

Any Relation between Organizational Culture & Leadership Style at Mahshahr Petrochemical Companies

Ahmad Askari^{1,*} and Samad akbari²

¹Department of Management, Firooz Abad Branch, Islamic Azad University, Firooz Abad, Iran

²Graduate executive management

ABSTRACT

The real purpose of this research is to study any relation between organizational culture and leadership style at Mahshahr Petrochemical companies. Research method is measuring type. Peter w.dorman & John P.Howell and W.Worner Barke questionnaires have been used for required data collection. Statistical population includes headquarter and operational units of Imam Port Petrochemical Company, Razi Co. and non-industrial operations. Research theories are tested by statistical testing methods including independency test, correlation coefficient and testing two average societies.

KEY WORDS: Organizational Culture , Leadership Style, Staff.

INTRODUCTION

Organizational success is not only a product of leadership method but also the job condition. Any recognition of positions and situations and of course selecting a suitable leadership method may provide an effective assist in reaching to organizational purposes. Renovation of organizations is one of the widest processes in which we have organizational culture and leadership style as important aspects. This is because by recognition of which it is possible to have a step forward and specify effective factors on renovation. Furthermore, management has a critical role in continuous of human life in modern societies. If there were some problems and difficulties for managers, today there are more complex and hard problems and difficulties due to serious changes of life stages for which we need super-active managers as well. The presence of competent managers is really necessary for on-time determination of educational needs and providing a program for further performances and basic steps in the field of cultural development of society.

Disability in providing a suitable relation with sub-divisions due to any changes in managerial scope is one of the special problems of managers at petrochemical companies.

Cultural problems have a close relation with human resources and a worry of today managers in order to find a solution for it probably.

The other important problem of managers is organizing of forces at different environments and selecting a suitable leadership style for managers at Mahshahr area within recent years. This is really due to the entrance of academic and university forces with different concepts and modes of petrochemical industry than old forces.

Managers are facing with this question that how is it possible to make a suitable relation with man powers who have different ceremonies and mores?

Why different groups of personnel feel that managers do not understand them upon changing of management?

Whether it is possible for managers to solve these problems? How is it possible to be not only a good manager but also an effective leader as well?

Any lack of a suitable organizational culture and its effect on organizational communications and operation of managers, makes the master manage of petrochemical industries to provide a new organizational chart in current year (2004) with a high volume of cultural & educational activities in non-industrial operations of company.

The major goal of new organization is to create a change in organizational culture and removing any cultural obstacles.

The basic question is that how we may solve our problems without a good knowledge of governing culture on the organization?

Two types of leadership styles, human-based and job-based, are studied in different petrochemical companies in a research made by Research of Human Resources Dept. of National Company of Petrochemical Industries in 2001 and also for specifying the effect of leadership styles on managers' functions and profitability.

One of the obtained results of this research was applying of more efficient leadership style by managers than human-based leadership on in their managerial scope of work. Therefore, any interaction between organizational culture and leadership style are included in relevant researches in this field of industry which should be investigated more accordingly.

*Corresponding Author: Ahmad Askari, Department of Management, Islamic Azad University, Firooz Abad Branch, Firooz Abad, Iran.

Research purposes

Main goal

There are two major goals in scientific & applicable dimensions in a way that indirect goals may specify internal aspects of scientific and applicable purposes as well.

“Scientific goal” explains the effects of variants and organizational culture parameters on different dimensions of leadership styles at Mahshahr Petrochemical companies. Therefore it may intend to specify whether organizational culture is able to have any effects on leadership style and which type of leadership style is suitable with the considered culture.

“Applicable goal” is recognition of organizational cultures at Mahshahr area for promotion of the ideals of effective managers and assist them accordingly.

- Indirect goals
- Considering the current organizational culture at Mahshahr Petrochemical companies with regard to managerial cultures
- Considering different parameters in leadership style at Mahshahr Petrochemical Companies
- Considering any interaction of leadership style parameters and organizational culture
- Providing research guidelines for betterment of organizational culture and further changes in attitude of management in mentioned companies

Research theories

Main theories

- 1) There is relation between organizational culture & leadership style
- 2) Organizational culture of considered petrochemical companies is job-creative type.
- 3) Leadership style of considered petrochemical companies is changing type.
- 4) Managers & personnel in the governed organizational culture have similar attitudes.

