

Offering the Model of Structural Equations for the Parameters of Leadership Thinking, Communication and Meritocracy in Training of the Organizational Leaders of Oil Company

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Abstract

Organizations can be regarded as one of the main social foundations in the present age and management can be one of the most important factors of life, growth, and flourishing of the organizations. The issue of training of leaders has complicated and mixed dimensions and identity, therefore there is not a deep understanding of the concept among most of the administrators and also in the research – scientific centers level. This paper aims to offer a model of the structural equations of the consisting variables of the core concept (leadership thinking, communication, and meritocracy). In this research, the analytical – descriptive method was used to offer the model of structural equations for the parameters of leadership thinking, communication, and meritocracy in the training of the organizational leaders of Oil Company. The statistical population includes top, middle and first line managers of Oil Company and the questionnaires were prepared randomly by sampling and according to the Morgan table for 384 subjects. Quantitative analyze of data were performed by SPSS software version 19, and the structural equations were analyzed by the 8/7 LISREL software. Finally, the effect of each of the variables of leadership thinking, communication, and meritocracy on the main variable of core concept was determined by the offered structural model. The model reliability was confirmed by the goodness of fit indices.

Keywords: Oil Company, leadership thinking, leaders training, structural equations, meritocracy

1. Introduction

1.1 Introduce the Problem

It seems scarce to find many managers who are skilled at both fields of leading the sub-sectors and the whole of their organization. Today more than any other time institutions need managers that in addition to the management of their regional units, branches, and sub-sectors of organizations are also capable of the fulfillment of the macro goals of the organizations. Therefore the organizations should train leaders who are capable of management of the natural tensions between the macro interests of organizations and that of their local units. In this line, training managers with a comprehensive view need a continuous endeavor because the conflict of interest in units and whole of the organization is a fact which can be intensified by three factors. First, in most of the organization's units may take a closed form which prevents from having a comprehensive view. Second, hardly we can find within a unit a place for consultation and resolve contracts may raise during competition in the units. Third, the reward system in most of the institutions mostly encourages the individual achievements not the total consideration of organization (Binam, 2009). Leadership training has become an active field of theorization and research which offers a more scientific and documentary basis for the attraction of most of the activists in the area. The field of leadership training has emerged during past 10-15 years which the journal of "The leadership Quarterly has played a major role in this regard" (Atwater et al., 2014).

Petroleum and oil companies play an important role in economic foundations of the oil producing countries. The Iranian economy is mostly dependent on oil. As an energy resource, oil firstly has revolutionized the life and economy of people and secondly oil income has improved all of the economic and social aspects of life. It is worth mentioning that according to the statistics of the comprehensive system of human resources of oil industry the average age of managers and leaders active in this industry is 51 which the Ministry of Petroleum dependent

companies have the youngest leaders with the average age of 49 and the oldest age average is belonged to that of oil headquarters by age of 52. Because of this high average age, a large number of managers about to retire, and need of some projects such as south Pars Region to the skilled management team, there is an inevitable need for future skilled managers. The present managers can play a fundamental role in training the future managers. It is no doubt they have undeniable role information of the culture of meritocracy, succession planning, talent management in the oil company. Equipping of the Ministry of Petroleum and the companies dependent on evaluation centers, information bank of managers and formation of the management center of Oil Company is effective for enhancement of knowledge level, skill, and capabilities of the present managers and paves the way for the training of future leaders of Oil Company (Molaei, 2008). On one hand, every researcher may be a concern with the necessary features, skills, tasks, duties and capabilities which each manager should enjoy to be able to pose the most influence and effect on their section. On the other hand, everything yet instructed to our managers is based on findings which are unclear whether are consistent with the local culture or not, and sometimes there can be felt significance difference between the management learning and the local culture. It may be the reason why in spite of endeavor of the educational centers there is no sign of development and revolution in the organizations and especially in the Oil industry. It seems that here main problem is that managers do not know what kind of knowledge they should get about the management and leadership, what kind of personal characteristics they should enjoy, what skills they need, what philosophical way of thinking they should have and what duties and measurement they should take to develop their under authority collection. Therefore, a researcher may encounter these questions that what structural equations can be offered for sub – variables of the core concept? What is the final model of the structural equations of the variables of core concept? The paper tried to offer a model to answer such questions and aimed to identify the elements of training of the organizational leaders in Oil Company. Because of the importance of the issue of training of the organizational leaders, the present paper has reviewed the related literature and concepts.

