Prioritization of Transformational Leadership in The Industry (Case Study of Petrochemical Industry of Iran)

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ABSTRACT

In the latest researches conducted in the field of leadership, interactional and transformational leadership with regards to charisma have obtained. Interactive leaders mostly emphasize on maintaining the status quo, but in the transformational leadership, leaders inspire followers to change and cause the sense of emotional commitment to the missions and organization among employees. Hence, the experts consider transformational leadership more effective than interactive leadership. Though, investigating dimensions of transformational leadership in the country provides the possibility of benefitting appropriate mechanisms to improve the leadership. This descriptive and of course surveying, applied, and field research provided to explain aspects of priority of dimensions transformational leadership in the nation's petrochemical industry. The study population randomly selected between top companies in the petrochemical industry. Findings show that, from the viewpoint of employees, managers have different priorities for dimensions transformational leadership in which, the personal identification of individuals and their mental stimulations have the least priority and perspective expression have the highest priority.

KEY WORDS: dimensions of transformational leadership, perspective expression, personal identification, mental stimulation.

1. INTRODUCTION

According to Senge (1990), traditional viewpoint about leadership, in which certain people determine the directions, make major decisions and give people the spirit and power, is deeply rooted in the thinking of individual and non-systematic. In Western societies this emerged as a "legendary leader". 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 developmental models. This means that leaders are responsible for employees learning (Senge, 2006, 433-453). It should be noted that, the correspondence between new leadership tasks is characteristics of transformational leadership. To better understanding 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. Yet today, more emphasis is on the characteristics and behaviors that are compatible with charismatic leadership, namely transformational leadership (Seyed javadin, 2004). 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, etc. (see Bass, 1895 Rafferty& Griffin, 2004; Senge, 1990). Given the importance of leadership as one of the essential elements of successful organizations and due to the importance of transformational leadership development this study is to assess and prioritize aspects of the transformational leadership in petrochemical industry, one of the mother industries of the country. Several definitions presented for leadership, but none of them has been generally accepted. View of leadership as a process, is leading to significant influence without force to directing and coordinating activities in order to achieve the goal of members of a group and as an adjective, meaning a set of qualities (Griffin, 2005: 350). Simply from process vision, "Leadership means influencing staff in their tasks with the desire and interest" (Moshbeki, 2001: 258).

Leadership theory is based on several different perspectives. Recently, Arthur Jagu devised a coherent framework for the credible views of leadership. The framework formed of two dimensions namely, focus and attitude. Focus refers to consider leadership whether as a set of attributes (Personal characteristics view) or a set of behaviors (behavioral view) (Griffin, 2005, 350). Those who have studied leadership from characteristics view believe that, "certain traits are connected to success (leadership) and when they became clear, they can be used in

selecting leaders (Shermerhorn, Hunt, and Osborne, 2001, 230). In the other hand, proponents of behavioral view focused their attention on visible behavior of the leader rather than invisible intrinsic traits (Griffin, 2005, 350). These behaviors mainly include relation-oriented behaviors vs. task-oriented.

The second dimension of mentioned framework represents the type of attitude. It indicates that, a universal vision, or a contingency view has been accepted.

2. LITERATURE REVIEW

Zigurs (2003) investigated different aspects of leadership in virtual organizations and present it in terms of comprehensive leadership. In comprehensive leadership introduced by Bruce Avolio & Bernard Bass, a number of previous theories gathered in a coherent composition that focuses on individuals' development. Comprehensive leadership creates the meanings and tools that think of the process meaning the leaders and followers process, and also to create legal grounds for leaders and followers, in order to grow and flourish. This picture seems to be related to virtual teams and leadership from a distance because virtual teams have high levels of independence against direct control. There are few studies that have examined leadership in virtual teams and these studies typically considered only a small part of the system. Survey on virtual teams carried out by Zigurs provides steps that they can be used to discuss the feasibility of leadership in virtual teams.

Quinn (1988), based on the part of Burns and Bass models established his conflicting values framework. This framework consists of four models or four quadrant provided by comparing the values in two dimensions: the "internal - external" and "control – flexibility dimensions". Open system model emphasize on the outer quarter of external - flexibility, while the internal process model emphasize on the inner quarter of internal - flexibility. Quinn presented conflicting values in order that this framework can be used in the leadership. Leadership roles can be categorized in the eight species. The manager plays the following roles: the monitor, coordinator, director, producers, innovators, broker, facilitator, and Mentor (Yang, 2007, 533).

