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# **A Survey and Analysis of Outsourcing in East China**

BY

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# A Survey and Analysis of Outsourcing in East China

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**Abstract:** The aim of this study is to investigate whether outsourcing activities in east china are associated with a theoretical framework derived from the literature. By the methodology of Statistics Package for the Social Science (SPSS), the results of survey indicate that outsourcing will more extensively practiced in the future, the principal outsourcing motivation are to reduce costs and focus on core businesses. The purchasing outsourcing has the largest correlation coefficients with short-term contract, the total outsourcing has a significant correlation coefficient with long-term contract at the level of  $\alpha=0.05$ . The findings indicate that high service quality and mutual trust are the main criteria for selecting outsourcing vendors. However, it is found that outsourcing satisfaction is generally low. The main benefits of outsourcing are to reduce cost, concentrate on core businesses and improve the service quality, while the main problems with outsourcing are legal disputes, disclosure of commercial secrets and conflicts with vendors.

**Key words:** outsourcing; strategy; contract; survey

## 1. Introduction

With the fierce competition in the global market, many firms have been increasingly turning their businesses into outsourcing in order to improve their competitiveness. For example, Chrysler and Ford outsource most of their minicompact and subcompact cars and only produce less than one-half of the value of all their vehicles. Similarly, Boeing outsources a large portion of the Boeing 767 to a consortium of Japanese manufacturers including Fuji, Kawasaki, and Mitsubishi (Gilley, 2000). Moreover, outsourcing has also emerged as a major trend in many service industries. Such as, Tata Consultancy Services (TCS) announced having signed a 5 year global contract with global telecommunications company Ericsson to deliver application maintenance and development services for Ericssons internal IT operations<sup>1</sup>. BT outsourced the support of its global customers and its own internal systems to Tech Mahindra for a five-year contract<sup>2</sup>. The Indian tech company was paid over \$1 billion. Outsourcing has been a pervasive trend over the past 20 years in the world.

Outsourcing has received increasingly attention in scientific research, but so far it has mainly been theoretical in nature and relied mostly on anecdotal evidence to support assertions (Shy, 2003; Benjaafar, 2007). Moreover, most of them focus on very specific industries, for example, call center (Ren, 2009), information technology (Jae-Nam Lee, 2004), Manufacturing (Dekkers, 2000), or Logistics (Alp, 2003; Ellram, 2001). However, few empirical investigations of outsourcing (Gilley, 2000), especially in specific regions or countries have been conducted (Bush, 2008; Baily, 2002). For example, Bush (2008) has attempted to empirically study the drivers of software outsourcing decisions and Baily (2002) makes a survey into the outsourcing activities. They focused on the outsourcing in Japan and in Edinburgh and Lothians.

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<sup>1</sup> Outsourcing contract for TCS. [http://www.offshoringtimes.com/Pages/2009/offshore\\_news2408.html](http://www.offshoringtimes.com/Pages/2009/offshore_news2408.html)

<sup>2</sup> Richard Thurston. BT deal hits billion-dollar outsourcing mark. [http://news.cnet.com/BT-deal-hits-billion-dollar-outsourcing-mark/2100-1011\\_3-6145783.html?tag=nw.1](http://news.cnet.com/BT-deal-hits-billion-dollar-outsourcing-mark/2100-1011_3-6145783.html?tag=nw.1)

Nowadays, China is becoming a major offshore outsourcing destination for businesses all over the world. Researchers start to pay more attention to the phenomena. However, what do Chinese firms think of outsourcing? What are their major outsourcing motivations? What are the criteria by which they select their outsourcing partnerships? What are their mainly outsourcing strategies? What are the benefits and problems of outsourcing? So far little has been known about these outsourcing factors in Chinese firms. Therefore, there is a need for research to enhance our understanding of outsourcing in Chinese firms.

This research describes factors from Chinese companies in East China. The district is better known throughout China as an important zone in economy development and represents China's "growth markets", which includes Shanghai, Zhejiang and Jiangsu province. Thus our surveys are believed to be representative for analyzing the outsourcing of China. The study involves questionnaire and data analysis using the software of Statistics Package for the Social Science (SPSS).

