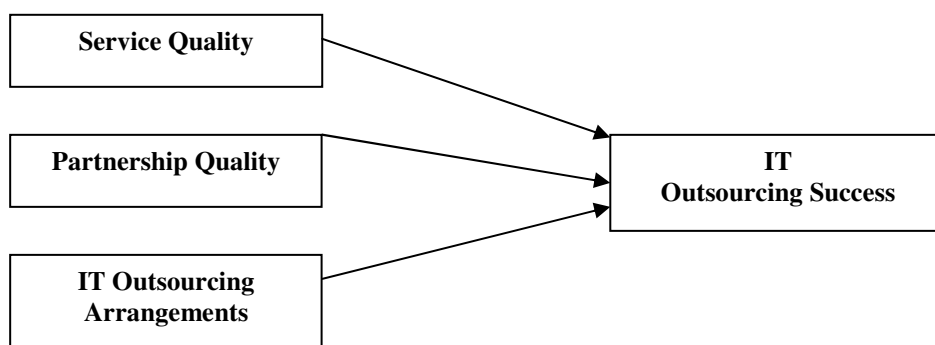


Figure 1: The Research Model

Partnership quality is identified by five constructs culled from literature. Elements such as benefit and risk-sharing, trust, knowledge sharing, conflict and commitment are important for outsourcing success. Benefit and risk sharing refers to The degree of articulation and agreement on benefit and risk-sharing between outsourcing partners (MacFarlan and Nolan (1995), Sun *et al.* (2002), Lee and Kim (1999, 2003). Trust is defined as The degree of confidence and willingness between IT outsourcing partners (Mohr and Spekmen (1994), Sabherwal (1999), Lee and Kim (1999, 2003), Lee and Huynh (2005). Knowledge Sharing refers to the extent to which activities of transferring or disseminating knowledge is communicated between IT outsourcing partners (Nonaka

and Takeuchi (1995), Lee (2001), Choi and Lee (2003). Commitment is defined as the degree of the pledge of relationship continuity between IT partners (Mohr and Spekman(1994), Lee and Kim (1999), Sun *et al.* (2002).

Specifically, this study focused on the measurement of perceived service quality rather than gap analysis, as prior research has indicated the appropriateness of perceived service quality in explaining the variation in service quality, particularly from the service receiver's perspective. This study attempts to measure service receiver satisfaction of IT services rendered by considering the five dimensions of service quality listed in the context of outsourced IT functions. Service quality dimensions consist of responsibility, responsiveness, tangible, assurance and empathy. Five hypotheses were formulated based on the association of service quality and IT outsourcing success.

The works of Lacity and Willcocks (1998) and Dibbern *et al.* (2004), Lee *et al.* (2004), Cullen *et al.*, (2005a) suggested various options of IT outsourcing arrangement. Repeatedly, degree of integration and the length of relationship (contract) are common arrangements that emerged from all their configuration of IT outsourcing arrangement. In this study, these two factors are hypothesized to have an influence on IT outsourcing success. These factors are degree of integration (minimal, selective or total outsourcing) and length of relationship (short, medium or long-term contract).

The dependent variable of IT outsourcing success comprises of three dimensions. They are commonly cited as strategic benefits, economical benefits and technological benefits comprising of nine items. The multi-item instrument developed by Grover *et al.* (1996) measuring for IT outsourcing success was empirically tested and validated by other researchers. Other IT researchers have also alluded to the three underlying dimensions (strategic, economic and technological benefits) and their analysis provided support for the anticipated three dimensions highly correlate with each other. This research has adopted these dimensions of IT outsourcing success as the dependent variable.

RESEARCH METHODOLOGY

In this study, the unit of analysis is organizational level. Organizations may comprise of corporations, business units, subsidiaries or divisions served by service providers (Grover *et al.*, 1996). Cross-sectional survey research method was used. A sampling frame was developed from Small and Medium Industries Development Corporation (SMIDEC), Bursa Malaysia, Federation of Malaysian's Manufacturers (FMM), and Malaysian Civil Service Link (MCSL). The targeted respondents were IT managers managing the outsourced IT projects from both government agencies and private organizations located in the Klang Valley.