In the new (modern) theory, the emphasis is on leadership effects and consideration of the leader's legal position in bureaucracy, but in post-modern it focuses on how the leadership processes. In the post-modern leadership studies the leader is not purely relies on legitimate position. Leadership process is not dependent on valuable exchanges with others due to influence on them, but the emphasis is on the leader's personality abilities and his influence on the beliefs, values, behaviors, and actions of others. Therefore, the rational leadership models should be combined with irrational models (based on intuition, charisma, etc.). These differences put "Interaction-oriented leaders" against "Transformational Leadership". Interaction-oriented leader, eager to maintain legal status, improve performance quality through the exchange of subordination and enhance motivation in employees. Transformational leadership influences through shared values and beliefs system that makes their followers to have new look even on the old stuff and makes multiple efforts in achieving the goals. Modern leaders make decisions and solve problems independent of their predecessors, but post-modern leaders question completely logical decision making, rely on subordinates, and sometimes are irrational. In this regard, one of the new methods in studying the leadership is studying personal values and feelings of leader's followers instead of skills, performances or characteristics of leader. Searching a model or a unit reason in studying the leadership process is useless and annoying work. However, in modern leadership studies, the goal is to evaluate the effectiveness of a feature or behavior and again, the "effective leader" is not distinctive. But in post-modern, due to integration several methods rise for evaluating effectiveness For example, Bowne, Ledford, and Nathan in a model propose that, in the selection process we must emphasize on measuring volunteer's suitability with organization rather than compatibility with jobs (in terms of knowledge, experience and skills needed) and general competency must be considered. Briefly, characteristics and assumptions of "creation and development of" theory as follows: 1 – Emphasizes of interactions between individuals and their social contexts. 2 - Free the researchers' view from static view to free leadership process. 3 - Emphasize on developing and extend the leadership throughout life (as a continuous process). 4 – It is value-oriented. 5 – Gather multiple leadership models in a coherent framework.

In the latest researches conducted in the field of leadership, interactional and transformational leadership with regards to charisma have obtained. These researches show that, in the most leadership theories such as Ohio and Fidler studies, target path and participatory management emphasize on interactive leaders who were satisfied to maintain the status quo. These types of leaders direct their subordinates so that they achieve their own goals and objectives of the organization and acquire their self-discovery phase of the upgrade needed to give satisfaction. However, in transformational leadership, leaders inspire followers and increase their morale and followers obey leader unconditionally and enthusiastically and have an emotional sense of commitment towards the organization and their missions and therefore, experts know transformational leadership knows more effective than interactive leadership. The following chart shows the difference between these two leaderships (Seyed Javadin, 2004, 330-331).

Table 1: Comparison of interactive and transformation leadership

Interactive leadership	Transformational leadership
Contingent rewards: pay bonuses based on performance and contracts	Charisma: a magnificent picture, from heart and based on trust with your followers
Exception-based management (active), work according to standards and regulations and in case of deviations, corrective actions	Inspiring: making ideals and new objectives
Exception-based management (passive): intervene only when standards are not observed	Part vision: increase insight of followers
Without the bonds: the leader's role is minimized and is intangible.	Human considerations: will address issues personally, consider the staff and acts as a coach

Source: (Seyed Jvadin, 2004, 331)

Since this study investigates the situation of the organizations' managers about "Transformational leadership ", we refer to the criteria used in this study based on Rafferty and Griffin (2004).

Used indicators taken from total indicators used by the House (1998) and Padskoff et al (1990) is presented, is taken. The basis for selecting indicators was their quality in measuring the theoretical structure of research (Transformational leadership). Three indicators made by House (1998) have been used to measure this structure. One of the indicators questioning "lack of leaders' ideas for the future ", should be reversed. "Having a true understanding of where the department wants to be there in the next 5 years" is one of such indicators. The obtained criteria of these indicators have Cronbach's alpha value equal to 0.82 in research of Rafferty and Griffin. Rafferty and Griffin quote from Barbuto (1997) that, although motivating the inspiration is one of the characteristics of charismatic leadership, but different definitions were presented for it. Charismatic leaders use motivating words to increase employees' motivation and orienting their demands with team success. Elsewhere Bass (1999) says that, the charisma and inspiration motivation, both emerge when a leader image the desired future, and clearly states that, how they can achieve it, provides a model to follow, determines high level standards, and shows confidence and strong will. This description suggests that, perspective and the mental motivation are combinable. But some researchers believe that, it is better to distinguish between these two (Rafferty& Griffin, 2004, 332). Yuki (1981, 21) also similarly believes that, inspiration by leader motivates passion and enthusiasm for the group work between the subordinates and says things that they trust their abilities to perform successfully the tasks assigned to them and to achieve group goals (ibid). Shermer Horn and colleagues (2001) define inspiration such as: "Inspiration benefits signs and symptoms to emphasis on the efforts, shares high expectations with others and express important objectives in the simplest way". Three indicators presented by House (1998) were used to measure inspiring communications. For example, one of the indicators is that "the leader says thing that the staff feel pride of being a member of the organization they're ". Rafferty and Griffin (2004) obtain Cronbach's alpha equal to 0.88 for this scale. House (1996, 327) considers supportive leadership behavior as behavior that will lead towards satisfying the needs and preferences of employees; behaviors such as comfort and welfare of subordinates and establishing friendly and psychological supportive environment. We know supportive leadership behavior as: showing concern about individuals and taking into account their personal needs (Rafferty& Griffin, 2004, 333). Bass & Avolio (1990) believe that, effect of mental encouraging is increase in ability of followers in the conceptualization, perception, analysis of problems, and improve the quality of solutions they created (ibid). Mental encouragement improves the mind, rationality, and accurately troubleshooting (Shermer Horn, Hunt, and Osborne, 2001, 248). Authors such as, Hartog, Van Muijen, Koopman (1997); Tepper & percy (1994); Goodwin et al (2001) all believe like this (Rafferty& Griffin, 2004, 334). In such rewards, different types of rewards provided in the case of achieving agreed objectives. In this study, we have chosen "personal knowledge" between the contingency rewards, due to its higher proportion with transformational leadership, and our definition of this factor is as follows. Providing rewards such as prizes and recognition efforts in order to achieve specific goals.