Indirect theories

- 1) There is a relation between authority in organizational culture and leadership style
- 2) There is a relation between prevention from non-confidence in organizational culture and leadership style.
- 3) There is a relation between personalization & pluralism in organizational culture & leadership style.
- 4) Organizational culture of Bandar Imam Petrochemical Co. is job creative one.
- 5) Organizational culture of Razi & Non-industrial operations Petrochemical Co. is tribal one.
- 6) Leadership style at Bandar Imam Petrochemical Co. is changing one.
- 7) Leadership style of Razi & Non-industrial operations Petrochemical Co. is interaction type.

Organizational culture

Organizational culture is an exclusive pattern including all theories, values and common orders and may create society acceptance, language, symbols and organizational functions. The real purpose of which is a common understanding of members about the organization and also separation of both organizations from each other. When a system has various members with common understanding, it will have a major structure respectful for all members. Following diagram shows a framework in organizational culture:

Major culture	Organizational culture			Types of cultures		Applications	
	Common assumptions	Common values	Orders & Society acceptance	-Common symbols -Common language -Common narrations -Common functions	-Bureaucratic -Tribal -Job creative		
-Society -Industry	→					→	-Organizational function -Job satisfaction Customers satisfaction -Other

Structure of Organizational Culture

- Major culture means a combination of theories and society/industry values for performance of the organization and/or one of the sectors of the organization.
- Followings are common theories:
 - 1- Any believes & thinking of people about themselves and others (Example: Pay attention to personal benefits against public profits)
 - 2- Any relations of members with others (Example: Competition or cooperation)
 - 3- Organizational relations with the environment (Example: Overcoming to the environment, partnership and ...)
 - 4- Time tendency, (Future, Present, Past and ...)

- Common values: Value is a fundamental and fixed belief with considerable and specific importance for people.
- Common society: It is a regular process through which the organization may accept new members in its own organizational culture.
- Common symbols: It means any observable item with a special meaning for showing an individual common value.
- Common language: A common system of voices, written signs or points for transfer of a special meaning among the members.
- Common narrations: It includes various stories and common heroes and myths in an organizational culture.
- Common functions: It includes superficial ceremonies, special & official designed activities for creation of powerful feelings and performing of jobs as a special accident (2).

Statistical society & sample of the research

The statistical society of this research includes the personnel and occupied managers at Mahshahr Petrochemical Companies (Bandar Imam, Razi & No-industrial Co.) with a number of 5209 occupied persons with different academic levels. Since the real purpose of this research is to provide valid and applicable data, therefore the selected sample should bear all major specifications and characters of the main society. Society of managers include: Lower, Middle & Higher level managers who may have organizational grade of 16 and higher in accordance with current rules and regulations of Oil Company. Also relevant organizational culture & leadership style questionnaires distributed among 35 managers along with organizational culture questionnaires which were distributed among 50 persons of personnel in order to specify the size of the sample. Then it was possible to calculate criterion violation by the use of the mentioned information. Finally the size of sample of both societies was specified by the use of the following formula:

$$(1) n = \frac{Z_{(\alpha/2)}^2 \times \sigma^2}{\epsilon^2}$$

Where:

$Z_{(\alpha/2)}$: Normal standard quantity for (1- α) at certainty level of %95 equal to 1.96.

n: Sample size for statistical society

σ = criterion violation of statistical society according to the academic records

ϵ^2 = Estimation certainty

α =Error rate of first type (here it is assumed to be 0.05) (Adel Azar, 1999

A)Calculation of sample number of personnel: Since the real goal of this sample is to compare of organizational culture of personnel and managers, estimation certainty is 0.08 as follows:

(2)

$$n = \frac{(1.96)^2 \times (0.498)^2}{(0.08)^2} = 149 \approx 150$$

B)Calculation of sample number of managers: Since any test of major & indirect theories is based upon the results of organizational culture questionnaires and distributed leadership style among the managers, therefore following is the required sample number according to the results of organizational culture questions and certainty rate of 0.08:

(3)

$$n = \frac{(1.96)^2 \times (0.375)^2}{(0.08)^2} \approx 85$$

Also the required sample number is as follows by the use of the results of leadership style questionnaire and with regard to the estimation certainty of 1.5:

(4)

$$n = \frac{(1.96)^2 \times (6.34)^2}{(1.5)^2} = 69$$

Finally, we may consider the required sample number equal to 85 as well.