This paper is divided into 5 sections. Following the introduction, section 2 reviews the outsourcing literature. Section 3 describes the research methodology and composition of the responding sample. Section 4 summarizes the analysis the collecting data. The final section discusses the research implications and conclusion.

## **2. Literature review**

The literature review relates to motivation of outsourcing, strategies of outsourcing, and selection of vendor

### **2.1 Motivation of Outsourcing**

Many of the studies of outsourcing have focused primarily on the motives for outsourcing. Pagnocelli (1994) has explored the main reasons for the outsourcing, such as changing one business function to make it more "centralized" in pursuit of improved efficiency (Pagnocelli, 1994). W. Bailey, R. Masson and R. Raeside (2002) researched the outsourcing in Edinburgh and Lothians and suggested that improving the quality of service, focusing on the core business functions, reducing operation costs and accessing advanced technology and management experience were some of the major motivations for outsourcing. Relatively speaking, the motivations such as sharing risks and formatting strategic alliance were not as important as the formers. What's more, outsourcing also helps the firms to gain professional technical capacities from the suppliers during the process of corporation, and it is particularly useful in the field of Information Technology (Quinn, 1999; Marshall et al, 2007). Cost reduction is usually viewed as the internal motivation for outsourcing (Smith et al. 1998), which means that using the external resources to provide the same level of services at a lower price than operating it inside (Weaver et al., 2000; Bhattacharya et al., 2002. Smith et al. (1998) analyzed the financial characteristics of firms with outsourcing, and clearly categorized some motivations: (1) to reduce costs, (2) to concentrate attention on core business functions, (3) to meet the demands for the realization of assets and (4) to obtain the external capacity.

### **2.2 outsourcing Strategies**

Outsourcing strategies issues mainly by the outsourcing modes and the length of outsourcing contracts. Lacity (1996) and Earl (1996) suggested three modes of outsourcing based on the research of IT outsourcing, which are total outsourcing, in sourcing and selective outsourcing. If outsourcing is of the 'total' variety we refer to it as simply traditional outsourcing (Earl, 1996; Dibbern, 2004), and if it is 'selective', it is termed selective outsourcing (Lacity et al., 1996, Dibbern et al., 2004). Based on PDCA (Plan, Do, Check and Analysis) model from quality management, Fan (2007) also approved three modes of outsourcing: purchasing outsourcing, selective outsourcing and total outsourcing. 'Purchasing outsourcing' refers to that organizations may choose simply to outsource 'Do', while retaining the remaining activities in-house; 'Selective

outsourcing' is to outsource 'Do' and 'Check' activities; 'Total outsourcing' is to outsource all activities, including 'Plan', 'Do', 'Check' and 'Analysis'.

Some studies also present outsourcing contract features. One of the features is the contractual length of the outsourcing arrangement. It is the time dimension associated with outsourcing contracts and is typically discussed in terms of short-term, mid-term and long-term (Lacity et al, 1996; Lacity & Willcocks, 1998). More recently, the notion of short-term has been extended to include service provision on a day to day basis through the hiring of freelance personnel (Dibbern et al., 2004).

### 2.3 Selection of vendors

To maximize the potential benefits and minimize the risks of outsourcing there is a need for outsourcing strategies to select suitable vendors (Bailey et al. 2002; Choi et al, 1996). The most critical step in selection of vendors is to establish selection criteria. Bailey (2002) shows that the criteria used for selecting outsourcing contractors were mainly reputation, cost, previous contacts and technical capability. Kennedy (1997) argued that the most common selection factors are market position of the potential vendor, the quality of service offered, the product and technical leadership, the contending company's image and reputation. Wadhwa et al (2007) model the vendor selection problem in which price, lead-time and quality are explicitly considered.

### 3. Methodologies

The aim of the research was to investigate outsourcing in Chinese firms. We develop a questionnaire from a framework established in the literature. The questionnaire (Appendix) consisted of 2 sections. The first section investigated which industry the participating company is belonging to. The second section consisted of several questions involved in the following aspects: (1) the trend of outsourcing; (2) the motivations of outsourcing; (3) outsourcing strategies; (4) vendor's selection criteria; (5) outsourcing satisfaction; (6) benefits and problems of outsourcing. All the questions in the questionnaire were opened-ended and the participants were instructed to elaborate as much as possible.

