

Research Article

THE RELATIONSHIP BETWEEN ORGANIZATIONAL CULTURE AND ENERGY EFFICIENCY AMONG THE STAFFS WORKING IN MAHSHAHR PETROCHEMICAL SPECIAL ECONOMIC ZONE

***Mehdi Moradian Sisakht and Khosro Nazari**

Department of Management, College of Humanity Science, Yasooj Branch, Islamic Azad University, Yasouj, Iran

**Author for Correspondence*

ABSTRACT

The purpose of this study was to examine the relationship between organizational culture and its impact on energy consumption as well as the role of the staffs working in Mahshahr Petrochemical Special Economic Zone in this regard. The main research question addressed the level of energy consumption among the participants under study. Using the elements of organizational culture, strategies employed for optimizing energy efficiency in petrochemical industry was evaluated. The optimization strategies and the impact of organizational culture on optimization were also examined. An analytical-descriptive design with a correlation method was used as by definition, the aim of the researcher in such studies is to provide an objective and detailed description of a situation or of a subject matter. In other words, the researcher only reports real and existing conditions and uses various methods to describe and analyze them. Such research is a case study which can be also considered as an applied research in terms of its objectives or as a descriptive study concerning the method used to conduct it. The population under study included 500 experts and employees or king in Mahshahr Petrochemical Special Economic Zone, of whom a number of 217 participants were included in the sample under study using Morgan Table. The instruments used to collect the data were Robbins' Organizational Culture Questionnaire with 56 items and the Energy Efficiency Scale with 15 items. The reliability of the instruments was confirmed using the Cronbach's alpha. The collected data were analyzed by SPSS Software (Version 20). Besides, the relationship between variables and the normality of the data distribution were explored using.

Keywords: *Organizational Culture, Energy Efficiency, Energy Audits, Staff, Mahshahr*

INTRODUCTION

We live in an age where everything is changing, career, economic system, and most importantly our knowledge about the phenomena, this transformation, and most organizations also encompasses knowledge. We live in an age where everything is changing, career, economic system, and most importantly our knowledge about the phenomena, this transformation, and most organizations also encompasses knowledge. Organizations, institutions, social institutions important as politics, social classes, economic and families have a direct and significant impact. Dictionary defines the spirit of social energy that can move the organization forward or push open. The potential for influence that culture has on employee behavior (Wanfleet, 1991) applying any man, not a hundred per cent efficiency, and thus prevent efficient use of waste facilities is essential, it becomes more important when the Energy efficiency is raised. The energy consumption optimization, pattern selection and adoption of policies and techniques and the correct use of energy, which is desirable from the standpoint of the national economy And the continued existence of continuity and momentum, energy and life guarantee. In the context of determining the contribution of different forms of energy in the energy portfolio of the community according to its long-term facilities Community, as well as the most efficient way of using energy resources and use them to ensure that damage reduction also reduces the adverse effects resulting from the incorrect use of energy, more vitality and Environmental Factors considered. This is used in place of energy, not only to ensure the continued existence and development, but also contributes to energy conservation for all future generations, and an obstacle to the production and spread of environmental pollution resulting from energy consumption would be inaccurate. So we tried the petrochemical industry

Research Article

evaluated the related optimize energy and operational guidelines to reduce energy consumption is presented appropriately. Mohammadi (2002) there is about 3 times the energy used in many industries, the pattern of the past three decades. This means the inability to compete on the world market for manufactured goods in the industries in Iran. Awareness of the finite nature of fossil resources and information on environmental risks means that the energy of the 1970s the oil crisis shocked the world when he led the research on energy (energy savings) is an essential element in the design of applications related to energy conversion.

Therefore, energy savings or energy efficiency without resorting to human behavior today and prepare to adapt to new people, practicing will become less useful (Gahi, 2000). The appropriate research to find effective solutions to optimize energy consumption by considering the three phases of energy. The first step is quantifying and measuring research priorities. The energy usage and determine what is the most suitable target for optimization, placed on the agenda. Secondly find a solution to avoid well-known problems will find research priorities, and in the third stage of the research findings should be used in practice (Mahshoryan and Safari, 2009).

