TRANSFORMATIONAL LEADERSHIP STYLE AND INNOVATIVE BEHAVIOR ON INNOVATIVE CLIMATE AT SMES IN IRAN

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ABSTRACT

This paper reviews the impact of transformational leadership on innovation at the organizational climate. In every organization, many factors exist which may reinforce this linkage. Accordingly, organizational culture may be one of them. Through this factor, organizations and leaders try to make a natural and foundational framework that helps the organization and individuals to accept creativity and innovation in the heart of all the changes that are happening as a basic cultural norm. In this regard looking for the moderating role of organizational culture in this relation will be a further objective of this research. Population of the study is all workers of Ardabil Province SMEs in Iran. We determined the amount of the sample size with the used of p.q sampling method, which the statistical sample is 150 of these workers which have been selected through the simple random sampling method. To gathering of data, we used three standard questionnaires. In order to analyze the data resulted from collected questionnaires deductive and descriptive statistical methods are used, and to display some statistical data we used column diagram and in deductive level to test the hypothesis of the research we used multiple correlation and Regression coefficient. Finding showed the mediating role of innovative climate in the relationship between intellectual stimulation, inspirational motivation, individual consideration and innovative behavior ($P<0.01$), but the mediating role of innovative climate in the relationship between ideal influence and systematic problem solving method ($P<0.01$) was not proved.

Key words: innovative climate, transformational leadership style, innovative behavior, managers.

1   INTRODUCTION

Peter Drucker has said about the importance of management: "As the trees are rotten from the head and die, organizations are suffering from degradation and destruction when the managing director of that organization can't manage it" [1]. Current organizations are facing a dynamic environment, rapid change in technologies, globalization, knowledge growth, migration, climate changes and a high demand for new products and services. In order to grow and survive in such challenging environment, companies are trying to develop new and unique approaches to perform better. Whether the organization is developing products or providing services, creativity and innovation can be a good solution to become flexible while encountering such changes and organizations should become more innovative in order to grow. Innovation enables the organizations to look for latent opportunities using a different view, not just from a cost viewpoint, but also as a means of increasing capabilities and competitiveness [2].Though leadership has long been of interest to historians and philosophers, scientific studies only began in the early 1900s. Still, the body of knowledge has since been fast growing as attested by the more than 350 definitions of the term which scholars have come up with. Giving one specific definition of leadership is a thus very complex task [3].

Transformational leadership is defined as a leadership approach that causes change in individuals and social systems. In its ideal form, it creates valuable and positive change in the followers with the end goal of developing followers into leaders. Enacted in its authentic form, transformational leadership enhances the motivation, morale and performance of followers through a variety of mechanisms. These include connecting the follower's sense of identity and self to the mission and the collective identity of the organization; being a role model for followers that inspires them; challenging followers to take

greater ownership for their work, and understanding the strengths and weaknesses of followers, so the leader can align followers with tasks that optimize their performance. Transformational leaders (Change leaders) encourage the workers to consider the major hypotheses and problem solving with a new point of view this fact makes the workers think beyond their personal benefits and pay more attention to the organization goals. Transformational leaders unite their followers around a mutual goal and appreciate them to consider the new challenge as new opportunities. Workers, on the other side support these kinds of leaders who encourage them to achieve valuable goals. Also workers feel more support in facing challenges and choosing innovative ways to improve their situations. Bass (1997) has mentioned four important principles of transformational leadership searching the source of their social power: ideal influence (mysterious power), inspiration intellectual stimulation, and individual consideration [4].

The term innovation and its meaning are vague and it can have a variety of meanings based on the context. Innovativeness is to create new something which has a specific aim and function. In better definition innovativeness is a process which is used for making a new service or product and also a new usage of old products in organization [5]. Organization innovation is accepting a new belief or a behavior which seems new to the industry, markets, or the general environment of the organization. The very first organization which offers a new product is called "innovative organization" [6]. Improving organizations need innovative workers to get adjusted to the changes of the modern world. Most of whom that has entered the question of leadership into a new process mostly focused on collaborative leadership style or participative leadership style or participative leadership. In this study we have focused on, transformational leadership. Another issue which is directly related to innovation is organizational climate. Organizational climate is the organization worker's understanding of organizational structure facial [7]. If the Organizational climate supports the innovation perfectly the level of innovation will increase in the organization.

