

An Empirical Investigation of the Determinants of Logistics Outsource Performance

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Abstract: The purpose of this paper is to understand the determinants of outsourcer performance. With the rise of off-shore sourcing and simultaneous need for improved responsiveness to customer demand, the performance of outsource-based strategy is critical. The paper draws its conclusions based on empirical research supported by survey data. There are six predictors of outsourcers' performance identified based on the extant literature: 1. Specific requirements or skills, 2. Resource availability, 3. Social network with outsourcer, 4. Reputation, 5. Politics, and 6. Ambiguity or loosing structure). The paper provides evidence that the choice of Special requirements, social network and ambiguity have positive relationship with outsourcer performance. And special requirements variable is clearly the strongest predictor than social network and ambiguity. Given the increasing trend to out-sourcing and off-shore sourcing, the choice or selection of outsource and their performance is of some significance and clearly impacts competitive performance.

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1. Introduction

Outsourcing has become more importance in many businesses and organizations. The potential of outsourcing activities has expanded from peripheral activities such as cleaning, securities and catering to critical activities such as manufacturing, logistics, IT, accounting, financing and marketing (McIvor, 2000). This is an evolution in outsourcing processes from traditional to strategic. Outsourcing will be considered as traditional if outsourcing activities are not considered critical for organization or are part of competitive advantage of organization but strategic outsourcing is everything outsourced except the special activities that will create or involve in competitive advantages for the business or organization (Franceschini, Galetto, Pignatelli, and Varetto, 2003).

Actually outsourcing in Thailand is not the new thing. Many businesses have ever used outsourcing for a long time but they do not recognize them as outsourcing. This can be seen from using external accounting company or external auditor to handle accounting activities and report for revenue department. As mention earlier, outsourcing is becoming more important and is also changing from traditional to strategic. The number of businesses in Thailand is around 514,512 businesses which locate in Bangkok around 264,520 businesses since August 2006. There are new established businesses around 35,000 businesses in Thailand and around 16,000 businesses in Bangkok every year derived data from Department of Business Development, year 1998 to 2005 (<http://www.dbd.go.th/>, 2006). The growing

trend of outsourcing can be implied from the number of new business establishing in Thailand.

Before employing outsourcing, each business has to gather information, study or analyze cost and benefit, and plan for outsourcing implementation, using, and controlling. There are many researches studying outsourcing in term of transaction cost, how it can reduce cost or enhance productivity or profitability toward business. For example, Hobbs (1996) studies the relationship between transaction costs and vertical co-ordination in the two points of spot market transaction (buy outsource) and vertically integration (make or in-house). McIvor (2000) studied the outsourcing process and also adopted theory of transaction cost analysis in a practical framework for outsourcing process.

Even the outsourcing decision about whether and what activities should do in-house or do outsource is important but the success of outsourcing is also depended on the side of outsourcers who provide outsourcing activities and the relationship. If the company can identify the right activities that should be outsourced but fail to use the right and effective outsourcers or do suitable contract and relationship with outsourcer, the outsourcing is hard to be successful. So identifying the right outsourcer or outsourcer selection is one of importance parts in the outsourcing decision process.

After the company or organization decided to do outsourcing and identified activities outsourced, the next step is to analyze and identify potential outsourcers that are suitable with the company and can perform outsourced activities as expectation or

the outsourcer performance can meet the expectation or goal of outsourcing. If there are potential suitable suppliers, the company should form a relationship for outsourcing but if no potential suitable suppliers, the company may perform in-house (McIvor, 2000). So the question come out that what determinants should be used to determine the potential outsourcer candidates in the first phase, which this task is not easy and may consume a lot of time if there are no right outsourcer candidates in the first list.

This research objective is to find the determinants in identifying and determining the right potential candidates of outsourcers in the first phase that will predict effective outsourcer performance in the future. The researcher uses the determinants from "Issues in supplier partner selection" of Pidduck (2006) in identifying and determining the potential outsourcer candidates. It comprises of six issues for judging the potential outsourcer candidate: 1. Specific (necessary) requirements or skills, 2. Resource availability, 3. Social network with outsourcer, 4. Reputation, 5. Politics, and 6. Ambiguity or losing structure. The result will help the company to reduce the time and the error in identifying and determining outsourcer candidates in the first phase. It also reduces the risk of selecting wrong outsourcer that will lead to bad performance or fail in outsourcing result in the future.