The data collection for this study was preceded by in-depth, explorative interviews with managers in 62 firms associated with logistics, IT, manufacturing and construction. These interviews were open ended and each interview lasted between 45min to almost 2h. The sample data obtained was then analyzed through the Statistics Package for the Social Science (SPSS).

### 4. Results

#### 4.1 Composition of the responding sample

The scope of the participating companies ranged from manufacturing, construction, IT and logistics in Table 1. The majority of firms are from manufacturing, logistics and IT industry and the minorities are from construction.

Table 1 Composition of the sample

Industries	Frequency	Percent (%)
Manufacturing	18	29.03
Logistics	17	27.42
IT	15	24.19
Construction	12	19.35

#### 4.2 Trend of outsourcing

All of the 62 responds have engaged in outsourcing certain business functions to external vendors. Obviously, outsourcing has been widely accepted as an emerging concept and trend.

W. Bailey, R. Masson and R. Raeside have found in their research in 2002 that outsourcing increased seriously in European countries during the period from 1980s to 1990s of the last century, and with no trend of reducing afterward. Fig 1 shows that, China’s outsourcing boom is slightly later than the western countries, and after a stable development in 1990s, outsourcing increased remarkable in 2000. In the 21<sup>st</sup> century, outsourcing has been widely adopted by more and more firms, and increased year by year. From the perspectives of the questionnaires, most responds intend that volume of outsourcing will continue to rise in the future.

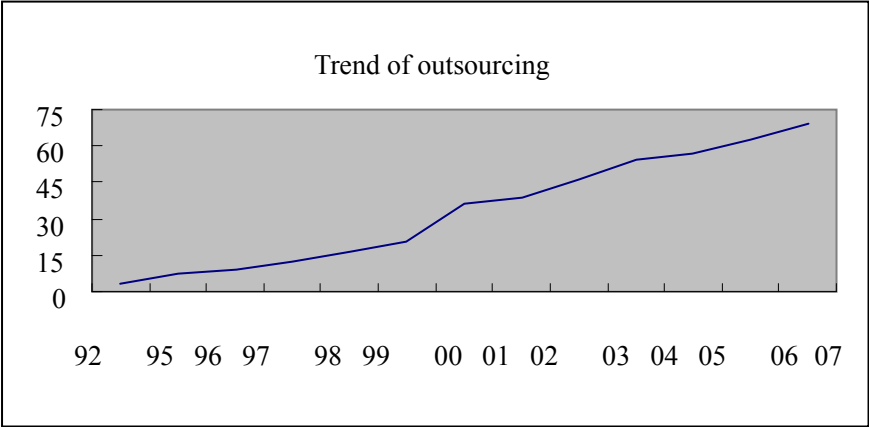


Fig. 1 Trend of outsourcing

In the forecast section of outsourcing in Fig. 2, most of the responding companies believed that outsourcing will raise in the future while others suggest that the develop trend will be flat at the present level, and no one thinks the outsourcing will decrease in next decades.

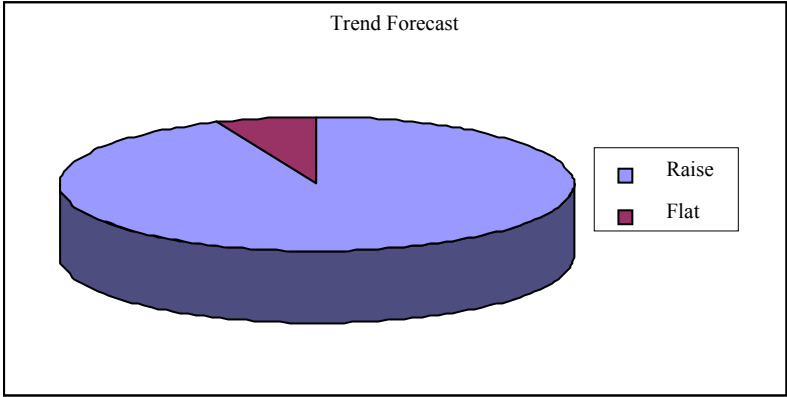


Fig 2 Trend Forecast of Outsourcing

**4.3 Motivation for outsourcing**

Based on the literature, the questionnaire synthesizes 11 common motivations of outsourcing. We asked the respondents to rank the motivations, Table 2 shows the result.