For further compensation of testable fall and also increasing the external validity and any probable of lack of return back a number of questionnaires, about 180 questionnaires were distributed among personnel and 120 ones among the managers. Finally we collected about 162 questionnaires filled by personnel and 98 questionnaires by managers as well.

Testing of theories

First theory: There is a relation between organizational culture & leadership style.

In order to test this theory, we used both methods of independency test and correlation coefficient as follows:

A)Independency test:

1-Assumptions

H_0 = There is not any relation between organizational culture & leadership style

H_1 = There is a relation between organizational culture & leadership style

1-Testing statistics: The results of testing statistics have been calculated by the use of SPSS software.

Table of major parameters of organizational culture & leadership style

Leadership style	Organizational culture	Tribal	Entrepreneur	Total
Evolutionist	34	15.9	6	24.1
Transaction	5	23.1	53	34.9
Total		39	59	98

Digits inside the squares show the expected abundance.

$$\chi^2 = \frac{(34 - 15.9)^2}{15.9} + \frac{(6 - 24.1)^2}{24.1} + \frac{(5 - 23.1)^2}{23.1} + \frac{(53 - 34.9)^2}{34.9} = 57.64$$

Here there are two required conditions for independency test. Therefore since the freedom degree is 1 but the number of samples is great (n<50), any modification of correlation has no more effect and could be omitted accordingly.

3-Critical amount: Critical amount is squared in accordance with $\alpha=0.05$ and $d.f=(2-1)(2-1)=1$ and by the use of K curve table as follows:

A=0.05

$$\chi^2_{0.05,1} = 3.841$$

d.f=1

4-Decision making: Since the test statistics (57.64) is greater than critical amount (3.841), it is impossible to accept theory H_0 , therefore it is possible to say that at certainty level of %95 there is a meaningful relation between organizational culture & leadership style.

B)Correlation coefficient

By the use of Crosstabs order in Summarize sub-menu out of Statistics sub-menu related to Spss 6.0 software pack, the statistic amount of Mantle –Huntzel is equal to 57. Since the critical amount 3.841 is greater, therefore the relation between both variants is linear as well. As a result it is possible to test any relation between these two variants y the use of Pearson correlation coefficient which is equal to 0.686 with following steps:

1-Assumptions

H_0 = The correlation between organizational culture & leadership style is equal to zero ($p=0$)

H_1 = The correlation between organizational culture & leadership style is not equal to zero ($p\neq 0$)

2-Test statistics:

$$t = \frac{0.686 - 0}{\sqrt{\frac{1-(0.686)^2}{98-2}}} = 9.24$$

3-Critical amount: Since the sample quantity is great (n<30) in compliance with central limit theory, it is possible to use normal distribution method, therefore critical quantity is equal to ± 1.96

$$(Z_{(\alpha,2)} = Z_{0.025} = \pm 1.96)$$

4-Decision making: Since test statistics ($Z=9.26$) is not an average of -1.96 and +1.96, theory of zero is rejected. As a result it is possible to conclude that there is a meaningful relation between organizational culture and leadership style.

As it is obvious, both methods approve any relation between organizational culture and leadership style.

Second theory: The organizational culture of considered petrochemical companies is an entrepreneur type.

Regarding the organizational questionnaire, if the grades are lower than 3 then organizational culture is entrepreneurship one. Therefore, in order to test this theory, we used statistical average theory of a society.