2. Literature Review and Hypotheses

Outsourcer performance depends on various factors such as outsourced activities, outsourced organization, outsourcer, relationship, contract and etc. Outsourcer characteristic or issue is one of important factor that relates to outsourcer performance in each outsourcing.

Pidduck (2006) used "Alliance Theory" to describe alliance model that Motivation will affect to Alliance Formation because particular partners may be necessary to meet particular goal or have particular requirements and skills. Alliance formation will also effect to Alliance Structure because some partners may exhibit more hierarchical or peer behavior due to their reputation and power. And, each of these issues plus other factors may effect to Alliance Performance. This will help to understand how and why collaborative partners or outsourcers are chosen.

Partner selection theory was reviewed to answer why collaborative partners or outsourcer were chosen. Observed partner selection was supported by resource-based and organizational learning theory among emerging and developed markets in North America and Europe (Hitt and Dacin, 2000). Emerging market firms in Mexico, Poland, and a Romania sought financial assets, technical

capabilities, intangible assets, and sharing expertise in selection of partners. Developed market firms in Canada, France, and the USA selected the partners based on unique competencies, local market knowledge, and access (Saffu and Mamman, 2000). Based from the literature reviews and interviews, the researcher identified six partner selection issues (comprising of specific (necessary) requirements or skills or constrains, resource availability, social network, reputation, politics, and ambiguity) to answer the second research question, why particular partners are chosen.

Outsourcing performance is the dependent variable and relates to outsourcer performance determinants. Outsourcer determinants are the independent variables which are developed in line with the previous study by Pidduck (2006). The predictor variables comprise of: specific (necessary) requirements or skills or constrain, resource availability, social network, reputation, politics, and ambiguity. The conceptual framework is shown below.

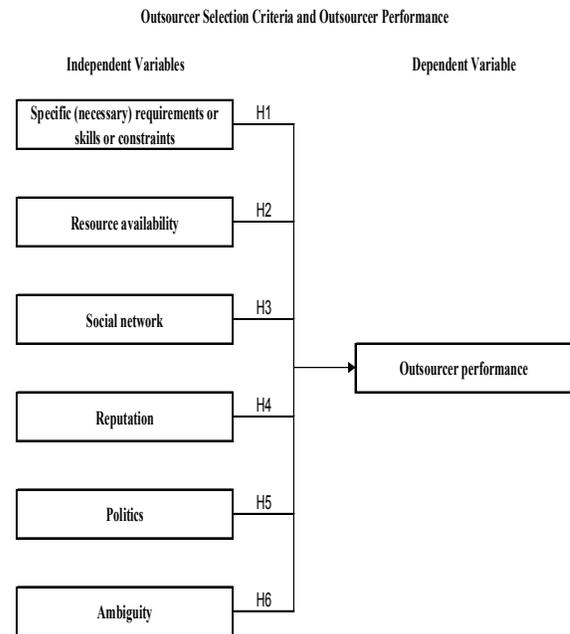


Figure 1. The Determinants of Outsourcer Performance

To determine the relationship between outsource determinants with the outsourcer performance; the six hypotheses embodied in the model are listed below:

Specific (necessary) requirements or skills or constraints If the specific requirements or skills needs are high, the chance of success and to meet the

company requirements will be lower (Duysters and Kok, 1999; Hitt and Dacin, 2000; Saffu and Mamman, 2000). Hence,

H1: There is a negative relationship between specific (necessary) requirements or skills or constraints and outsourcer performance.

Resource availability If there are many potential partners with appropriate skills or requirements and interest, the partner chosen is more likely to exactly match with organization needs and activities (Pidduck, 2006). But if there are few potential partners, there may be a prioritization of requirements; partners chosen may match with a few of organizational needs. The chance of success will be lower. Hence,

H2: There is a relationship between resource availability and outsourcer performance.

Social network This provides a faster, more efficient partner selection process for organization and the result can be more predictable and more positive (Angeles and Nath, 2000; Barringer and Harrison, 2000). If the partner that organization has worked with before, or be recommended by someone whose organization trusts, or there is a previous experience, the chance of success is higher. Hence,

H3: There is a positive relationship between social network and outsourcer performance.

