

THE ROLE OF PUBLIC RELATIONS ACTIVITIES IN INCREASING PRODUCTIVITY OF PETROCHEMICAL EMPLOYEES

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ABSTRACT

This study aimed to investigate the role of public relations in increasing the productivity of petrochemical employees. The study population of this research consists of 430 employees of Assaluyeh petrochemical terminals and reservoirs. The reviewed sample size was achieved using a table of 181 Morgan Jersey. The data collection tools were two questionnaires included a standardized questionnaire to measure employee productivity and a questionnaire made by the researcher to measure public relations activities. Reliability and validity of them were obtained using item analysis and Cronbach's alpha coefficients and their validity and reliability was confirmed. Data collected were examined using the Pearson correlation coefficient, linear regression and multiple regressions. The results show that, based on the Pearson correlation coefficient between the activities of public relations and activities of information, and exhibitions activities and employee productivity has a significant positive correlation. Also based on the linear regression variables on activities in the field of public relations procedures and views, audiovisual and advertising activities, advertisements, exhibitions, publications and cultural and artistic activities have impact on employee productivity and among named components based on multiple regression the component of information has the greatest impact on employee productivity.

Keywords: Public Relations Activities, Employee Productivity and Information Activities

INTRODUCTION

Robbins believes that an organization is productive that achieves its goals in less time and with less cost (Applomb *et al.*, 2005). In industry, the productivity is often defined as ratio of output to input in the production process. Bernolhak (1997) states productivity means that how well we have been able to use resources in the production process. If we use the same resources to produce more goods we have increased productivity. Or if we could produce more goods by less resource still we have increased productivity. Here the purpose is human and physical resources (Tenjin, 2005).

Human resources productivity leads to the organizational development and excellence. Productivity can increase among society members when they feel joy and happiness. Activities of public relations are along with achieving this feeling of joy and happiness, thereby increasing the productivity of employees, because the increase in productivity is directly related to the degree of freshness (Saatchi, 2003).

The concept of productivity has long been considered by economists (Casey, 2006). Productivity is one of the key issues in developing and developed countries. Developed countries are well aware of the importance of economic growth and social welfare. Developing countries with problems of unemployment, inflation and resource shortage should seek ways to make better use of existing resources and subsequently improve economic growth and the lives of its citizens. Improving productivity is an issue that is particularly important in this regard (Anshasiv *et al.*, 2007). The most important factor for productivity in organization and, ultimately, in society is the human resources. Human resource development system in any organization must find new ways to improve workforce management which creates positive impact on performance and employee productivity (Chen *et al.*, 2003).

Public relations activities and try to connect and communicate with people there have been from ancient times, and the only tools and implements public relations and public relations skills and professional

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activities associated with change. Remaining inscriptions of the great kings of the Achaemenid shows that Achaemenid rulers were aware of public opinion power and impact and the purpose of these inscriptions was to influence public opinion. Words and phrases remaining from the old Roman, indicates that they were aware of the impact of public opinion. The phrase "the people's voice is the voice of God" reflects this. However, despite this background of public relations it can be said: The modern concept of public relations as a new and young knowledge prolonged in the world dates back less than a century and in Iran is almost half a century (Seyyed, 2010).

Today in any organization and office the public relations part is evident and essential. Function and role of this area is such important that essentially there is no organization or office without it and their survival and continue the movement more than anything, depends on the power and efficiency. Public relations are the most important body part of an organization. The part that to achieve the goals of the organization makes the context and communicate with most of its human audiences. What public relations do in a word is "communication" theoretically, is "science" practically and administratively is "technic" and from the creative and aesthetic perspective it is "art" and it is the mirror of the organization and the data transmission and receiving stations (Yaghobian, 2010). Therefore, the present research seeks to study the impact of public relations on the productivity of employees in petrochemical terminals and reservoirs and suggestions should be provided in this area.

Review of Literature

Productivity

The International Labor Organization defined productivity: productivity is the ratio of output to one of factors of production such as capital, labor and management. In this definition of management, in particular, is considered one of the factors of production. Production ratio of each of these factors is considered a measure of productivity (Hooman, 2002).

