



# Investigation and Pathology of affective Factors on the process outsourcing performance from the perspective of managers and employees of petroleum industry

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**Abstract:** *Now days, One of the concepts that have been heard in industry and services is the concept which called "outsourcing", Successful managers in organizations around the world use of outsourcing as an effective strategy to achieve Strategic goals. An important issue is considered for those areas of the business environment in the use of outsourcing, Is that a company (organization) decides to what activities they outsource and what activities they do for themselves? The problem what senior managers faced by that, is not used of outsourcing, but also set an activity that should be outsource. And this requires that become clearly defined the processes of outsourcing strategy, The aim of the study, "Investigation and Pathology of affective Factors (Internal factors include management considerations, strategic considerations, security considerations, factors associated with quality, factors associated with service features) and (external factors including: technology factors, social factors, political factors and economic factors) on the process outsourcing performance from the perspective of managers and employees of petroleum industry. To perform this study, is used two index questionnaire and the reasons of outsourcing, and the causes of unsuccessful outsourcing. The study consisted of managers and industry insiders Islamic Republic of Iran (General Directorate of administration and engineering departments of the Ministry of Oil and conserving the structure and main companies and subsidiaries of the oil industry) that are 130 persons; so 97 subjects were chosen as samples by using Cochran formula. To analyze the data was used of t test, Wilcoxon test and Spss software. The results show that, the number of 24 variables which identified in the performance of outsourcing process was successful from the perspective of managers and employees of the oil industry, and administrators and managers who should pay attention to outsourcing. In addition, among 24 variables, the two variables (technology factors), and (social factors), has the least impact on performance and 2 variables (economic factors) and (organizational internal and external factors), have the greatest impact on performance of outsourcing processes.*

**Keywords:** *Pathology, managers and employees, outsourcing of activities, petroleum industry*

## INTRODUCTION

Providing resources from outside of the organization, outsourcing and management activities of outsourcing expressed the use of other services and exterior outsourcing all of them mean the delegation of some organized activities to outside of organization. In today's organizations profitability, reduce costs, competition, quality, expertise, speed and ... the crucial issues to the survival of companies and organizations to achieve their goals. Providing the exterior outsourcing resources strategy is now considered one of the strategies which pay

attention most large public and private organizations. So Providing resources from the outside of organization, Strategic use of external sources to perform activities which Managed traditionally by internal resources and employment And a managerial strategy by which that organization can assigned to their service providers, Who are efficient to better accomplish the basic tasks and but minor task (Soliman & Zarb, 2002, 738). Decided to build a production (or service) within the organization or its outsourcing, is crucial decisions that variable effects on different aspects of organization. As has been proved, due to the cost factor cannot spend the other organization to lead a principled decision. Other factors such as the organization's strategies often play a major role in these decisions. For a government organization, the problem is even further, because government policies also affect to the decision of organization (Pakdaman, 1392). Outsourcing is considered a tool for the structure of economic reform. Privatization and outsourcing objectives reflect trends and aspects of political, economic, social, cultural, etc, like many other cases, which is based on the assignment of financial institutions to the private sector. The most important of its objectives can consider the decentralization in the economy, more participation of the private sector in productive activities and service or hand access to other positive outcomes and determinants of this phenomenon on human resources (Akbarieh, 1392). This research aims to: get "pathology the influential factors (internal and external) on the outsourcing process from the perspective of managers and employees of the oil industry". Porter (2001) provides methodologies with ten steps for decision to buy or build in his article. The factors which Porter should focus on; include business process of the organization, definition technology, the important matrix competition and decision-making models. Mike Tizler and Colin Daruei (2001) provide an algorithm for decision to buy or build in their article, in which both the cost factor and operating organizational strategies are considered. Bret, Dobler and Starling in his book titled the effective factors on making or buying decision and considerations support decision to build or purchase and maximize the usefulness of the decision by developing a mathematical model. Mr. Farzad Ashrafzadeh (1388) "achieve to the comprehensive design of model for Outsourcing in the National Iranian Oil Company" in relation to the investigation, were achieved the following results:

- \* Whatever service is more tangible and more standardized increases tendency to outsourcing.

- \* whatever service is less uncertainty reduced tendency to outsourcing.

Mr. Mohammad Khalat Barry (1389), in his final project entitled "the executive Impact assessment of privatization unit's services" in the headquarters of the National Petrochemical Company of Iran:

The results of this research have confirmed the following four hypotheses.

- \* The privatization units of services is effective in achieving the effectiveness objectives.

- \* The privatization units of services is successful in reducing the size of spheres of activity.