Reputation The perception of quality over time which may be true in today's business or may be perceived based on past quality or past experience of personal or secondary. Trust can be from positive reputation (Pidduck, 2006). The good experience with others will lead to improve the reputation but bad experience will lead to destroy the reputation. The good reputation will lead to trust in quality or performance. The chance of success will be higher. Hence,

H4: There is a positive relationship between reputation and outsourcer performance.

Politics Partners have their own political roles or constraints so they have to play based on them so partners may be selected based on politics as well as social network. Many partnership relations are based on external constraints which often related to financing. The organization that has more financial power may have specific partners in mind such as based on particular area or industries. The geographical area or industry may not relate to real partnership needs but partners may be from financial needs or constraints such as technologies. If there are a lot political roles, number of choices will be low, and the chance of success will be lower too (Pidduck, 2006). Hence,

H5: There is a relationship between politics and outsourcer performance.

Ambiguity Partnership can be divided into 2 types: Ambiguous and Structured partnership. A *structured partnership* will have specific goals, rules, procedures, well-defined partners, and well-defined result. An *ambiguity partnership* will have ambiguous, general goals, fewer rules, and so on (Angeles and Nath, 2000). The more ambiguous the project or goal has, the more likely that any final result can be acceptable. Ambiguous goals and loose constraints will allow almost any problem can be mapped with any solutions. As there are more specifics which will lead to more rules, bureaucracy, formalization and consequences of problem, the chance of success will be lower (Angeles and Nath, 2000). Hence,

H6: There is a relationship between ambiguity and outsourcer performance.

3. Research Methodology

The target population for this research will focus on businesses in Bangkok. According to information from Department of Business Development, year 1998 to 2005 (<http://www.dbd.go.th/>, 2006), the number of businesses in Thailand is around 514,512 businesses which locate in Bangkok around 264,520 businesses since August 2006. There are new established businesses around 35,000 businesses in Thailand and around 16,000 businesses in Bangkok every year.

3.1 Sample Size

Sample size refers to the number of elements to be included in the study. This study determines sample size according to the recommendation of Hair, Anderson, Tatham, and Black (1995) that there are at least 20 respondents for each estimated parameter. This research has six hypotheses then the sample size is 120 samples.

3.2 Research Instrument/Questionnaire

The researcher used questionnaire to gather the information from the respondents. The questionnaire is designed and based on (Pidduck, 2006) study of "Issues in supplier partner selection" the relationship between outsourcer selection criteria with performance and (Franceschini, Galetto, Pignatelli, and Varetto, 2003) study of "Outsourcing: guidelines for a structured approach" involving outsourcer performance.

4. Data Analysis

This chapter reports the analysis of the collected data. Analysis is the application of logic to understand and to interpret the data that have been collected. The analysis may involve determining consistent patterns and summarizing the appropriate details discovered in the investigation. The appropriate technique for analysis will be determined based on the objectives of the research and the

research design. In this study, the techniques are descriptive statistic which summarizes the company profile in the form of frequency and percentage table, reliability analysis, and inferential statistics of hypothesis testing which are Pearson Product-moment Correlation Coefficients (Bivariate) and Multiple Regression technique for hypothesis testing.

4.1 Descriptive Statistics and demographic factors

Descriptive statistic is used to describe (or to summarize) information about a sample (Zikmund, 2004). The cross tabulation, an instance of descriptive statistics, will be used for data analysis. The cross tabulation is the process of organizing a set of data by summarizing the number of times and particular value of variable occurs. The data were presented in the form of Frequency and Percentage in order to describe company profile (such as type, size, origin and business) and outsourcing activities in their organizations of the respondents. Also, the data were examined in the form of Mean and Standard Deviation in order to describe average and standard deviation of scores for each independent variable associated with respondent data. The reliability analysis will be applied to test the reliability of questionnaire.

