



## Survey the Effect of Transformational Leadership on Organizational Culture in Petrochemical Industry in Iran

Ali jokar

Senior lecturer and Instructor of Shahid Sattari Aviation University, Tehran, Iran

[Alj\\_26478@yahoo.com](mailto:Alj_26478@yahoo.com)

**Abstract:** The external environment for many companies nowadays is characterized by turbulence associated with globalization, changing customers and investor demands, increasing product market competition, technology growth, considering knowledge and learning as the main assets of organizations and rapid increasing change and chaos. Some management sages advocated new “generative transformational” forms of learning to deal with an external reality in which everything is constantly evolving or “becoming”. In this study, we illustrate the effect of transformational leadership on organizational culture. The population of the research consists of 250 people of managers of the companies of Petrochemical industries in Iran. A sample of 152 subjects was selected as statistical sampling. The results of the study support the hypotheses. Transformational leadership has a positive and significant correlation with the components of organizational culture such as Trust, Collaboration, Learning and Formalization.

[Jokar A, **Survey the Effect of Transformational Leadership on Organizational Culture in Petrochemical Industry in Iran**. *J Am Sci* 2022;18(5):61-68]. ISSN 1545-1003 (print); ISSN 2375-7264 (online). <http://www.jofamericanscience.org>. 9. doi:[10.7537/marsjas180522.09](https://doi.org/10.7537/marsjas180522.09).

**Keywords:** Transformational Leadership; Organizational Culture, Organizational learning, Formalization, Trust

### 1. Introduction

The purpose of the study is to investigate the Relationship between Transformational Leadership and Organizational Culture in Petrochemical Industry in Iran. The term leadership has been very widely referred in the literature. Political experts, business executives, social workers and scholars use it in their speeches and writings. Although many theories and theoretical formulations of the leadership concept have been introduced throughout the years, there is still disagreement as to its meaning.

Leadership is defined as a behavior or a process by some scholars. For instance, Bowers and Seashore (1966) gave the concept as "an organizationally useful behavior by one member of an organizational family toward another member or members of that same organizational family". Tannenbaum and Massrick (1957) treated leadership also as a process or function rather than as an exclusive attribute of a predetermined role. They suggested that the leadership role in this process often shift from one person to another. Many researchers also look at leadership from the long / short term orientation point of view. Mescon (1958) said that "true leadership can and must transform a group from a mere collection of individuals into a vital force, capable of goal attainment to a degree which will not be possible in case of an unstructured group of

people"[25]. Some scholars contributed to this view by underlining the importance of the influence on the subordinates to attain the common goals. For instance, Tannenbaum and Massrick (1957) defined leadership as "an interpersonal influence, exercised in a situation and directed through the communication process, toward the attainment of a specific goal or goals". Parallel with this view, Bennis (1959) also suggested that the only tool for a leader to become effective is his / her skill to influence others[7]. Dion (1968) defined leadership as "a relationship between one or more persons exercising influence and one or more persons submitting to that influence"[13]. Leadership is also seen as extraordinary personality characteristics. Bass (1990) claimed that leaders are extraordinary people with specific and exceptional sanctity and heroism, who can set an example for their followers[5]. On the other hand, Jago (1982) defined leadership as both a process and property. According to him, leaders create a process by using noncoercive influence to direct and coordinate the activities of the members in an organization toward the accomplishment of group objectives.[19]

New attitude towards leadership in inclusive organization emphasizes on the finer and more important points. In an inclusive organization, leaders are designers, supervisors and teachers. Their

responsibility is providing organizations where people continually develop their abilities to recognize complexities, make goals clear, and develop mental models. This means that leaders are responsible for employees learning [33].

It should be noted that the correspondence among new leadership tasks is one characteristics of transformational leadership. In order to having better understanding about transformational leadership, it can be said that most of the classical studies have focused on aspects of leadership that was compatible with maintaining the status quo and meet the standards of work, called interaction-oriented leadership. Nowadays, more emphasis is on the characteristics and behaviors that are compatible with charismatic leadership, namely transformational leadership [20]. Most theorists stated common factors for transformational leadership such as inspiration, part attitude, charisma, human communications, consideration to the feelings of staff, learning development and stimulating the minds of followers, establishing emotional connections with employees, [6].