A total of 910 questionnaires were mailed. In order to increase response rate, cover letters, and self-address return envelopes were provided. Follow-up phone-calls were made after two weeks of postage. From the 910 questionnaires distributed, 162 questionnaires were returned after duration of nearly four weeks, which yielded about 18% response rate. In total, usable responses added up to 143 which are considered sufficient for meaningful data analysis. SPSS for Windows (version 12.0) was used to analyze the data collected.

In addition, to ensure that responses were representative of the larger population, non-response bias was assessed by comparing the early respondents with the late respondents. The early and late respondents were compared on major variables, namely partnership quality and ITOS. The result of 2-tailed t-test, indicates that no significant differences between early and late respondent at the 5% significant level. This lack of non-response bias improves confidence that the results from the study sample can be generalized to the larger population.

ANALYSIS AND FINDINGS

Profile of the Responding Organizations

A brief demographics overview is provided of the respondent organizations and the IT outsourcing arrangements they engaged in. Majority of the primary industry were identified as government agencies. Nearly two-thirds (78.3 %) have more than 150 employees indicating organizations are large-sized. The categorized organizational size followed the definition of SME by the Malaysian Ministry of International Trade and Industry (MITI). A majority (82.5%) of organizations that outsourced their IT functions do have IT departments. Forty-seven organizations (32.9%) outsourced 20% of their IT functions against 34 organizations (23.7%) that outsource more than 80% of their IT functions. Slightly more than half of the sample engaged in selective outsourcing. Most of the organizations (81.8%) engaged in short term contracts. Of the 143 organizations, most indicated applications development, hardware maintenance and telecommunication /network as the main three IT functions being outsourced.

Validity and Reliability Test

Discriminant validity is the degree to which measures different concepts are distinct (Bryman & Cramer, 2002). Since each variable was measured by the multiple item constructs, principal axis factoring with varimax rotation was conducted to check the unidimensionality for each domain of the proposed model. In the effort to acquire a theoretically meaningful pattern of all the items in each variable, the factors were orthogonally rotated. Factor Analysis was performed on all the items for partnership quality, service quality and nine items for outsourcing success. Factors with eigenvalue greater than 1 are considered significant; otherwise, are disregarded. Subsequently, in interpreting factors, the appropriate cut-off significant factor loading points based on the sample size of 143 is 0.5 (Hair *et al.*, 1998). The results are shown in Table 1. Finally, the instrument was well developed and there are 23 measurement items for the 4 constructs in the research model.

Table 1: Dimensions after Factor Analysis

Variables	Original Dimensions	After Factor Analysis
Service Quality	Responsiveness. Reliability Tangible Empathy Assurance	Responsiveness-Reliability Tangible. Empathy.
Partnership Quality	Benefit and risk sharing. Business understanding Trust. Conflict Commitment Knowledge sharing	Benefit and risk sharing. Trust. Conflict Commitment Knowledge sharing
IT Outsourcing Success	Strategic Benefits Economic Benefits Technological Benefits	Strategic Benefits Technological Benefits

To determine the reliability of the measures, Cronbach Alpha was performed on all the three variables. The results are shown in Table 2.

Table 2: Constructs and Reliability Tests for all Variables (Post-Factorial Analysis)

Variables	Constructs	Items in Scale	Cronbach's Alpha
IT Outsourcing Success	1. Strategic Benefits 2. Technological Benefits	9	0.858
Service Quality	1. Reliability- Responsiveness 2. Empathy 3. Tangibles	10 5 3	0.953 0.879 0.793
Partnership Quality	1. Benefit and risk sharing 2. Trust 3. Knowledge sharing 4. Conflict 5. Commitment	3 4 4 3 4	0.894 0.841 0.906 0.881 0.859
Total	11	45	

The results in Table 2 indicate high values of Cronbach's alpha ranging from 0.793 to 0.906. According to Norusis (2002), good scales have values larger than 0.8. Since, the other results show high values of Cronbach's alpha indicating that all the constructs are measuring the concepts for this study, verifying their convergent validity, hence suggests the instrument is reliable.