1.2 Literature Review

1.2.1 Leadership

Leadership is the process of influence on followers to gain the desired results. How of this influence on the basic behaviors, an intrinsic characteristic of a leader, follower understanding and the ground on which the influence takes place are described. The leaders build a culture and their fundamental role is to impress other to presume the predetermined goals eagerly. Leadership can be defined as the method of imposing effect no other people (Robbins, 2000). Leadership is the process of influence the activities of an organized group to reach aims (Rash et al., 1984, p. 46). Leadership includes an individual behavior for conducting activities of a group for the fulfillment of a common aim. Leadership consists of a relationship by which the leader persuades others to work with each other to get their goal (Giorgi, 2016).

In all of the organization's leadership is important to get goals. Because the leadership is an important factor for improvement of the organization performance, it can lead to success or failure of an organization in all levels. Researchers state that leadership is the ability to influence on attitudes, abilities, and beliefs of personnel to reach the organizational goals. Although the researchers have paid attention to the issue of leadership for so many years, the social outstanding changes during two decades ago have made it more important issue (Duckett & Macfarland, 2003).

Another group summarizes the leadership definitions in the personality view and suggest that “leadership is a combination of special features and characters or the persons with these characters which make them capable of encouraging others do a work or to prevent them from that. Some other regard leadership “an action or behavior which leads to change in the group”. From the aspect of the power relationship between leaders and their followers, the leadership has defined by others in the way that “leaders enjoy the power to make a change in others”. In the follow we give some examples. During the past 50 years ago, more than sixty-five different systematic classifications have been offered for the leadership standards. One of these proper and considerable classified systems is the one offered by Bass who suggests that “some of the leadership definitions can be regarded as a focus on group processes or work through the group. From this point, the leader is in the center of group activities and changes and also it embodies the group will”.

The majority of literatures about leadership agree that “leadership includes an effective process which helps groups and individuals to tend toward the determined goals” especially if it is a common goal (Afjeh, 2011). For summation of leadership concept we make a comparison of the offered definitions in the below table:

Finally, as a comprehensive definition, we should regard the point that some of the scholars regard leadership as a process and some other know it as an ability which by the former view leadership is an action and by the latter

one the leadership is a feature. For a comprehensive view, we should regard both of these in addition to the reaching goals which by the 90 percent of definitions the mission of leadership is to guide the group to the desired goal.

1.2.1.1 Leadership Training

Leadership training means fulfillment of skills and gifts and makes a balance between them help them enhance their performance. By other definition, training means development and demonstration of intrinsic and natural abilities (Naghizadeh, 1995). The serving leaders always are concerned with the exaltation and sublimity of persons. They encourage their followers to be committed, self-sacrifice, ordered and the best, and try to inspire values beyond just speech through their action in the organization (Jennings, 2007). In fact, the aim of a serving leader is to advance the organizations and societies leadership. The effective leaders are eager of serving. They have some features such as empathy, far-sightedness, wisdom, guardianship, being a good listener and serving people (Greenleaf, 1991). Maier believes that serving should be in the center. Although leadership is combined with power but the only legal use of power would be serving. On the other hand, Graham (1991) states that ideal leaders are those with wisdom, pragmatism, and inspiring features. An ideal leader always is concerned with serving followers and is tended toward growth and development of staff and organization. Schwartz (1998) believes that old leadership styles are not any longer useful and that at the present we need a kind of leadership to make a balance between the organization goals and staff needs. On the other hand, to respond to the situational changes, organizations need capable staff and their ability can be a strategy used for better adaptation with foreign changes (Matteson & Irving, 2006). Leadership training has been the goal pursuing by many organizations, and leadership development during last decade has been performed as a great work. Because of the role of leadership in the present chaos of economy, weather, and moral scandals, media has called this situation as “leadership failure”. Understanding about facilitating of effective leadership is more critical than any other time. Leadership preparing has been posed as a promising practical procedure for leadership development and is used extensively for the leadership development process. Leadership development can be understood as “integration strategy through help individuals for understanding how of communication with others, coordination of activities, the building of commitment, spreading of social networks by self-learning of organizational and social obligations”. Leadership preparing includes exclusive and individual consultation with the executive managers, leaders, and managers about issues related to work with the aim of leadership effectiveness. Leadership preparing is promising because it pays to the traditional challenges in the area. When leaders join in a common plan, they have different skills and style of learning. Preparing has described as the custom development process and therefore it pays to the challenge related to the different starting points. But along with other legs which have been mentioned before in the area of leadership development, lack of systematic evaluation for the leadership development can be regarded as other problem. For the theoretical and experimental advancement in this area, there should be systematic evaluations about the effects of leadership preparing (Gierd & Lagard, 2014).