Public Relations

The term public relations were applied in the American Railway Union for the first time. Public relations have been translated *Allaqatalamhin* Arabic (Habibi, 2007). Public relations are managing good relations between the organization and different audiences, managing technology and knowledge management and relationship management of a variety of organizations and groups (Nasiri Qeidar, 2007).

Communications

Communication is an interpersonal concept which has transferred to others. The new definitions are known as "concepts transfer" or "meaning transfer" and "transfer or exchange of messages" (Jafari, 2011).

Information within the Organization and Outside the Organization

The term "information" is a term that is familiar to us. Robert, S. Taylor has three definitions for knowledge of information, these definitions have points in common, but each has given more emphasis to a specific point. The definition we present is the composition of these three definitions. Information knowledge is a scientific field which investigates about the quality and use of information, forces that govern the flow of information and preparation tools to access and use the information desired. The job of information knowledge is to study that part of knowledge which is related to collecting, organization, storage, retrieval, translation, transmission, transformation, and information application.

Artistic and Cultural Activities

The word culture in Sassanid Pahlavi is "Frhang". If we are familiar with these ancient languages we know that culture in Farsi (Farhang) is composed of two parts two words "Farh" refers to the cross, and "Hang" means the pulling and pushing. Therefore, Culture "Farhang" in Farsi means pulling and invoking. That is why it is said that culture promotes improvement (Behmardi, 2011).

But among the definition of intellectuals, Edward Taylor is an English anthropologist that has snatched the competition ball and offered the best definition of culture, so that sociologists and other scholars refer to his definition of culture: "Culture is a complex collection that includes knowledge, beliefs, arts, crafts, arts, morals, laws, customs, and finally it is all the habits and rules that person as a member of society, learn from the society and against that the society has duties and obligations to serve" (Sadat and Kazem, 2012).

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Ceremonies and Visits

In Dehkhoda Glossary ceremonies are defined as: design and decoration which is done for the respect of the guests at home and what is provided for them as eating and drinking. (Nazem al atteba). Simple leisure, the host provides for the guest. In Moein Persian glossary is defined as: particular customs and officials in formal and important welcoming.

Exhibitions and Publications Activities

Big business and international exhibitions are held every year in Iran and in the world. Many companies will also participate in these fairs. Those institutions that participate with clear objectives and planned exhibition, largely succeed. One of the most important tools for boosting exports and effective activities in the advertising and marketing of goods and services, are exhibitions and a key element of the exhibition is booth participants to deliver presentations of goods and services.

Audiovisual Activities and Advertising

To reflect the company's activities and communicating with the media in certain circumstances, in coordination with senior management and considering the rules and obligations in the framework of public relations, needed and necessary information is transferred to interested groups and customers, and whenever needed the reporters are invited to reflect the news of the organization. Advertise on services and activities of the company or outstanding performance which leads to organization's reputation are done at the request of the relevant authorities in coordination with the Office of Management and public relations through mass media such as radio and television, newspaper or flyer printing and distribution among stakeholders. Advertising means communication that the messenger is trying to get the desired response in order to advance the goals of the audience (Ahmadi, 2013).



Figure 1: Conceptual model of research

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Research Hypothesis

Main Hypothesis

There is a relationship between public relations activities and employee productivity.

Subordinate Hypotheses

- 1- It appears that there is a relationship between communications and employee productivity.
- 2- It appears that activities of information within the organization and outside the organization in the company terminals and petrochemical reservoirs are effective in employee productivity of this company.
- 3- It appears that activities of public relations in the field of ceremonies and visits in the company terminals and petrochemical reservoirs are effective in productivity.
- 4- It appears that activities of audiovisual and advertising by public relations are effective in employee productivity.
- 5- It appears that activities of exhibitions and publications by public relations are effective in employee productivity.
- 6- It appears that activities of artistic and cultural by public relations in the company terminals and petrochemical reservoirs are effective in employee productivity.
- 7- The variables of communications outreach activities, activities in the field of public relations ceremonies, audiovisual, exhibition activities, artistic and cultural activities can be predictive of employee productivity.

MATERIALS AND METHODS

Given that this study sought to examine the role of public relations in increasing employee productivity, its target is application and its method is descriptive correlational.

