INFLUENCE OF THINKING STYLE ON LEADERSHIP STYLE OF PRESIDENTS OF ISLAMIC AZAD UNIVERSITIES IN REGIONS 8 AND 12 OF TEHRAN CITY

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ABSTRACT
The present research was carried out with the purpose of studying the thinking style on leadership style of presidents of Islamic Azad Universities in regions 8 and 12 of Tehran city. In this regard, a questionnaire survey was conducted with 150 employees of the universities. The research questionnaire consisted of 72 items, which 32 and 40 items were considered for leadership style and thinking style, respectively. Analysis of the obtained data was carried out using Structural Equation Modeling (SEM) and LISREL software. Firstly, the technical characteristics of the questionnaire were studied through validity and reliability indices. Afterwards, the significance and standardized coefficients were utilized to check the research hypotheses. The results demonstrated that conservative and liberal thinking styles had significant and positive impact on transformational leadership style in the research statistical sample.

KEYWORDS: Leadership style, thinking style, transactional, transformational, university.

INTRODUCTION
Thinking styles and leadership style of managers are the significant bases of any organization. Moreover, they should be existed in initiation of an organization. Any organization could provide the groundwork for its performance and productivity improvement through modification of its structure and enhancement of its human resources and organizational creativity. To be survived and, to progress and maintain the status quo in the present era, the modernistic enthusiasm and innovation should be continued in an organization in order to prevent depression and destruction. In this regard, leaders with appropriate leadership and thinking styles are required. Today’s world is full of complexities, and organizations are faced with variety of problems and difficulties in the context of growth and excellence. Moreover, managers, as planners, organizers and leaders, have provided many challenges to humanity (Richardson et al., 2014). In addition, the current status of organizations and educational centers such as universities represents the inability of the organizations in confronting problems in the field of education and research (Ali et al., 2013). In the meantime, the role of leadership and thinking styles of presidents of educational centers such as universities could be considered as important factors influencing the efficiency and effectiveness of universities. Moreover, development of the factors has impact on increasing the quality of education, success in competition, increasing faculty and staff motivation, job satisfaction, and reducing costs and waste of resources, that is why further investigation is needed. Transactional and transformational leadership styles have been studied in the present investigation among variety of leadership styles. In addition, leadership styles are categorized into internal, legislative, liberal, innovative and traditional styles.

Ford (1999) believes that several factors such as abilities and motivation are necessary to be successful in any organization, but leadership style plays a significant role in this scope. Hence, it can be expressed regarding the importance of the present research that familiarity of managers and presidents with thinking styles develops their strategies in decision-making and problem-solving, and leads to reduction of wrong decisions. Moreover, thinking styles could be changed when the necessity of changes in today’s competitive and complex environment is felt. On the other hand, managers should pay special attention to the two issues according to the impact of thinking styles on individuals’ leadership styles. According to what has been mentioned above the present research is going to answer to the following question. Does the thinking style of the university presidents have significant impact on their leadership style or not?

Literature review
Sternberg (1997) stated that thinking styles are individuals’ preferential method in using cognitive abilities. These styles indicate that how individuals like to utilize their abilities in routine life. Sternberg named different ways of processing
information as “thinking styles”. According to him, thinking style is preferred way of thinking, and it is not an ability but mentions to one’s use of his abilities.

On other words, thinking styles are defined as one’s preferred action in order to use thinking abilities to manage daily activities including understanding and solving challenges and problems. Sternberg (1998) presented 13 thinking styles based on his “mental self-government” theory. The basic idea of his theory is that “various governments in the world have not been emerged accidentally but they are external reflection of what has been taken place out of individual’s mind”. He believes that individuals need to control themselves like countries. Governments have different dimensions such as performance, shape, level, scope (range) and attitude. Three main performance of a government are: Legislative, Executive and Judicial. Four types of government are: Monarchic, Hierarchical, Oligarchic and Anarchic. In addition, fundamental levels of governments are global and local levels. The dominant areas of government are internal and external and the two tendency of government are conservative and liberal. According to the “mental self-government” theory, there are 13 thinking styles in individuals, which are mentioned above.