1.3 Strategic Thinking

According to the many of Tavakoli & Latun there is no common definition for the strategic thinking (Monavarian et al., 2001, Tavakoli & Latun, 2005), and each of scholar considers and defines it from a special point of view. Because of various dimensions and deep concepts it may be not much useful to try to understand it by definition (Ghafarian & Ali Ahmadi, 2003).

The strategic thinking is the picture of desired results for future with determined and accessible results which lead to an increase of value (Kafman et al., 2003, pp. 40-41). The strategic thinking is the capability of “strategic architecture” (Hamel & Prahalad, 1989) and a process for identification of surviving strategies or business models which create value for customers (Stacey, 2005, p. 23) to enable the higher executive managers to demonstrate themselves beyond the daily processes and chaos (Garra, 1995, p. 2). The strategic thinking is a way of solving the strategic problems which combine logic and convergent method with the creative thinking processes to provide the way for better understanding of events and increase of the possibility of efficiency and organizational surviving (Mintzberg et al., 1998, p. 42; Vien, 2005, p. 338).

One of the most features of strategic thinking is its comprehensive view to the business space and instead of limitation of business system to the simple analytical models, makes a general picture of business in mind. Senge (1990) called it “systemic thinking” and Liedtka called it a complete mental model for value creation system for customers. The main function of strategic thinking is the creation of prospect of an organization which clarifies its direction, conducts the organization movement and integrates it.

1.4 Critical Thinking

According to Ennis, the critical thinking is decision-making about the measurement that should be taken or the thing that should be believed which is done by the deep reasoning thinking. According to Paul, a skilled person in the critical thinking uses a set of mental standards during thinking which these standards guide the process of a person thinking and nourishes his critical thinking. According to Stahl, the critical thinking is nourishing of exact and logical reasoning. Halpern defines the critical thinking as the use of recognition skills and strategies which lead to an increase of probability of the desired process. According to Moore and Parker the critical thinking is purposed decision for acceptance, rejection or pending of a judgment (Giorgi, 2016).

1.5 Meritocracies

Merit is a combination of motive, skill, knowledge, social role and moral characters which originate from the management of human resources. Different views and inexpressiveness of translation have led to the dispersion of related literature to the human resource management and especially meritocracy; in such a way that today one of the important reasons of lack of clarity of meritocracy concept is offering of different definitions and lack of distinction between the two concepts of merit grounds and merits of individuals. Merit grounds indicate those activities which a person is skilled in them but merits related to persons are a collection of features which gives the person ability to deserve a special area. Merit grounds mostly are occupation-based but merits fundamentally are individual-based ones. Therefore for evaluation of the merit of individuals, some focus on technical skills of the job and some other on a combination of social, individual merits and job grounds (technical skills) (Adriberman, 2015).

Some features such as knowledge and education, effective communication, creativity, problem-solving and analysis ability, fast learning and mental agility are among the special merit factors. It is obvious that capability of a person cannot amend an organization; here the issue is beyond a person and the focus is on the establishment of a management system based on merits. In the management system based on merits, the collection of merits is analyzed in three levels.

1. Merits analysis in individual level: it includes a collection of key and fundamental merits which is needed by all of the job levels in organizations for every person. This class of merits originates from missions, values, and goals of an organization such as creativity and awareness.
2. Analysis at the group level: it is a collection of merits which are necessary for all staff with common duty and jobs such as expertise and knowledge
3. The analysis at the organizational level: a collection of merits, assignments and vocational features which are important in a special job such as crisis management and promptitude (Dehghanan, 2006).

1.6 Meritocracy

Some wide definitions and explanations have been stated for the concept of meritocracy which the important definitions are summarized here.

Merit is defined by Katano, Newsam, and Dey as every kind of knowledge, skill, ability or personal quality which is manifested by behavior and leads to the exaltation of serving (Katano, Newsam, Dey, cited by Bonder, 2003).

Merit means written a description of personal skills and measurable job habits which are used for reaching work goals (Green, 1999).

Skills and habits which are necessary for staff to be successful in their job can be considered as the merit concept (Mansfield, 1996).

Mirabelle says that merit includes knowledge, skill, ability or related feature with high performance in a job (Mirabelle, 1996).

Merit means knowledge, skill, abilities or other features which are expected for the formation of desired behaviors in future (Dyer, 1996). From a viewpoint, merit can be stated in the three following concepts:

Behavioral merit: statements and actions of a person which have effect on his strong or weak performance

Knowledge merit: what a person knows about truth, technology, and methods of a technical job in an organization

Motivational merit: what a person senses about a job, organization or job environment (Mayer, 1996).