The study population consisted of all employees in Assaluyeh petrochemical terminals and reservoirs, who were 430 people. The required sample size for the study was calculated using Cochran formula. Samples were obtained from 181 samples but to increase the accuracy 185 questionnaires were completed by using the sampling method, the sample for this study were selected. To collect data the productivity questionnaires of Hersey Blanchard and Goldsmith (1996) was used. This questionnaire consisted of 20 questions adjusted based on Likert rating. In this range as much as we move from less value toward large amounts it indicates that the characteristic of the organization is better from respondents' view. The reliability of the questionnaire was derived 0.92.

And by the researcher made questionnaire containing 40 questions with a scale for measuring public relations campaigns are nominal and ordinal scale.

After calculating the validity using item analysis, the correlation coefficient between the items of each scale with the scale total score was used and in the stage of calculating the validity, due to insignificance of some questions 6 items were deleted. In this questionnaire 5 components, consists of communications, information activities, activities in the field of public relations ceremonies, audiovisual activities, exhibitions, cultural and artistic activities are intended. The reliability of the questionnaire was based on Cronbach's alpha coefficient 0.91.

SPSS software was used for analysis of research hypotheses. In the logistic statistical part multiple and linear regression was used for analysis of data.

Data Analysis

Main Hypothesis

There is a relationship between public relations and employee productivity.

Table 1: Pearson correlation coefficient

Significance level	Number	Pearson amount
0.0001	185	0.39

According to data from the table based on the sig value or significance level which is less than 0.05, between two variables of public relations activities and employee productivity there is a significant and

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positive relationship. In other words, the greater the amount of public relations activities employee productivity will be greater ($\text{sig} < 0.05$).

Subordinate Hypotheses

First subordinated hypothesis: communications in organization has impact on employee productivity. In order to assess the independence of each test errors Durbin-Watson is used. According to the table (2) with respect to d statistics and the Durbin-Watson (1.55) at a distance of 1.5 and 2.5, assuming no correlation between the errors will be confirmed.

Table 2: Results of Durbin-Watson

Durbin-Watson	Adjusted coefficient of determination	The coefficient of determination	The multiple correlation coefficient
1.55	0.14	0.15	0.39

Since the regression assumptions are held, and then we can use the regression.

Table 3. Univariate analysis of variance of employee productivity

sig	F	Mean of squares	df	Sum of squares	
0.000		12.56	1	12.56	Regression
	33.09	0.38	183	69.50	The remaining
			184	82.06	Total

Table 4: Table of significant independent variable on the dependent variable

sig	t	Beta	B	
0.003	3.06		1.08	Intercept
0.000	5.75	0.39	0.58	Communications

According to Table 4, employee productivity is predicted through communications variable. Thus this variable based on the table (2) has predictive power of 0/14 in explaining employee productivity.

Second subordinate hypothesis: There is a relationship between information activities and employee productivity.

Table 5: Pearson correlation coefficient results

sig	Number	Pearson amount
0.0001	185	0.51

According to data from the table based on the sig value or significance level which is less than 0/05, between two variables of public relations activities and employee productivity there is a significant and positive relationship. In other words, the greater the amount of information activities employee productivity will be greater ($\text{sig} < 0.05$).

Third Subordinate Hypothesis: Activities of ceremonies and visits in the field of public relations of terminal and reservoirs of petrochemical company have impact in employee productivity. In order to assess the independence of each test errors Durbin-Watson test is used, according to the table (6) with respect to the d statistics base of the Durbin-Watson (1.45) at a distance of 1.5 and 2.5, the assuming of no correlation between the errors will be confirmed.

Table 6: Pearson correlation coefficient results

Durbin-Watson	Adjusted coefficient of determination	The coefficient of determination	The multiple correlation coefficient
1.54	0.06	0.07	0.26

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Since the regression assumptions are held, and then we can use the regression.

Table 7: Univariate analysis of variance of employee productivity

sig	F	Mean of squares	df	Sum of squares	
0.000		5.76	1	0.765	Regression
	13.81	0.41	183	76.30	The remaining
			184	82.06	Total

Table 8: Table of significant independent variable on the dependent variable

sig	t	Beta	B	
0.000	5.72		1.89	Intercept
0.000	3.71	0.26	0.32	Activities in the field of ceremonies and visits

In this part the impact of predict variable on the criterion variable was examined using linear regression. According to Table (8), employee productivity by variables of public relations activities in the field of ceremonies and visits are predicted. Thus the variable on the table (6) has predictive power 0/06 in explaining employee productivity.