3. METHODOLOGY AND DATA

From methodological point, this study is surveying and descriptive from research type aspect and is applied from goal aspect. The statistical population of this research includes major petrochemical companies and major consulting engineering firms and constructing and installing companies associated with the petrochemical industry. According to petrochemical industries development management, the number of such companies reported to be 45. The sample for this study consists of 18 petrochemical companies and consulting engineering firms and construction and installation companies. After the questionnaires distributed among these companies, 83 percent of companies representing 15 companies responded to questions and the number of respondents was 170 persons. The transformational leadership measurement questionnaires composed of 15 6-choice questions each consist of five

factors. The validity of each section has confirmed as follows in the table below. The reliability of the questionnaires has confirmed by selecting appropriate measurement indicators and benefitting experts' corrective recommendations in the preliminary study stage.

Table 2: Assessment of questionnaire validity

Transformational Leadership factors	Questions	Cronbach's alpha coefficient
Perspective	1 to 3	0.81
Spiritual communications	4 to 6	0.88
Mental motivation	6 to 8	0.85
Supportive leadership	9 to 11	0.95
Personal identification	12 to 15	0.97

Table 3 - Assessment of questionnaire validity

Variable	Cronbach's alpha coefficient
Transformational leadership	0.97

4. RESULTS

In Table 4, the profiles of people who have responded to the questionnaires are given.

Table 4: descriptions of the characteristics of respondents

Characteristics	Education					Gender			Organizational job				
Subsets	No response	Diploma	Associate Degree	Bachelor	Masters and above	No response	Man	Woman	No response	Senior manager	Middle manager	Base manager	Employee
Frequency	55	10	6	74	32	60	83	34	56	15	39	33	34
Frequency percent	31.1	5.0	3.4	41.8	18.1	33.9	46.9	19.2	31.6	8.5	22	18.6	19.2

As shown in Table 4, most of the respondents who wrote their properties are employees and base managers and the least of them are senior managers. Most of frequency associated with whom have Bachelor degrees.

Table 5 shows the mean scores for each leadership factor. As it can be seen, the lowest scores are related to personal identification factors with an average of 3.40 and mind stimulation of the employees with an average of 3.42 and the highest scores are related to expressing perspective with an average of 4.2.

Table 5: description of Transformational leadership factors in the industry

Agent Name	The average	Standard deviation
Perspective expression	4.2	1.13
Spiritual communications	3.7	1.1
Supportive leadership	3.67	1.08
Mental motivation (intelligence)	3.42	1.22
Personal identification	3.40	1.22

According to the Kolmogorov test, since the significance levels for all cases are greater than 0.05 therefore, the zero hypothesis cannot be rejected and these data have a uniform distribution. Therefore, parametric tests can be used in their analysis.

Table 6: single sample T-test

Transformational leadership factors	Criterion number = 3.5					
	T	Degree of freedom	Significant levels of the two domains	The mean difference	95.0	
					Low limit	High limit
Perspective expression	2.4	14	0.03	0.71	0.08	1.33
Spiritual communications	0.85	14	0.41	0.25	-0.38	0.87
Supportive leadership	0.60	14	0.56	0.17	-0.43	0.77
Mental motivation (intelligence)	-0.24	14	0.81	-0.80	-0.75	0.60
Personal identification	-0.34	14	0.73	-0.11	-0.79	0.57

As can be seen from the above table except in the case of Perspective expression which has a Sig value lower than 0.05 in other cases, significant levels was more than 0.05. Thus only in the factor of Perspective expression it can be concluded that have a significant difference with the mean, and because the mean difference is positive, therefore have a positive significant difference meaning that, is above the average. But in the case of other factors, their closeness to average cannot be rejected based on the available findings. In other words, other factors have been assessed as moderate.