Merit within the meritocracy: includes obvious individual characters which usually are related to the reference

indices of productivity or excellence performance in a work area or occupational position. These qualifications in different definitions can be categorized in two kinds of:

1. Preliminary qualifications: include individual characters, knowledge, and skills which are needed by every person in every job to have the least efficiency.
2. Distinguishing qualifications; which distinct excellence performance from normal and weak ones (Spencer, 1993).

Altogether, merit is a collection of features, abilities, personal skills and character variables which allow individuals to exhibit more effective performances in different situations to reach the organizations' goals.

Meritocracy is hiring of competent persons for holding of staff according to the culture and values level (Bagherizadeh, 2000).

Meritocracy means appointing of competent persons in the proper occupations which are capable of to be effective in the individual and organizational development (Feninglu, 2015).

Meritocracy is a process in which our role should be determined according to the special abilities and not because of some parameters such as worldview, philosophy or political theories of an organization (www.thefree dictionary.com).

The above definitions show that organizations use ones which benefit them the most. According to the mentioned concepts in these definitions we can say that:

Meritocracy is the process of identification, attraction, selection and retains competent staff and providing of the grounds of situational management according to their capabilities to be influential in fulfillment of goals of person, organization, and society.

1.7 Communications

Communication is the art of transfer of information, thoughts and human behaviors from person – to – person, and in the meaning of communication John Kotter defines it as “a sender sends a message to a device or instrument to a receiver who answers it”. Communication is the process of person – to –person sending information and perceiving it by the receiver means to transfer and sharing of thinking and realities in such a way that receiver can get and understand them. In other words, communication is a process by which people try to get common concepts under the symbolic messages. Such as any other activity or process communication is an instrument, not an end. It is used for transferring of meaning and concept or influencing other people. Communication is the process of transferring message from sender to the receiver given match between their meanings. Communication is a process which is defined and shared between living creatures which affect each other and a large group (Brown, 2016). The organizational communication is a process which starts a system for getting information and meaning interaction in which communication governs working relations within an organization. The four features of setting aim, structuralism, duty orientation, and embedding are important in the organizational communication. Organization as a living being both impressed the environment and gets the effect by it. By this view, each collection has some elements which are common in hierarchical order, interdependence and permeable borders. Furthermore, the organizational system has the process of input, output, and feedback (Weiner, 2002).

1.8 Literature Review

Asmariannasab and Gholamzadeh (2006) conducted a research on ‘systematic activity in leadership development with consideration of merits approach. In this research, they introduce a systematic approach to leadership development. In the systematic approach, some cohesive measurements are taken in the level of input, process, and output and in this way it prevents from scattering work and parallelism and also negligence in leaders development.

In this study, for each level of leadership development with a systemic view, some methods and techniques were introduced which are coherent on the basis of merits. The introduced techniques of choosing leader were multi-level ones. In the training level, various techniques were introduced in the areas of education, gaining experience and self- help and through some indices, the leaders' effectiveness were evaluated in the output level. Finally, some facilitating factors of leadership development were pointed and a model also was offered for the institutionalization of leadership within organization texture.

Planning of training and enhancement of the leaders of worldwide institutions is a research title published by the Ariana group research (2011). In this study, according to the first level findings of research plan executed by the industrial management organization, a merit model required by the institutes' managers was developed

considering the social and economic requirement aimed at achieving a coherent general and native collection of merits. For achieving of the general merits of business administration in international space, in the first level of the research, more than one hundred merit models introduced by different resources including management advisors, researchers, and executor of worldwide plans of management training and education and also worldwide successful institutions were evaluated.

Mirsepasi et al. (2009) conducted a study under the title of “designing of the merit model for managers training in the Iranian public sector: a case study of middle managers in the industry section. For this purpose, the typology model of management development by Dr. Paul Johnson with four kinds of management developments was chosen. In continue, tens of merit models from public sectors of different countries were studied and their similarities and differences were extracted by a comparative study. In next research operation, by definition and explaining of different dimensions of the four kinds of management development and the introduction of different kinds of merits, the elites’ society was asked to prioritize the merits in proportion to each kind of management development. The gathered information was analyzed using survey techniques from the elites and the proportional merits were extracted for each kind of the management development.

Among the outstanding points, there are merits which are common with all kinds of management developments such as morality, human relationship and attention to the political affairs. There are some merits specific to each kind of management development.

