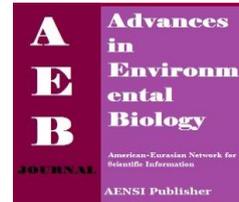




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Validation Scale for Measuring the Transactional Leadership Style in Ministry of Education

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ABSTRACT

Objective: The aim of this study is to provide a validation scale for measuring the (transactional) leadership style and its components at departments of education in Tehran city. **Background:** The statistical population consists of all 2477 employees in nineteen districts of education in Tehran during the school year 2012-2013; the sample size equal to 403 is selected by Morgan Table and the simple random sampling performed. The research tool is the standard Bass and Avolio pragmatic leadership style questionnaire with 22 questions based on Likert scale. **Results:** The factor analysis method is applied in order to analyze the obtained data. The results of data analysis indicate that four factors are extracted from transactional leadership style variable; among various components of transactional leadership style, the non-interventional leadership covers questions 86 to 93, the contingency management style (questions 72 to 78), the active management by exception (questions 78 to 82) and passive management by exception (questions 83 to 85). **Conclusion:** The research results also indicate that the non-interventional leadership plays the main role in creating the transactional leadership style among all other components. With focus on the validation scale for measuring the transactional leadership style and its components, the results of this study emphasize that the main focus should be on the non-interventional leadership as the main effective component in transactional leadership style.

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INTRODUCTION

The new century has brought a new wave of change. The environment of the organizations is more dynamic than before. It has made the organizations explore the new ways for success and even survival in such an environment, and move towards flexibility, dynamism, and transformation [5].

In order to cope with the unsecure environment and continuous changes, there is an urgent need for people who play the role of a leader. It is clear that a traditional leader cannot survive in the third millennium, and the world needs the leaders who are transformational [12]. Because, the activities of a transformational leader provide the companies with the possibility to promote their performance, when they compete in an unpredictable, and unstable environment. The origin of transformational leadership transactional goes back to 16th century in studies done by Makiavel. Furthermore, this term was independently used by Miller [22], for the first time, and Bass and Avolio developed it [9], Regarding different viewpoints, theoreticians presented different theories which changed the leadership views. In 1950s, the studies continued following behavioral approach. The most important change in the recent stage was introducing transformational and transactional leaderships by Burns (1987) which Bontis [8], refers to it as "new leadership viewpoint" [36]. The theory of transformational leadership is in line with Weber's theory of non-material power. In fact, the transformational leadership is a spiritual, moral, and Conscious process which includes equal patterns of power relations between the leader and the followers in order to attain the collective goals. In other words, transformational leaders emphasize on strengthening the followers, and following the official and organizational changes in systems, processes, and values. [3]. In fact, the people who change the world are the transformational leaders and managers. These managers have more freedom in their activities. They lead the subordinates to move, inspire them to attain the goals. They keep their relations with subordinates, and share the information with them. In

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this regard, the transformational leadership consists of four main dimensions: 1. the dimension of idealized influence (attributes and behavior) which makes the leader pay attention to other's needs rather than his own needs; 2. dimension of inspiring motivation pays attention to the use of symbols, and presenting ideas to affect and activate the followers' mind; 3. Dimension of mind persuasion refers to the leader's strength which make him help colleagues to solve old problems by applying new solutions; 4. Regarding individual attributes, the leader should have developmental attitude (empowerment) towards his followers, and consider them as independent identities [2]. Regarding the research problem, the researchers in this study try to find the most effective components of transformational leadership which form this variable, and investigates the related items. In this regard, Dubrin A.J [16], in their research entitled, "transformational leadership in high level management of human resources: a comparative study of leadership style and management in organization (from dimensions of knowledge management)" investigated the relationship between transformational leadership style and leadership and management in organization. The results of the study showed that although high level managers had a little of transformational leadership attributes, the relationship between transformational leadership and expected result was lower for high level managers compared to operational managers. Heidari, Fatemeh [18], investigated the effect of transformational leadership style and quality management on knowledge management. They wanted to know the role of transformational leadership as a mediator in knowledge management. The results showed that transformational leadership and quality management do not have continuous effect on knowledge management. On the other side, the increase of transformational leadership is the basis of emphasis on knowledge. The impact of quality management on the performance of the organization is incomplete. Vivian Chen [13], revealed that the dimensions of transformational leadership have strong effect on some attitudes like, job satisfaction, organizational commitment, and organizational behaviors of the teachers. Bycio *et al.* (1995) cites Stone [31], study of the relationship between transactional leadership style and organizational commitment. The results showed that there is a significant relationship between transformational and transactional leadership styles and commitment. There is also a positive relationship between all dimensions of transformational leadership and emotional commitment. Two dimensions of transformational leadership (individual attention and charisma leadership) have a positive relationship with emotional and assigned commitment. Ebn Buta (2001) cites Poursoltani [27], who believes that through inspiration (transformational micro scale), adopted by leadership, the sense of belonging increases in the organization, and transformational leadership style increases the emotional commitment. In a study, Joseph and Shanider [19], found that one of the components of transformational leadership (attention to individual differences) has a negative relationship with dissatisfaction. On the contrary, the micro scale of transactional leadership (passive management), has a positive relationship with four indexes of stress. Moradi [23], conducted a study entitled, "transformational leadership, a reaction to the present limitations to assessing the traditional information systems". In his study, he investigated the expertise of financial managers in England in order to state some of the concepts related to transformational leadership style. The results of the study showed that assessment in the form of transformational leadership is a special responsibility for making decision about the evaluation of information systems. In this process, transformational leadership is a tool based on which individuals accept the consequence of their activities.