1-Assumptions:

H_0 = The average grades of organizational culture questionnaire is at least 3 ($\mu_x \geq 3$)

H_1 = The average grades of organizational culture questionnaire is lower than 3 ($\mu_x < 3$)

2-Test statistics:

$$Z = \frac{X}{S_x} = \frac{2.8 - 3}{\frac{0.57}{\sqrt{98}}} = -3.47$$

3-Critical quantity: Regarding the theories, it is specified that this test is a left-continuation type. This is because theory H_1 is located at left hand therefore the critical quantity is as follows:

$$Z_\alpha = Z_{0.05} = -1.645$$

4-Decision making: Upon comparing test statistics (-3.47) with critical amount (-1.645), it is obvious that test statistics is located H_1 at area and could not be rejected. Therefore, at %95 of certainty level, it is possible to say that the grades of organizational culture questionnaire is lower than 3, then the organizational culture of studied petrochemical companies is entrepreneurship one.

3rd theory: Leadership style of studies petrochemical companies is evolution type.

Regarding the leadership style questionnaire, the total amount of 10 questions is equal to 50, while if the total amount of options 1(b), 2(a), 3(b), 4(a), 5(b), 6(a), 7(b), 8(a), 9(b) and 10 (a) is lower than 25, the leadership style is evolution type and if greater or equal to 25, leadership style is transactional. Therefore in order to test this theory, we used average statistical theory of a society for testing this idea.

1-Assumptions:

H_0 = Total grades of options 1(b), 2(a), 3(b), 4(a), 5(b), 6(a), 7(b), 8(a), 9(b), 10(a) is at least 25 ($\mu_x \geq 25$)

H_1 = Total grades of options 1(b), 2(a), 3(b), 4(a), 5(b), 6(a), 7(b), 8(a), 9(b), 10(a) is lower than 25 ($\mu_x < 25$)

2-Test statistics:

$$Z = \frac{X}{S_x} = \frac{23.83 - 25}{\frac{5.89}{\sqrt{98}}} = -1.95$$

3-Critical quantity: Regarding all theories, it is specified that the test is a left-continuation type. This is because theory H_1 is located at left hand therefore the critical quantity is as follows:

$$Z_\alpha = Z_{0.05} = -1.645$$

4-Decision making: Upon comparing test statistics (-1.95) with critical amount (-1.645), it is obvious that test statistics is located H_1 at area and could not be rejected. Therefore, at %95 of certainty level, it is possible to say that leadership style of petrochemical companies is evolution type.

4th theory: Both managers and personnel have equal ideas about governing organizational culture on studied companies. We used average statistical theory test method of both statistical societies for testing this theory.

1-Assumptions:

H_0 = Total grades of filled organizational questionnaire by managers and personnel are equal ($\mu_1 = \mu_2$)

H_1 = Total grades of filled organizational questionnaire by managers and personnel are not equal ($\mu_1 \neq \mu_2$)

2-Test statistics:

Since the number of sample volume is greater than 30, following is the test statistics:

$$Z = \frac{(X_1 - X_2)(\mu_1 - \mu_2)}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}} = \frac{(2.8 - 2.68)}{\sqrt{\frac{0.57^2}{98} + \frac{0.51^2}{162}}} = 1.7$$

3-Critical quantity: Regarding all theories, it is specified that the test is a double -continuation type. This is because theory H_1 is located at both sides therefore the critical quantity is as follows:

$$Z_{(\alpha/2)} = Z_{0.025} = \pm 1.96$$

4-Decision making: Test statistic ($Z=1.7$) is located at H_0 area in comparison with critical quantity ($Z_{0.025} = \pm 1.96$), therefore it is possible to accept that both manages and personnel have equal ideas about organizational culture governing on studied companies.

Result: Regarding the results of 1st to 3rd theories, it is possible to say that there is a relation between entrepreneurship organizational culture and evolutionist leadership style.

Testing the indirect theories

First theory: There is a relation between authority distance in organizational culture & leadership style.

For testing this theory, we used both methods of independent test and correlation coefficient as follows:

A)Independency test:

1-Assumptions:

H₀= There is no relation between authority distance in organizational culture & leadership style.

H₁= There is a relation between authority distance in organizational culture & leadership style.

3-Statistics test: The results of testing statistical results have been calculated by the use of SPSS software.

