Identification of the dimensions and components of the talent management model in the department of education using the phenomenological analysis technique

Abdolreza Golabi, Seyyed Rasool Agha Davod*, Saeed Aghasi

Department of Public Management, Dehaghan Branch, Islamic Azad University, Dehaghan, Iran

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Abstract

This study aims to "identify the dimensions and components of the talent management model in the Isfahan Department of Education. Given to exploratory nature of the patterns and existing frameworks in the current study, the methodology of the current study is qualitative and based on an inductive approach. Meanwhile, it is applied based on the objective and interpretive from the study's philosophical viewpoint. Based on this description, to obtain talent management requirements, semi-structured interviews with experts such as managers of the education department was conducted by designing different questionnaires to assess their deep understandings, attitude, and beliefs regarding the subject of education. For this purpose, discussions with 22 university professors, experts, and managers of the education department of Isfahan province were held regarding the talent management subject, its requirements, and necessities, and the conclusion of these interviews was prepared as a list of talent management dimensions at the education department. Then, the input and output dimensions of talent management were specified. Finally, the final model of talent management at the Department of Education was designed and provided after some amendments. In the end, organization strategy, management of talents conflict, succession, meritocracy system, strategic management of human resources, rules, and regulation, managers support, organizational culture as a talent management input, and improvement of personal efficiency, personal maturity, human force agility, personal satisfaction, emotional commitment, perceived justice, comparative advantage acquirement, adjustment with global changes, increased beneficiaries' satisfaction, improved organizational efficiency, individual and organizational excellence as talent management output were extracted. Further, some recommendations were proposed to improve the condition of talent management in the Department of Education.

Keywords: talent management, education, phenomenology analysis
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1 Introduction

Education as the most important institution of training and nurturing in a country has a special standpoint in social development [34]. Education and empowerment are factors for change and a driver at the center of education

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*Corresponding author

Email addresses: abdolrezagolabi@gmail.com (Abdolreza Golabi), rasool_aghadavood@yahoo.com (Seyyed Rasool Agha Davod), sae_aghasi@yahoo.com (Saeed Aghasi)

and it is appropriate to create the abilities of leadership, qualifications, and supportive systems and scientific pathways [3]. Training of the staff is in very kinds, all done in the direction of improving the level of knowledge, awareness, technical, professional and occupational skills as well as creating desirable behavior at the employees of an organization. Among different kinds of staff training, the monitoring approach is a relatively new phenomenon that still has not been considered at the academic level and in Iran's different big organizations [14]. With the advent of economic and social changes, their unpredictability, compact growth of information resources, and the advent of new ideas regarding the social and individual culture, their relationship, and social behavioral patterns, changing ideas seems necessary [45]. Today, experts in every educational area actively are seeking monitoring to promote the level of their courses. No difference, the individual is in the place of taking or giving information, in both states this cooperation will be beneficial for him. It is an opportunity to develop communication skills, expansion of his viewpoints, and arrive at new solutions and situations that both sides can have occupational progress with this cooperation [7].

The subject of talent management is a basic priority for many organizations and the success of today's organizations depends directly on the use of talented staff. Talent is a combination of the features, abilities, and attitudes that result from the aggregation of natural ability, skill, and fitness. In the education organization, less emphasis is on personal talents and more on increasing networks, team working, trust, and relations as well as the organizational culture, structure, and processes. Meanwhile, two important approaches are under consideration in talent management. The first approach refers to the above cooperation. This approach seeks the involvement of the persons at the lower levels of the organization in organizational decision-making that aims to empower staff. The second approach is a global competitor that refers to the expert's attraction and superior talents and seeks to obtain better technologies using the innovation of these persons [18]. Given that the ultimate object of the current project is to attention to the talent management of the teachers, it should be said that the teachers are the most effective and important forces of the education department, and supportive programs and actions are done to maintain and creating enough and necessary motivation for their maintenance. The teachers' qualification as the most valuable human capital of the education system is the most important factor for the efficacy of the education system and schools and in other words, the educational success of the students. Therefore, the schools must adopt a talent-oriented approach. Of course, it is completely right that the schools need to be changed and updated but the kind and rate of this change is not the same as mega computer companies. Moreover, the function of the schools is better when the sense of cooperation, teamwork, and collaboration which are prominent features of organizations having highly cooperative approach are dominated by them and the talents (the teachers) is committed to customers' satisfaction (students' educational progress) [32].