4.2 Respondents' Profile

This section presents the general background of businesses who adopted Outsourcing in Bangkok area by frequency and percentage. The details are presented as follows:

Table 1. The analysis of demographic by using frequency and percentage

		Frequency	Percent	Valid Percent	Cumulative Percent	
Outsourcing Activity	Accounting	18	15.0	15.0	15.0	
	Financing	7	5.8	5.8	20.8	
	External Audit	8	6.7	6.7	27.5	
	IT	43	35.8	35.8	63.3	
	Logistics	19	15.8	15.8	79.2	
	Manufacturing	4	3.3	3.3	82.5	
	Human Resource	9	7.5	7.5	90.0	
	Marketing	2	1.7	1.7	91.7	
	Purchasing	3	2.5	2.5	94.2	
	Security	5	4.2	4.2	98.3	
	Cleaning	2	1.7	1.7	100.0	
	Total	120	100.0	100.0		
	Type of Company	Local Company	92	76.7	76.7	76.7
		Foreign Company	1	0.8	0.8	77.5
Local plus Foreign Company		10	8.3	8.3	85.8	
MNC		17	14.2	14.2	100.0	
Total		120	100.0	100.0		
Size of Company	Less than 50 persons	23	19.2	19.2	19.2	
	51 - 150 persons	20	16.7	16.7	35.8	
	151 - 450 persons	16	13.3	13.3	49.2	
	451 - 850 persons	6	5.0	5.0	54.2	
	851 - 1,600 persons	3	2.5	2.5	56.7	
	1,601 - 3,200 persons	2	1.7	1.7	58.3	
	More than 3,200 persons	50	41.7	41.7	100.0	
Total	120	100.0	100.0			
Main Business of Company	Manufacturing	38	31.7	31.7	31.7	
	Trading	13	10.8	10.8	42.5	
	Servicing	48	40.0	40.0	82.5	
	Entertainment	3	2.5	2.5	85.0	
	Financing	18	15.0	15.0	100.0	
	Total	120	100.0	100.0		

The table 1 shown that the highest percentage of Outsourcing activity was 35.8% (43) of IT, and other were 15.8% (19) of Logistics, 15% (18) of Accounting, 7.5% (9) of Human Resource, 6.7% (8) of External Audit, 5.8% (7) of Financing, 4.2% (5) of Security, 3.3% (4) of Manufacturing, 2.5% (3) of Purchasing, 1.7% (2) of Marketing, and 1.7% (2) of Cleaning, respectively.

4.3 Reliability Analysis

Table 2 shows Cronbach's Alpha coefficient value of special requirement 0.939, which is higher than 0.7. And can confirm Cronbach's Alpha coefficient value of each question which is greater than 0.7. Therefore, it can be concluded that these questions used in this study are reliable.

Table 2. The reliability analysis of the variables

Variables		Cronbach's Alpha
Specific Requirements	Technical capability or technology People or human capability Machine or equipment capability Special Expertise or knowledge Special resource	0.939
Resource Availability	With appropriate technical capability or technology With appropriate people or human capability With appropriate machine or equipment capability With appropriate expertise or knowledge With appropriate resource	0.953
Social Network	Relationship with outsourcer Experience time with outsourcer Trust with outsourcer Relationship with recommender Experience time with recommender Trust with recommender	0.947
Reputation	Quality Technical capability or technology People or human capacity Machine or equipment capability Special Expertise or knowledge	0.973
Politics	Need for financial support Need for location Need for technology support Need for machine or equipment support Need for expertise or knowledge support	0.915
Ambiguity	Specific goals Specific rules Specific procedures Well-defined relationship Well-defined results	0.953
Performance	In term of money In term of time In term of people In term of consistence In term of overall	0.915

4.4 Inferential Statistics Hypothesis testing

Specific (necessary) requirements or skills or constraints, the analysis of Pearson Product-moment Correlation in Table 3 indicated that the sig. is equal 0.000 which is less than 0.05 (0.000 < 0.05). Thus, specific (necessary) requirements or skills or constraints have a relationship with outsourcer performance at 0.05 significant level. 0.725 means that there is a high positive relationship between specific (necessary) requirements or skills or constraints and outsourcer performance at 0.725 with same direction. Thus, if the business requires high specific (necessary) requirements or skills or

constraints from outsourcer, the outsourcer performance will be high.

Resource Availability, the analysis of Pearson Product-moment Correlation in Table 3 indicated that the sig. is equal 0.000 which is less than 0.05 (0.000 < 0.05). Thus, resource availability has a relationship with outsourcer performance at 0.05 significant level. 0.391 means that there is a low positive relationship between resource availability and outsourcer performance at 0.391 with same direction. Thus, if there is more resource availability, the performance will increase at low level.