Fourth subordinate hypothesis: Audiovisual activities and advertising by the public relations department of the company has impact in employee productivity. In order to assess the independence of each test errors Durbin-Watson test is used, according to the table (9) with respect to the d statistics base of the Durbin- Watson (1/56) at a distance of 1/5 and 2/5, the assuming of no correlation between the errors will be confirmed.

Table 9: Results of Durbin-Watson

Durbin-Watson	Adjusted coefficient of determination	The determination	coefficient	The correlation coefficient	multiple
1.56	0.09	0.10		0.31	

Since the regression assumptions are held, and then we can use the regression.

Table 10: Univariate analysis of variance of employee productivity

sig	F	Mean of squares	df	Sum of squares	
0.000		7.78	1	7.87	Regression
	19.42	0.40	183	74.19	The remaining
			184	82.06	Total

Table 11: Table of significant independent variable on the dependent variable

sig	t	Beta	B	
0.000	5.01		1.66	Intercept
0.000	4.40	0.31	0.39	Audiovisual activities

In this part the impact of predict variable on the criterion variable was examined using linear regression. According to Table (11), employee productivity by variables of public relations activities in the field of audiovisual activities are predicted. Thus the variable on the table (9) has predictive power 0/09 in explaining employee productivity.

Fifth subordinated hypothesis: there is a relationship between exhibition and publication activities and productivity of employees.

Table 12: Results of Durbin-Watson

sig	Number	Pearson amount
0.0001	185	0.21

According to data from the table based on the sig value or significance level which is less than 0/05, between two variables of public relations activities and employee productivity there is a significant and positive relationship. In other words, the greater the amount of exhibitions and publications activities, employee productivity will be greater ($\text{sig} < 0/05$).

Sixth subordinate hypothesis: Artistic and cultural activities in the public relations department of this company have impact on employee productivity. In order to assess the independence of each test errors Durbin-Watson test is used, according to the table (13) with respect to the d statistics base of the Durbin-Watson (1.56) at a distance of 1.5 and 2.5, the assuming of no correlation between the errors will be confirmed.

Table 13: Pearson correlation coefficient results

Durbin-Watson	Adjusted coefficient of determination	The coefficient determination	The multiple correlation coefficient
1.56	0.20	0.21	0.46

Since the regression assumptions are held, and then we can use the regression.

Table 14: Univariate analysis of variance of employee productivity

sig	F	Mean of squares	df	Sum of squares	
0.000		17.53	1	17.53	Regression
	49.73	0.35	183	64.53	The remaining
			184	82.06	Total

Table 15: Table of significant independent variable on the dependent variable

sig	t	Beta	B	
0.01	2.58		0.83	Intercept
0.000	7.05	0.46	0.71	Audiovisual activities

According to Table (15), employee productivity by variables of public relations activities in the field of artistic and cultural activities are predicted. Thus the variable on the table (15) has predictive power 0/20 in explaining employee productivity.

Seventh subordinate hypothesis: The variables of communications, information activities, public relations activities in the field of ceremonies, audiovisual activities, and exhibition activities, cultural and artistic activities predict employee productivity.

Table 16: Pearson correlation coefficient results

Durbin-Watson	Adjusted coefficient of determination	The coefficient determination	The multiple correlation coefficient
1.72	0.31	0.33	0.57

In order to assess the independence of each test errors Durbin-Watson test is used, with respect to the d statistics base of the Durbin-Watson (1/72) at a distance of 1/5 and 2/5, the assuming of no correlation between the errors will be confirmed.

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Research Results

Main Hypothesis

The results show that with regard to the amount of sig or significance level less than 0/05, between two variables of public relations activities and employee productivity there is a significant positive correlation. In other words, the greater the amount of public relations activities, employee productivity would be more. These results are consistent with research findings of Saif (2013), Araste (2007), Baskin *et al.*, (1997).