In fact, the 13 thinking styles of Sternberg can be restated in two styles. The first one is thinking styles including legislative, judicial, global, hierarchical and liberal which are creativity-generating and demands process of complex information. Individuals who utilize this thinking style tend to norm challenging and risk-taking. The second thinking style consisted of executive, local, unipolar and conservative which demands simple types of information processing. Individuals who use this thinking style are norm favoring and authority-oriented. According to the specific task style, rest of the styles (anarchic, oligarchic, internal and external) can be placed in complex or simplistic thinking styles (Postiglione and Zhang, 2001). Managers' leadership style is important in addition to their thinking styles. Leadership styles, which are related to leadership method and management affairs, are placed in transformational and transactional categories (Clarke, 2013). Transactional leadership style starts with an idea in which employees are agree to accept a job or task in compliance with their leaders. According to Casida and Parker (2011), transaction refers to what an organization pays in return for its employees' effort and task. They mentioned that a manager has the right to punish the employees if they do not do their work according to the standards. Although this might seem so very controlled and leader-oriented, transactional leadership style has some advantages. For instance, the leadership style makes one’s responsibility and role much clearer. Transactional leadership styles emphasizes the importance of the relationship between leader and followers and concentrates on mutual benefits developed by a contract, and the leader gives something to them such as reward and recognition for their commitment and loyalty. Dimensions of transactional leadership are discussed in the following.

**Contingent reward**: contingent reward refers to the process of exchange between leaders and followers in which followers' efforts are exchanged with certain rewards. In this type of leadership, leaders try to obtain the followers' agreement on what needs to be done and what is paid for this efforts (Nurthhouse, 2001; p. 140).

**Management by exception (active-passive)**: management by exception refers to a leadership who encompasses constructive criticisms, negative feedback and negative empowerment. Management by exception is based on two exceptions: active and passive. Transactional leaders who use an active exception management supervise the work of subordinates and make sure of fulfillment of assignments. The leader performs the necessary tasks to detect deviations from standards and find errors and defects. Managers who employ passive exception management only impose contingency penalties when the standards are not met. It means they expect the followers' mistakes passively in order to draw their attention to negative feedback and formal reprimand prior to corrective measures. According to the fact that the method is not effective, leaders sometimes uses management based on passive exception in order to supervise a large number of subordinates who report directly to them. Moreover, the process is less effective than contingent rewards and components of transformational leadership (Vinkenburg et al., 2011).

In addition to transactional leadership style, transformational leadership style is important too. The primary concept of it was firstly presented by Burns in his investigation on political leaders. Burns defined transformational leadership as a process in which leaders and followers promote themselves to higher levels of morality and motivation. Transformational leaders help their followers to look at old issues and problems from a new perspective and motivate them to try beyond the usual limits. Transformational leaders inspire their followers to think beyond personal interests and goals, and pay special attention to greater team, organizational, national, or global goals and objectives. These
leaders make such an impression on their followers that they make great effort to achieve the perspective. These leaders are capable of moving the organization in the desired perspective through coordination of the employees and creating consistency throughout the system (Cacioppe, 1997, p. 336).

Transformational leadership aims to change individuals in terms of mind and heart, expand their vision and insight, and develop their knowledge. Making familiar with goals and creation of a behavior which is appropriate to beliefs, principles and values are other objectives are the leaders (De Vries, 2014). According to Nielsen et al. (2008), dimensions of transformational leadership are as follows:

**Charisma (Idealized Influence):** Charismatic leadership is a component of transformational leadership, which consisted of idealized features and idealized behavior. Induction of honor and proud to the followers and working with them for the benefit of the group are of the most distinctive idealized features of a leader.

**Inspirational Motivation:** Inspirational motivation is of the capabilities of a transformational leader in which the leader is considered as a character who motivate the followers by inspiring good behavior. Therefore, transformational leaders should act in a particular way and encourage their followers. Such a behavior is implicitly included enthusiasm and optimism and results in encouragement of team working.

**Intellectual Stimulation:** as a capability of a transformational leader, intellectual motivation plays an important role in the process of transformation (change) in an organization. Transformational leaders try to encourage their followers to creativity and innovation. These leaders use allegory and metaphor, and encourage their followers to think about different methods of problem-solving. Therefore, they might employ novel and creative ideas for problem-solving. Bass defined intellectual motivation as an inspiration factor among followers to make them think about their beliefs and values and to be aware of the problem and its solution.

**Individual Consideration:** paying attention to individual consideration of followers, having relationship with every single of them and motivating them through assignment of responsibility for learning experiences are of the main topics of individual considerations. Transformational leaders help their subordinates in meeting their potential talents in order to increase their responsibilities within the organization. Individual consideration is a key factor in the relationship between transformational leaders and their followers. Transformational leaders might use "delegation" as a tool to help the followers to grow by personal challenges (Nurthhouse, 2001, p. 214).