MATERIALS AND METHODS

Research questions:

- 1- What are the items in transactional leadership style?
- 2- Which components play the main role in creating the transactional leadership style?

Research Method

This study is applied in terms of objective which is description of education principals' transactional leadership style current status in Tehran. This research is descriptive. The statistical population consists of 2477 principals in Tehran during the school year of 2012-2013. Given the sample size in Morgan Table, 403 individuals are randomly selected and the questionnaires distributed among them. The research tool is a 22-question Bass & Avolio questionnaire designed based on Likert scale. SPSS and LISREL software are applied for data analysis.

Results:

Factor analysis of transactional leadership style

The first step in factor analysis process as its first hypothesis is dealing with missing data. Thus, six subjects are excluded from the statistical analysis in order to provide the factor analysis hypothesis as the minimum missing (0.02) in each subject. This is done for all questions and their ambiguity coefficient is determined with respect to the non response and it is found that all questions have high explicitly coefficients, so that the ambiguity coefficient of all questions are less than 0.02. Therefore, this research only eliminates 6 subjects and none of questions removed. This situation indicates that there is no need for removing some of the questions and the all the factor analysis process can be done by all questions.

Table 1:

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.869
Bartlett's Test of Sphericity	Approx. Chi-Square	5209.346
	df	231
	Sig.	.000

The second hypothesis of factor analysis refers to the sample size. According to Table 1 in this study, the KMO is equal to 0.869, and thus the sample size is sufficient. The factor analysis process requires reducing the data and obtaining the underlying constituents from numerous variables. This requires a sufficient sample size and extraction of appropriate matrixes in the process of calculating the correlation between the questions. For measuring the in variance and covariance matrixes, the sample size should be adequate and the experimental parameters should be provided in the field of adequate sample size. The presented table for the sufficient sampling, which directly considers the sample size, it can be concluded that the sample size is adequate. Thus, various indexes are provided for adequacy of sample size and the Kaiser Meyer Olkin (KMO) is the most important and conservative index which estimates the adequate sample size in factor analysis process. When the sufficient sample size index by KMO method is higher than 0.08, it can be considered that the sample size is adequate for factor analysis process. This hypothesis with the value of 0.869, which represents the KMO sampling adequacy index, indicates that the sample size is adequate.

Table 2:

Sphericity test	Approximate chi-square	Degrees of freedom	Significance level	Interpretation
Bartlett's test	5209.346	231	0.000	Perfect sphericity (Multivariate normal distribution is obtained)

The third hypothesis of factor analysis is known as the normality of multivariate distribution, thus the "Sphericity" term is discussed in this regard. Table 2 shows the rate of sphericity. The tests, utilized for calculating the time of multivariate distribution, are known as the sphericity, and Bartlett's test of sphericity is the most common type of these tests. Table 2 represents Bartlett's test process, which is applied for investigation of Sphericity, and it is done by chi-square approximation. Since the chi-square approximation with degree of freedom of 231 is equal to 4829.96, the value of chi-square approximation is statistically significant at a confidence level of 0.999 ($\alpha=0.001$). Confirming that the Bartlett's test of sphericity compares the obtained chi-square approximation with the chi-square approximation of in degree of freedom equal to 231, it can be concluded that the obtained chi-square approximation is significant and affirms the sphericity of experimental data, and thus the multivariate distribution is normal.