Among different kinds of organizations and management, the management of educational organizations is especially important and plays a strategic role, as all objectives and factors of these organizations are human. If other organizations of society fail to fulfil their tasks and missions correctly and do not obtain their desired goals, the results are attributed directly to the group or organization that they are dealing with. However, if the organization of education and its managers neglect the nature of the work, the result of their work will affect society in ethical, social, and economic dimensions and will play an effective role in the growth and development of the society or its fall and degeneration. Therefore, the responsibility of a manager is very heavy and he should be informed of the basic objectives and tasks and required skills of the management [31], especially in establishing human relations. Currently, one of the main factors of education in schools in such an atmosphere is teachers. Therefore, given the importance and broadness of the education effort, one of the valuable and interesting changes in education is to pay attention to the continuous growth of the teachers' promotional programs due to reasons such as increased complexity of education, increased demand on behalf of the society, as well as dealing with the students as the future capitals [41].

Education in different countries is facing various challenges regarding human force. Iran is not an exception. Since the researcher is one of the staff working in the Ministry of Education, based on his observations in this office, and by library studies, investigating the documents, has reached these challenging notes. Iran's education is not faced with a teacher shortage but with the inappropriate distribution of teachers, which causes surplus force in privileged areas and teacher shortage in some deprived areas. Recruiting policies of this ministry could not solve this problem yet. On the other hand, education has a problem with quality, and a part of the poor quality of education returns on how the teachers are attracted, educated, and maintained [1]. Now it seems that to solve such problems and similar cases the least work can be done is that the talented, committed, and interested people in the courses solely required by the education are recruited and educated at teacher training centers (at least bachelor's degree) is revived to overcome the problems and challenges education and training are facing. Surely, it can be done using the potent and deserved (talented) people at different levels of education. Then, we answer this question in this study how are the factors and dimensions of talent management among the Department of Education's staff?

2 Theoretical framework

The word talent management was applied for the first time in 1996 at the School of the University of Pennsylvania, USA. Limited academic studies have been conducted in this regard since 1997 when McKinsey Institution took this issue into consideration seriously and functionally. The McKinsey Institution used the term "talent management system" to describe the challenges in which the employers sought deserved highly skilled employees [44]. They believed that only a few senior managers are able to identify talented persons and maintain them in the long term and use their talent in the best way. The talent management system in its short lifespan could arrive at a top position in the desirable management of human capital. This science after starting in the USA, passed European countries and was proposed in our country, Iran, almost seriously in 2008. Further, the books and articles were proposed at the scientific society of the country and it matured by holding seminars, meetings, and training workshops. It is clear that qualitative and quantitative accelerated growth of this young course in management area is at a global level and there is a gap in this science with advanced and exalted level. While the same search includes 5 million and 759 thousand records in 2007 and finally 23 million and 550 thousand results in 2011 was an indicative of increasing and significant approach to the newly founded science of TMS. The first integrated approach to TMS in Iran was done in June 1930 in the form of six specialized workshops with the below titles at an industrial management organization with scientific management of Iran's development center of modern training:

1. Need assessment and talents attraction
2. Management of talents maintenance
3. Management of talents growth and development
4. Management of talents and organizational trust building
5. Management of talents with a genetic algorithm approach [27]

Talent management is defined in many different ways. They are gathered in the below table to present regularly.