After factor analysis and reliability assessment were conducted, the concept of summated scale is applied. Summated scale is a method of combining several items into a single composite measure in an attempt to increase the reliability of the measurement (Hair *et al.*, 1998). From hereon, this study considered the average score of items from each dimension to represent a construct estimate.

Relationship between Service Quality and IT Outsourcing Success

The overall service quality and each of its constructs are expected to improve the success of the outsourced venture. Three constructs were used to evaluate service quality, namely responsiveness-reliability, tangibles and empathy. The hypotheses are:

H1a: Responsiveness_Reliability is positively associated with IT outsourcing success.

H1b: Tangible is positively associated with IT outsourcing success.

H1c: Empathy is positively associated with IT outsourcing success.

Table 2 depicts the results from simple linear regression of each service quality constructs and IT outsourcing success. It also shows the association of each of service quality construct with ITOS. As shown in Table 2, responsibility-reliability, tangible and empathy between client and service provider was significantly related to ITOS. The values of the Pearson's r (equal to standardized regression coefficient (β) for bivariate analysis, Norusis (2003, pg 251)) read 0.641, 0.598 and 0.593 respectively. Therefore, there is a significant strong positive correlation between each construct of service quality and IT outsourcing success. In addition, overall service quality shows a significant positive relationship ($r = 0.704$) with ITOS, which supports hypothesis 1. This means that, in general, the higher the degree of service quality the greater the accomplishment of IT outsourcing success. Table.2 further portrays the regression analysis for every construct of service quality.

Table 2: Analysis for constructs of Service Quality

Constructs	IT Outsourcing Success				
	R ²	F	β	t	p-value
Responsiveness- Reliability (H1a)	0.418	98.136	0.641**	9.906	0.000
Tangible (H1b)	0.358	78.692	0.598**	9.971	0.000
Empathy (H1c)	0.351	76.287	0.593**	8.734	0.000
Overall service quality	0.495	138.439	0.704**	11.766	0.000

** Correlation is significant at the 0.01 level (2-tailed)

In summary, all the hypotheses (H1a, b, c) concerning the association of service quality construct and ITOS were supported. Evidently, the positive results showed that service quality identified in the study do have an influence on IT outsource success. Responsiveness-reliability of the service provider proved to be an important service quality factor found to positively and significantly contribute to ITOS. It explains about 42% of the variance in ITOS. Also, the service providers' appearance of physical facilities, hardware and software and appearance are crucial to ensure IT outsourcing success. This attribute contributed 36% of the variance in ITOS. Equally important is empathy which is required of service providers' showing their care and individualized attention to clients. The result also shows the overall service quality explains nearly 50% of the variance in ITOS ($\beta = .71$; t-value = 11.77; p-value = .000). It indicates that service quality based on responsiveness-reliability, tangible and empathy are strong predictors of success. Other research have shown that perceived service quality is a necessity in service process as it is associated with ongoing interactions between service provider and client, which may lead to customer satisfaction and makes it possible to leverage potential benefits (Wong and Sohal, 2002, Roberts *et al.*, 2003).

Relationship between Partnership Quality and IT outsourcing success

This section investigates the relationship between partnership quality and IT outsourcing success. Partnership quality is identified by five constructs. Constructs such as benefit and risk-sharing, trust, knowledge sharing, conflict and commitment are important for outsourcing success. To support this objective, five hypotheses were developed as follows:

H2a: Benefit and risk sharing is positively associated with IT outsourcing success.

H2b: Trust is positively associated with IT outsourcing success.

H2c: Knowledge sharing is positively associated with IT outsourcing success.

H2d: Conflict is negatively associated with IT outsourcing success.

H2e: Commitment is positively associated with IT outsourcing success.

Likewise, in an attempt to test these hypotheses, both correlation and regression analysis were conducted. Table 3 depicts, the results from the regression analysis conducted between partnership quality constructs and IT outsourcing success. It shows the association of each construct of partnership quality and IT outsourcing success.