- \*The privatization units of services is successful in providing customer satisfaction services.

\* the privatization units of services is effective on decentralization of decision-making process.

Ms. Nasrin Mehraein (1390), his final project entitled "Analysis of the effective of delegating tasks to contractor's butane companies on corporate performance and fulfilled the providing necessary recommendations to improve them "with the aim to answer the following questions:

\*Does delegating tasks to contractors is improved the organizational performance?

\* What should be done to improve the results?

The subject of the noted researchers, are delegating tasks to contractors and the effective of delegating tasks to contractors on organizational performance that in this study a broad range of effective factors have been targeted on organizational performance and the effective of delegating tasks to contractors by these factors.

#### **materials and methods:**

This study is cross sectional in terms of performing the research time; the result of the study is applied; In terms of the performance study process is a combination, In terms of purpose of this study is descriptive (and a case study) and in terms of the logic performance of the study is inductive, in this study is used a simple random sampling method. This study consisted of the statistical population between managers and employees of the oil industry of the Islamic Republic (Department of organization and methods of the Ministry of Petroleum and engineering offices and subsidiary structure and efficiency of the main companies of the oil industry). To determine the statistical sample were distributed and collected 30 questionnaires. The standard deviation was equal to 0.1546; Since the number of managers and employees are 130 people, 97 subjects were selected by simple random sampling method based on the Cochran formula.

#### **Results and discussion:**

**Table1. Frequency distribution by gender**

Sex	Frequency	The percentage of Frequency	The percentage of cumulative
Female	12	12.4	12.4
Male	85	87.6	100
sum	97	100	

The above table represents the frequency of employees which is based on their gender, as shown in table 12.4 per cent of female respondents and 87.6 percent of the respondents are male.

**Table 2 - Frequency distribution based on education**

Education	Frequency	The percentage of Frequency	The percentage of cumulative
Associate degree	3	3.1	3.1
BA	40	41.2	44.3
MA or higher	52	53.6	97.9
No response	2	2.1	100
Total	97	100	

The above table represents the frequency of employees which is based on their educational level, as can be seen in table 3.1 percent of respondents have an associate degree, 41.2 percent have BA, 53.6 percent have a MA or higher and Finally, 2.1percent of educational level is unknown. In total, the highest number of frequencies allocated to the holders of MA and above.

**Table 3.Frequency distribution according to work experience:**

The work experience (years)	Frequency	The Percentage of Frequency	The percentage of cumulative
1-5	4	4.1	4.1
6-10	13	13.4	17.5
11-15	18	18.6	36.1
16-20	28	28.9	64.9
21-25	12	12.4	77.3
26-30	16	16.5	93.8
30 and above	6	5.2	100
Total	97	100	

The above table represents the frequency of employees which is based on their work experience, As seen in the table, 4.1% of respondents have 1-5 year working experience, 13.4% of respondents have 6-10 years of working experience, 18.6% of respondents have 11-15 years working experience and 28.9 percent of respondents have 16-20 years working experience, 12.4% of respondents have 21-25 years working experience and 16.5 percent of respondents have 26-30years working experience and 5.2 percent of respondents have working experience of 30 years. In total, the highest number of frequency is allocated to holders of 16-20 years working experience and the lowest frequency is allocated to the holders of 1-5 year working experience.

**Table 4. Frequency distribution based on the job:**

Working experience (years)	frequency	The Percentage of Frequency	The percentage of cumulative
Employee	5	5.2	5.2
BA and MA	47	48.5	53.7
chief	28	28.9	82.6
the manager	17	17.4	100
Total	97	100	

The above table represents the frequency of employees , based on the job approach, As can be seen in table 5.2 percent of respondents employees, 48.5% of respondents are BA and MA, 28.9% of respondents are chief and 17.4 percent of respondents are managers. In total, the highest number of the frequency is allocated to the holders of BA and MA job and the lowest frequency is allocated to the holders of the employee job.

Hypothesis H0: there is no significant difference between expectations and perceptions of managers and employees about the management considerations (outsourcing index).

Hypothesis H1: there are significant differences between expectations and perceptions of managers and employees about the management considerations (the indices outsourcing).

ranks				
		Number	The average ranks	Total ranks
DM2 - DM	Negative ranks	93 <sup>a</sup>	50.66	4711.00
	Positive ranks	4 <sup>b</sup>	10.50	42.00
	Ties	0 <sup>c</sup>		
	sum total	97		
a. DM2 < DM				
b. DM2 > DM				
c. DM2 = DM				

Wilcoxon test	
	DM2 - DM
Z	-8.407 <sup>a</sup>
Two tailed significance level	.000
Asymp. Sig.(2-tailed)	
a. Based on positive ranks.	

