

Comparative Study of Effective Factors on Making Positive or Negative Decision About Outsourcing Activities of Industrial Enterprises (Case study: Industrial National Drilling Company in Ahvaz)

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ABSTRACT

Outsourcing as one of the tools of organizations and improving productivity in the form of downsizing have been considered and performed by managers and officials in recent years. The issue of outsourcing is often presented and evaluated generally, but any specific pattern has not been provided for outsourcing. The present study aims to investigate the effectiveness of internal organizational factors and external organizational factors on the outsourcing decision from managers, deputies and senior experts of the National Drilling Company. The main research hypothesis is: from the National Drilling Company executives look there is a significant difference between the factors affecting the outsourcing. Research method is comparative and statistical test is ANOVA one-way analysis of variance. The research result shows that all the internal and external factors in the organization have an impact on outsourcing. Therefore, sub-hypotheses were accepted, but the main hypothesis was rejected and there is no significant difference between the factors affecting outsourcing.

KEYWORDS: Outsourcing, Internal Organizational Factors, External Organizational Factors, Strategic Outsourcing.

1. INTRODUCTION

The rapid growth of technology, speed up changes in the market, competitors and expand the boundaries of the market of the companies has led to the organization without borders. The current business environment is very different from the past (Gilaninia, Zia Khosroosi & et al, 2011). One of the issues raised in each country's economy is achieving to a sustainable growth in long term (Salami, Gilaninia & et al, 2011). Structured and flexible organization with extensive supply networks are organizations that are able to always coordinate with environmental changes and it requires quick and easy access to needed resources such as skilled manpower, technical expertise and advanced technology in out of the organization. Therefore, organizations require a plan by a company to gain needed because companies try to focus on their business around activities that they know them better. Therefore, if it is possible, all other activities will be entrusted to other companies. The subject of government support for cooperative companies and unions, especially from its economical aspect (Gilaninia & Shahraki, 2011). Today the situation of workplace is so that companies are under pressure for everyday tasks, its organizational goals and to solve problems, thus they should have a coherent plan. In most cases this type of planning is discussed in the form of strategic planning. During strategic planning, an organization tries planning a network of suppliers to maximize its economic performance during a period of time. Although the results of outsourcing are not satisfactory, but by accurate analysis of situation before outsourcing and use of decision support systems managers, better decisions can be adopted about outsourcing or without outsourcing of activities. This research attempts to present a useful and applicable material for the audience, especially managers and deputies provide more effective and efficient decisions in the field of outsourcing (Nasiri, 2009).

2. Statement of problem

In recent years, some companies have outsourced to improve service quality, reduce production costs and time and focus on core competitive advantage and overall increase organizational effectiveness. In today's world is speed and acceleration world in developed processes (Gilaninia, Rabiei & et al, 2012). It seems that companies with outsourcing their activities to other specialized organizations can focus activities that provide more value and in order can maximize the effectiveness of their activities (Quinn, 1992, P647). As organizations increase their adoption of database systems as the key data management technology for day-to-day operations and decision making (Taheri, Gilaninia & et al, 2012). Outsourcing has led to improvement of documentation and face exchanges between companies, suppliers and other market players (Rahimian, 2010). Studies show that the improvement of outsourcing can lead to lower costs and bring down needs to investment in the areas of facilities, equipment and manpower (Nasiri, 2009). In the world today countries economic engage and

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interaction continues to promote their economic and political life. In present world that economy is a very important and crucial issue (Gilaninia, Kiani & et al, 2012; Eilbeigi & et al, 2012).

With studying the progress of Western corporations such as auto companies like General Motors, Mercedes Benz and BMW, etc.,... and also the large computer companies like IBM, Microsoft from 1990 onwards, it was concluded that the most of these companies are provided areas for further focus on its competitive core features by giving much of the internal activities to specialized external companies. Therefore they reduce problems that management is involved with them. In this case, management can make better plans on the main competitive advantages and prospects of the company's strategic. In this research outsourcing is considered as the dependent variable that is goods and services provided that were previously within the organization, may be purchased from others and their services are used (Budden, 2000, p457). Also internal and external organizational factors are considered as the independent variable and their effect on the outsourcing decision or transfer activities to contractors from manager's strategic view in National Drilling Company are analyzed.

According to the research conducted by Davood Davtalabi and Yousef Mohammad Karimi as "effective public review of the strategic decision to outsource manufacturing unit in Tehran, factors influencing outsourcing include following:

2.1. External organizational factors

What gives the original meaning of outsourcing is when the organization is threatened under the four conditions (Ellram, 2001, p37):

- Changes in the world technology: the company's core is not updated because of new technology.
- Access to new markets: new markets are available for the company due to rapid changes in technology and customer demand.
- Beat competitors: despite a slow environmental movement, the company has fallen behind its competitors.
- Respond to the changing needs of customers: the company must respond to the customer's changing needs.