Table 2 Motivations of outsourcing

		Statistics					
		Reduce costs	Enhance flexibility	Improve quality	Core business	Share risks	Strategic relationship
N	Valid	62	62	62	62	62	62
	Missing	0	0	0	0	0	0
Mean		1.45	0.71	0.71	1.48	0.68	0.48

Std. Deviation	0.416	0.800	1.095	0.746	1.173	0.811
Skewness	-0.763	-0.237	-0.360	-1.606	-0.676	-0.576
Std. Error of Skewness	0.304	0.304	0.304	0.304	0.304	0.304
Range	2	4	4	3	4	4
Minimum	0	-2	-2	-1	-2	-2
Maximum	2	2	2	2	2	2
Statistics						
		Acquire expertise	Access to capability	Gain recognition	Release resources	Reengineer organization
N	Valid	62	62	62	62	62
	Missing	0	0	0	0	0
Mean		1.05	0.19	0.11	0.85	0.76
Std. Deviation		0.998	1.044	0.954	1.110	1.334
Skewness		-0.915	-0.118	-0.233	-1.092	-0.825
Std. Error of Skewness		0.304	0.304	0.304	0.304	0.304
Range		4	4	4	4	4
Minimum		-2	-2	-2	-2	-2
Maximum		2	2	2	2	2

The mean value of all the variables is greater than 0, it indicates that these investigated firms overall have a positive attitude towards these motivations of outsourcing. Among them, the mean value of reducing costs, concentrating on core business and accessing to professional capabilities are the largest three and all are greater than 1, which reveals that they are accepted as the most significant motivations of outsourcing, while releasing key internal resources also shows a high degree of importance.

In addition, the 11 motivations show a potential link by a factor analysis. Table 3 indicates that the former four factors value greater contribution to the total rate of 64.259%; and the Broken Lines of the Scree plot in Fig 3 also shows that the former four factors play relatively steep, while the line tends smoother from the fifth factor. Therefore, we can extract four public factors.

Table 3 Total variance analysis

Total Variance Explained						
Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.768	25.161	25.161	2.768	25.161	25.161
2	1.629	14.811	39.972	1.629	14.811	39.972
3	1.515	13.777	53.749	1.515	13.777	53.749
4	1.156	10.511	64.259	1.156	10.511	64.259
5	0.898	8.164	72.423			
6	0.806	7.326	79.750			
7	0.722	6.567	86.317			
8	0.537	4.881	91.197			
9	0.426	3.869	95.066			
10	0.342	3.112	98.178			
11	0.200	1.822	100.000			