This paper reviews the impact of transformational leadership on innovation at the organizational climate. In every organization, many factors exist which may reinforce this linkage. Accordingly, organizational culture may be one of them. Through this factor, organizations and leaders try to make a natural and foundational framework that helps the organization and individuals to accept creativity and innovation in the heart of all the changes that are happening as a basic cultural norm. In this regard looking for the moderating role of organizational culture in this relation will be a further objective of this research.

2   REVIEW OF LITERATURE

There are different researches and several definitions in the field of leadership. Ralph M. Stogdill (1981) and Arnold & Feldman (1986) in a survey study which carried on leadership theories concluded that "The number of people who seek to provide a definition of leadership, the same number for leadership is defined" [8]. According to different definitions and overall review of them, generally leadership is defined as "process of guiding and influencing the activities of members of the group or organization" [9]. In fact leadership is a process while it's trying to manage the organization with effective communication, motivating and encouraging employees to do their tasks and duties in order to facilitate achieving to organizational goals. As noted in the definition of leadership, the most important point in this area is the ability to influence the behavior of subordinates and work with individual and organizational values [10]. James McGregor believed that "the leader who didn't consider moral and spiritual aspects of leadership, world history will remember him as a notorious person or will have worse titles than this" [9].

The concept of transformational leadership was initially introduced by leadership expert and presidential biographer James MacGregor Burns [11]. According to Burns, transformational leadership can be seen when "leaders and followers make each other to advance to a higher level of moral and motivation." Through the strength of their vision and personality, transformational leaders are able to inspire followers to change expectations, perceptions and motivations to work towards common goals.

Later, researcher Bernard M. Bass expanded upon Burns original ideas to develop what is today referred to as Bass' Transformational Leadership Theory [3]. According to Bass, transformational leadership can be defined based on the impact that it has on followers. Transformational leaders, Bass suggested, garner trust, respect and admiration from their followers.

Bass also suggested that there were four different components of transformational leadership.

1. *Intellectual Stimulation* – Transformational leaders not only challenge the status quo; they also encourage creativity among followers. The leader encourages followers to explore new ways of doing things and new opportunities to learn.

2. *Individualized Consideration* – Transformational leadership also involves offering support and encouragement to individual followers. In order to foster supportive relationships, transformational leaders keep lines of communication open so that followers feel free to share ideas and so that leaders can offer direct recognition of each follower's unique contributions.

3. *Inspirational Motivation* – Transformational leaders have a clear vision that they are able to articulate to followers. These leaders are also able to help followers experience the same passion and motivation to fulfill these goals.

4. *Idealized Influence* – The transformational leaders serves as a role model for followers. Because followers trust and respect the leader, they emulate the leader and internalize his or her ideals.

Innovation has become the buzzword for all organizations in the past five years as new technology has become a normal part of everyday life. Yet, to understand what innovation means it is important to first understand what its main objective. The central role of innovation is the long-term survival of organizations [12]. The foundation innovation is based upon is ideas, and it is people who "develop, carry, react to, and modify ideas" [13]. Therefore it is important to understand that innovation is based on the individual's effort to perform. From this perspective, it is important to understand what motivates or enables individual innovative behavior to occur. West and Farr (1989) noted that "there has been scant attention paid to innovation at the individual and group levels".

Individual innovation begins with problem recognition and the generation of ideas or solutions, either novel or adopted. During the next stage of the process, an innovative individual seeks sponsorship for an idea and attempts to build a coalition of supporters for it (Scott & Bruce, 1994). The third and final stage, the individual completes the idea by producing "a prototype or model of the innovation that can be touched or experienced, that can now be diffused, mass produced, turned to productive use, or institutionalized" [14].