2.2. Internal organizational factors

• **Reducing organization's internal costs:** Companies may emphasis on cost savings for various reasons such as unsuitable financial status or increase profitability. Although the cost reduction is possible through the transfer of activities, But they cannot be led to a worthy result in all situations. Specialized institutions such as data processing centers focus on doing work of several companies. They have a very low cost due to being specialized and concentrated in a particular field, therefore they do activities with less cost (Bhagwati, 2004, P15).

- **Increasing flexibility in facing of environmental changes:** Improvement of flexibility in situations is where the volume of activity at unpredictable times increases and employees are not able to make it timely efficiently. When the volume of activities has fluctuated during different years, removing the fixed costs associated with the company's current employees and transferring the work to people outside the organization that receive payment for work done can be appropriate way. This decision changes the fixed costs into variable costs (Tayles, 2001, P55).
- **Creativity improvement:** Management of company may fully announce to revise the organizational structure, therefore employees would find that management is serious in changing and it is very likely that changes in organization structure is created and employees probably help to get the new structure in the organization (Berg, 2001, p25).
- **Improvement of the quality of output supplied to the customer:** A company can use transfer part of its activities to other institutions as a marketing tool. Therefore the company provides resources and services needed to potential customers and customers can ensure the quality of products and services (Gainy, 2002, p47).

In this study, effective factors on outsourcing were considered as independent variables achieved from research conducted by Mohammad Yousef Karimi.

Based on the research model, research hypotheses are presented below as follows:

Main hypothesis

From point of view of National Drilling Company directors, there are significant differences between the factors affecting outsourcing.

Sub-hypotheses

- 1- From point of view of National Drilling Company directors, changes in the world technology effect on the outsourcing decisions.
- 2- From point of view of National Drilling Company directors, access to new markets effects on the outsourcing decisions.
- 3- From point of view of National Drilling Company directors, attempting to achieving the competitors effects on the outsourcing decisions.

- 4- From point of view of National Drilling Company directors, responding to the changing needs of customers effects on the outsourcing decisions.
- 5- From point of view of National Drilling Company directors, reducing organization’s internal costs effects on the outsourcing decisions.
- 6- From point of view of National Drilling Company directors, increasing organization flexibility in the facing environmental changes effect on the outsourcing decision.
- 7- From point of view of National Drilling Company directors, improving creativity effects on the outsourcing decisions.
- 8- From point of view of National Drilling Company directors, upgrading the quality of output supplied to the customer effects on the outsourcing decision.