Literature

Internal Investigations

Monavvarian and Bkhtayy (2007), in his study on the Denison model studied industrial management. The results of this study indicate that organizations engaging in industrial management in all four dimensions, the adaptability, consistency and mission Average and above average. Heydary *et al.*, (2007) in research on energy efficiency in the petrochemical industry to the conclusion that given that the energy and petrochemical feedstock, any optimization in the petrochemical industry, saving energy. Poor Babai (2000) conducted a study to determine the current and desired organizational culture railroad employees Tehran has done. He showed that between current and desired organizational culture is significantly different railway employees.

Foreign Research

Denison and Sprites (1991) as the research and development of organizational culture to the conclusion that the implementation of TQM, Organizational culture as a key variable has a considerable impact. Richard (2001) to study the relationship between organizational culture and organizational strategy and the external environment. In his research, he came to the conclusion that a direct link between organizational culture and factors influences the external environment and organizational strategies for There achieving organizational goals. Uesvik (2009) in research, understanding organizational culture and its role in the productivity of the organization. In his own study of the workforce due to increasing organizational efficiency, is the most important factor.

MATERIALS AND METHODS

Methodology

Investigation of the case studies is that the purpose of the application, a description of the implementation, the data collected through questionnaires, interviews, meetings, studies, documents and expertise. The population in the study was 500 experts in the petrochemical industry (both male and female) in the Special Economic Zone Mahshahr form. The sample is based on Morgan, including 217 of the 500 is

$$n = \frac{Nz^2pq}{Nd^2 + z^2pq}$$

mentioned. The Cochran test

was used to determine sample size.

Tools for Data Collection

A) Organizational culture questionnaire:

The questionnaire was based on the standards of this site Madsich valid indicators of organizational culture suggests that Mr. Robbins made and contains 56 questions.

B) Optimization of energy consumption questionnaire:

This questionnaire by the researcher with the elements and parameters influencing energy consumption optimization is made with 14 questions.

Research Article

Methods of Data Analysis

The statistical technique used in this study, Pearson correlation, simple linear regression, multiple regression, t test, analysis of variance, Friedman's test. Methods of data analysis software are version spss 20.

RESULTS AND DISCUSSION

Results

Table 1: Distribution of respondents by gender

Cumulative percentage	Percent	Frequency	Gender
80/6	80/6	175	Man
100	19/4	42	Woman
	100	217	Total

Table 2: Results of the Pearson correlation coefficient between organizational culture and energy efficiency

Significance level	The correlation coefficient	Frequency	Independent variable
0/000	0/563	217	Organizational Culture

Table 3: Results of the Pearson correlation test between creativity and optimization of energy consumption

Significance level	The correlation coefficient	Frequency	Independent variable
0/005	0/191	217	Creativity

Table 4: Results of the Pearson correlation test between risk and optimize energy

Significance level	The correlation coefficient	Frequency	Independent variable
0/000	0/480	217	Risk

Table 5: Results of the Pearson correlation test between attention to detail and energy efficiency

Significance level	The correlation coefficient	Frequency	Independent variable
0/000	0/424	217	Attention to detail

Table 6: Pearson correlation between the test results regarding the outcomes and optimize the energy consumption

Significance level	The correlation coefficient	Frequency	Independent variable
0/000	0/381	217	Based on the outcomes

Table 7: Variables entered into the regression equation, energy optimization

Sig	T	Beta	S.E	B	Variable name
0/000	6/42	-	2/49	15/99	Constant
0/000	7	0/44	0/21	1/49	Stability testing
0/000	8/98	0/57	0/08	0/75	According to the Team
0/000	-7/51	0/44-	0/09	0/72-	Creativity and Innovation
0/000	3/24-	0/16-	0/13	0/44-	According to members of the Organization
0/008	2/69	0/18	0/16	0/46	Impact of decisions on employees results