### **Transformational Leadership**

Researches on leadership are focused on how leaders create and strengthen the organizations during 1980' s. Transformational leadership is created to be succesfull in reaching the goals of the organization, increasing the commitment to the organization and strengthen the process during these objectives of the organizations [38].

Transformational leadership integrates ideas from trait, style and contingency approaches of leadership [15]. In the light of findings throughout the years, some characteristics of transformational leaders can be stated as follows:

- They change the core values of followers for the benefit of the common interest by committing people and seeing them as ends not as means,
- They inspire followers to go beyond their own self-interests for the good of the organization with their vision [2].
- They are proactive, raise follower awareness for transcendent collective interests and motivate followers to achieve out of range goals [3].
- They are capable of having profound and extraordinary effects on people by causing shifts in the beliefs, the needs, and the values of followers, so followers can become leaders themselves [22].
- They heighten the awareness of followers with vision they create and the strategies for reaching them [2].

- They create self-confidence in followers by empowering them,
- They tend to direct specific activities as much as to alter moods, to evoke symbolic images and expectations, and to inspire desires and objectives [16].

### **Dimensions of Transformational Leadership**

In this study, we are supposed to measure transformational leadership dimensions proposed by Rafferty and Griffin [30]. The studied dimensions are as follows:

- 1) Vision: We identify vision as an important leadership dimension encompassed by more general construct of charisma. Bass (1991) argued that the most general and important component of transformational leadership is charisma [5].
- 2) Inspirational communication: Transformational leadership goes beyond the cost-benefit exchange of transactional leadership by motivating and inspiring followers to perform beyond expectations [6] and inspirational motivation has been identified as an important component of transformational leadership.
- 3) Supportive leadership: staffs show their interest when leadership shows developing tendencies toward his/her employees, paying personal attention to his/her employees and appropriately meeting their needs [30].
- 4) Intellectual stimulation: This leadership factor encompasses behaviors that increase followers' interest and should be aware of their problems, and that develop their ability and propensity to think about problems in new ways [6].
- 5) Personal recognition: In such a system of rewarding, in response to achievement of visions, which is agreed upon, various types of rewards are given. In this study, "personal recognition" is chosen; because among contingency rewards, it is more compatible with the transformational leadership. Personal recognition was defined as follows: "The provision of rewards such as praise and acknowledgement of effort for achievement of specified goals" [30].

### **Organizational culture**

The culture of an organization influences the way in which practitioners learn and share knowledge. Workforce diversity in globalized business reflects a multitude of cultural and ethnic backgrounds, shared values that blur potentially sharp cultural differences. The cultural differences from country to country necessitate aligning corresponding differences in management practices. Resultantly, the success or failure of knowledge management within organizations depends on

'culture', an emerging pre-requisite for effective knowledge management.

Deshpande and Webster (1989) define organizational culture as the set of shared values that help organizational members understand organizational functioning and thus guide their thinking and behavior [14]. Researchers argued that culture is a complex system of norms and values that is shaped over time and affects the types and variance of organizational processes and behaviors [4]. Organizational culture as a concept is considered to be a key element of managing organizational change and renewal (Pettigrew, 1990). Thus, culture is a sort of glue that bonds the social structure of an organization together. Hofstede, (1991) called culture the "Software of the mind". In the competitive environment the organizations have to change its culture in order to survive otherwise, it may be even counterproductive [21]. Four types of culture are found in organizations is power culture, role culture, support culture and achievement culture [27].

Organizational culture provides its members an understanding to work through the basic problems of survival in and adaptation to the external environment as well as to develop and maintain internal processes [24]. Schein (1999) stated that organizational culture is the property of a group and it is a powerful, latent, and often unconscious set of forces that determine both our individual and collective behavior, ways of perceiving, thought patterns, and values [32].

Spender (1983) stated that organizational culture is a belief system shared by an organization's members. Being one of the pioneer authors in this concept Ouchi (1981) dealt with symbolic aspects of the concept and defined the term a set of symbols, ceremonies and myths that communicate the underlying values and beliefs of that organization to its employees [28].