An investigation in which the two research variables are simultaneously studied has been conducted rarely. Nevertheless, there are some researches which considered the two variables and their relationship with other variables. For instance, Ettlie et al. (2001) indicated that there is a significant relationship between leadership styles and creativity and innovation in organizations. Zhu and Zhang (2001) mentioned to the existence of a significant relationship between thinking styles and new methods in fulfillment of assignments. According to Yang and Lin, there is a significant and positive relationship between creativity and liberal, legislative, judicial, holistic and extrovert thinking styles while there is a significant and negative relationship between creativity and conservative, detailed and introspective thinking styles. In another research conducted by Politis (2005), it was demonstrated that some of the dimensions of working environment comes from innovation and consequently, leads to increasing creativity and organizational health. It was indicated in this research that the role of thinking style can have positive impact on development of creativity and organizational health by providing a proper environment and situation. Dean et al. (2008) stated in his investigation that there is a significant relationship between creativity and thinking style. Moreover, they showed that there is a significant relationship between creativity, risk and challenging. Lifang Zhang (2002) conducted a research on 371 persons with the purpose of studying the relationship between thinking style and creativity. He concluded that creativity has relationship with thinking style so that it has a negative relationship with detailed thinking style and a positive relationship with holistic thinking style.

Hence, the present investigation is going to answer to the following question. Does the thinking style of presidents of universities including internal, legislative, liberal, innovative and traditional styles have impact on transformational and transactional leadership styles? In this regard, the following hypotheses are presented.

1- Internal thinking style of the universities' presidents has impact on transformational leadership style.
2- Internal thinking style of the universities' presidents has impact on transactional leadership style.
3- Legislative thinking style of the universities' presidents has impact on transformational leadership style.
4- Legislative thinking style of the universities' presidents has impact on transactional leadership style.
5- Liberal thinking style of the universities' presidents has impact on transformational leadership style.
6- Liberal thinking style of the universities' presidents has impact on transactional leadership style.
7- Innovative thinking style of the universities' presidents has impact on transformational leadership style.
8- Innovative thinking style of the universities' presidents has impact on transactional leadership style.
9- Traditional thinking style of the universities' presidents has impact on transformational leadership style.
10- Traditional thinking style of the universities' presidents has impact on transactional leadership style.

The theoretical framework of the research is as follows:

![Conceptual model of the research](image)

**MATERIALS AND METHODS**
The present research was practical in terms of objective and correlational-descriptive in terms of data collection. Moreover, it was a quantitative one in terms of type of collected data. In this regard, questionnaires were distributed among the employees of Islamic Azad Universities in regions 8 and 12 of Tehran city in order to collect their opinions. In addition, since a cause and effect relationship was studied in the present research, the research method is causal in terms of relationship between the variables, which Structural Equation Modelling (SEM) was employed to comprehensively check the conceptual model of the research. This method is of the best methods to carry out a research analysis, in which the observed variables have measurement error and there is a complicated relationship among the variables. Using the method, the precision of the indicators or observed variables can be measured on one hand, and the causal relationship between latent variables and the explained variance can be investigated on the other hand (Byrne, 2013). SEM consisted of two parts of measurement model and structural model, and variables of the model are categorized into latent and observed variables, which leadership and thinking styles are latent and the relevant questions are observed variables in the present investigation.

The population consisted of employees occupied in Islamic Azad Universities of region 8 and 12 of Tehran city who were asked to present their opinion about leadership and thinking styles of the universities' presidents. Since precise estimation of the number of employees was difficult, Cochran formula was used in the case of unknown population size. Therefore, considering 0.08 for the measurement error (d) in the formula, 150 individuals were chosen as the sample size using the following formula. It should be mentioned that \( z \) is standard statistics of normal distribution, which is 1.96 at 95% confidence level, and \( p \) and \( q \) are probability of failure or success in this test, which were considered to be 0.5 based on Possible Method.

\[
n = \frac{z^2pq}{d^2} = \frac{1.96^2(0.5)(0.5)}{0.08^2} = 150
\]

Moreover, firstly, stratified random sampling method was utilized in order to choose the Islamic Azad Universities in region 8 and 12 of Tehran city as classes, and afterwards, employees in each of the classes were chosen randomly and the questionnaires were distributed among them. Finally, according to the 89% return rate (134 questionnaire), the statistical analysis was carried out on them.
Multifactor Leadership Questionnaire of Avolio and Bass (1999) were employed in order to evaluate leadership style of the universities' presidents. The questionnaire consisted of 34 items (questions), which 20 and 12 questions are allocated to transformational leadership style and transactional leadership style, respectively. In addition, five-point Likert scale was used to grade the questions. Each item has five choice in the designed questionnaire (A=always, B=often, C=sometimes, D=rarely and E=never).

On the other hand, Thinking Styles Standard Questionnaire of Sternberg and Wagner (1991) with a five-point Likert scale were used to evaluate the variable and its dimensions. The questionnaire consisted of 40 items (questions) in which 8, 8, 7 and 7 questions are allocated to internal style, legislative style, liberal style, innovative style and traditional style, respectively.