Table 3. The analysis of relationship between the determinants and outsourcer performance by using Pearson Product-moment Correlation Coefficient

		Correlations						
		Specific Requirements	Resource Availability	Social Network	Reputation	Politics	Ambiguity Structure	Performance
Specific Req.	Pearson Co	1	.258*	.398*	.747*	.569*	.384*	.725*
	Sig. (2-tailed)		.004	.000	.000	.000	.000	.000
Resource Av.	Pearson Co	.258*	1	.370*	.364*	.221*	.654*	.391*
	Sig. (2-tailed)	.004		.000	.000	.015	.000	.000
Social Netwo	Pearson Co	.398*	.370*	1	.502*	.417*	.322*	.511*
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
Reputation	Pearson Co	.747*	.364*	.502*	1	.659*	.517*	.656*
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
Politics	Pearson Co	.569*	.221*	.417*	.659*	1	.490*	.482*
	Sig. (2-tailed)	.000	.015	.000	.000		.000	.000
Ambiguity	Pearson Co	.384*	.654*	.322*	.517*	.490*	1	.483*
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
Performance	Pearson Co	.725*	.391*	.511*	.656*	.482*	.483*	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	

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

*Correlation is significant at the 0.05 level (2-tailed).

Social network, the analysis of Pearson Product-moment Correlation in Table 3 indicated that the sig. is equal 0.000 which is less than 0.05 (0.000 < 0.05). Thus, social network has a relationship with outsourcer performance at 0.05 significant level. 0.511 means that there is a medium positive relationship between social network and outsourcer performance at 0.511 with same direction. Thus, if there is more social network, the performance will increase at medium level.

Reputation, the analysis of Pearson Product-moment Correlation in Table 3 indicated that the sig. is equal 0.000 which is less than 0.05 (0.000 < 0.05). Thus, reputation has a relationship with outsourcer performance at 0.05 significant level. 0.656 means that there is a medium positive relationship between reputation and outsourcer performance at 0.656 with same direction. Thus, if the reputation increases, the performance will increase at medium level.

Politics, the analysis of Pearson Product-moment Correlation in Table 3 indicated that the sig. is equal 0.000 which is less than 0.05 (0.000 < 0.05). Thus, politics have a relationship with outsourcer

performance at 0.05 significant level. 0.482 means that there is a medium positive relationship between politics and outsourcer performance at 0.482 with same direction. Thus, if the politics increase, the performance will increase at medium level.

Ambiguity, the analysis of Pearson Product-moment Correlation in Table 3 indicated that the sig. is equal 0.000 which is less than 0.05 (0.000 < 0.05). Thus, ambiguity structure has a relationship with outsourcer performance at 0.05 significant level. 0.483 means that there is a medium positive relationship between ambiguity structure and outsourcer performance at 0.483 with same direction. Thus, if the structure is more ambiguity, the performance will increase at medium level.

The relationship between each determinant from the analysis of Pearson Product-moment Correlation in Table 3 indicated that there is a relationship between each determinant at 0.05 significant level from sig. (sig. of each relationship < 0.05).

4.5 Multiple Regression (The Stepwise Method)

A linear regression model has more than one independent variable. This research has 6 independent variables, the model is shown below.

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \epsilon$$

The independent variables are special requirements, resource availability, social network, reputation, politics, and ambiguity structure. The dependent variable is outsourcer performance. So the model of this research is as:

$$\text{Outsourcer performance} = \beta_0 + \beta_1 \text{ special requirements} + \beta_2 \text{ resource availability} + \beta_3 \text{ social network} + \beta_4 \text{ reputation} + \beta_5 \text{ politics} + \beta_6 \text{ ambiguity} + \epsilon$$

The stepwise method begins by entering into the model the independent variable that has the strongest positive or negative correlation with the dependent variable; and at each subsequent step, it will add more the independent variable with the strongest partial correlation. With stepwise, at each step, variables are tested for removal.

This overview of the stepping process indicates that three of the six independent variables or determinants of outsourcer performance are included in the final model. They are entered into the equation in this order: Special Requirements, Social Network, and Ambiguity.