### **Dimensions of Organizational Culture**

Alavi, Kayworth & Leidner (2005) cite expertise, formalization, innovativeness, collaboration and autonomy as the values of organizational culture that lead to effective knowledge management [1].

The current study, focus on trust, collaboration, learning and formalization, as cultural factors of knowledge creation process:

#### **1-Formalization**

In work setup formalization refers to rules, procedure and written documentation such as policy manuals and job descriptions (Daft, 2001). Graham and Pizzo (1996) argued that effective knowledge

management requires a balance between open and flexible organization system along with formality and discipline to ensure tangible output. The study, contend that structured and standardized procedures are needed to capture, control and connect knowledge. Although, a general belief that formalization inhibits creativity and innovation and thus knowledge management. However, the empirical evidences do not support the concept, as more innovation and creativity have been found in more formalized setups [11].

#### **2-Trust**

Trust is the most important explicitly stated value essential for knowledge management. Lopez et al. (2004) stress that an atmosphere of trust and security is essential to encourage innovation, experimentation and risk taking in order to develop new knowledge and use existing knowledge. Trust has been defined as an expectation that arises within a community of regular, honest and cooperative behavior, based on commonly shared norms, on the part of other members of that community [17].

#### **3-Learning**

Organizational learning is synonymous to capacity to innovate and related to the ability to apply knowledge in organizations [36]. A learning process relating to use of conceptual knowledge enhances the employees' knowledge applicative capability [37]. A learning culture opens up formal and informal channels of communication [8]. Learning is found to be a predictor of knowledge creation [11]. Bhatt (2000) relates individual learning capability and organizational learning culture to broadening of knowledge base. Strong learning culture of firms is linked to creation, acquisition, and transfer of knowledge [26].

#### **4-Collaboration**

Collaboration is the degree of active support and help in the organization. Collaboration is defined as human behavior sharing of meaning and completion of activities with respect to a mutually - shared goal and taking place in a particular social or work setting [35].

Delong and Fahey (2000) cited interactivity, collaboration, sharing and teaching, dealing with mistakes, orientation to existing knowledge as the cultural characteristics, shaping social interaction in the context of knowledge management. Lopez et al., (2004) empirically identify collaborative culture as a means to leverage knowledge through organizational learning. A culture of collaboration helps in knowledge creation

by increasing knowledge exchange [23].

### **The Effect of Transformational Leadership on Organizational Culture**

Bass (1997) affirms that transformational leadership is universally effective across cultures, and that this century's dominant workforce consists of knowledgeable employees who need the envisioning and empowering that can be provided by transformational leaders. Ergeneli et al. (2007) assert that increasing globalization, new technological imperatives, common industrial logic and global technologies and institutions serve to harmonise management practices. Therefore, global managers need universally valid leadership theories and principles that transcend cultures. Thus, it is expected that there will be various similarities in beliefs regarding effective leaders' behaviour across cultures. However, Bass and Avolio (1990) argue that some studies in many different societies show that transformational leadership is closer to perceptions of ideal leadership. On the contrary, some writers claim that there are universal tendencies of leadership that support the culture-universal position [2]. The role of leadership in creating culture is almost an indisputable reality in organizational theory. One of the most prominent author that suggested this reality is Schein (1985) who stated that organizations do not form accidentally, instead they are goal oriented and created because one or more individuals perceive that a coordinated and concerned action of a number of people can accomplish.[32].

Transformational leaders have a high role on creating the organizational culture. The values, that transformational leader adopted, can also be adopted easily by the employees. It is important to have a good skilled transformational leader because he / she is taken as a model by the employees in the organization. If the leader has personality and behavioral disorder, the organizational culture can be effected by this disorder problems. This irregular atmosphere at the organization damages the employees working atmosphere and reaching the common goals become difficult. Transformational leaders are the ones who can create the culture of the organization, help employees to involve in the culture and make it his / her own and try to make organizational culture stable in the organization by his / her good communication skills and leadership ability [32].

### **Hypothesis 1**

There is a positive relationship between Transformational Leadership with Organizational culture .

### **Hypotheses 2**

2-1- There is a positive relationship between Vision and Organizational culture .

2- 2- There is a positive relationship between Inspirational communication and Organizational culture .