Table 1: Talent management from scientists' viewpoint [47]

Name	Definition
[4]	Talents are those persons who affect directly the organization and the organization's success
[13]	An integrated combination of the processes, programs, and cultural norms designed in an organization to attract, develop, establish, and maintain talent to arrive at strategic goals and meet the future needs of the enterprise.
[28]	Talent management of human resources is a process that is designed to attract, develop, and create motivation and maintain productive staff. Talent management does not only include the attraction of the best persons but also the identification and deletion of unnecessary persons and inappropriate perfection.
[11]	Talent management includes systematic attraction, identification, development, maintenance, and development of highly potential persons who are especially valuable to an organization.
[12]	Global talent management includes all organizational activities for the attraction, selection, development, and maintenance of the best staff in very systematic global roles (the roles that are necessary to obtain organizational strategic priorities).
[24]	Talent management means to assure that the appropriate person is positioned in the appropriate occupation at the appropriate time.
[10]	The activities and processes include systematic identification of the key situations that help sustainable competitive advantage, generation and development of a talent set of highly potential persons with high performance to fill these roles, and development of a different architecture of human resource to facilitate filling these positions with qualified authorities and guarantee their continuous commitment to the organization.
[43]	Talent management includes three main components as bellow: 9) acquiring superior talents: acquiring talent, identification, attraction, and assessment of superior talents using assessment and development centers. 8) Talents development: after identification of the potential talents training programs are provided for the development of their qualifications. 3) Talent retention: one of the problems organizations are usually facing is the attraction of developed and educated talents by competitors. Therefore, sustaining the system to maintain talent is one of the main components of talent management systems.

As can be seen from the definition of talent management, the dispersion and inconsistency of the analyzing level are obvious in them [4]. In the mid of 2000, with a relative consensus to define talent management as a set of integrated activities including attraction, maintenance, and development of the required talented persons for the present and future of the organization. The main objective of talent management is the maintenance of the talents that prevent their exit from the organization as this can have adverse effects on efficiency and providing services [2].

2.1 Necessity of talent management implementation

According to the resource-based approach proposed in 1998 by Jarvis and Burney [25], organizations gain competitive advantage only through creating methods that their pursuance is difficult and troublesome for the competitors.

Conventional resources such as natural resources, land, machines, etc. are accessible easily to everyone and miss their competitive advantage. However, human talents are as a strategic capital that creates added value and cannot be copied because as psychologists confirmed the talent of every person is unique the same as his DNA and fingerprint. Therefore, the talent treasury of every organization that is a synergistic portfolio of all organization's talents is unique to that organization and leads to values, strategies, and the creation of a unique future for that organization. Today the world is facing three features: speed, variety, and complexity. Among these, organizations are facing continuously growing global competition, market changes, and unpredicted events and it may be said that attraction, development, and maintenance of potential staff is more difficult than before [23]. The manpower study in Oct 2006 on 23 thousand employees from 23 countries indicated that the organizations are drastically facing with the problem of filling key positions with potent individuals. 40% of the managers complain about the problem of filling the positions due to a lack of potent forces in the market. It is for this reason that the McKinsey Company proposed for the first time the term "war on the talents" when a book titled "War for talents" was published by Ed Michelle [21].

Talent management is a relatively novel area in private and governmental organizations that is more welcomed in some countries in private and governmental sectors and in some cases in the private sector. One of the countries where its governmental sector transferred the discussion of talent management system into a strategic issue for its organizations is the UK. According to studies in the UK, 31% of the staff are more than 50 years old which most probably will lead to missing basic skills and experiences of this generation after the next decade in the form of their retirement. Meanwhile, from 2000, the number of youths that arrive to the working age has decreased by 60000 persons annually. Therefore, the managers of the UK governmental sector arrived at the conclusion that efforts related to succession and the pathway for occupational progress are not enough and efficient and they should use the talent management process. Management Global Congress in 2006 in New York, USA, accounts for 14 main axes that align with desirable management for the guaranteed future of the organizations the first one was the TMS discussion. It was due to the reason of improved productivity and efficiency of the organizations that benefitted directly or indirectly from TMS teachings. One year later, in 2007, three-quarters of the senior managers in Eastern Europe confirmed that applying TMS can fill many gaps in related discussions to the human resource management of the organization. Morton and Mayers [33], a TMS expert at Harvard University, believes that a talent management implementation system is necessary for staff involvement and leads to improved productivity at the whole organization. Morton continues that in many organizations the maximum utilization of employees' talent is 30% which can be doubled easily by the execution of a talent management system [42]. Ataiz and Green [5] considered the below items as the most important reasons for the implementation of TMS in the organization.