Lots of studies have been done to investigate the relationship between organizational climate and innovation and being innovative [15]. Pareek (1987) has mentioned that an organizational climate is innovative which is considered by workers innovatively [16]. Findings in several studies have shown that organizational climate is an important factor for innovation. As an example, Dansereau & Graen & Hagan (1975) has worked on a group of technologists and scientists in four Australian companies. They have found a positive relationship between team innovative climate and innovation characteristics [17]. In social context & Scott and Bruce (1994) found out that an organizational climate which supported innovation strongly increased the level of innovative behaviors among the engineers and the scientists of research and development department of a big American company. They have also found a meaningful and positive meaning between transformational leadership style and the support of innovation and innovative behavior among workers. Based on the investigations done by Nystrom, Ramamurthy & Wilson (2002), Organizational climate is greatly important in acceptance of innovation. The results show that the size and the sources of the organization are positively correlated with Innovativeness. The final correlations in order are (0.31 and 0.57) [18].

In the view of Krishnan (2001) managers have a key role in growing transferring and starting an innovative organizational climate [19]. Schnider (1992) also claims that the organizational founders and managers figure what they discuss it's rightness or wrongness and is among their personal beliefs, a part of the organization climate. Organizational innovation is impressed by the managing point of views which are focused on innovation. When managers look at innovation as a value, when provide the essential resources, provides behavioral supports and promotions for accepting new ideas, organizations benefit these opportunities to explore new issues and this fact is because of showing high level management understanding [20].

The followers of this kind of leaders feel move trust, respect and appreciation to their leaders, and they are more ambitions in performance. In this impressing process, motivating the followers to move in order to achieve the organizational goals is done by making them know about the possible results of the organization, and having them try their best to achieve the goals. This point is what distinguishes transformational leadership from transactional leadership. Because against what mentioned about transformational leadership method of motivating followers, in transactional leadership motivating is

done through interaction. Transformational leaders are who that inspire their followers, are able to motivate them and lead them in a way which supports the organization benefits. Also these leaders are able to help their followers to perform better, and have great impacts on the organization. These mangers pay more attention to the needs of their followers and also to the ways of their improvement, they make their followers move knowledgeable, and of course lead them to look at things with a new point of view. By stimulating and motivating their followers, transformational headers, make them to try their best to achieve the goals of the organization [21].

3   RESEARCH HYPOTHESIS

This paper have examined by four hypotheses. The statistical way of analysis of hypotheses is two ways [22], H_1 is acceptance of hypothesis and H_0 is rejecting of hypothesis. In other words, it means that H_1 has positive meaning and H_0 has negative meaning.

1) Innovative organizational climate balances the relationship between innovative intellectual stimulation and innovative behavior.

2) Innovative organizational climate balances the relationship between inspirational motivation and innovative behavior.

3) Innovative organizational climate balances the relationship between individual consideration and innovative behavior.

4) Innovative organizational climate balances the relationship between ideal influence and innovative behavior.

4   METHODOLOGY

Population of the study is all workers of Ardabil Province SMEs in Iran. We determined the amount of the sample size with the used of p.q sampling method, which the statistical sample is 150 of these workers which have been selected through the simple random sampling method. To gathering of data, we used three questionnaires. Innovative behavior Questionnaire with 8 items by Counter (1988) that Scott and Bruce (1944) [23] has used cronbach alpha to showing the stability of this questionnaire and the value of it is 89%. Innovative organizational climate Questionnaire with 23 items by Siegel and Kemmerer (1978) that its stability coefficients have been reported by Afshari and Naami (2005) [24], 0.79. and Multi factorial leadership style questionnaire (MLQ) with 13 items by Bass and Avolio (1994) [25] that its stability in 14 separated studies boss and Avolio have calculated the stability coefficient of the questionnaire between 0.81 and 0.94.