The validity of the questionnaire were assessed through expert opinions and necessary corrections were performed. The reliability of the questionnaire was obtained using Cronbach’s alpha method and the values are as follows:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Thinking style</th>
<th>Leadership style</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal</td>
<td>0.781</td>
<td></td>
</tr>
<tr>
<td>Legislative</td>
<td>0.820</td>
<td></td>
</tr>
<tr>
<td>Liberal</td>
<td>0.831</td>
<td></td>
</tr>
<tr>
<td>Innovative</td>
<td>0.751</td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>0.831</td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>0.769</td>
<td></td>
</tr>
<tr>
<td>Innovative</td>
<td>0.811</td>
<td></td>
</tr>
</tbody>
</table>

As it is obvious, all the values were more than 0.7 and this shows that the measurement tool had an acceptable reliability (Rivard et al., 1997). Therefore, the research questionnaire has an acceptable reliability.

RESULTS
In this section, the cause and effect relationship between the universities' presidents and their leadership styles were assessed in the form of structural model, but firstly, Confirmatory Factor Analysis was employed to check the validity of the measurement models (using LISREL software). According to Joreskog and Sorbom (1996), fitting terms are:

- Chi-square to degrees of freedom (DOF) should be less than 3
- Root Mean Square Acceleration (RMSA) should be less than 0.08
- Comparative Fit Index (CFI) should be more than 0.9
- Good of Fit Index (GFI) should be more than 0.9
- Adjusted Goodness of Fit Index (AGFI) should be more than 0.9
- Non-Normed Fit Index (NNFI) should be more than 0.9

As it is obvious from the following table, all the mentioned values are appropriate and the validity of the model is approved.

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Acceptable value</th>
<th>Calculated value in the research model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square to DOF</td>
<td>3 and less</td>
<td>2.68</td>
</tr>
<tr>
<td>RMSA</td>
<td>0.08 and less</td>
<td>0.067</td>
</tr>
<tr>
<td>CFI</td>
<td>0.9 and more</td>
<td>0.94</td>
</tr>
<tr>
<td>GFI</td>
<td>0.9 and more</td>
<td>0.96</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.9 and more</td>
<td>0.91</td>
</tr>
<tr>
<td>NNFI</td>
<td>0.9 and more</td>
<td>0.94</td>
</tr>
</tbody>
</table>

Next, LISEREL was used to check the structural model and the relationship between the independent variable (thinking style) and dependent variable (leadership style) was clarified. As it is shown in figure 2, the impact of liberal and innovative thinking style on transformational leadership style is significant and positive. Therefore, the hypotheses 5 and 7 are accepted. Because the rest of the hypotheses were not significant, they are not located in accepted hypotheses.
CONCLUSION
The present research was carried out with the purpose of studying the thinking style on leadership style of presidents of Islamic Azad Universities in regions 8 and 12 of Tehran city. Based on the findings of the previous researches, it can be stated that some of the thinking styles have relationship with leadership styles. Thinking styles of managers have a significant and key role in creation of transformation. According to Sternberg (1998), the greatest success is achieved when the individual’s thinking styles is in coordination with the conditions. It was confirmed in the present investigation that liberal and innovative thinking styles had a vital role in making constructive transformations and changes within the organization.

In addition, it was concluded that leadership, as one of the most important duties of managers, is the science and art of influencing people to achieve objectives, and leadership styles can specify atmosphere, culture and strategies ruling the organization. Previously, traditional leadership styles were based on hierarchy in which the authority was at top of the organization and orders were dictated from top to down, and the followers of the lower levels, as the organization members, were required to follow these instructions, but traditional theories of leadership are not accountable nowadays due to some reasons such as progress in literacy levels of the staff. It was confirmed in the present investigation that thinking styles such as internal, traditional and legislative styles cannot help the manager in developing creativity and innovation in the organization. Instead, they can use liberal and innovative thinking styles to help their organizations with productivity and effectiveness and provide constructive changes and transformation.

There was also practical suggestions resulted from the research, which is mentioned in the following. Firstly, considering that innovative thinking style of the presidents was in line with improvement of transformational leadership style, it is proposed to pay special attention to innovation in universities and eliminate the traditional methods of providing services, and to make more useful and constructive changes in universities according to more updated technology. This results in helping to the empowerment and improvement of capabilities of the employees. Moreover,
the presidents can allocate more authority to their employees in order to make changes to help to the presentation of new and different ideas. Therefore, individuals would tend to carry out more innovative activities.

REFERENCES
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