1. Direct and significant association between the talents and efficiency of the organization
2. Talent value creation in all dimensions
3. Enterprise in a more complex and dynamic environment
4. Increased supervision of all beneficiaries of the organization
5. Transformation in the structure of the human force of (X, Y, Z) generations [44]

Therefore, it can be concluded that the organizations should include transformation in the human resource area with the TMS approach in their program for the continuation of their activity and sustainability in a competitive atmosphere in order to be able to face ongoing challenges and their surrounding dynamic environment [47]. In this approach, it is necessary to use intra- and extra-organizational talents and capacities simultaneously. Indeed, today managers all over the world contend with the changing nature of the work and need forces that managers are forced to plan to identify and motivate them on time in the future. Of course, organizations should adopt talent management based on their structure and culture. The talents, elites, strategic, creative, innovative, flexible, responsible, accountable, and anarchist human forces are adjusted to today's needs. These organizations, given rapid environmental changes, need people who can change the structures according to their existing needs. They should be self-controlled and self-managed [8]. These people are always seeking opportunities around themselves in such a way that change existing limitations and threats to opportunities by studying their weaknesses and strengths. They are beyond the existing talent in their work, in such a way that creates value in their work. Human resources play a strategic role in today's organizations and they are considered as strategic capitals. Understanding the potential abilities and qualifications of the staff and managing them to activate these capacities is one of the great tasks of managers [15].

The experiences indicated that the organization which pays attention to its human resources and uses talent management reaches better performance compared to competitor organizations. Talent management creates a mutual commitment between the staff and the organization by generating an appropriate environment that results in nothing except improved personal and organizational performance. By identifying staff's capabilities and placing them in the appropriate position and optimum application of these abilities and developing capabilities and on time and appropriate

appreciation of their desirable performance both the satisfaction of the employee is met and the organization reaches its objectives. According to Beckmann and Berger [6], an organization that implements efficient talent management and categorizes the staff, and focuses on the development of the investment will have high organizational performance and highly potential persons [16]. For some organizations, every sense of need for talent causes disturbance in the organization. Turning over every employee from the organization is catastrophic for them and every demand for new skills causes a crisis. In such organizations, no planning exists for the human force in the future, and therefore, the elites and talents are not managed in the organization and the organization will miss them soon. Talents are attracted in to organizations that care about them and consider required programs and growing progress for them. Finally, when they feel the shortage of sophisticated forces in the organization, they will face a big problem and just start to find a solution [9]. Talent management is a long-term process that studies the current situation of the organization, competitors, and environment and predicts the needs of alive human force, especially for the key positions of the organization. It should try to attract talents inside the organization or attract them from outside the organization and overtake competitors by developing and maintaining these talents. Indeed, replacing empty positions with a person who is fit for it is not a simple task and needs multilateral investigations. The problem is not only a shortage of the human force but the main problem is the shortage of experienced, skilled, and talented staff. This shortage of talent affects organization in many ways. For example, when the organization needs sophisticated force in key positions, it will take a long time, and more expense will be needed to fill that posts without previous planning and applying talent management. Finally, the expectation of nominated persons for key posts in the organization will increase regarding compensation and salary [20].