In order to analyze the data resulted from collected questionnaires deductive and descriptive statistical methods are used, and to display some statistical data we used column diagram and in deductive level to test the hypothesis of the research we used multiple correlation and Regression coefficient.

5   ANALYSIS AND FINDINGS

In table 1 you can see the statistical characteristics (mean and standard deviation) of all the variables.

Table 1: mean and standard deviation

Characteristics / variables	Mean	Standard deviation
Intellectual stimulation	16.25	8016
Inspirational motivation	15.24	7.36
Individual consideration	14.21	6.47
Ideal influence	13.5	6.75

Innovative behavior	17.43	8.95
Innovative climate	65.41	17.25

The first Hypothesis

Innovative organizational climate balances the relationship between intellectual stimulation and innovative behavior.

For studying this hypothesis we have used the multi variable regression analysis. You see the results in table 2.

Table 2: the result of multivariable regression on intellectual stimulation and innovative organizational climate with innovative behavior through Frequent Entry method:

Characteristics / variables	Multiple correlation	Coefficient of Determination	F	P	Regression coefficient	
					1	2
Intellectual stimulation	0.19	0.04	5.70	0.001	β =0.19 t =2.38 p =0.01	0
Innovative climate	0.33	0.11	9.24	0.001	β =0.14 t =1.81 p =0.07	β =0.27 t =3.51 p =0.001

The second Hypothesis

Innovative organizational climate modifies the relationship between inspirational motivation and innovative behavior.

The results of this hypothesis are shown in table 3.

Table 3, the results of multiple regression analysis of inspirational motivation and innovative organizational climate with innovative behaviors through Frequent Entry method:

Characteristics / variables	Multiple correlation	Coefficient of Determination	F	P	Regression coefficient	
					1	2
Inspirational motivation	0.21	0.04	7.45	0.007	β =0.22 t =0.73 p =0.007	0
Innovative climate	0.33	0.11	9.11	0.001	β =0.15 t =1.87 p =0.07	β =0.26 t =3.26 p =0.001

Table 3 shows that in that phase of multiple regression which we have just entered inspirational motivation. Its β is 0.22 which is meaningful in p<0.01, but in the second phase when we enter innovative organizational climate the β of in operational motivation has decreased from 0.22 to 0.15 which is not a meaningful state. These results support the second hypothesis.

The third hypothesis

Innovative organizational climate modifies the relationship between individual consideration and innovative behavior you will see the results of this hypothesis in table 4.

Table 4: The results of multiple regression analysis of individual consideration and innovative organizational climate with innovative behavior through Frequent Entry method:

Characteristics / variables	Multiple correlation	Coefficient of Determination	F	P	Regression coefficient	
					1	2
Individual consideration	0.19	0.04	5.81	0.01	β =0.19 t =2.41 p =0.01	0
Innovative climate	0.33	0.11	9.11	0.001	β =0.12 t =1.54 p =0.12	β =0.27 t =3.35 p =0.001

Based on the results shown in table 4 when we enter individual consideration to the regression equation, the gained β will be 0.19 which in P <0.01 is meaningful in the second phase when we add another variable which is innovative organizational climate the value of individual consideration β will be 0.12 which is just meaningful in 0.12 .these results supports the third hypothesis.

The forth hypothesis

Innovative organizational climate modifies the relationship between ideal influence and innovative behavior.

The results of this hypothesis are shown in table 5.

Table 5: the results of multiple regression analysis of ideal influence and innovative organizational climate with innovative behavior through Frequent Entry method:

Characteristics / variables	Multiple correlation	Coefficient of Determination	F	P	Regression coefficient	
					1	2
Ideal Influence	0.10	0.01	1.51	1.43	β =0.10 t =1.25 p =0.21	0
Innovative climate	0.30	0.09	7.42	0.001	β =0.09 t =0.11 p =0.91	β =0.30 t =3.62 p =0.001

Table 5 shows that the relationship between ideal influence and innovative behavior is not meaningful. So we can conclude, based on these results, that innovative organizational climate doesn't play a modifying role more over as we see in the second phase of regression analysis ideal influence B has been decreased in comparison to the first phase of regression analysis finally we conclude that the forth hypothesis would not be supported.