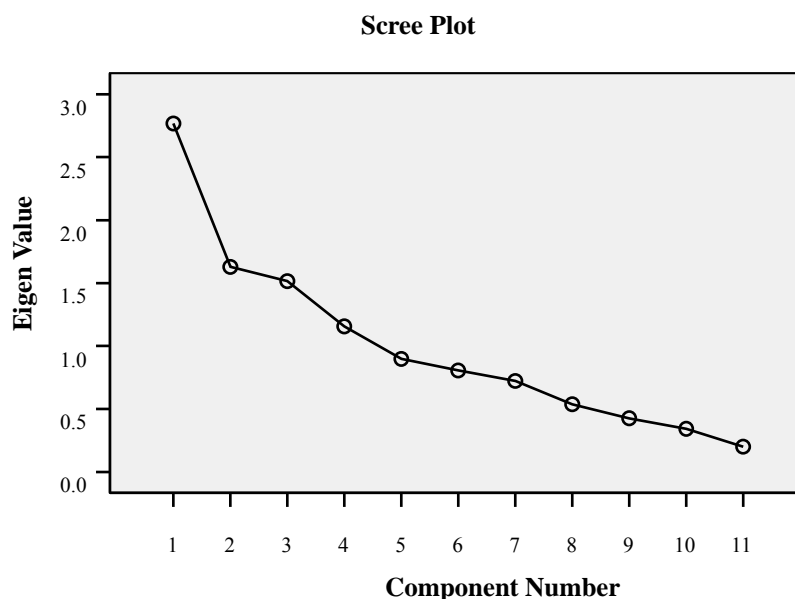


Fig 3 Scree Plot Figure

There exist links and mutual influence among the 11 factors as table 4 shows. The 11 motivations can be divided into four aspects: enhancing the operational efficiency, reducing costs through allocating resources effectively, sharing risks by concentrating on core business and strengthening cooperation, outsourcing certain functions tending to improving flexibility.

Table 4 PCA Analysis

Component Matrix <sup>a</sup>				
	Component			
	1	2	3	4
Improve quality	0.601	0.302	-0.008	-0.113
Acquire knowledge	0.482	0.012	-0.401	0.449
Access to capability	0.673	-0.608	0.024	0.063
Gain recognition	0.709	-0.273	0.082	-0.410
Reduce cost	0.505	0.522	-0.015	0.302
Release resources	0.402	0.517	0.460	0.322
Obtain a better organization	0.351	-0.645	0.313	0.179
Concentrate on core business	0.421	-0.032	0.539	0.193
Reduce risks	0.416	0.095	-0.552	0.018
Establish strategic relationship	0.508	0.103	-0.526	-0.330
Enhance flexibility	0.265	0.342	0.407	-0.630

Extraction Method: Principal Component Analysis.  
a.4 components extracted

#### 4.4 Outsourcing strategy

The outsourcing have three modes: purchasing outsourcing, selective outsourcing and total outsourcing. Also, the outsourcing contracts have three types: short-term, mid-term and long-term. We find that the short-term outsourcing contract has a great relevance with all the three modes, which indicates that when firm choose to outsource an activity in short-term, the three modes can all be applied and there is no essential difference among them; but the purchasing outsourcing has the largest correlation coefficients with short-term contract which shows the purchasing way is the best choices. The mid-term contract relates notably with the purchasing and selecting outsourcing which indicates that the responds usually choose these two modes when decide to outsource a certain activity in one to five years. What's more, only the total outsourcing has a significant correlation coefficient with long-term contract at the significant level of  $\alpha=0.05$ . It indicates that the total outsourcing is the most common choice when firm decides to outsource a certain activity more than five years.

Table 5 outsourcing strategies

Statistics						
	Outsourcing Mode			Outsourcing Contract		
	Purchasing	Selective	Total	Short-term	Mid-term	Long-term
Skewness	0.926	0.431	0.818	0.783	0.461	0.926
Std. Error of Skewness	0.202	0.202	0.202	0.202	0.202	0.202

As shows in table 5 and table 6, all the six variables are subjected to normal, so we used Pearson correlation coefficient at a confident level of 95% to analyze the relevance of different outsourcing contracts and outsourcing modes with 2-tailed test as the type of significance test.

Table 6 Correlation analysis

Correlations				
		Purchasing outsourcing	Selective outsourcing	Total outsourcing
Short-term	Pearson Correlation	0.707**	-0.433**	-0.237**
	Sig. (2-tailed)	0.000	0.000	0.004
Mid-term	Pearson Correlation	-0.355**	0.286**	0.046
	Sig. (2-tailed)	0.000	0.001	0.583
Long-term	Pearson Correlation	-0.345	0.137	0.194*
	Sig. (2-tailed)	0.000	0.102	0.020
**	Correlation is significant at the 0.01 level (2-tailed).			
*	Correlation is significant at the 0.05 level (2-tailed).			

#### 4.5 Selection of vendors

There are several criteria that play important roles when firms select outsourcing vendors, such as high quality of services, high degree of mutual trust with vendors, and excellent reputation in the industry, which all get a mean value more than four. Relatively speaking, the responds valued less the cultural compatibility and location advantages than others. Provider's location shows the maximum standard deviation among all the criteria. It can be explained in the additional analysis that several small firms with simple business model are more inclined to choose local providers considering the cost and service. In addition, the respondents who want to form a long-term strategic partnership with providers usually take cultural compatibility and mutual



trust as the same important as the cost and quality of services. What's more, the criteria varies due to different activities of outsourcing, for instant, the technical capacity and superior management will become significant when faced with the outsourcing of high value-added business functions, such as of Information System and R&D areas. The result shows as followings in Table 7.