In table 4 and 5, the R Square for the final model is 0.615 and adjusted R Square is 0.605. The standard error of the estimate decreases from 0.7051 (when Special Requirements is only one predictor) to 0.6401 (when the model includes 3 variables). The three independent variables; Special Requirements, Social Network, and Ambiguity explain 60.5% of the variance in outsourcer performance (Adjusted R

Square = 0.605), which is highly significant as indicated by the F-Value at .05 significant level. The fact that the associated probability (Sig.) is so small does not imply that each of the independent variables has a meaningful contribution to the fit of the model.

Table 4. Model Summary and ANOVA of the multiple regression analysis (The Stepwise Method)

Model Summary										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					Change	df1	df2	g. F Chang		
1	.725 ^a	.525	.521	705.1000	.525	30.608	1	118	.000	
2	.764 ^b	.584	.577	662.9915	.059	16.465	1	117	.000	
3	.784 ^c	.615	.605	640.1313	.032	9.506	1	116	.003	1.904

^aPredictors: (Constant), Specific Requirements
^bPredictors: (Constant), Specific Requirements, Social Network
^cPredictors: (Constant), Specific Requirements, Social Network, Ambiguity
^dDependent Variable: Performance

In order to indicate the usefulness of each predictor in the model, the t statistics or t-values will provide some clue regarding the relative importance of each variable. An examination of the t-values at .05 significant level, the result indicate that Special Requirements (t = 8.529 which > 1.96), Social Network (t = 3.501 which > 1.96), and Ambiguity (t = 3.083 which > 1.96) variables can contribute to the prediction of outsourcer performance and have positive relationship with outsourcer performance. However special requirements variable is clearly the stronger predictor than social network and Ambiguity due to t statistic.

Table 5. Coefficients of the multiple regression analysis (The Stepwise Method)

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Correlations			Tolerance Statistics		
					B	Std. Error	Beta	Zero-order	Partial	Part
1 (Constant)	1.258	.295	4.261	.000						
Specific Re	.682	.060	.725	1.428	.000	.725	.725	.725	1.000	1.000
2 (Constant)	.664	.314	2.116	.036						
Specific Re	.583	.061	.620	9.532	.000	.725	.661	.568	.841	1.189
Social Netw	.246	.061	.264	4.058	.000	.511	.351	.242	.841	1.189
3 (Constant)	.219	.336	.651	.516						
Specific Re	.527	.062	.560	8.529	.000	.725	.621	.491	.769	1.301
Social Netw	.209	.060	.224	3.501	.001	.511	.309	.202	.808	1.238
Ambiguity	.195	.063	.196	3.083	.003	.483	.275	.178	.819	1.222

^aDependent Variable: Performance

The coefficients for the final model at step 3 are reported;

Outsourcer performance = 0.219 + 0.527 special requirements + 0.209 social network + 0.195 ambiguity

At Step 1 in table 6, Special Requirement is entered into the model as the first independent variable because it has the highest correlation with the dependent variable outsourcer performance. Then the independent variables in the Excluded Variables

table with highest correlation (t statistic) will be entered in order.

Table 6. Excluded Variables of the multiple regression analysis (The Stepwise Method)

Excluded Variables									
Model	Variable	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics			
						Tolerance	VIF	Minimum Tolerance	
1	Resource Availa	.218 ^a	3.475	.001	.306	.933	1.071	.933	
	Social Network	.264 ^a	4.058	.000	.351	.841	1.189	.841	
	Reputation	.258 ^a	2.780	.006	.249	.441	2.266	.441	
	Politics	.103 ^a	1.336	.184	.123	.676	1.478	.676	
2	Ambiguity	.241 ^a	3.688	.000	.323	.853	1.173	.853	
	Resource Availa	.157 ^b	2.474	.015	.224	.848	1.179	.765	
	Reputation	.153 ^b	1.617	.109	.148	.392	2.554	.392	
	Politics	.031 ^b	.406	.685	.038	.634	1.579	.634	
3	Ambiguity	.196 ^b	3.083	.003	.275	.819	1.222	.769	
	Resource Availa	.064 ^c	.817	.415	.076	.541	1.847	.522	
	Reputation	.066 ^c	.671	.504	.062	.348	2.874	.348	
	Politics	-.047 ^c	-.607	.545	-.056	.567	1.763	.567	

^aPredictors in the Model: (Constant), Specific Requirements
^bPredictors in the Model: (Constant), Specific Requirements, Social Network
^cPredictors in the Model: (Constant), Specific Requirements, Social Network, Ambiguity
^dDependent Variable: Performance

The t statistic for each candidate variable; at step 1, Social Network has the largest t (4.058), is entered into the step 2 model. Then at step 2, Ambiguity has the largest t (3.083), is entered into the step 3 model. At step 3, the t statistic for Resource Availability (0.817), Reputation (0.671) and Politics (in absolute value of-0.607) fail the default entrance criterion that t statistic must be less than 1.96. Notice that at each step, the candidate independent variable with the largest t also has the strongest partial correlation with dependent variable Outsourcer Performance.