2- 3- There is a positive relationship between Intellectual stimulation and Organizational culture .

2- 4- There is a positive relationship between Supportive leadership and Organizational culture .

2- 5- There is a positive relationship between Personal recognition and Organizational culture .

### **2. Material and Methods**

This study is an investigation and correlational research. The population of the research consists of 250 people of managers of the companies of Petrochemical industries in Iran. A sample of 152 subjects was selected as statistical sampling.

Organizational culture scale (OCS) measured the four attributes of organizational culture. The OCS in current study consists of 13-items; 4 for Collaboration, 3 each for Learning, Trust and Formalization. The scale was rated on 7-point Likert -type scale, with 7 indicating "Strongly Agree" to 1 indicating "Strongly Disagree". The Transformational Leadership Scale was adapted to measure Transformational Leadership . This version consisted of 29-items questionnaire that measure the five dimensions of Transformational Leadership, however in the present study 5 items measuring the Transformational Leadership was used. The items were rated on a 7 point Likert's type scale, ranging from (1) ,Strongly Disagree to (7) Strongly

The statistical procedures relevant to this study include descriptive statistics (frequency tables for biographical variables, means, standard deviations and Cronbach's alpha coefficient and inferential statistics, which included Pearson's correlation and Regression Analyses.

The data collected were processed with the Statistical Program for Social Science (SPSS) version 16.1, which is the most current software.

Agree. Based on table (1)and table (2),the internal consistency reliability estimates for the Transformational Leadership dimension was 0.85 and the Organizational culture was .82. According to Pearson correlation test, correlation is significant which are indicated in tables (3) and (4). Thus, null hypothesis can be rejected. The reason is that Sig. is lower than 0.05 .

Table (1). Variables' reliability statistics

Variables	Cronbach's Alpha
Transformational Leadership	0.85
Organizational culture	0.82

Table (2). Dimensions' Reliability Statistics

Organizational culture dimensions	Cronbach's Alpha	Transformational leadership dimensions	Cronbach's Alpha
Formalization	0.905	Vision	0.906
Trust	0.906	Inspirational communication	0.815
Collaboration	0.830	Intellectual stimulation	0.926
Learning	0.817	Supportive leadership	0.913
		Personal recognition	0.921

### 3. Results

Correlation Test of all variables along with alpha coefficient values calculated in order to establish the validity and reliabilities of the instruments, shown in Table 3.

According to the Pearson correlation test (table3), null hypothesis can not be rejected. It means that the existence of a significant relationship between and organizational culture in companies is at 0.95 degree of confidence. As it illustrated in table (3),(4) the relationship between Transformational Leadership and every dimension of organizational culture is significant

Table 3. Pearson Correlation between Transformational leadership and Organizational culture

Transformational leadership	Organizational culture	
	0.521	Pearson correlation
	0.036	Sig. (2-tailed)

Table 4. Pearson correlation test of Variables

Independent Variables	Dependent Variables	N	Sig	Result
Vision	Organizational culture	152	.000	Not Rejected
Inspirational communication	Organizational culture	152	.000	Not Rejected
Intellectual stimulation	Organizational culture	152	.000	Not Rejected
Supportive leadership	Organizational culture	152	.120	Not Rejected
Personal recognition	Organizational culture	152	.000	Not Rejected

In order to verify the direct/predicting effect of Transformational leadership on organizational culture attributes, (Vision, Inspirational communication, Intellectual stimulation, Supportive leadership and Personal recognition) .Multiple regression was computed and has shown in Table 5, the value of R2 explains 23. % of the

variance in the scores for Organizational culture accounted for by the Transformational leadership dimensions.

The regression results partially support the hypothesis, as significant contribution to the Organizational culture is made by vision, Inspirational communication, Intellectual stimulation, supportive leadership, and Personal recognition has shown significant impact.