Table 7 Criteria of selecting providers

		Precious contacts	Lower cost	Good reputation	High quality of service
N	Valid	62	62	62	62
	Missing	0	0	0	0
Mean		3.92	3.63	4.08	4.31
Std. Deviation		0.963	1.120	0.731	0.715
Skewness		-0.571	-0.516	-0.387	-0.809
Std. Error of Skewness		0.304	0.304	0.304	0.304
Range		4	4	3	3
Minimum		1	1	2	2
Maximum		5	5	5	5
		Technical advantage	Similar culture	Local providers	Mutual trust
N	Valid	62	62	62	62
	Missing	0	0	0	0
Mean		3.74	2.97	3.05	4.27
Std. Deviation		1.007	1.293	1.324	0.908
Skewness		-0.448	-0.032	-0.091	-1.394
Std. Error of Skewness		0.304	0.304	0.304	0.304
Range		4	4	4	4
Minimum		1	1	1	1
Maximum		5	5	5	5

#### 4.6 Outsourcing satisfactions

From Table 8, it is clear that, most firms think their vendors exceeded expectations in terms of the service quality and cost performance with the mean value 1.02 and 0.71. Specially, the mean value of implementation of contract and cultural compatibility was only -0.68 and -0.31, which indicates that respondents were disappointed or still deficient to manage vendors. Firms and vendors can not be properly coordinated if cultural compatibility leads to the dissatisfaction in aspect of implementation of contract, such as the organization strategies and the organization value during cooperation.

Table 8 Outsourcing satisfactions

Statistics							
		Reducing costs	Improving quality	Accessing to capacity	Management advantages	Cultural compatibility	Implementation of contract
N	Valid	62	62	62	62	62	62
	Missing	0	0	0	0	0	0
Mean		1.02	0.71	0.31	0.39	-0.31	-0.68

Std. Deviation	0.713	0.818	1.605	1.121	0.861	0.785
Skewness	-0.023	-0.340	-0.230	-0.248	-0.789	-0.827
Std. Error of Skewness	0.304	0.304	0.304	0.304	0.304	0.304
Range	2	3	4	4	3	4
Minimum	0	-1	-2	-2	-2	-2
Maximum	2	2	2	2	1	2

#### 4.7 Benefits and problems of outsourcing

Table 9 shows that there is a positive overall view regarding the benefits of outsourcing. Reducing costs, focusing on core business functions, improving the quality of service and releasing key internal resources effectively are the common accepted advantages of outsourcing by the respondents. Compared with the previous analysis, all these four aspects are also the most significant motivations of outsourcing. Results of this questionnaire also supports the existing theory, which the company who makes strategic use of outsourcing can become ‘focalized, streamlined and agile’ by Pagnocelli (1994), and ‘outsourcing peripheral activities can allow the organization to concentrate on its core business, thereby enabling the organization to maximize their returns on internal resources’ by Quinn and Hilmer (1994).

Despite outsourcing has many potential advantages, it will lead to several problems and risks at the same time. As Table 9 shows, majority of firms believe that outsourcing a certain business function will also face risks, such as the legal disputes, increasing dependence with vendors, disclosure of commercial secrets, and interest conflicts with outsourcing partners. All these variables distributed in the standard deviation between 0.6 and 0.8, which indicates that the cognitions of responds are not obvious among these difficulties.