Dashti et al. (2012) conducted a study under the title of “training of Tehran regional electric company based on merit approach”. In this study, some concepts of merit, merit model, management training on that basis and generally the whole of measurements taken in the regional electric company in this regard were offered.

Shahmandi et al. (2013) studied the “SEM test or modeling of the structural equations for the relation between the merits chosen by leadership and leadership efficient academic strategies”. This study evaluated the Malaysian universities and aimed to study the relationship between leadership merits and their association with the efficient academic leadership strategy in universalize and higher university. According to the findings of modeling of structural equations, the share of leadership merits is dependent upon leadership strategies in special occasions. Most of the merits (except for the two dimensions of organizational strategy and communication) are related to EALS. Finally, the study suggests the systematic leadership development plan within the research activities.

2. Method

In this research, the use of quality methods could be merely adequate to a deep understanding of the undertaken study, albeit generalizability of results would be decreased. Furthermore, quantitative execution of this study was not possible because of meager studies about the definitions and also hypothesizing about the relations amongst the variables in the field study. Therefore this study needed to use both of the qualitative and quantitative methods. This study was performed in two general levels. In the first level, qualitative data were gathered by deep interview, and in the second one, the quantitative data were gathered by questionnaires. After gathering information, according to LISREL software the model structure was analyzed by use of the structural equations model. The model of structural equations is a comprehensive statistical approach to test hypotheses about the observed and latent variables. Model fitness can be defined as “the rate of variance and covariance adaptation of a sample with the structural equations” (Schomaker & Lomax, 2009; Brown, 2006). By this approach, it is possible to test the acceptability of theoretical models in special populations using correlation, test, and non-test data. One of the strongest and most appropriate analysis methods in the behavioral and social sciences are multi-variables analyses because the nature of such issues is multi-variant and they cannot be solved by the two-variable method (in which each time just one independent variable is regarded as one dependent variable). Concurrent analysis of K variables is independent and that of n variables is dependent.

Analysis of covariance structures or casual modeling or structural equations is one of the main analysis methods of complex data structures and means analysis of different variables which show the concurrent effects of variables based on a theoretical structure. This method is a combination of meth and elaborated statistical of factor analysis, multi-variables regression, and pathway analysis which gathered in an elaborated system to analyze complicated phenomena. The structural equation divided into two general phase including confirmatory factor analysis (CFA) and split-path analyze. In the measurement part, the correlation between questions of the questionnaire and structures was investigated and in the structural part, the correlation between understudies factors considered to hypothesis tests.

In fact, the multi-variables analysis refer to a collection of analyzing methods with the main properties of analyzing K, the independent variable, and n, dependence variable, concurrently. The analyzing of covariance or

structural equation modeling (SEM) is one the main methods for structural analyzing of the elaborated data. It means the analyzing of multi-variables which represent the impacts of the variables on each other in a structure based on theory. The relationship between variables in the structural equations structure is divided to the two below general areas:

- 1) Relationship between latent and observed variables (measurement model or confirmatory factor analysis)
- 2) Relationship between the latent and latent variables (structural model or path analysis)

The measurement model of indices relation or the questionnaire questions with the structures are evaluated and in the structure model, the relation of understudied factors with each other are important for hypotheses testing. Until confirmation of the hidden variables by the indices or the questionnaire' questions, it is not possible to test the relations. Therefore for the establishment of true measurement of concepts, the measurement model or confirmatory factor analysis is used. In the structural equation model, first the observable variables and non-observable ones were determined and then the effect coefficients of each of variables were calculated in covariance source. Generally, coefficients in the covariance source should not have zero value. The variables of the central concept index were evaluated.

In the light of current study subject, first, the effective factors on the micro-factors were evaluated which each of them has an effect on the other main factor.

3. Result

For the present study subject which is about offering the structural equations model for the parameters of leadership thinking, communication, and meritocracy in training of organizational leaders of Oil Company, first 384 questionnaires were distributed among the subjects of statistical population, then the gathered data of questionnaire were analyzed by LISREL software, and the effect of dependent variables on the independent variables were studied. Each of the variables of leadership thinking, communication, and meritocracy is composed of sub - variables which the effect of each of them was verified in this research.

The below tables are demographic tables obtained from the existing statistical sample of the study and are filled according to the first part of summarized personal information questionnaire summarized in Table 1.