Table 5. Result of Multiple Regression Analyses for Transformational leadership on Organizational culture

<i>Variables</i>	<i>B</i>	<i>SE</i>	<i>β</i>	<i>t</i>	<i>p</i>
Vision	<b>11.06</b>	<b>.70</b>		<b>17.88</b>	<b>.000</b>
Inspirational communication	.18	.05	.15	2.63	.000
Intellectual stimulation	.25	.03	.232	5.01	.000
Supportive leadership	.07	.03	.06	1.53	.120
Personal recognition	.30	.05	.25	7.36	.000

Df=(4,152), R2 = .230, \*p <.001

#### 4. Discussions

The research findings confirmed the similar research. There is a significant relationship between Transformational leadership and organizational Culture dimensions (Bass,1997). Organizational researchers have increasingly emphasized the roles of the transformational leaders on organizational culture. The studies also provide evidence that these concepts have significantly constructive influence for achieving a work climate which has positive effect on increasing employee performance and the supportive relations among them. [5]

A plenty of studies have been conducted in various organizational settings. Some of the empirical results generally support the relations in the same way, but some of them are conflicted. There is not a collective understanding about the associations of these concepts in the literature.

To sum up, one of the most important factors to make a difference under the working conditions of the business environment in 2000's is a committed, productive, highly motivated and innovative human resource. With increase of technological advances and changes, there is need for organizations to address employee satisfaction, organizational commitment, work itself and organizational culture. The success, survival and competing power of organizations depend on the commitment of their members, supporting their individual developments, ensure their participations, creating an organizational culture and make it stable for a period that all of the members in the organization share the common values and norms and these can be

achieved with a leader who has good communication skills, high charisma that is according to Schein (1985). Also, it is important to have a leader who is the source of inspiration and intellectual.

Daft's model (2001) indicates the relationship between leadership, structure, culture and delegation of authority. In this, research the significant relationship between leadership and culture accords with Daft's model.

Transformational leadership has a significant relationship with learning at organizational learning. Marquardt's system model of learning organization (2002) verifies the relationship of "organizational learning" with "organizational leadership" which belongs to individual aspect of his model. The recent research's results confirm this part of Marquardt's model.

#### Corresponding Author:

Ali joker, Senior lecturer and Instructor of Shahid Sattari Aviation University, Tehran, Iran  
E-mail: Alj\_26478@yahoo.com

#### References

- [1]. Alavi, M., Kayworth, T. R., & Leidner, E. L., (2005). An empirical examination of the influence of organizational culture on knowledge management practices. *Journal of Management Information Systems*, 22(3),191-224.
- [2]. Avolio, B. J. and Bass, B. M. (2004),