Table 2: Abstraction of internal background

Researcher		
[36]	Designing talent management model with grounded theory approach in Imam Khomeini relief foundation	In phenomenon orientation: talent structure making, in cause and effect conditions: talent idea makers, and talent refiners, in intervening condition: talent nurturers, in strategy: designing talent management system bank and internalization of talent management bank, at dominant bed: talent entrepreneurs, and at consequences: making organization agile, organizational development and sustainable competitive advantage are identified. The obtained results indicate the accuracy and confirmation of the relation in the designed model.
[22]	Designing talent management pattern in the banking industry using grounded theory	The paradigmatic model of talent management in the roles of cause and effect conditions, contextual, intervening, the main phenomenon and consequences of designing and modeling, and dimensions of talent seeking, talent finding, talent nurturing, talent recruitment, and talent keeping were identified for the main phenomenon.
[17]	Designing a Talent management model using an integrated approach	In general identification and prioritization of talent management components, identification of the key staff, and monetary and financial payment system respectively devote the highest and lowest ranking to themselves. By understanding that obtained from analyzing dimension ranking of the talent management components, managers and authorities of the organizations can be contributed greatly to identifying, attracting, and applying superior talents by improving this situation.
[37]	Designing students' entrepreneurship talent management model in higher education institutions using grounded theory	The paradigm model of students entrepreneurship talent management is made up of cause and effect conditions (personal factors, organization, and extra-organizational factors), contextual factors (upstream documents and field of working), axial category of multilateral architecture of entrepreneurship talents (multilateral skill balancing, differentiation of talents and talent based structuring), intervening variables (entrepreneurship culture, sustainability of existing system of talent discovery and social accountability), strategies (internalization of students entrepreneurship talent management, designing multiple entrepreneurship talent management process and designing resource allocation system) and consequences (employment, value-creating, and competitive advantage of entrepreneurship talents) for the universities.
[19]	The effect of strategic predisposing factors on talent management	Undeniable role of organizational culture, strategic human resource management, and governmental rules and regulation on talent management
[29]	Personal human resource talent management	Devotion to the task with personal values generates the condition that the most effective strategy for the person occurs
[18]	The effect of digital transformation on talent management	Organizational changes resulting from digital transformation affect talent management and attraction and maintenance of the talents

[26]	Development of comprehensive talent development as a key strategy of talent management, a review of systematic literature	This study provides research gaps regarding TD and bolds the direction of future studies such as the broader coverage for developing a more comprehensive domain, TD for under-employed people to improve the personal and organizational function, using frugal innovation through ITD and relationship with the resources, a view based on valuable, scarce, inimitable and organized model (RBV-VRIO). While ITD along with other activities has a considerable effect on personal growth and organizational performance, evidence and discussions regarding this concept are rare.
[35]	Talent management methods and job performance of the librarians at academic libraries in Nigeria	There is a positive and significant relationship between talent management and the job performance of librarians. Therefore, this study arrives tot his conclusion that talent management methods affect positively job performance.
[30]	Talent management and the performance of human resources in intercultural acquisitions and merges: the role and influence of bicultural identity	It provides a matrix with an emphasis on spatial dimensions (including wisdom dimensions of an individual employee up to the company's macro identity and its position in the mega national cultural context) that investigates the multilevel dynamic of bicultural talent management. This reasoning identifies how available intercultural lenses need a deeper understanding of bicultural talent management in M&A settings. The directions and plans for future studies are specified.
[46]	the key dimensions of talent management implementation	attraction, employment and application processes, growth and development, performance management, talent assessment, reward and appreciation, and interaction

3 Methodology

Given to exploratory nature of the existing patterns and frameworks in the present study, the methodology of this study is qualitative and based on an inductive approach. Meanwhile, it is applied based on objective and interpretive from the study philosophy viewpoint. With this description, to access talent management requirements in this study, semi-structured interviews with experts such as university professors were conducted by rendering various questions, and their understandings, attitudes, and beliefs were assessed deeply. For this purpose, 22 university professors and the management of the education department of Isfahan province discussed the subject of talent management, its requirements and necessities, and its conclusions were prepared as a list of talent management dimensions in the education department.

In the Collaizi method seven steps should go through to reach the goal:

- At the first step of Collaizi, at the end of each interview and recording field note taking, first recorded statements of the participants are heard repeatedly and their statement are written word by word on a paper and the interview is written and it is studied several times to understand the feelings and experiences of the participants.

- At the second step, after studying the descriptions of all participants, meaningful information, statements related to under discussion phenomenon is underlined and therefore most importance sentences are specified.

- At the third step, that is the extraction of formulated concepts, after specifying formulated meanings of the important statements of each interview, it is tried that a concept that expresses the meaning and the main part of the person's mindset is extracted from each statement.

- After extraction of the codes, according to the fourth step of Collaizi, the researcher studies carefully the written concepts and categorizes them based on the similarity of their concepts. In this way, subjective categories of the written concepts are formed.

- At the fifth step, the results are linked to each other for providing a comprehensive description from studied phenomenon and generating broader categories.

- At the sixth step, a comprehensive description of studied phenomenon is provided (with clear expression without ambiguity as far as possible).