Table 1. Analysis of demographic data

Age				Educational degree			
women		men		women		men	
Between 30-40	20	Between 30-40	40	Bachelor degree	68	Bachelor degree	190
Between 40-50	30	Between 40-50	100	Post graduate degree	20	Post graduate degree	90
Between 50-60	40	Between 50-60	150	P.H.D	2	P.H.D	10

In the above table in the part of education degree, we can see that major of a statistical sample is consists of men and the education degree is the bachelor one. The least of data are related to the women part in P.H.D degree. According to the data, our statistical sample is the one with bachelor degree level. According to the participation age, most of the men in the sample are in 50-60 years old and the minimum number of women in 30-40 years old. Therefore, our sample subjects are in high age.

Table 2. Level of management and years of services

Level of management				Years of service			
Women		Men		Women		Men	
Higher managers	2	Higher managers	8	ages 1-10	10	ages 1-10	40
Middle managers	8	Middle managers	82	ages 10-20	30	ages 10-20	80
First line managers	80	First line managers	200	ages 20-30	40	ages 20-30	130

Table 2 shows the year of service and level of management of our statistical sample. According to table 2, in the parameter of years of service, men in ages 20-30 were in majority and women with work experience of 1-10

years were the least. This is demonstrating the presence of men with high age and high experience in the Oil Company. In the management section, the first line managers were in majority and women as the high managers were in the least. This phenomenon is natural and in all of the companies the first line managers are in the majority and higher managers are in the minority.

In light of the research aim, the structural equations are a proper method of multi-variables correlation analysis. This method was the most suitable analysis for the quantitative sector in this study because we can use the analysis of structural equations for analysis and testing of the theoretical models (Schumacker & Lomax, 2009). Because in this study it was essential to test the conceptual model obtained in the qualitative section, use of structural equation modeling is essential in this level.

According to the questions of this study, each of the questions was evaluated and the factors influencing on the central concept in the structural equation model was investigated.

3.1 Central Concepts of Training of Leadership

3.1.1 Leadership Thinking

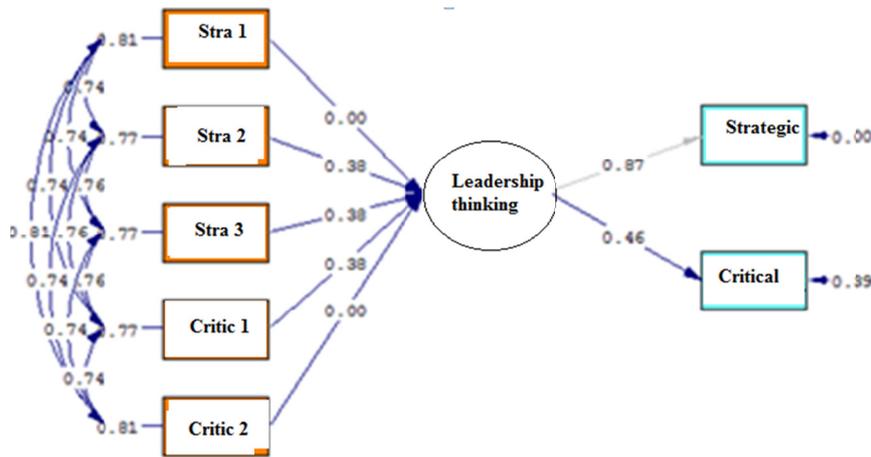


Figure 1. Leadership thinking

Table 3. Goodness of fit indices of the leadership thinking variable

Value	Goodness of fit indices
2/00	df^2/x
0/91	GFI (Goodness of fit index)
0/65	AGFI (Adjusted goodness of fit index)
0/035	RMR (Root of mean square residual)
0/91	NFI (Normed fit index)
0/42	NNFI (Non – normed fit index)
0/92	IFI (Incremental fit index)
0/93	CFI (comparative fit index)
0/042	RMSEA (Root mean square of approximation)

According to the above findings, the most indices are in the desired and allowed limit. Each of these indices can be indicative of model fitness and desirability. For judgment about the fitness of a model, it is enough that two indices be in the allowed range. For this reason, more than two fitness indices are in the desired range and the offered structural models are in the desired fitness. The figures on the arrows of the tables are indicative of a relationship between variables. Because these values are calculated in the covariance source, the far these values from zero, the more strong the relationship. The covariance values can be also negative which indicates a negative relationship. The covariance can have infinite values but considering this study and scoring of people participating in the questionnaire which is in the range of 1-5, the covariance values do not exceed the range of 2-3.