In the ranks table achieved the average ranks and total ranks and in the table of Test Statistic obtained the amount of 0.000 to decision criteria (Sig.), and since this amount is smaller than 0.05, the null hypothesis is

rejected; Means there are significant difference between expectations and perceptions of managers and employees about the management considerations (the indices reasons for outsourcing).

The investigation of hypothesis number two showed that there are significant differences between the expectations and perceptions of managers and employees about strategic considerations (the indices reasons for outsourcing).

$$\begin{cases} H_0: \mu_1 = \mu_2 \\ H_1: \mu_1 \neq \mu_2 \end{cases}$$

Hypothesis H0: There is no significant difference between expectations and perceptions of managers and employees about strategic considerations (the indices reasons for outsourcing).

Hypothesis H1: there are significant differences between expectations and perceptions of managers and employees about strategic considerations (the indices reasons for outsourcing).

ranks				
		number	The average ranks	Total ranks
DS2 - DS	Negative ranks	92 <sup>a</sup>	49.93	4593.50
	Positive ranks	4 <sup>b</sup>	15.63	62.50
	Ties	1 <sup>c</sup>		
	Sum total	97		
a. DS2 < DS				
b. DS2 > DS				
c. DS2 = DS				

Wilcoxon test	
	DS2 - DS
Z	-8.319 <sup>a</sup>
Two tailed significance level	.000
Asymp. Sig.(2-tailed)	
a. Based on positive ranks.	

In the ranks table achieved the average ranks and total ranks and in the table of Test Statistic obtained the amount of 0.000 to decision criteria (Sig.) and since this amount is smaller than 0.05, the null hypothesis is rejected; Means there are significant difference between expectations and perceptions of managers and employees about the management considerations (the indices reasons for outsourcing).

The investigation of hypothesis number three showed that there are significant differences between the expectations and perceptions of managers and employees about security considerations (the indices reasons for outsourcing).

$$\begin{cases} H_0: \mu_1 = \mu_2 \\ H_1: \mu_1 \neq \mu_2 \end{cases}$$

Hypothesis H0: There is no significant difference between expectations and perceptions of managers and employees about security considerations (the indices reasons for outsourcing).

Hypothesis H1: there are significant differences between expectations and perceptions of managers and employees about security considerations ((indicators of outsourcing).

ranks				
		number	The average ranks	Total ranks
DSecurity2 - Dsecurity	Negative ranks	81 <sup>a</sup>	45.83	3712.00
	Positive ranks	6 <sup>b</sup>	19.33	116.00
	Ties	10 <sup>c</sup>		
	Sum total	97		
a. DSecurity2 < Dsecurity				
b. DSecurity2 > Dsecurity				
c. DSecurity2 = Dsecurity				

Wilcoxon test	
	DSecurity2 - Dsecurity
Z	-7.637 <sup>a</sup>
Two tailed significance level	.000
Asymp. Sig.(2-tailed)	
a. Based on positive ranks.	

In the ranks table achieved the average ranks and total ranks and in the table of Test Statistic obtained the amount of 0.000 to decision criteria (Sig.) and since this amount is smaller than 0.05, the null hypothesis is rejected; Means there are significant difference between expectations and perceptions of managers and employees about security considerations (the indices reasons for outsourcing).

The investigation of hypothesis number four showed that there are significant differences between the expectations and perceptions of managers and employees about the factors which related to quality ((indicators of outsourcing).

$$\begin{cases} H_0: \mu_1 = \mu_2 \\ H_1: \mu_1 \neq \mu_2 \end{cases}$$

Hypothesis H0: There is no significant difference between expectations and perceptions of managers and employees about the factors related to quality (the indices reasons for outsourcing).

Hypothesis H1: there are significant differences between expectations and perceptions of managers and employees about the factors related to quality ((indicators of outsourcing).

ranks				
		number	The average ranks	Total ranks
DQ2 - DQ	Negative ranks	92 <sup>a</sup>	48.24	4438.00
	Positive ranks	3 <sup>b</sup>	40.67	122.00
	Ties	2 <sup>c</sup>		
	Sum total	97		
a. DQ2 < DQ				
b. DQ2 > DQ				
c. DQ2 = DQ				

Wilcoxon test	
	DQ2 - DQ
Z	-8.043 <sup>a</sup>
Two tailed significance level	
Asymp. Sig.(2-tailed)	.000
a. Based on positive ranks.	