Table 9 Benefits and problems of outsourcing

Statistics							
		Reducing costs	Focusing on core business	Improving services	Accessing capacities	Sharing risks	Getting information
N	Valid	62	62	62	62	62	62
	Missing	0	0	0	0	0	0
Mean		1.31	1.29	1.11	0.52	0.92	0.73
Std. Deviation		0.692	0.755	0.655	0.620	0.609	0.705
Skewness		-0.492	-0.543	-0.118	0.788	0.038	0.446
Std. Error of Skewness		0.304	0.304	0.304	0.304	0.304	0.304
Range		2	2	2	2	2	2
Minimum		0	0	0	0	0	0
Maximum		2	2	2	2	2	2
Statistics							
		Expanding market	Releasing resources	Loosing control	Legal disputes	Weakening culture	Decreasing innovation
N	Valid	62	62	62	62	62	62
	Missing	0	0	0	0	0	0
Mean		0.95	1.06	-0.84	-1.10	-0.48	-0.76
Std. Deviation		0.734	0.721	0.729	0.620	0.646	0.740
Skewness		0.076	-0.097	-0.260	0.061	-1.003	-0.423
Std. Error of Skewness		0.304	0.304	0.304	0.304	0.304	0.304
Range		2	2	2	2	2	2
Minimum		0	0	-2	-2	-2	-2
Maximum		2	2	0	0	0	0
Statistics							
		Increasing dependence	disclosure of secrets	interest conflicts	Difficult to bring it in-house		
N	Valid	62	62	62	62		
	Missing	0	0	0	0		
Mean		-1.03	-1.05	-1.06	-1.02		
Std. Deviation		0.625	0.734	0.674	0.757		
Skewness		0.031	0.076	0.077	0.027		
Std. Error of Skewness		0.304	0.304	0.304	0.304		
Range		2	2	2	2		

Minimum	-2	-2	-2	-2
Maximum	0	0	0	0

From this analysis, we suggest that establishing a guiding principle which will be helpful for firms to make the rational decision before outsourcing is taking place.

## 5. Implications and conclusion

The paper summarized the status quo of outsourcing in Chinese firms based on a questionnaire survey and theoretical foundation of the existing comparative study. The findings mainly indicate the following aspects:

(1) As a new business strategy with the motivation of being more widely accepted by most firms, outsourcing has improved significantly in the last decade in China, and the general trend is far higher after 2000 than in the beginning of the 1990s.. Moreover, all the participants think that outsourcing will become more and more important, of which 93.5% of them believe that the outsourcing trend will be improved steadily in the future.

(2) Firms often outsource certain activities for general motivations with the “consent” attitude, such as reducing operating cost, focusing on the core business, access to deficient resources and professional capacity, and so on. However, the findings do not fully support the existing theory of “outsourcing is the main motive for better services” by Richard Measelle (2002), and “The cost is only a basic driving force” by Butler. The motivation of “improving service level” also shows a lower mean, which has a slight difference to the existing research of outsourcing in Edinburgh and Lothians (Ireland) by W. Bailey (2002) and the viewpoint of “Outsourcing makes firms become more ‘centralized’” by Pagnocelli (1994). What’s more, this paper also analyzes the links and mutual influence among the 11 motivations of outsourcing. These main motivations can be divided into four aspects as to enhance the efficiency of their operations, to reduce costs through the effective allocation of resources, to reduce the risks through strengthening cooperation with other partners, and to enhance flexibility by outsourcing certain activities.

(3) The relationships between the strategies and contracts of outsourcing are also investigated. As would be expected, purchasing outsourcing will be a better choice in short-term and total outsourcing has largest correlation coefficient with long-term outsourcing contracts. However, existing theories indicate that the selecting outsourcing will be a better option for medium-term contacts, and results of the survey indicates slight differences in which the purchasing outsourcing has the larger correlation coefficient than the other two.

(4) The findings indicate that high service quality and mutual trust are main criteria for selecting outsourcing vendors. This result has slight different with existing research by W. Bailey, R. and R. Masson Raeside (2002), which suggests that service level, cost of service and technical capacity of suppliers of the most important selection criteria in Western society. What’s more, with the development of information technology and globalization, the criteria of “Localization” become less and less significant at the present. In addition, the criteria of “strategic cooperation” and “cultural compatibility” will be important when firms tend to form a long-term strategic cooperation with vendors from a separate analysis of the findings, and the technical capacity will become the most important when firms face with the outsourcing of Information System and so on.

(5) Unfortunately, outsourcing satisfaction is generally low, and the participants are unsatisfied with cultural compatibility. Most firms are satisfied with outsourcing reducing operating costs, following by improving the quality of service. However, implementation of contracts is not satisfactory. This requires enhancing management of the outsourcing contract, to improve technology and management to provide a

better service.