Table of major parameters of leadership style

Authority distance Leadership style	Tribal	Entrepreneur	Total
Evolutionist	22 <u>14.3</u>	18 <u>25.7</u>	40
Transaction	13 <u>20.7</u>	45 <u>37.3</u>	58
Total	35	63	98

Digits inside the squares show the expected abundance.

$$\chi^2 = \frac{(22 - 14.3)^2}{14.3} + \frac{(18 - 25.7)^2}{25.7} + \frac{(13 - 20.7)^2}{20.7} + \frac{(45 - 37.3)^2}{37.3} = 10.95$$

Here there are both required conditions for independency test. Since the freedom degree is 1 but the number of samples is great (n<50), any modification of correlation has no more effect and could be omitted accordingly.

3-Critical amount: Critical amount is squared in accordance with $\alpha=0.05$ and $d.f=(2-1)(2-1)=1$ and by the use of K curve table as follows:

A=0.05

$$\chi^2_{0.05,1} = 3.841$$

d.f=1

4-Decision making: Since the test statistics (10.95) is greater than critical amount (3.841), it is impossible to accept theory H₀, therefore it is possible to say that at certainty level of %95 there is a meaningful relation between authority distance in organizational culture & leadership style.

B)Correlation coefficient

By the use of Crosstabs order in Summarize sub-menu out of Statistics sub-menu related to Spss 6.0 software pack, the statistic amount of Mantle –Huntzel is equal to 1.84. Since the critical amount 3.841 is greater, therefore the relation between both variants is linear as well. As a result it is possible to test any relation between these two variants y the use of Pearson correlation coefficient which is equal to 0.4938 with following steps:

1-Assumptions

H₀= The correlation between authority distance in organizational culture & leadership style is equal to zero ($p=0$)

H₁= The correlation between authority distance in organizational culture & leadership style is not equal to zero ($p\neq0$)

2-Test statistics:

$$t = \frac{0.4938 - 0}{\sqrt{\frac{1-(0.4938)^2}{98-2}}} = 5.56$$

3-Critical amount: Since the sample quantity is great (n<30) in compliance with central limit theory, it is possible to use normal distribution method, therefore critical quantity is equal to ± 1.96

$$(Z_{(\alpha,2)} = Z_{0.025} = \pm 1.96)$$

4-Decision making: Since test statistics (Z=5.56) is not an average of -1.96 and +1.96, theory of zero is rejected. As a result it is possible to conclude that there is a meaningful relation between organizational culture and leadership style.

As it is obvious, both methods approve any relation between organizational culture and leadership style.

Second theory: There is a relation between rejection of uncertainty in organizational culture and leadership style.

Therefore in order to test this theory, we used both methods of independency test and correlation coefficient with following results:

A)Independency test:

1-Assumptions

H₀= There is not any relation between rejection of uncertainty in organizational culture and leadership style.

H₁= There is not any relation between rejection of uncertainty in organizational culture and leadership style.

2-Testing statistics: The results of testing statistics have been calculated by the use of SPSS software.

Table of the parameter of uncertainty rejection & leadership style

Rejection of uncertainty Leadership style	Tribal	Entrepreneur	Total
Evolutionist	2918/4	1121.6	40
Transaction	1626.6	4231.4	58
Total	45	53	98

Digits inside the squares show the expected abundance.

$$\chi^2 = \frac{(29 - 18.4)^2}{18.4} + \frac{(11 - 21.6)^2}{21.6} + \frac{(16 - 26.6)^2}{26.6} + \frac{(42 - 31.4)^2}{31.4} = 19.23$$

Here there are both required conditions for independency test. Since the freedom degree is 1 but the number of samples is great ($n < 50$), any modification of correlation has no more effect and could be omitted accordingly.

3-Critical amount: Critical amount is squared in accordance with $\alpha=0.05$ and $d.f=(2-1)(2-1)=1$ and by the use of K curve table as follows:

A=0.05

$$\chi^2_{0.05,1} = 3.841$$

d.f=1

4-Decision making: Since the test statistics (19.23) is greater than critical amount (3.841), it is impossible to accept theory H_0 , therefore it is possible to say that at certainty level of %95 there is a meaningful relation between uncertainty in organizational culture & leadership style.