In the explanation for this finding can be acknowledged that the public relations activities are to create understanding among the organization and customers and it aims to satisfy customers. Public relations is a social philosophy of management, responsible managers express this philosophy with utmost clarity in their rules and policies and all their actions are consistent with their own social philosophy, then all the steps and actions that may result from the social philosophy of management is carried to inform people of their trust in order to draw the public's goodwill and understanding.

Good management practices in the society, in the vast communication network requires certain information and awareness, timely, efficient and real of the society. Access to such information and awareness shows the need to strong and stable public relations. Undoubtedly the result of successful public relations for individuals or organizations lead to reputation, satisfaction and credibility, and society and organizations that have strong and efficient public relations by revealing the strengths and weaknesses of the organization, dynamics, efficiency and sustainable development will form.

First Subordinate Hypothesis

Predicting the impact of communication variable within the organization on employee productivity was examined using linear regression. The results indicate that the communication predictive power in explaining employee productivity is 0/14.

These findings were consistent with the research results of (Mir, 1390), Khalifei and Sultani (1392). The findings suggest that the effective communication and sound organization, has been one of the most important components managers success. Experience has proved that if the organization does not communicate correctly and the affairs flow will be disrupted and troubled. Without effective communication system within the organization, the manager will not be able to fulfill its tasks properly. Communication links together all the organization parts and, therefore, leads to integrity of the organization, management is responsible for establishing connections and by management we mean all levels, from the top to the bottom of the organizational hierarchy. Therefore, management should be aware of the details of the process of communication and to know how to communicate effectively therefore in the organization incentives should be provided in the correct relation between all parts of the organization and improve the performance.

Second Subordinate Hypothesis

The results indicate the positive and significant correlation between two variables of public relations activities and employee productivity. In other words, the greater the amount of information activities, employee productivity will be greater.

These findings are consistent with the research results of Shekarikhanghah (2010), (Kin, 2006).

In the results explanation it can be mentioned that in the present age, due to the appropriateness and necessity of environment, organizations must constantly be innovating, because now the organization is successful that in this competition world can provide newer technology to the market and this is the characteristic of knowledge based human resources and they are able to be innovative.

Therefore, due the growth of knowledge based economy, the business environment has changed and information technology and communications are considered as one of strategic factors in order to help improving business process and promote productivity in human resources performance.

Third Subordinate Hypothesis

Linear regression resulted from this hypothesis test, indicates that from employees perspective, the activities of public relations in the field of ceremonies and visits have impact on employee productivity. And based on these achieved results employee performance is predicted from this variable. Thus the

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variable of predictive power in explaining employee performance is 0/05. In the explanation for this finding may be noted that the visiting different parts of an organization to identify their strengths and weaknesses and in some cases imposing punishment and reward system can lead to improved performance and efficiency of the organization.

Fourth Subordinate Hypothesis

To evaluate the impact audiovisual activities on employee productivity the linear regression model was used. The results show that variable of audiovisual activities predictive power in explaining employee productivity is 0/09.

The results explain the progress of science and technology in the last few centuries has entered the world to a new era. In this era, audiovisual resources are applied in the field of communication, information, education and new culture was formed. As the time passes, audiovisual sources found their way to the libraries and archives. Therefore, organizing, protecting, saving and recovering these sources is of special importance. In this regard, audiovisual sources are the only unprinted appropriate tools for orally transferring art and civilization. Audiovisual materials in the field of information, communication, cultural resources, and research play an increasing role. Along with the development of new technologies, expanding the audiovisual materials to factor in the entire world has become indispensable. During this development, collections of audiovisual materials are rapidly growing. And each of these categories is containing of unique and irreplaceable historical documents. Therefore, advantage of this method improves the performance of the organization responsible for public relations.

Fifth Subordinate Hypothesis

The investigation of exhibition and publication activities and employee productivity using Pearson correlation coefficient indicated the used possibility. According to data from the table based on the amount or level of correlation of these findings are consistent with results of Atasulivan et al. (1994) (Ahmadi, 2013).

Sixth Subordinate Hypothesis

Regression model predict power of artistic and cultural activities of public relations in explaining employee productivity is 0/20. These findings are consistent with the research results of (Katlyp, 1971). Particular emphasis on presenting efficiency in the implementation of the principle and the practice most importantly, try to create proper habits in employees is the most important factor in achieving decent environment, which leads to faster access to the organization's goals and organization performance improvement.

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