As Table 7 shows the mean rank of Transformational leadership factors ordered from highest to lowest as follows. Perspective expression, spiritual communications, supportive leadership, personal identification, and mind stimulation. The following chart displays these priorities.

Table 7: Mean ordinal factors Transformational industry leadership

Agent Name	Mean rank
Perspective expression	4.07
Spiritual communications	3.37
Supportive leadership	3.00
Personal identification	2.20
Mental motivation (intelligence)	2.37

Then, the Friedman test was used to determine the presence or absence of a significant difference between ordinal means of Transformational leadership factors.

Table 8: Friedman test statistics

N	15
Chi-square	14.31
Degree of freedom	4
Significance level	0.006

Given the significance level is equal to 0.006 and less than 0.05 (Table 8) therefore, zero hypothesis is rejected and significant differences between mean ordinal rank of Transformational leadership factors in the petrochemical industry is confirmed. In other words, different factors have different priorities.

Table 8: Paired comparison of factors

Paired comparison of	t	Significant level	H0 Is no significant difference
Perspective expression and spiritual communications	1.72	108	Not Rejected
Perspective expression and supportive leadership	2.35	0.034	Rejected
Perspective expression and mental motivation (intelligence)	2.54	0.023	Rejected
Perspective expression and personal identification	2.98	0.010	Rejected
Spiritual communications and supportive leadership	0.66	0.517	Not Rejected
Spiritual communications and Supportive leadership	2.52	0.024	Rejected
Spiritual communications and personal identification	1.91	0.077	Not Rejected
Supportive leadership and mental motivation (intelligence)	1.64	0.123	Not Rejected
Supportive leadership and personal identification	1.71	0.110	Not Rejected
mental motivation (intelligence) and personal identification	0.188	0.853	Not Rejected

As the above table implies there is a significant difference between the perspective expression and three supportive leadership, mind stimulation, and personal identification, and also between spiritual communications and mind stimulation. In total, these differences led to explanation of priorities between the different factors.

5. Conclusion

The results obtained from descriptive data indicate that, in general, the managers of petrochemical concerned to organizational goals and duties more than employees. Managers have major weaknesses with regards to using some management leverages, because they disesteem to staff's needs and feelings. They also do not pay attention to quality. According to the employees, managers are neglectful to admire more than average work, considering their needs, admiration of quality improving, and considering the feelings of subordinates, but have a good recognition of the organization's goal.

Interpretation of descriptive results of factors as was shown, the lowest scores are related to factors of personal identification and mind stimulation, and the highest score is related to perspective expression. This also shows that, managers do not get enough attention to the psychological aspects of individuals and are unaware of intellectual capabilities of their employees. The risk of this issue emerges when we know that the intellectual capital is a major factor in overcoming the competitors. These items were confirmed in ordinal mean results and also Friedman test. The results indicate that, from employees' views, managers put different priorities for different factors in their management and also personal identification and mind stimulation have lowest priority and perspective expression have highest priority.

According to the warnings from low scores of some indicators, it is recommended to give the managers required trained about various management levers, material or non-material. Research shows that, managers' vision are traditional and hardware-oriented and they neglect software aspect of organizations including personnel and organizational intellectual capital. Managers' relatively appropriate considerations about goals and perspectives from employees' point is a strengths that besides reducing the weaknesses could lead to the development of industry. The clear proposal of research is that, managers always try to encourage staff to through identify and reward the people that work better than standard, while trying to effectively benefit from suggestions system in order to take advantage of employees' ideas and use the good suggestions in the organization and provide a serious mechanism for encouraging employees. Studying the topics of learning organization and single ring, double ring, and secondary learning and their practical use can also provide required readiness to fix weaknesses. About suggestions to researchers, several issues of leadership and its relationship with other organizational factors that can be proposed and here are a few points. Investigating the differences between the private sector and public sector managers in various industries such as petrochemical companies to demonstrate the effectiveness of government in organizations' leaderships can be subject to investigation. It is recommended to study "Assessment of leadership learning among managers" with the expansion of leadership indicators with regards to Senge's comments (1990) in the books "fifth wheel" and "Dance of Change" and also comments of Deft (2001) in the final chapter of the book "structure theory and design". These indicators include: leader as a designer, leader as a supervisor, leader as a teacher, constructive concerns in leadership, thinking leader, providing an overall picture of the organization, etc. Clarifying the relationship between transformational leadership with the other organizational elements such as culture, technology, structure, etc. can also provide a variety of fields to study.

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