As shown in Table 3, benefit and risk-sharing, trust, knowledge sharing and commitment were significantly related with ITOS except conflict. The values of Pearson's r range from $r = 0.307$ to $r = 0.529$ with the exception of conflict. In addition, overall partnership quality shows a significant positive relationship with ITOS ($r = 0.549$). It generally appears that the higher the degree of partnership quality the greater the accomplishment of IT outsourcing success. Table 3 also shows the results of the regression analysis for partnership quality constructs.

Table 3: Analysis for constructs of Partnership Quality

Constructs	IT Outsourcing Success				
	R ²	F	β	t	p-value
Benefit Risk-Sharing (H2a)	0.094	14.656	0.307**	3.828	0.000
Trust (H2b)	0.209	37.231	0.457**	6.102	0.000
Knowledge Sharing (H2c)	0.173	29.496	0.416**	5.431	0.000
Conflict (H2d)	0.014	2.073	0.120	1.440	0.203***
Commitment (H2e)	0.280	54.877	0.529**	7.408	0.000
Overall partnership quality	0.302	60.981	0.549**	7.809	0.000

**Correlation is significant at the 0.01 level (2-tailed)

*** not significant, $p > 0.05$

In summary, all the hypotheses concerning the association of partnership quality factors and IT outsourcing success were supported except conflict, which was found to be not significant ($p > 0.05$). Commitment between partners proved to be an important partnership quality and found to be positively and significantly related with IT outsourcing success. This factor contributes 28% of the variance in IT outsourcing success ($\beta = 0.53$, t-value = 7.41, p-value = 0.000). It was shown that trust contributes 20% variances established significance in predicting the success of the IT outsourcing success. Knowledge sharing, however provides 17% of the variance in IT outsourcing success. Finally, benefit and risk sharing also have influence on IT outsourcing success with only 10% of the variance accounted for. However, conflict was found to be not significantly associated with the outsourcing success. Hence, conflict is not considered for further analysis. These findings are consistent with the previous study conducted by Willcocks and Kern, 1998, Lee and Kim, 1999, 2003; Lee, 200, Sun *et al.*, 2002 examining inter-organizational relationships (between client and IT service providers) and IT outsourcing success. Hence, there is validity for all hypotheses drawn.

Relationship between IT Outsourcing Arrangements and IT Outsourcing Success

In this study, two IT outsourcing arrangements are hypothesized to have influence on IT outsourcing success. These factors are degree of integration and length of contract. The hypotheses are stated as follows:

H3(a): Degree of integration is significantly related to IT outsourcing success.

H3(b): Length of contract is significantly related to IT outsourcing success.

In order to investigate for more than two independent groups of cases, the statistical procedure called analysis of variance was conducted on degree of integration (minimum, selective, total outsourcing) and the length of contract (short, medium and long term contract). Similarly, to test for homogeneity of variance, Levene's test was conducted. Given that Levene's test has a probability greater than 0.05, as assumption has not been violated by both variables, interpretation of ANOVA can then proceed. Table 4 shows the result of ANOVA test.

Table 4: ANOVA for IT Outsourcing Arrangements

Variables	Degree of Freedom	F-ratio	p-value
Degree of integration	2,140	0.477	0.622
Length of contract	2,140	1.468	0.234

Table 4 shows the relationship between degree of integration (minimal, selective and total outsourcing) and IT outsourcing success. Also length of contract (short, medium and long-term contract) and outsourcing success relationship was examined. The F-ratio with F-probability value greater than 0.05 is not significant for both IT outsourcing arrangements, suggesting that degree of integration does not influence outsourcing success, $F(2,140) = 0.477$, $p > 0.05$. Similarly, length of contract do not significantly influence IT outsourcing success ($F(2,140) = 1.468$, $p > 0.05$). The results provide evidence that there is no significant difference in either degree of integration or length of relationship towards IT outsourcing success. Apparently, these findings imply that irrespective of degree of integration which translate to percentage of outsource IT function, and length of relationship (duration of contract) do not influence outsourcing success. Hence, hypotheses H5a and H5b are not supported.