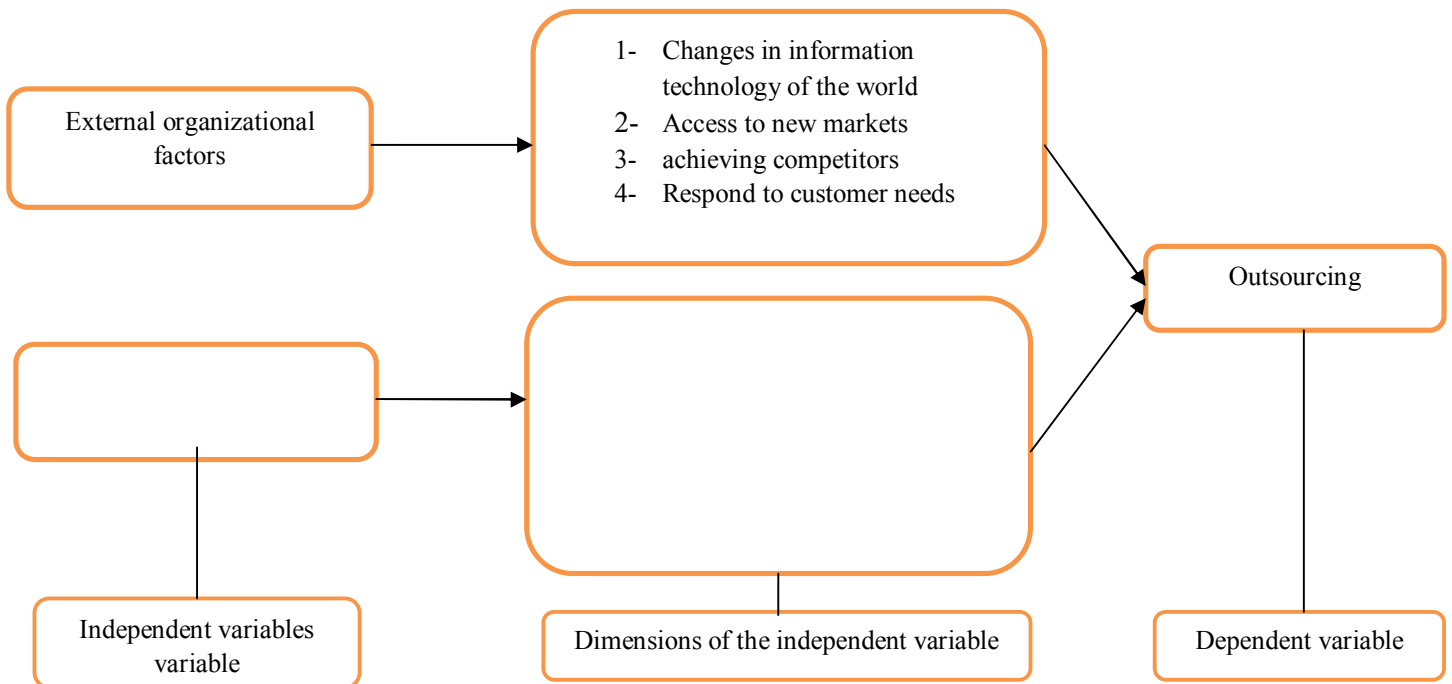


Figure 1: Analytical model (developed) based on the research model of Mohammad Yousef Karimi

3. RESEARCH METHODOLOGY

Research methodology used in this study was scientific-comparative to determine and describe the properties of variables. Population study was a group of managers, deputies and senior experts from National Drilling Company who are responsible for contract with entities. Method of data collection in this study to investigate factors affecting the outsourcing is field method and questionnaire and library resources are tools of collection. Total statistical population was 45. Questionnaire was distributed to the statistical community and Likert ordinal scale is used to determine the answer of each question. Assessing the reliability of Questionnaire obtained 87.4%. For testing main hypothesis, one way analysis of variance (A NOVA) was used to process data and T-test was used for the eight sub-hypotheses. The data collected through questionnaires were analyzed descriptively and inferentially.

4. Hypotheses testing

Hypothesis 1: (changes in modern technology effects on the outsourcing)

Table 1) T- test of changes in technology One-sample statistics

	n	mean	Std.deviation	Std.error mean
Changes in technology	45	3.5778	.96766	.14425

One-sample test

	t	df	Sig. (2-tailed)	Mean difference	95% confidence interval Of the difference	
					lower	upper
Changes in technology	4.005	44	.000	.57778	.2871	.8685

As the average amount that is equal to 3.577 and SIG = 0.000 that is less than $\alpha = 5\%$, therefore the research hypothesis is accepted. In the other word, from the view point of respondents, changes in the world technology as the external organizational changes effect on outsourcing.
 Hypothesis 2: (access to new markets has an impact on outsourcing)

Table 2) T- test to access to new markets One-sample statistics

	n	Mean	Std.deviation	Std.error mean
Access to new markets	45	3.4222	.99975	.14903

One-sample test

	Test value=3					
	t	df	Sig. (2-tailed)	Mean difference	95% confidence interval Of the difference	
					lower	upper
Access to new markets	2.833	44	.007	.42222	.1219	.7226

The average amount is equal to 3.42 and the SIG = 0.007 which is less than $\alpha = 5\%$, so the hypothesis is accepted. From the respondents, accessing new markets as an external organizational factor effects on outsourcing.
 Hypothesis 3: (Achieving the competitors effects on outsourcing)

Table 3) T- test for beating the competitors One-sample statistics

	n	Mean	Std.deviation	Std.error mean
Beating the competitors	45	3.7667	1.09545	.16330

One-sample test

	Test value=3					
	t	df	Sig. (2-tailed)	Mean difference	95% confidence interval Of the difference	
					lower	upper
Beating the competitors	4.695	44	.000	.76667	.4376	1.0958

Since the average is 3.76 and the SIG = 0.00 which is less than $\alpha = 5\%$, therefore the hypothesis is accepted and beating the competitors as an external factor effects on outsourcing.
 Hypothesis 4: (responding to the changing needs of our customers effects on outsourcing)

Table 4) T- test of responding to customer One-sample statistics

	n	Mean	Std.deviation	Std.error mean
Responding to customer	45	3.6889	1.22144	.18208

One-sample test

	Test value=3					
	t	df	Sig. (2-tailed)	Mean difference	95% confidence interval Of the difference	
					lower	upper
Responding to customer	3.783	44	.000	.68889	.3219	1.0559

Since the average is 3.68 and the SIG = 0.00 which is less than $\alpha = 5\%$, therefore the hypothesis is accepted and responding to customer as an external factor effects on outsourcing.
 Hypothesis 5: (reducing costs in the organization effects on the outsourcing decisions)

Table 5) T- test of reducing organization's internal costs One-sample statistics

	n	Mean	Std.deviation	Std.error mean
Reducing organization's internal costs	45	3.7222	1.02832	.15329

One-sample test

	Test value=3					
	t	df	Sig. (2-tailed)	Mean difference	95% confidence interval Of the difference	
					lower	upper
Reducing organization's internal costs	4.711	44	.000	.72222	.4133	1.0312

Since the average is 3.72 and the SIG =% 0.00 which is less than α =% 5, therefore the hypothesis is accepted and reducing organization's internal costs as an internal factor effects on outsourcing.