B)Correlation coefficient

By the use of Crosstabs order in Summarize sub-menu out of Statistics sub-menu related to Spss 6.0 software pack, the statistic amount of Mantle –Huntzel is equal to 19. Since the critical amount 3.841 is greater, therefore the relation between both variants is linear as well. As a result it is possible to test any relation between these two variants y the use of Pearson correlation coefficient which is equal to 0.6292 with following steps:

1-Assumptions

H_0 = The correlation between uncertainty in organizational culture & leadership style is equal to zero ($p=0$)

H_1 = The correlation between uncertainty in organizational culture & leadership style is not equal to zero ($p \neq 0$)

2-Test statistics:

$$t = \frac{0.6292 - 0}{\sqrt{\frac{1-(0.6292)^2}{98-2}}} = 7.93$$

3-Critical amount: Since the sample quantity is great ($n < 30$) in compliance with central limit theory, it is possible to use normal distribution method, therefore critical quantity is equal to ± 1.96

$$(Z_{(\alpha/2)} = Z_{0.025} = \pm 1.96)$$

4-Decision making: Since test statistics ($Z=7.93$) is not an average of -1.96 and +1.96, theory of zero is rejected. As a result it is possible to conclude that there is a meaningful relation between uncertainty in organizational culture and leadership style.

As it is obvious, both methods approve any relation between organizational culture and leadership style.

Third theory: There is a relation between personalization and pluralism in organizational culture & leadership style.

Therefore in order to test this theory, we used both methods of independency test and correlation coefficient with following results:

A) Independency test:

1-Assumptions

H_0 = There is not any relation between personalization & pluralism in organizational culture and leadership style.

H_1 = There is a relation between personalization & pluralism in organizational culture and leadership style.

2-Testing statistics: The results of testing statistics have been calculated by the use of SPSS software.

Table of major parameters of personalization & pluralism with leadership style

Personalization & Pluralism Leadership style	Tribal	Entrepreneur	Total
Evolutionist	2718 / 8	1321.2	40
Transaction	1927.2	3930.8	58
Total	46	52	98

Digits inside the squares show the expected abundance.

$$x^2 = \frac{(27 - 18.8)^2}{18.8} + \frac{(13 - 21.2)^2}{21.2} + \frac{(19 - 27.2)^2}{27.2} + \frac{(39 - 30.8)^2}{30.8} = 11.47$$

Here there are both required conditions for independency test. Since the freedom degree is 1 but the number of samples is great ($n < 50$), any modification of correlation has no more effect and could be omitted accordingly.

3-Critical amount: Critical amount is squared in accordance with $\alpha=0.05$ and $d.f=(2-1)(2-1)=1$ and by the use of K curve table as follows:

$A=0.05$

$$\chi_{0.05,1}^2 = 3.841$$

$d.f=1$

4-Decision making: Since the test statistics (11.47) is greater than critical amount (3.841), it is impossible to accept theory H_0 , therefore it is possible to say that at certainty level of %95 there is a meaningful relation between personalization & pluralism in organizational culture & leadership style.

B) Correlation coefficient

By the use of Crosstabs order in Summarize sub-menu out of Statistics sub-menu related to Spss 6.0 software pack, the statistic amount of Mantle -Huntzel is equal to 11.36. Since the critical amount 3.841 is greater, therefore the relation between both variants is linear as well. As a result it is possible to test any relation between these two variants by the use of Pearson correlation coefficient which is equal to 0.5521 with following steps:

1-Assumptions

H_0 = The correlation between personalization and pluralism in organizational culture & leadership style is equal to zero ($\rho=0$)

H_1 = The correlation between personalization and pluralism in organizational culture & leadership style is not equal to zero ($\rho \neq 0$)

2-Test statistics:

$$t = \frac{0.5521 - 0}{\sqrt{\frac{1-(0.5521)^2}{98-2}}} = 6.49$$

3-Critical amount: Since the sample quantity is great ($n < 30$) in compliance with central limit theory, it is possible to use normal distribution method, therefore critical quantity is equal to ± 1.96

($Z_{(\alpha/2)} = Z_{0.025} = \pm 1.96$)

4-Decision making: Since test statistics ($Z=6.49$) is not an average of -1.96 and +1.96, theory of zero is rejected. As a result it is possible to conclude that there is a meaningful relation between personalization & pluralism in organizational culture and leadership style.

Fourth theory: Organizational culture of Bandar Imam Petrochemical Co. is entrepreneurship type.