In the ranks table achieved the average ranks and total ranks and in the table of Test Statistic obtained the amount of 0.000 to decision criteria (Sig.) and since this amount is smaller than 0.05, the null hypothesis is rejected; Means there are significant difference between expectations and perceptions of managers and employees about the factors related to quality (the indices reasons for outsourcing).

The investigation of hypothesis number five showed that there are significant differences between the expectations and perceptions of managers and employees about the factors related to the characteristics of service ((indicators of outsourcing).

$$\begin{cases} H_0: \mu_1 = \mu_2 \\ H_1: \mu_1 \neq \mu_2 \end{cases}$$

Hypothesis H0: There is no significant difference between expectations and perceptions of managers and employees about the factors related to the characteristics of service (the indices reasons for outsourcing).

Hypothesis H1: there are significant differences between expectations and perceptions of managers and employees about the factors related to the characteristics of service ((indicators of outsourcing).

ranks				
		number	The average ranks	Total ranks
DP2 - DP	Negative ranks	87 <sup>a</sup>	47.65	4145.50
	Positive ranks	4 <sup>b</sup>	10.13	40.50
	Ties	6 <sup>c</sup>		
	Sum total	97		
a. DP2 < DP				
b. DP2 > DP				
c. DP2 = DP				



Wilcoxon test	
	DP2 - DP
Z	-8.167 <sup>a</sup>
Two tailed significance level	
Asymp. Sig.(2-tailed)	.000
a. Based on positive ranks.	

In the ranks table achieved the average ranks and total ranks and in the table of Test Statistic obtained the amount of 0.000 to decision criteria (Sig.) and since this amount is smaller than 0.05, the null hypothesis is rejected; Means there are significant difference between expectations and perceptions of managers and employees about the factors related to the characteristics of service (the indices reasons for outsourcing).

The investigation of main hypothesis showed that there are significant differences between the expectations and perceptions of managers and employees about internal factors (indices reasons for outsourcing).

Internal factors include the management considerations, strategic considerations, security considerations, factors associated to quality, the factors related to service features, in other words summed hypotheses are 1, 2, 3, 4, 5.

$$\begin{cases} H_0: \mu_1 = \mu_2 \\ H_1: \mu_1 \neq \mu_2 \end{cases}$$

Hypothesis H0: There is no significant difference between expectations and perceptions of managers and employees about internal factors (the indices reasons for outsourcing).

Hypothesis H1: there are significant differences between expectations and perceptions of managers and employees about internal factors ((indicators of outsourcing).

ranks				
		number	The average ranks	Total ranks
Druni2 - Druni	Negative ranks	93 <sup>a</sup>	50.55	4701.00
	Positive ranks	4 <sup>b</sup>	13.00	52.00
	Ties	0 <sup>c</sup>		
	Sum total	97		
a. Druni2 < Druni				
b. Druni2 > Druni				
c. Druni2 = Druni				

Wilcoxon test	
	Druni2 - Druni
Z	-8.364 <sup>a</sup>
Two tailed significance level	
Asymp. Sig.(2-tailed)	.000
a. Based on positive ranks.	

In the ranks table achieved the average ranks and total ranks and in the table of Test Statistic obtained the amount of 0.000 to decision criteria (Sig.) and since this amount is smaller than 0.05, the null hypothesis is rejected; Means there are significant difference between expectations and perceptions of managers and employees about internal factors (the indices reasons for outsourcing).

### **Suggestions:**

According to the theoretical foundations and analysis of data collected in the field of studies and the results of a questionnaire the following is recommended:

1-recommended, indicators and the effective factors of reasons outsourcing in Section component of management considerations for outsourcing the major activities (expert), technical support, public support for project activities (temporary) is considered independently for the relevant authorities in the petroleum industry.

2-recommended, indicators and the effective factors of reasons outsourcing in Section component of strategic considerations for outsourcing the major activities (expert), technical support, public support for project activities (temporary) is considered independently for the relevant authorities in the petroleum industry.

3-recommended, indicators and the effective factors of reasons outsourcing in Section component of security considerations for outsourcing the major activities (expert), technical support, public support for project activities (temporary) is considered independently for the relevant authorities in the petroleum industry.

4-recommended, indicators and the effective factors of reasons outsourcing in Section component of the factors in related to quality for outsourcing the major activities (expert), technical support, public support for project activities (temporary) is considered independently for the relevant authorities in the petroleum industry.

5- Recommended, indicators and the effective factors of reasons outsourcing in Section component of the factors associated with service features for outsourcing the major activities (expert), technical support, public support for project activities (temporary) is considered independently for the relevant authorities in the petroleum industry

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