At the last step, accreditation is done by referring to each sample and asking questions about the findings. Meanwhile, two criteria of reliability and credibility were used to empower the study. Due to limitation in the number of pages and given to some similarities of the discussions in different methods of qualitative paradigm, further in addition to methodology, the executive steps are explained.

4 Findings

The collected contents from the collection of study's interviews were required to assess and their information was changed to short statements that were indicative of the varied views and mentalities around the study's subject. For

example, the contents obtained from the experts required assessing, and their views should be changed to short and separate statements to be able to select required codes among them. Totally, 100 statements were collected as the statement of the interview's atmosphere that was indicative of different and varied views and mentalities about the identification of effective factors in talent management. In the current study, interviews were conducted in the first stage. The main points were extracted from the context, and the initial labeling was done on them. 26 main labels were produced at this stage, which is brought as the following.

In the next stage, by using the qualitative methodology of the models for combining findings, the effort was done to create sub-codes and then main codes. This step includes the integration of previous codes and deleting unrelated and repetitive findings. The findings at this step are provided in the below table. Now, given the results of the quality analysis, a model for mentoring talent management in education was provided. For this purpose, identified dimensions and components were categorized into two groups of input and output components of talent management. Then, a questionnaire for these components was prepared, and the designed model was tested. In the below table, identified components based on the experts' viewpoint were categorized into two groups of input components of talent management and output components of talent management. In the next stage, these dimensions and components were submitted to experts through a questionnaire with a Likert scale.

The average of their opinions about each identified component was calculated in the below table.

The average formula is also known as the arithmetic mean, which is the ratio of the sum of all given observations to the total number of observations. Thus, using the average formula, the arithmetic mean for any sample of data can be calculated (4.1).

$$\bar{x} = \frac{\sum x_i}{n} \tag{4.1}$$

Standard deviation is also used to determine the reliability coefficient in statistical analysis. In scientific studies, usually data with a difference of more than two standard deviations from the mean value are considered as outliers and are excluded from the analysis. The standard deviation for a finite set is equal to the square root of the difference of the data from their mean. The following numerical example can show how to calculate the standard deviation in (4.2). In this formula: r_i- each return on all observations (each digit in the data), r_{avg}- the average of all observations or the same data, n- number of observations.

$$SD = \sqrt{\frac{\sum (r_i - r_{avg})^2}{n-1}} \tag{4.2}$$

The Wilcoxon signed-rank test is a non-parametric statistical hypothesis test used either to test the location of a population based on a sample of data, or to compare the locations of two populations using two matched samples.The data for a one-sample test is a set of real number samples $X_1, ..., X_n$. Assume for simplicity that the samples have distinct absolute values and that no sample equals zero. (Zeros and ties introduce several complications; see below.) The test is performed as follows:

1. Compute $|X_1|, ..., |X_n|$.
2. Sort $|X_1|, ..., |X_n|$, and use this sorted list to assign ranks $R_1, ..., R_n$: The rank of the smallest observation is one, the rank of the next smallest is two, and so on.
3. Let sgn denote the sign function: $sgn(x) = 1$ if $x > 0$ and $sgn(x) = -1$ if $x < 0$. The test statistic is the signed-rank sum T:

$$T = \sum_{i=1}^{N} sgn(X_i)R_i \tag{4.3}$$

4. Produce a p-value by comparing T to its distribution under the null hypothesis.

The ranks are defined so that R_i is the number of j for which $|X_j| \leq |X_i|$. Additionally, if $\sigma : \{1, ..., n\} \longrightarrow \{1, ..., n\}$ is such that $|X\sigma(1)| < ... < |X\sigma(n)|$, then $R\sigma(i) = i$ for all i.

$$T^+ = \sum_{1 \leq i \leq n, \ X_i > 0} R_i, \qquad T^- = \sum_{1 \leq i \leq n, \ X_i < 0} R_i \tag{4.4}$$

The signed-rank sum T is closely related to two other test statistics. The positive-rank sum T^+ and the negative-rank sum T^- are defined.

$$T^+ = \sum_{1 \leq i \leq n, \ X_i > 0} R_i, \quad T^- = \sum_{1 \leq i \leq n, \ X_i < 0} R_i \tag{4.5}$$