(6) Benefits and problems of firms' outsourcing indicate a positive view. The surveys support the existing theory of "implementation of outsourcing will help companies be' centralized, systematic and flexible" by Pagnocelli (1994), and "outsourcing peripheral activities can enable organizations to pay more attention to the core business, thus making use of internal resources to maximize the return" by Quinn (1994). Although outsourcing has many potential advantages, it will also lead to major problems meanwhile. Most firms believe that facing legal disputes, dependence enhanced disclosure of commercial secrets and conflicts with the outsourcing vendor are greater risk, and also experience more loss of control of the outsourced business which will reduce the sense of responsibility, the extension of new product development and a series of other issues.

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**Appendix**

**Outsourcing: making the rational decision**

East China University of Science and Technology  
 Operation Management Research Center

Section 1: About your company

- 1. Industry
  - Manufacturing
  - Construction
  - IT
  - Logistics
  - Others \_\_\_\_\_

Section 2: About your outsourcing

Outsourcing can be defined as 'using an outside organization to carry out activities previously carried out within the company'.

- 2. Is there any outsourcing in your company?
  - Yes, there is.
  - No, there isn't.
 If yes, in what year did you first outsource? \_\_\_\_\_

- 3. In the future do you believe the number of activities you outsource will?
  - Increase
  - Stay Constant
  - Decrease

- 4. Outsourcing activity
  - Manufacturing or  Maintenance
  - Information systems
  - Technical development
  - Finance/accounting
  - Marketing
  - Human resources
  - Logistics
  - Cleaning
  - Others \_\_\_\_\_

- 5. Motivations

(2 = Agree Strongly; 1 = Agree; 0 = Neutral; -1 = Disagree; -2 = Strongly Disagree)

	+2	+1	0	-1	-2
Reducing operation costs					
Increasing flexibility					

Improving quality of service					
Concentrating on core business functions					
Sharing and reducing risks					
Establishing strategic partnership					
Acquire specialized expertise and knowledge					
Accessing to professional resource and capacities					
Gaining recognition around the industry					
Releasing key internal resources					
Obtaining a better organizational form					

6. Outsourcing Strategies(Please choose outsourcing modes which you have selected)

**Purchasing outsourcing** is that outsources some implemented task temporally to supplement an in-house labor force during times of heavy workload.

**Selective outsourcing** is that outsources one part of the specific activities.

**Total outsourcing** is that outsources all of the specific activities.

- Purchasing outsourcing       Selective outsourcing       Total outsourcing

7. Outsourcing contract

- Short-term                       Mid-term                       Long-term

8. Criteria for selecting outsourcing candidates

(5=Very important; 4=Important; 3=Quite Important; 2=Not very Important; 1=Not at all important)

	1	2	3	4	5
Previously cooperated					
Lower costs					
Good reputation					
High quality of services					
Advanced technology and management experience					
Similar culture					
Location advantages(local outsourcer)					
High mutual trust					

9. Outsourcing Results

(2 =Very satisfied; 1 = Satisfied; 0 = Neutral; -1 = Disappointed; -2 = very disappointed)

	+2	+1	0	-1	-2
Reducing cost					
Improving service quality					
Improving technical capacity					
Management advantage					
Cultural compatibility					
Performance of contract					

10. Benefits of outsourcing

(1-5 shows the different ranks, and 5 indicates the greatest benefit while 1 indicates the least)

	1	2	3	4	5
Reducing operation costs					
Enhancing core business capability					
Improving service quality					
Accessing to advanced capacity					

Decreasing and sharing risks					
High capacity for gaining information					
Expanding market and enhancing competitions					
Releasing key internal resources					

#### 11. Problems of outsourcing

(1-5 shows the different ranks, and 5 indicates the largest problem while 1 indicates the least)

	1	2	3	4	5
Loosing control of the certain business					
Legal disputes					
Weakening culture					
Decreasing compatibility of innovations					
Increasing dependence with outsourcers					
Disclosure of commercial secrets					
Interest conflicts with outsourcing partners					
Difficult to bring in-source after conflicts					

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