Research Article

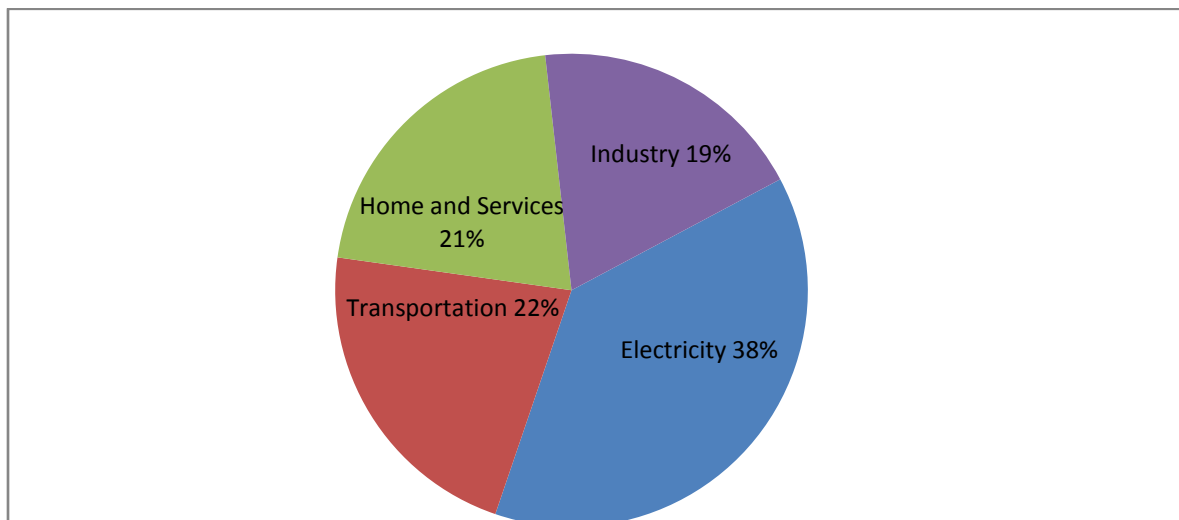


Figure 1: Composition of energy consumption in industrialized countries

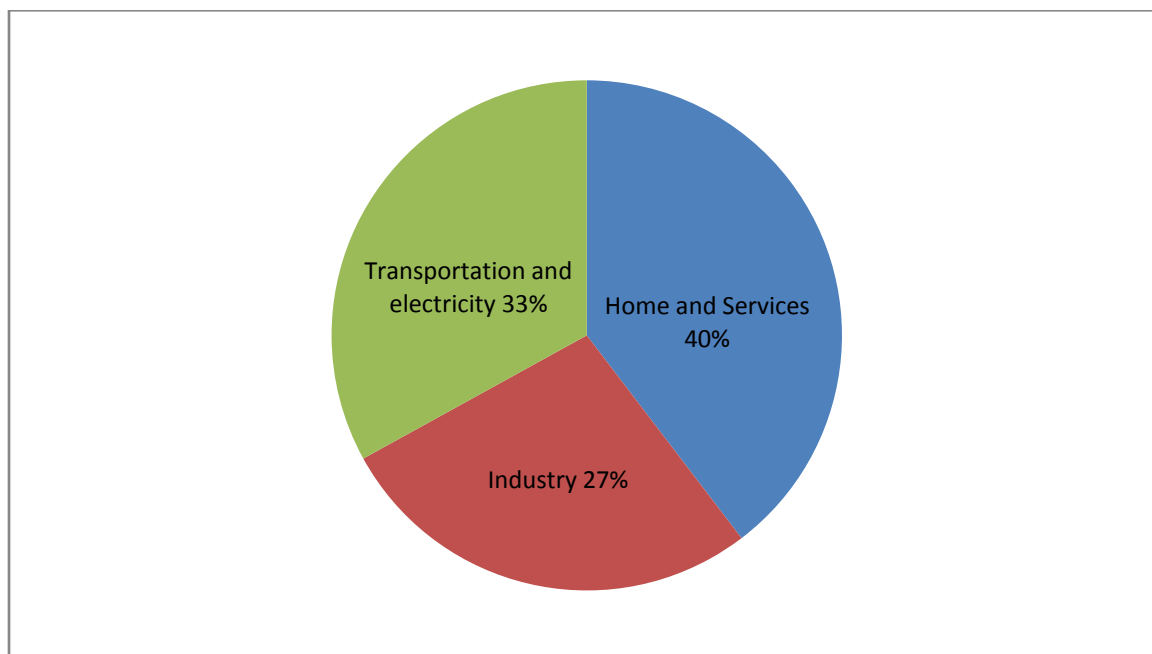


Figure 2: Composition of energy consumption in Iran

Discussion and Conclusion

In other results with respect to the variables and hypotheses correlation test was performed. The first hypothesis of this study suggest that According to the Pearson test results between organizational culture and optimization of energy consumption level of significance ($P < 0/05$) and the correlation coefficient ($r = 0/563$) is This confirms the hypothesis that the average direct correlation between the two variables. In other words, the corporate culture of an organization is further optimization of consumption is also higher. If the corporate culture is reduced and efficiency is too low. Therefore, organizations need to be careful so that they can have a good performance in terms of energy consumption.