Table 7. Summary of the results of the study

Hypothesis	t-value	Results
H10: There is no relationship between specific (necessary) requirements or skills or constraints and outsourcer performance.	8.529	Reject H10
H20: There is no relationship between resource availability and outsourcer performance.	0.817	Failed to Reject H20
H30: There is no relationship between social network and outsourcer performance.	3.501	Reject H30
H40: There is no relationship between reputation and outsourcer performance.	0.671	Failed to Reject H40
H50: There is no relationship between politics and outsourcer performance.	-0.607	Failed to Reject H50
H60: There is no relationship between ambiguity and outsourcer performance.	3.083	Reject H60

5. Research Conclusion and Implications

This study focused to find out the determinants of outsourcing provider or outsourcer performance. Based on "Issues in supplier partner selection" of Pidduck (2006), there were six issues for judging the potential outsourcer candidate (1. Specific (necessary) requirements or skills, 2. Resource availability, 3. Social network with outsourcer, 4. Reputation, 5. Politics, and 6. Ambiguity or loosing structure).

Each hypothesis was analyzed by using Pearson product-moment correlation coefficient and multiple regression analysis (the stepwise method) to determine whether there is statistically significant effect of these determinants toward outsourcer performance or not. In additional, this study included outsourcing activity and company profile in which the results of the study was described and explained as follows:

5.1 Summary of Demographic Factors

According to the Demographic results, the researcher had found that the most outsourcing activity was IT activity representing 35.8% and the most of business type was local company representing 76.7%. In addition, the most size business was more than 3,200 persons representing 41.7% and the most main business was servicing representing 40%.

6. Discussion and Implications

In this research, it found that there are only three determinants; special requirements, social network, and ambiguity that have relationship with outsourcer performance in positive direction while the other variables do not. Special requirements, the result can be implied that when the business needs high or more special requirements from the outsourcer, the high or more capabilities of outsourcer are also necessary to be complied with the business requirements. This will lead to high performance of outsourcer. If the company requires less, the poor capability outsourcers may stay the choice list. But if the requirements are high, the poor capability outsourcers will be taken out of the list.

The result of Social network can be implied that if the partner that organization has ever worked with before, or be recommended by someone who organization trusts, or has a previous experience with, the performance of outsourcer can be reliable. If the social network identifies that outsourcer has good performance, the result will be same as that.

Ambiguity result can be implied that if outsourcer structure is not fixed and can be changed for serving each individual customer. Outsourcer may loose the strength points or the productivity in its operation and structure from adjusting itself to comply with its customers. In the light of outsourcing

about economy of scale, outsourcer needs a certain level of the number of customers or jobs to get the economy of scale and can reduce the operation cost per unit. That means there are many customers or jobs per one outsourcer, then it is very hard to adjust its structure to comply with all customers. So the more fixed structure of outsourcer that is suitable with each outsourcing activity, the performance will be better more than ambiguity structure.

Resource availability has no relationship with outsourcer performance, it may be from the result that the information of outsourcing providers and the number of them are not available enough or there is a few public information of outsourcer in Thailand.

Reputation has no relationship with outsourcer performance, it may be from the result that there are few high reputation outsourcers of each outsourcing activities available in the market. Or the good reputation outsourcer may have the full hand and can not take more customers. If they have overloaded the number of customer or have the number of customers more than their capability, the performance will be lower.

Politics has no relationship with outsourcer performance, it may be from the result of the stiff competition in outsourcing businesses such as IT, Logistics and etc. Outsourcers or outsourcing providers will pay more attention to fight for the customer for their company than political concerns and do take politic points into the account.