Table 3: Extracted statements from interviews

The context of the interview (data)	Concept (code)
The attention of managers to talents	Its execution depends on the amount of managers' attention to talents
fitness with organizations' objectives	Should fit with the organization's objectives
Organizational innovation	Innovation is required in the organizations
Supporting from talents should be internalized in the organizations	Internalization of support from talents
Should be conducted if unique talents exist	Existence of unique talents
Human resources are the most important assets of the organization and should be conducted.	The priority of human resources
It is important for the key and specifically executive jobs.	Key-executive jobs
The weakness in managers' support from the talents is an obstacle in the way of talent management	weakness in the support of the managers
Meritorious managers definitely should benefit from it.	meritocracy
Organizations should realize that individuals with unique functional features are a priority.	Prioritizing unique functional features
Identification of organizational talents is a key element in its formulation.	talents identification
Appropriate replacements for the managers are solved through talent management.	Managers replacement
The high cost of external replacement doubles the need to pay attention to talent.	High cost of replacement from the outside
Regulations in excellent organizations change it to a requirement.	Organizational regulations
organizations should not be content with a single star and should have diverse talents	diverse talents
Management is an art and artists should be identified through talent management.	Identification of potential individuals for managerial positions
modeling ongoing organizations intensifies its necessity.	Molding ongoing organizations
If the criteria are promotion, talent, and qualification, talent management should occur.	Paying attention to talent and qualification
The interest of managers to have knowledgeable colleagues is one of the reasons for talent management.	The interest of the managers to have knowledgeable colleagues
Maximum exploitation of organizational talents intensifies the necessity for its application.	Maximum exploitation of talents
Meeting the needs of superior talents causes it.	Meeting the needs of superior talents
Special attention to performance and efficiency expresses its necessity.	Paying attention to performance and efficiency
Trying to make the organization competitive causes the application of talent management.	Competitiveness of the organization
Organizations should consider their future years and benefit talent management.	Taking into account the future of the organization
If the organization is to have high performance, the talent of the staff should not be ignored.	Emphasis on high performance
Maintenance of talents is a basic challenge in the 21st century.	The challenge of retaining talent for managers
Smart managers should identify the talents.	Identification of talents by smart managers
The attraction of external talents is more difficult than retaining internal talents.	Trying to retain external talents
If organizations tend to benefit from the sagacity of sophisticated people, no solution is except that.	Benefit from the sagacity of the sophisticated people
novel structural changes of the job reveal the need for talent management more than before.	Novel structural changes
The preparation of organizational people for the key posts is necessary and should be systematic.	Systematically preparation of organizational people for the key posts
Organizations should care for their potent human resources to retain their superiors.	Retaining competitive advantage through talents
Organizations should supply their managerial talents through their management.	Meeting the managerial needs of the future
Organizations should supply a resource of managerial talent for the future.	Supplying talent sources for the future
Anyhow, some talents are beyond others and should be identified.	Identification of the talents who are beyond others
Most of the problems are due to meritocracy and talent management is its solution.	Weakness in meritocracy
Paying attention to mental and spiritual issues justifies the need for talent retention.	Talent retention and emphasis on psychological issues
the determinant importance of merit human capital	Merit human capital is a determinant element therefore its management is important
Prediction of future needs	Every organization should have a prediction of its future and needs