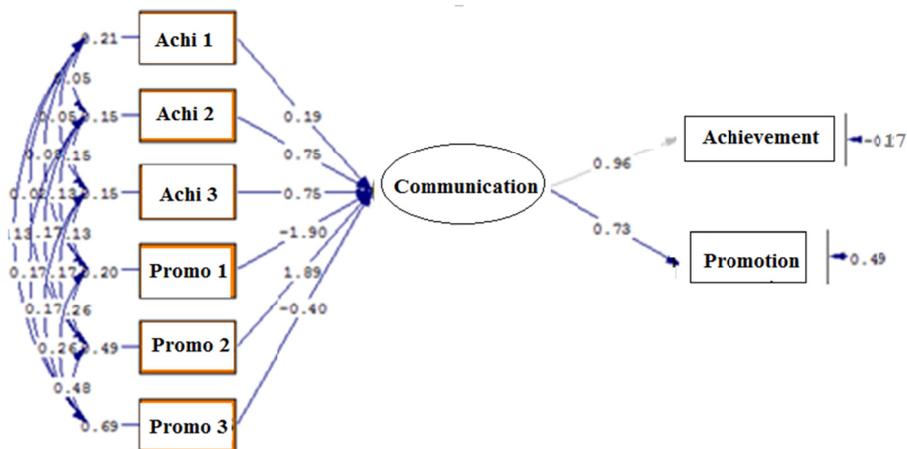


Figure 2. Communication

Table 4. Goodness of fit indices of communication variable

Value	Goodness of fit indices
2/00	df^2/x
0/94	GFI (Goodness of fit index)
0/69	AGFI (Adjusted goodness of fit index)
0/035	RMR (Root of mean square residual)
0/95	NFI (Normed fit index)
0/75	NNFI (Non – normed fit index)
0/95	IFI (Incremental fit index)
0/94	CFI (comparative fit index)
0/038	RMSEA (Root mean square of approximation)

According to the above findings, the most indices are in the desired and allowed limit. Each of these indices can be indicative of model fitness and desirability. For judgment about the fitness of a model, it is enough that two indices be in the allowed range. For this reason, more than two fitness indices are in the desired range and the offered structural models are in the desired fitness. The figures on the arrows of the tables are indicative of a relationship between variables. Because these values are calculated in the covariance source, the far these values from zero, the more strong the relationship. The covariance values can also be negative which indicates a negative relationship. The covariance can have infinite values but considering this study and scoring of people participating in the questionnaire which is in the range of 1-5, the covariance values do not exceed the range of 2-3.

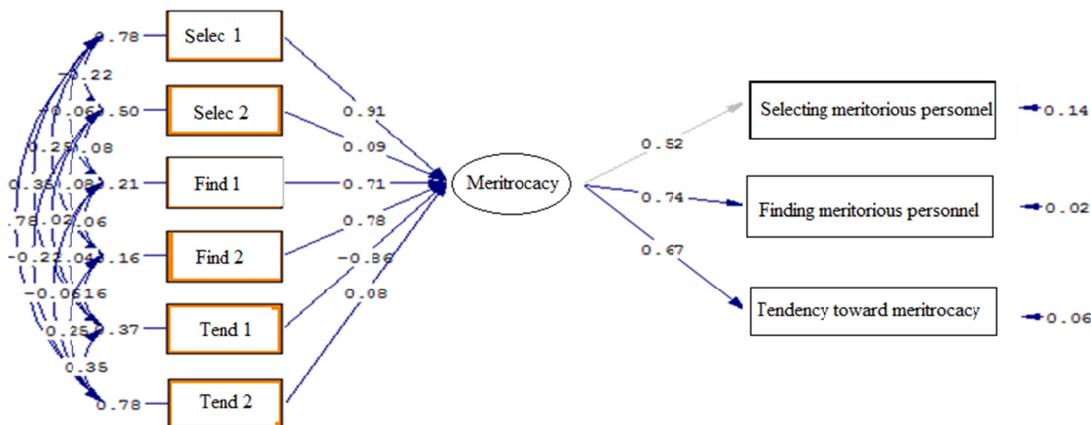


Figure 3. Meritocracy

Table 5. Goodness of fit indices of meritocracy variable

Value	Goodness of fit indices
3/00	df^2/x
0/91	GFI (Goodness of fit index)
0/85	AGFI (Adjusted goodness of fit index)
0/041	RMR (Root of mean square residual)
0/92	NFI (Normed fit index)
0/77	NNFI (Non – normed fit index)
0/91	IFI (Incremental fit index)
0/92	CFI (comparative fit index)
0/041	RMSEA (Root mean square of approximation)

According to the Table 5 and Figure 3 findings, the most indices are in the desired and allowed limit. Each of these indices can be indicative of model fitness and desirability. For judgment about the fitness of a model, it is enough that two indices be in the allowed range. For this reason, more than two fitness indices are in the desired range and the offered structural models are in the desired fitness. The figures on the arrows of the tables are indicative of a relationship between variables. Because these values are calculated in the covariance source, the far these values from zero, the more strong the relationship. The covariance values can also be negative which indicates a negative relationship. The covariance can have infinite values but considering this study and scoring of people participating in the questionnaire which is in the range of 1-5, the covariance values do not exceed the range of 2-3.