7. Conclusion and Recommendation

As has been sated in Chapter one, the objective of this study is to provide screening determinants to identify right potential outsourcers that will be suitable with company outsourcing activities and strategies among existing outsourcing providers or outsourcers. The question to be answered is "What determinants of outsourcers should be more concerned or be more weighted in selecting the potential outsourcers with the performance?" There were six main objectives of this study. The conclusions which support these objectives are described as follows:

Multiple regression analysis (the stepwise method) is adopted to determine the relationship between each determinant and outsourcer performance. The result shows that special requirements, social network and ambiguity should be more concerned, more weighted and can be the determinants for outsourcer performance in screening and selecting the potential outsourcers for company outsourcing in the first phase. Special requirements, social network and ambiguity have positive relationship with outsourcer performance. And special requirements variable is clearly the strongest

predictor than social network and ambiguity. However, the other determinants should also be considered and not be dropped due to the result of Pearson Product-moment Correlation Coefficient analysis, but they may be in less weighted. Refer to (Pidduck, 2006) the study of “Issues in supplier partner selection”, partner negotiation will take place later when there are some potential outsourcers in the list which the first or second outsourcer may affect the choice of subsequent outsourcers.

8. Future Study

If there are more time, more outsourcing information, and available connections with the businesses that adopt specific outsourcing activity, it would be possible and useful to conduct an in-dept study of outsourcer determinants for each type of outsourcing activity such as only logistics outsource, only IT outsource or only manufacturing outsource.

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Appendix: Scale Items

Specific (necessary) requirements or skills or constraints of the current outsourcer of company (1= Low, 7=High)	
1	What Technical capability or Technology level of outsourcer that your company has selected?
2	What People or Human capability level of outsourcer that your company has selected?
3	What Machine or Equipment capability level of outsourcer that your company has selected?
4	What Special Expertise or Knowledge level of outsourcer that your company has selected?
5	What Special Resource level of outsourcer that your company has selected?
Resource availability of the current outsourcer of company	

(1=None, 7=Many)	
6	How many existing outsourcers with appropriate Technical capability or Technology available in the market?
7	How many existing outsourcers with appropriate People or Human capability available in the market?
8	How many existing outsourcers with appropriate Machine or Equipment capability available in the market?
9	How many existing outsourcers with appropriate Expertise or Knowledge available in the market?
10	How many existing outsourcers with appropriate Resources available in the market?
Social network (1=Low, 7=High)	
11	What level of the Relationship with your outsourcer before outsourcing?
12	What level of the Experience Time with your outsourcer before outsourcing?
13	What level of Trust with your outsourcer before outsourcing?
14	What level of the Relationship with recommender before outsourcing?
15	What level of Experience Time with recommender before outsourcing?
16	What level of Trust with recommender before outsourcing?
Reputation of the current outsourcer of company (1=Bad, 7= Excellent)	
17	What Reputation level in term of Quality of outsourcer that your company has selected?
18	What Reputation level in term of Technical capacity or Technology of outsourcer that your company has selected?
19	What Reputation level in term of People or Human capacity of outsourcer that your company has selected?
20	What Reputation level in term of Machine or Equipment capacity of outsourcer that your company has selected?
21	What Reputation level in term of Expertise or Knowledge of outsourcer that your company has selected?
Politics of the current outsourcer of company (1=Low, 7=High)	
22	What level of outsourcer political roles need for Financial support from company?
23	What level of outsourcer political roles need for Location of outsourced company?
24	What level of outsourcer political roles need for Technology support from company?
25	What level of outsourcer political roles need for Machine or Equipment support from company?
26	What level of outsourcer political roles need for Expertise or Knowledge support from company?
Ambiguity Structure of the current outsourcer of company (1=Loose, 7=Tight)	
27	What structure level of specific goals of outsourcers?
28	What structure level of specific rules of outsourcers?
29	What structure level of specific procedures of outsourcers?
30	What structure level of well-defined relationship of outsourcers?
31	What structure level of well-defined results of outsourcers?
Performance of the current outsourcer of company (1=Low, 7=High)	
32	What level of your Outsourcer Performance comparing with your company expectation in term of money?
33	What level of your Outsourcer Performance comparing with your company expectation in term of time?
34	What level of your Outsourcer Performance comparing with your company expectation in term of people?
35	What level of your Outsourcer Performance comparing with your company expectation in term of consistence?
36	What level of your Outsourcer Performance comparing with your company expectation in term of overall?

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