The second hypothesis suggests examining the Pearson correlation test between creativity and energy optimization sig = 0/005, this amount is less than five hundred and $r = 0/191$'s. This confirms the hypothesis that a low correlation between the two variables is positive. Creativity and innovation in

Research Article

organizations is further optimizing energy consumption takes place in an organization. The converse is also true. With the decline of creativity in an organization, do not optimize energy consumption. This finding is consistent with the findings of Seyyed (2008) Creativity as a variable in the variable efficiency (optimization of factors affecting the productivity) are considered as well as the results pour Nassiri and colleagues (2007) are consistent. The result obtained in this study with the results of the Ghamarian (2004) is consistent. He found in his study between creativity and innovation with the participation of teachers in the school there is a direct relationship. In addition, the results of this study with results Sardari (2004) correspond well. The third hypothesis is that the correlation between two variables with a significant level of risk and optimize energy consumption $\text{sig} = 0/000$ and correlation $r = 0/480$; this hypothesis is confirmed. There is a direct relationship between both variables. Risk also increases with increasing energy optimization. The result of this hypothesis with the results Ghamariyan (2004) is consistent. In his own study of risk between the teachers and their involvement in school activities was observed. In addition, the results of this study with results Sardari (2004) correspond well. The fourth hypothesis examined the correlation between the test results suggest that attention to detail and energy efficiency $\text{sig} = 0/000$, which is less than Five hundredths so this hypothesis is confirmed. The correlation coefficient $r = 0/424$, there is a direct relationship between the two variables. The attention to detail is also more energy efficiency, and vice versa. Results of the fifth hypothesis suggests that due to the correlation between the test results and outcomes vary according to energy efficiency ($\text{sig} = 0/000$ and $r = 0/381$) supported this hypothesis. The average direct correlation between the two variables. Whatever outcomes due to greater energy efficiency and more.

ACKNOWLEDGMENT

This article is extracted from my thesis under the title of “The relationship between organizational culture and energy efficiency in staff Petrochemical Special Economic Zone Mahshahr ”. Hereby, I extend my sincere appreciation to Islamic Azad university of Yasooj for the efforts and supports they provided to me.

REFERENCES

- Denison DR and Spritzer GM (1991).** Organization culture and organization development. A competing values- approach. *Research in Organization Change Development* **5** 1-21.
- David D Wanfleet (1991).** *Behavior in Organizations* (Houghton Mifflin, Inc) 337.
- Daft Richard EL (2001).** Organization Theory and Design, Third Edition, translated by Syed Muhammad Ali Parsayyan and Arabs (Publications Office of Cultural Studies) Tehran **2**.
- Ghamarian M (2004).** Examine the relationship between organizational culture and the contribution of teachers in schools Khorramabad.
- Heydari and Colleagues (2007).** Optimization of energy consumption in the petrochemical industry (Optimize Energy Conference January).
- Mohammady Ardehali M (2002).** Concepts of energy efficiency, *Energy Management Magazine*.
- Monavvarian A and Bkhtayy Amir (2005).** (Fourth International Conference on Management), case study, Industrial Management Organization (understanding corporate culture based on Denison).
- Mahshoryan F and Safari A (2009).** The Eighth National Conference on Energy, an analysis of the education and awareness programs to optimize energy consumption in Iran.
- Nasiri Pour et al., (2009).** The relationship between organizational culture and employee productivity in the public hospitals of Iran University of Medical Sciences, *Health Management Quarterly* **12**(35) 24 -17.
- Sardari A (2009).** Examine the relationship between organizational culture on job satisfaction in scientific research institutions affiliated to the Ministry of Science and Technology in Tehran.
- Seyyed Ameri MH (2008).** Examine the relationship between organizational culture and productivity, administrative director of physical education in East and West. *Journal of Motion* **35** 158-143.