Regarding distributed questionnaire of organizational culture, if the average grade is lower than 3, organizational culture is entrepreneurship type, therefore for testing this theory we used statistic theory of test method of a society.

1-Assumptions

H_0 = The average grade of Bandar Imam Organizational Culture Questionnaire is at least 3 ($\mu_x \geq 3$)

H_1 = The average grade of Bandar Imam Organizational Culture Questionnaire is lower than 3 ($\mu_x < 3$)

2-Testing statistics:

$$Z = \frac{\bar{X} - \mu_0}{S_x} = \frac{2.39 - 3}{\frac{0.35}{\sqrt{57}}} = -12.2$$

3-Critical quantity: Regarding the theories, it is specified that this test is a left-continuation type. This is because theory H_1 is located at left hand therefore the critical quantity is as follows:

$$Z_{\alpha} = Z_{0.05} = -1.645$$

4-Decision making: Upon comparing test statistics (-12.2) with critical amount (-1.645), it is obvious that test statistics is located H_1 at area and could not be rejected. Therefore, at %95 of certainty level, it is possible to say that the average grade of organizational culture questionnaire of Bandar Imam Petrochemical Co. is lower than 3, then the organizational culture of Bandar imam petrochemical company is entrepreneurship one.

5th theory: The organizational culture of Razi Petrochemical Companies & Non-industrial operations is a tribal one.

Regarding distributed organizational culture questionnaire, if the average grade is 3, therefore there is a tribal organizational culture as well. As a result we used average statistics theory testing method for testing this theory.

1-Assumptions

H_0 = The average grade of Razi Petrochemical Companies & Non-industrial operations is at least 3 ($\mu_x \geq 3$)

H_1 = The average grade of Razi Petrochemical Companies & Non-industrial operations is lower than 3 ($\mu_x < 3$)

2-Testing statistics:

$$Z = \frac{X - \mu_0}{S_x} = \frac{3.36 - 3}{\frac{0.27}{\sqrt{41}}} = 9$$

-Critical quantity: Regarding the theories, it is specified that this test is a left-continuation type. This is because theory H_1 is located at left hand therefore the critical quantity is as follows:

$$Z_{\alpha} = Z_{0.05} = -1.645$$

4-Decision making: Upon comparing test statistics (9) with critical amount (-1.645), it is obvious that test statistics is located H_1 at area and could not be rejected. Therefore, at %95 of certainty level, it is possible to say that the average grade of organizational culture questionnaire of Razi Petrochemical Companies and non-industrial operations tribal one.

6th theory: Leadership style of Bandar Imam Petrochemical Co. is transactional one.

Regarding the leadership style questionnaire, the total amount of 10 questions is equal to 50, while if the total amount of options 1(b), 2(a), 3(b), 4(a), 5(b), 6(a), 7(b), 8(a), 9(b) and 10 (a) is lower than 25, the leadership style is evolution type and if greater or equal to 25, leadership style is transactional. Therefore in order to test this theory, we used average statistical theory of a society for testing this idea.

1-Assumptions:

H_0 = Total grades of options 1(b), 2(a), 3(b), 4(a), 5(b), 6(a), 7(b), 8(a), 9(b), 10(a) is at least 25 ($\mu_x \geq 25$)

H_1 = Total grades of options 1(b), 2(a), 3(b), 4(a), 5(b), 6(a), 7(b), 8(a), 9(b), 10(a) is lower than 25 ($\mu_x < 25$)

2-Test statistics:

$$Z = \frac{X}{S_x} = \frac{19.96 - 25}{\frac{4.02}{\sqrt{57}}} = -9.46$$

3-Critical quantity: Regarding all theories, it is specified that the test is a left-continuation type. This is because theory H_1 is located at left hand therefore the critical quantity is as follows:

$$Z_{\alpha} = Z_{0.05} = -1.645$$

4-Decision making: Upon comparing test statistics (-9.46) with critical amount (-1.645), it is obvious that test statistics is located H_1 at area and could not be rejected. Therefore, at %95 of certainty level, it is possible to say that leadership style of Bandar Imam Petrochemical Co is evolution type.

7th theory: Leadership style of Razi Petrochemical Companies & Non-industrial operations. is transactional one.