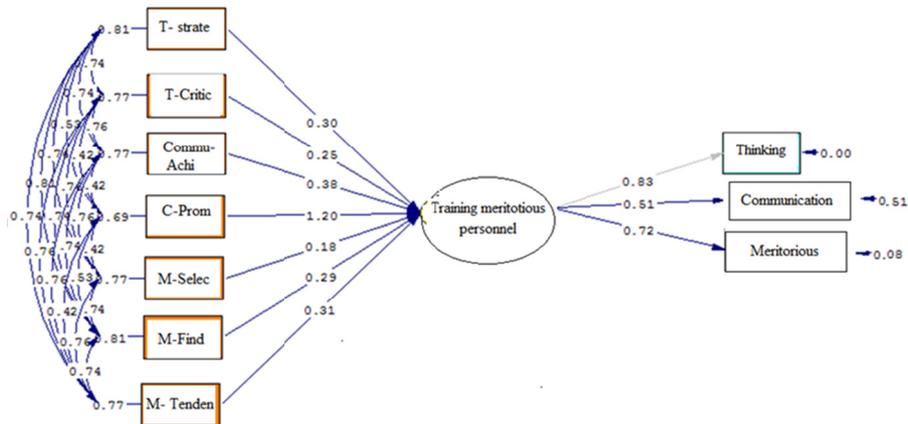


Figure 4. The final model of structural equations of parameters

Table 6. Goodness of fit indices

Value	Goodness of fit indices
3/00	df^2/x
0/92	GFI (Goodness of fit index)
0/46	AGFI (Adjusted goodness of fit index)
0/038	RMR (Root of mean square residual)
0/93	NFI (Normed fit index)
0/66	NNFI (Non – normed fit index)
0/94	IFI (Incremental fit index)
0/95	CFI (comparative fit index)
0/027	RMSEA (Root mean square of approximation)

According to the Table 6 and Figure 4 findings, the most indices are in the desired and allowed limit. Each of these indices can be indicative of model fitness and desirability. For judgment about the fitness of a model, it is enough that two indices be in the allowed range. For this reason, more than two fitness indices are in the desired range and the offered structural models are in the desired fitness. The figures on the arrows of the tables are indicative of a relationship between variables. Because these values are calculated in the covariance source, the far these values from zero, the more strong the relationship. The covariance values can also be negative which indicates a negative relationship. The covariance can have infinite values but considering this study and scoring of people participating in the questionnaire which is in the range of 1-5, the covariance values do not exceed the range of 2-3.

4. Discussion

Considering the aim of the research, a model was offered for the structural equations of the central concept variables (leadership thinking, communication, and meritocracy). First, a descriptive – analytical method was used for offering the theories of leadership characters, requirements of leaders training in the Oil Company and offering of structural equations of leadership thinking parameters. Finally, it was stated that for the confirmatory factor analysis of the central concept of leadership training all of the goodness of fit indices are in the desirable range because according to the offered model each of the variables of leadership thinking, communication, and meritocracy in different models have the goodness of fit. It is worth mentioning that variables of each of the sub-branches of the central concept have the acceptable goodness of fit. Because at least two indices have been confirmed for this first order confirmatory factor analysis we can evaluate the relationships of second order factor analysis which are related to the structural equations.

The consisting factors of the central concept including communication, leadership thinking and meritocracy also became evaluated. According to the results of this study, all of the three variables have an effect on and significant relation with each other. Because these structural models became analyzed in the covariance source and in this source data with more strong casual relation with each other have a coefficient close to 1.5, and data with weak casual relation have zero value. The closer these coefficients to 1.5, the stronger the casual relation between them is. In the offered models it was observed that all of the coefficients have acceptable values and therefore the causal relation between these variables became confirmed.

Here it is suggested that in the next research the internal structure of some variables such as the central concept will be studied. Considering the relation between the existing variables in this study, the relationship between the variables also will be studied. Because of the importance of such studies we can evaluate the obtained results in relation with other companies.

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