- Multifactor Leadership Questionnaire, Manual and Sampler Set, Third Edition, Mind Garden, Inc.
- [3]. Antonakis, J., Avolio, B. J. and Sivasubramaniam, N. (2003), Context and Leadership: An Examination of the Nine-Factor Full-Range Leadership Theory Using the Multifactor Leadership Questionnaire, *The Leadership Quarterly*, 14,261-295.
- [4]. Barney, J. (1986). Organizational culture: Can it be a source of competitive advantage? *Academy of Management Review*, 11, 656-665.
- [5]. Bass, B. M. (1990), From transactional to transformational leadership: Learning to share the vision, *Organizational Dynamics*, 18, 19-31.
- [6]. Bass, B. (1985).” Leadership and performance beyond expectations”. New York: The Free Press.
- [7]. Bennis, W. (1959), Leadership Theory and Administrative Behavior: The Problem of Authority, *Administrative Science Quarterly*, 4, 259-301.
- [8]. Bhatt, G. (2000). Organizing knowledge in the knowledge development cycle. *Journal of Knowledge Management*, 4(1), 15-26. Singh JS, Singh SP. Forest vegetation of the Himalaya. *Bot Rev* 1987;52(2):80-192.
- [9]. Cameron, K. S. and Quinn, R. E. (1999), Diagnosing and Changing Organizational Culture: Based on the Competing Values Framework, New York: Addison-Wesley.
- [10]. Daft, R. (2001). Organization theory and design. Ohio, USA: South Western College.
- [11]. Lee, H. & Choi, B., (2003). Knowledge enablers, processes and organizational performance: An integrated view and empirical examination. *Journal of Management Information Systems*, 20(1), 179- 228.
- [12]. DeLong, D. W., & Fahey, L. (2000). Diagnosing cultural barriers to knowledge management *Academy of Management Executive*, 14(4), 113-128.
- [13]. Dion, L. (1968), The Concept of Political Leadership: An Analysis, *Canadian Journal of Political Science*, 1, 2-17.
- [14]. Desphande, R., & Webster, F., Jr, (1989). Organizational culture and marketing: defining the earch agenda. *Journal of Marketing*, 53,315.
- [15]. Den Hartog, D. N., Van Muijen, J. J. and Koopman, P. L. (1997), *Journal of Occupational Psychology*, 70, 19-34.
- [16]. Egri, C. P. and Herman, S. (2000), Leadership in the North American Environment Sector: Values, Leadership Styles and Context of Environmental Leaders and Their Organizations, *The Academy of Management Journal*, 43, 571-604.
- [17]. Fukuyama, F. (1996). Trust: The social virtues and the creation of prosperity. New York: The Free Press. Gold, AH., Malhotra, A, & Segars, A (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems*, 18(1), 185-214.
- [18]. Hoefstede, G. (1991). Cultures and organizations. London :McGraw-Hill.
- [19]. Jago, A. G. (1982), Leadership: Perspectives in Theory and Research, *Management Science*, 28, 315-336.
- [20]. Javadin, Seyed R. (2004). Comprehensive overview of management and organization theories. Tehran: Negahe Danesh publications..
- [21]. Jex,S.M.,(2003).Organizational psychology-Ascientist practitioner approach. New York: John Wiley.
- [22]. .Kuhnert, K. W. and Lewis, P. (1987), Transactional and Transformational Leadership: A Constructive Developmental Analysis, *The Academy Management Review*, 12,648-657.
- [23]. Lopez, S.P., Peon, J.M.M., Ordas, C.J.V. (2004). Managing knowledge:the link between culture and organizational learning. *Journal of Knowledge Management*, 8(6),93-104.
- [24]. Martin, J. (2002), *Organizational Culture: Mapping the Terrain*, Sage Publications.
- [25]. Mescon, M. H. (1958), The Dynamics of Industrial Leadership, *The Journal of the Academy of Management*, 1, 13-20.
- [26]. Murray, P., & Donegan, K (2003). Empirical linkages between firm competencies and organizational learning. *The Learning Organization*, 10(1),51-62.
- [27]. McKenna, E. (2000). Business psychology and organizational behavior.Hove: Psychology Press.
- [28]. Ouchi, W. G. (1981), *Theory Z*, Reading, Mass: Addison-Wesley.
- [29]. Pettigrew, A.M. (1990). On studying organizational culture. *Administrative Science*

- Quarterly, 570-581. Pillania, RK (2006). State of organizational culture for knowledge management in Indian industry. *Global Business Review*, 7,119-135.
- [30]. Rafferty AE. and Griffin MA (2004). Dimensions of transformational leadership: Conceptual and empirical extensions. *The Leadership Quarterly*. 15(3): 329–354.
- [31]. Sathe, V. (1983), Implications of Corporate Culture: A Manager's Guide to Action, *Organizational Dynamics*, 12, 5-23.
- [32]. Schein, E. H. (1999), *The Corporate Culture Survival Guide*, San Francisco: Jossey-Bass.
- [33]. Senge PM (1991). Transforming the practice of management”, paper presented at the Systems Thinking in Action Conference.
- [34]. Spender, J. C. (1983), Myths, Recipes and Knowledge-bases in Organizational Analysis, Unpublished Manuscript, Graduate School of Management, University of California.
- [35]. Sonnenwald, D.H., & Pierce, L. (2000). Information Behavior in dynamic group work contexts: Interwoven situational awareness, dense social networks and contested collaboration in command and control. *Information Processing and Management*, 36(3), 461-479.
- [36]. Sinkula, J.M. (1994). Market information processing and organizational learning. *Journal of Marketing*, 58,46-55.
- [37]. Tsai , M-T., & Lee, K-W. (2006). A Study of Knowledge Internalization: From the perspective Of learning cycle theory. *Journal of Knowledge Management*, 10(3),57-71.
- [38]. Yukl , G. (1999), An Evaluation of Conceptual Weaknesses in Transformational and Charismatic Leadership Theories, *Leadership Quarterly*, 10,285-305.

1/12/2022