Hypothesis 6: (increasing flexibility in the facing environmental changes effects on the outsourcing)

Table 6) T-test of increasing the organization flexibility One-sample statistics

	n	Mean	Std.deviation	Std.error mean
Increasing flexibility	45	3.7778	.92660	.13813

One-sample test

	Test value=3					
	t	df	Sig. (2-tailed)	Mean difference	95% confidence interval Of the difference	
					lower	upper
Increasing flexibility	4.711	44	.000	.77778	.4994	1.562

Since the average is 3.727 and the SIG =% 0.00 which is less than α =% 5, therefore the hypothesis is accepted and increasing flexibility in the facing environmental changes as an internal factor effects on outsourcing.

Hypothesis 7: Improving creativity effects on the outsourcing

Table 6) T-Test of improving creativity One-sample statistics

	n	Mean	Std.deviation	Std.error mean
improving creativity	45	3.7778	1.07426	.16014

One-sample test

	Test value=3					
	t	df	Sig. (2-tailed)	Mean difference	95% confidence interval Of the difference	
					lower	upper
Improving creativity	4.857	44	.000	.77778	.4550	1.1005

Since the average is 3.77 and the SIG =% 0.00 which is less than α =% 5, therefore the hypothesis is accepted and improving creativity as an internal factor effects on outsourcing.

Hypothesis 8: (upgrading the quality of output supplied to the customer effects on the outsourcing)

Table 8: T-test of upgrading the quality of output One-sample statistics

	N	Mean	Std.deviation	Std.error mean
Upgrading the quality of output	45	3.8222	1.13396	.16904

One-sample test

Description Hypothesis	Test value=3					
	t	df	Sig. (2-tailed)	Mean difference	95% confidence interval Of the difference	
					lower	upper
Upgrading the quality of output	4.864	44	.000	.82222	.4815	1.1629

Since the average is 3.82 and the SIG =% 0.00 which is less than α =% 5, therefore the hypothesis is accepted and upgrading the quality of output as an internal factor effects on outsourcing.

Main hypothesis: (There are significant differences between factors affecting outsourcing)

Table 9) variance analysis of effective factors ANOVA

	Sum squares	Df	mean	f	Sig
Between groups	5.578	7	.797	.710	.664
Within groups	395.283	352	1.123		
Total	400.861	359			

According to the analysis of variance, $\text{sig} = 0.66$ and this amount is greater than $\alpha = 0.05$, therefore, main hypothesis was rejected and there are no significant differences between factors affecting outsourcing.

5. Conclusions and recommendations

Economic developments in the industry such as acceptance of Iran as observers in the WTO, the need to keep pace with technology companies to compete with foreign products the world has raised more than ever. Therefore, managers need to carefully study the situation of organization from internal and external aspects, substrates required for effective steps to provide agility of organization. Moreover, management could provide condition for its successful presence in the global market with removal of institutional activities that do not have much role in the value chain and outsourcing to external contractors or contract work with companies that specialized in moving along with the changes to transfer a part or overall of activities related to one or more business processes in organizations.

The study showed that all the internal and external organizational factors have a direct impact on outsourcing and sub-hypotheses are accepted, but the main hypothesis is rejected. Therefore, there is no significant difference between the factors affecting outsourcing.

Regarding to the contents and results, these recommendations are offered:

- 1- In situations where customer needs are constantly changing, a company that wants outsourcing should search flexible organizations to provide responsibility for their activities cheaply and efficiently. Here, it may be need to find smaller entrepreneur partners so that it go on with the quality of cooperation and sharing in how to doing things that they agree.
- 2- To access to new markets, the company should choose the strongest competitor as a partner. It has the dual effect of reducing competition in new markets and acquires relevant skills to address the new situation. In situations where speed is more important than cost and loss of efficiency compared to achieving a base has minor importance, therefore there is a need for such changes.
- 3- Company managers should take note that if organization's activities is minimal for some reason such as skills and expertise of current staff leading to minimal performance or progress in the next, the activity should be outsourced by giving the activity to a supplier that is expert in the activity and also new method and trained and skilled staff should be used.

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