6   CONCLUSION & SUGGESTIONS

In the current study we investigated the modifying role of innovative organizational climate in relation to the relationship between transformational leadership style and innovative behaviors among the workers of an industrial company. Based on the findings of this study, the above mentioned hypotheses were supported.

Regarding the hypotheses 1 to 4 in case of the modifying role of innovative organizational climate results show that innovative organizational climate modifies the relationship between rational stimulation, inspirational motivation, individual consideration and innovative behavior. The results show that there isn't any direct relationship between the predictive variables and innovative behavior but on the other hand the predictive variables can have a great effect on innovative behavior through a mediating variable called innovative organizational climate. As a conclusion the mechanism that defines the relationship between rational stimulation, inspirational motivation individual consideration, and job qualifications is innovative behavior.

Transformational leaders provide a situation for innovation by paying more attention to the workers' needs and improvement [3], [26]. Transformational readers also provide the situation for increasing the level of innovation of their workers by designing realistic and challenging goals, and trusting to their followers to achieve these goals [27]. Transformational leaders also provide their followers with the feeling of independence, motivation and innovation, they also increase the sense of indentify, qualification and adequacy [27]. These leaders provide their workers with the opportunity to experience and of course by encouraging them the level of innovation will be increased [26]. Transformational leaders increase the worker's intention in trying harder for ending up innovative organizational climate through growing the situation for self- admiration, qualification, adequacy and independence [27]. They teach their followers how to use their personal and organizational abilities to increase innovation and creativity.

Innovative organizational climate can modify the relationship between the predictive variables and innovative behavior through several ways. Innovative organizational climate would be effective about innovative behaviors by designing a suitable system of rewarding.

Innovative organizational climate has a great effect on innovative behavior by appreciating and rewarding creative workers.

Innovative organizational climate makes the situation prepares for innovation by encouraging and changing the situations. This system by creating a flexible environment for workers let them solve similar problems in different ways. This issue can provide the situation for innovation. In general we can say that innovative organizational climate can modify the relationship between the predictive variables and innovative behaviors through two mechanisms.

The first mechanism says that innovative organizational climate can increase innovative behaviors. Change acceptance in the organization side, not insisting to keep the current situations, considering individual differences, using different methods to problem solving, increasing of creativity and etc. Are some characteristics that show the organizational support for creativity? Since creativity is primer to innovation, innovative organizational climate increases innovative behavior by increasing creativity.

The second mechanism is how to supply the necessary resources for innovative behavior. To express innovative behavior economical sources, enough human resources, a suitable system for rewarding and having enough time to follow creative ideas and having the support of the managers are important.

Innovative organizations know that for the absorbance phase in the process of creativity the creative person needs a plenty of time, freedom and the permission to know about different are of his / her own workplace. In inspiration phase a strict and close control is not necessary. In testing phase the top manager helps the creative workers to finish their incomplete projects sooner and easier by providing the necessary facilities, and this fact makes a great increase in the worker's motivation and risk taking. In general the knowledge and experience of the top managers about innovation and creativity process are of the important factors for organizational success.

Optimum leadership style can also affect innovative organization climate and innovative behavior. As an example the studies done in the industrial organization of Canada showed that flexibility, perseverance, and the support of the management have a positive relationship with the workers, technological innovations [28]. As Kozlowski and Doherty (1989) mentioned, because managers and supervisors are the top personnel of an organization, followers like to generalize their personal

understanding from their managers to the whole organization, so the followers who claim a great level of relationship with their supervisors in traduce their organizational as a protective and supportive organization to all. In addition managers can have a positive effect on innovative organizational climate by designing and specifying rewards to encourage factors such as; risk taking, intention to changes, sharing the formation with the workers [29].

The other defined role for managers and supervisory in providing on innovative organizational climate is to supply the necessary resources such, time materials and needed information to show creative behaviors [30].

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