DISCUSSION AND CONCLUSION

This research aims to examine the relationship between partnership quality, service quality and IT outsourcing arrangement on IT outsourcing success. IT outsourcing success is major concern as it represents one of the most attractive IT acquisition approach by many business organizations. In the analysis of managers' perception on overall IT outsourcing success, the findings revealed two important indicators. Although commonly IT outsourcing success is distinctively differentiated by three benefit dimensions, however, in this study, strategic benefit is compounded with economic benefit, and technological benefits are perceived as the two distinct factors of IT outsourcing success. Secondly, it is apparent that Malaysian IT managers gave somewhat equal importance to strategic benefits and technological benefits. They believe that the ability to gain access to leading-edge it through outsourcing is necessary to develop new capabilities.

The finding of this study confirms that partnership quality is an important predictor to IT outsourcing success as reflected by the Malaysian IT managers. This finding is consistent with the result of Grover, et. al. (1996)'s study, which implies that this predictor is rather universal, regardless of the context. The strong relationship between partnership and outsourcing success indicates that fostering a long-term mutual relationship based on benefit and risk-sharing, trust, commitment and knowledge-sharing is critical to achieving the greatest benefits from outsourcing. Grover et.al. (1996) cautioned, however, that interpretations for partnership are not as straightforward. Dibben et. al. (2004) mentioned that better descriptions of inter-organizational relationships are needed as the literature is inconsistent and vague. Cullen et. al.(2005) four options, namely, 'Arms-length', value-add, co-sourced and equity. While arms-length represents the most distant relationship where the involved parties have mutually exclusive accountabilities, equity relationship represents the other extreme where the parties have some form of shared equity. Kern and Wicocks (2001) do not consider 'partnering' as an option as partnering is defined as a trust-based relationship that parties attempt to engender, not description of the relationship structure. 'Partnering' described negotiation techniques, power balancing, and a collection of intangible characteristics such as compatible cultures (Cullen et. al., 2005).

Another important finding of the study is the need for organizations to go much further than a buyer-seller association in order to achieve strategic and technological benefits from outsourcing. The service provider needs to ensure both the quality of visible or tangible deliverables as well as the reliability of the services provided. Users compare expected service levels with perceptions of the service received to evaluate quality. Because of the imprecise nature of services and the difficulty in assuring consistent quality, service receivers often form ongoing relationships with service providers, which imply that service quality and partnership quality tend to go hand in hand.

From this study, IT outsourcing arrangements is found not to be a significant predictor to the success of IT outsourcing. IT outsourcing arrangement in this case refers to the degree of outsourcing and the duration of the contract. This finding tends to support the findings of Lee et. al. (2004) on South Korean companies and contradict to the UK, US and Australian's studies (Lacity & Wilcocks, 1998; Cullen, et al., 2002). For all these studies, the hypothesis is that selective outsourcing is more successful than minimal or comprehensive outsourcing arrangement. While it is tempting to conclude that Malaysian managers are more similar to the South Korean managers than the western counterparts due to cultural factor, a deeper study is needed to explain the phenomenon. Other arrangements parameters, such as type of contract, supplier grouping, financial scale, pricing framework, resource ownership and type of relationship are suggested for further research as IT outsourcing configuration is represented by multiple attributes (Cullen et.al., 2005).

The implications of the findings are multi-fold. For IT researchers, the findings of this research validate past observation on the importance of partnership and service quality towards achieving IT outsourcing success, even in the context of Malaysia. For practitioners the results imply that participants of IT outsourcing must take note the importance of cooperation between service receivers and service providers in reaping benefits from such practices. IT outsourcing is not a homogeneous phenomenon, thus different types of it outsourcing arrangements

lead to different types of agency problems that require different type of management. Hence, in conclusion, it is proposed that apart from attention given to various facets of partnership.

This study is not without limitations. While information from IT manager should provide a high level of confidence in the quality of the information gathered, selection biases could still exist due relying to a single informant for both the antecedent and dependent variables. Secondly, this was an empirically-based study, whereby the research model developed provides a snapshot research. All concepts and relationships were measured at one point in time, thus essentially from a static perspective. Finally, results of this study may not be completely generalized and may have to be carefully interpreted since the setting was restricted to Malaysia. the practice of outsourcing in Malaysia and its socioeconomic environment may have played a distinctive role in the findings of this study.

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