Regarding the leadership style questionnaire, the total amount of 10 questions is equal to 50, while if the total amount of options 1(b), 2(a), 3(b), 4(a), 5(b), 6(a), 7(b), 8(a), 9(b) and 10 (a) is lower than 25, the leadership style is evolution type and if greater or equal to 25, leadership style is transactional. Therefore in order to test this theory, we used average statistical theory of a society for testing this idea.

1-Assumptions:

H_0 = Total grades of options 1(b), 2(a), 3(b), 4(a), 5(b), 6(a), 7(b), 8(a), 9(b), 10(a) is at least 25 ($\mu_x \geq 25$)

H_1 = Total grades of options 1(b), 2(a), 3(b), 4(a), 5(b), 6(a), 7(b), 8(a), 9(b), 10(a) is lower than 25 ($\mu_x < 25$)

2-Test statistics:

$$Z = \frac{X}{S_X} = \frac{29.2 - 25}{\frac{3.27}{\sqrt{41}}} = 8.24$$

3-Critical quantity: Regarding all theories, it is specified that the test is a left-continuation type. This is because theory H_1 is located at left hand therefore the critical quantity is as follows:

$$Z_\alpha = Z_{0.05} = -1.645$$

4-Decision making: Upon comparing test statistics (8.24) with critical amount (-1.645), it is obvious that test statistics is located H_1 at area and could not be rejected. Therefore, at %95 of certainty level, it is possible to say that leadership style of Razi Petrochemical Companies & Non-industrial operations is evolution type.

Result: Regarding the results of indirect 5th & 7th theories, it is possible to say that there is a relation between tribal organizational culture and transactional leadership style.

Conclusion

According to the findings of current research it is obvious that there is a relation between organizational culture, authority distance, uncertainty, pluralism rate and personalization and leadership style. It is a meaningful relation from statistical point of view. Also the organizational culture of Bandar Imam Petrochemical Companies is entrepreneur type and Razi Petrochemical Companies & Non-industrial operations have a tribal culture as well. The leadership style of total studied petrochemical companies is evolution type for Bandar Imam Petrochemical Co. and transactional for Razi Petrochemical Companies & Non-industrial operations.

Due to the approving of main and indirect theories of present research, it is possible to conclude that tribal organizational culture needs a transactional leadership style and entrepreneurship organizational culture needs an evolutionist leadership style.

REFERENCES

- 1-Bazargan, Abbas, Hejazi, Elahe, Sarmad Zohreh, Research method in behavioral sciences, Tehran: Agah presss, 2002
- 2-Moghimi, Mohammad, Salimi, Bagher, Nouri, Ali, Compliance Management, Tehran: Negah Danesh Press: 2006
- 3- Arnold , Hugh J. and Feldman , Daniel C. , 1989 "Organizational Behavior", Toronto: McGraw- Hill.
- 4- Baron, Robert A.,1986 " Behavior in Organization ,"Boston : Allyn and Bacon ,.
- 5- Certo , samuel. , 1989 " Principle of modern management , functions , and systems , Boston : Allyn and Bacon.
- 6- Davis , keith and Newstrom , John W. , 1985 " Human Behavior at work : Organizational Behavior " . New York : Mc Graw- Hill.
- 7- Drucker , Peter F. , 1954 " The Practice of Management" , New York : Harper and Row.
- 8- Fiedler, F.E .,1967, ATheory of Leadership Effectiveness " , New York :Mc Graw - Hill.
- 9- French , Wendell L ., Kats, Formont E. / Rosenzweig , James E . 1985 "Understanding Human Behavior in Organization "NewYork : Haper & Row
- 10- Koontz , Harold , Odonnell , cyill , and Heinz Weihrich , 1986 " Management"New York : McGraw – Hill.
- 11- Loch , Edwin A. , 1991 " The Essence of Leadership " , New York : Lexinton Book.
- 12- Nord , Walter , 1972 " Concepts and Controversy in OrganizationalBrhavior," Pacific Palisades , CA : Good year publishiy Co , Inc..
- 13- Schein , H. Edgar , 1988 , " Organizational Psychology " , Englwood Cliffs , Nj: Prentice – Hall.