Identification of shared values is the fourth hypothesis of implementing the factor analysis. Since all loads of scale or the similar coefficients of questions with scale are more than 0.5, it can be concluded that there is the inner congruence between questions and the whole test and the factor analysis can be done with emphasis on all questions.

The fifth hypothesis is the factor analysis of explained variance greater than 0.05. The more the contribution of each factor is enhanced, the more the contribution of that factor can be observed in the percentage cumulative frequency column and ultimately it becomes 31.83by contribution of a factor and reaches 52.46by second factor and then become 63.81by fifth factor; thus the obtained amount in percentage frequency column is greater than 0.50. In other words, all variables explain 64 % of total variance.

In this table, the factors as the main components are put in the rows and the questions as the indexes and situation for creating the factors are in the columns and the confluence of questions in column factors in row is called the factor loading. However, for factor analysis, the questions are presented in a component matrix. Table 3 is presented according to the emphasis on the extraction of main elements. According to the component matrix of questions, it can be found which question is considered for each factor and also the situation of each question in relevant factor is determine by referring to the factor loading.

The rotation method is utilized after accurate investigation of component matrix table in order to determine the factor loading of each question with emphasis on putting each question in each of three factors. The maximum dispersion rotation method is applied in this research with emphasis on exploratory factor analysis and the main component method (PC) from the factor extraction. Table 4 is called as the rotated component

matrix. According to the rotated component matrix of research questions, it can be found the type of each question for each factor as well as determining the situation of each question in relevant factor by referring to the factor loading. Finally, it is determined that 4 factors are extracted from the rotation of factor analysis and in fact the transactional leadership style consists of 4 factors: Non-interventional leadership, contingency management style, Active management by exception and Passive management by exception. Therefore, the questions associated with each index are summarized in Table 5, respectively.

Table 3: Component Matrix

	Component			
	1	2	3	4
x72 x73 x74	.533			
	.557			
x75 x76 x77	.613			
x78 x79 x80	.562			
	.611			
x81 x82 x83	.701			
	.692			
x84 x85 x86	.636	.532		
x87 x88 x89	.669			
x90 x91 x92				
x93		.591		
	-.644	.558		
	-.563	.551		
	-.569			
	-.593			
	-.623			
	-.559			
	-.634			
	-.618			

Extraction Method: Principal Component Analysis. a. 4 components extracted.

Table 4: Rotated Component Matrix

	Component			
	1	2	3	4
x72		.694		
x73 x74 x75 x76		.814		
x77 x78 x79 x80		.752		
		.800		
x81 x82 x83 x84		.816		
x85 x86 x87 x88		.567	.556	
x89 x90 x91 x92		.587	.672	
			.741	
x93			.683	
			.735	.708
	.582			.612
	.771			.519
	.775			
	.754			
	.788			
	.793			
	.752			
	.789			
	.774			

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Table 5: Results of factor analysis of transactional leadership style structure.

Factors	Index	Questions
First factor	Non-interventional leadership	Questions 86 to 93
Second factor	contingency management style	Questions 72 to 78
Third factor	Active management by exception	Questions 78 to 82
Fourth factor	Passive management by exception	Questions 83 to 85

Discussion And Conclusion:

The aim of this study is to provide a validation scale for measuring the transactional leadership style and its components. The results of factor analysis indicate that among various components of leadership style, the Non-interventional leadership covers Questions 86 to 93, the contingency management style (questions 72 to 78), Active management by exception (questions 78 to 82), and Passive management by exception (questions 83 to 85). The research results also indicate that the Non-interventional leadership plays the main role in creating the transactional leadership styles among all other components. With focus on the validation scale for measuring the leadership style and its components, the results of this study emphasize that the main focus should be on the motivation as the main effective component in transformational leadership style

In explaining the results of this study, it can be declared that the employees expect the transactional leadership to create the background for Non-interventional leadership, paying attention to their needs, and treatment with respect.

In line with this study, Pourshafiei, Danesh [27], [21], found the following results during his study entitled as "The study of relationship between the transformational and transactional leadership styles with managers' emotional intelligence in bank branches of Mashhad city": Haji Karimi [17], found the following results while conducting a research entitled as "Investigating the effect of transformational and transactional leadership styles in high school principals of Kerman" on the social capital:

The transformational leadership style has an impact on the social capital, and the managers with transactional leadership styles have less impact on the social capital. Brooks and

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