Talent abundance	Today, organizations that own abundant talents have a more competitive advantage
All talents in every area should be identified by the organization	Comprehensive identification of the talents
Wasting of talents due to hiding	Many talents are wasted due to not being recognized.
New methods of doing the task	The new methods of doing tasks justify the necessity of talents' existence.
The need for managers and knowledgeable supervisors in the future	The organization needs managers and knowledgeable supervisors eventually.
Weakness in the ability to differentiate individuals with managerial and academic interests should be solved through a clear system.	Overcoming the weakness in the differentiation of the interested individuals to management
Superior talents should take higher rewards.	Taking reward
Talent management can minimize environmental effects	Minimizing environmental effects
Job interest	Talent management will have many job interests.
Increased commitment	If talents are supported, they will be highly committed to the organization.
Managed talents can do a variety of jobs	Ability to do a variety of jobs
Talent management decreases costs and increases the speed of work	decreased cost of task doing and increased speed of work
Talent management allows people to experience their optimum performance.	The optimum performance
Talent management reveals the status of the talents well.	Reporting status
Talent management gives a correct understanding of the work	Correct understanding
If talents are managed, they will find fair understanding from the organization	understanding organizational justice
Implementation of talent management leads to appointments based on codes	appointment based on codes
Responding to fluctuating environmental demands	The more the talents are retained, the simpler will be the ability to respond to fluctuating environmental demands
working independency	Mature talents can have working independency
Organizational support from unique talents	The organization should support unique and special talents
Fitness of training programs	Talents differentiation encompasses training programs that fit each talent
Optimism regarding the fair promotion of themselves and their colleagues	Talents, when observing the talent management process, will be optimistic regarding the fair promotion of themselves and their colleagues
Progressing toward key positions	The more key posts can be acquired by the unique talents
Functional differentiation	Talent prioritization pay the way for functional differentiation of the organization
fair distribution of reward	talents identification will lead to a fair distribution of rewards fit with each talent
Decreasing the sense of transmission of discrimination	Identification of talents removes the sense of transmission of discrimination on behalf of the managers
If talents are managed correctly and their needs are met, the behavior of the managers will be amended and Justice will dominate.	Amendment of managers' behavior and establishment of justice
Talents of the organization can lead to more satisfaction from the board of directors	Satisfaction of board of directors
If talents are managed correctly, all social, and governmental institutions, etc. will benefit and satisfy	Satisfaction of all governmental institutions
The superior talents are a de-facto source of superiority over the competitors	The de-facto source of superiority over the competitors
Superior talents can move at the level of global standards	Movement at the level of global standards
Some special talents, if managed appropriately, will promote the satisfaction of the employees and university students at a desirable level.	Increased employees satisfaction
Social beneficiaries are satisfied when observing the unique quality of the organization	Satisfaction of social beneficiaries
Talent management in an effective manner can decreases the consumption of vital organizational resources significantly.	Deceased consumption of vital resources
Retention of talents and encouraging them to stay long term provides the maximum level of quality on behalf of the university	The maximum level of quality in services
Organizations should support the talent management process	Support
the superior talents, if managed appropriately, will be highly loyal to the organization	Increased fidelity
Talent management causes a sense of contest in the organization	Sense of contest in the organization
Organizations implementing talent management can easily control and observe the speed of environmental fluctuations.	Speed control of environmental fluctuations
retention of special talents is so important that satisfies all organizational beneficiaries.	Satisfaction of all organizational stakeholders'

Superior talents, if guided properly, will find a great sense of satisfaction in their superior and finally the organization.	Satisfaction from supervisor
Proper application of the talents can increase the likelihood of accepting serious responsibilities	Likelihood of accepting serious responsibilities
Unique talents, if retained, can serve to multitask	multitask servicing
Potent employees, if applied correctly, feel satisfaction and happiness at their work	Satisfaction and happiness at work
potent employees, if applied appropriately, careless of wages	less care to wage
identification of superior talents and finding it out causes more logical behaviors on behalf of the managers	Demonstration of more logical behaviors on behalf of the managers
Unique talents, if managed correctly, will have the highest quality at work	the highest quality at work
talent management removes the bed for patronage	Removing the bed for patronage
managed talents perceive defined job more exactly	Exact perception of defined job
the traits of some retained talents cause the creation of fair opportunities	Creation of fair opportunities
The sense of success emanates during the appropriate application	Increased sense of success
Talents can amend strategies of the organization to divert pathways well.	Amendment of divert pathway
The more unique the talents are, the more rewards should receive	Fair reward
One of the results of talent management is to access services with the same quality at a lower cost	Improved quality of services / Decreased cost of services
retention of talents causes great synergy in the organization	Synergy
the appropriate attraction of talents increases access to better organizational outputs	Moving toward better output
The quality of organizational affairs will arrive at its optimum level through managed and retained talents	The maximum quality in organizational affairs
Correctly managed talents can react easily to changes in work on time	On-time reaction to working changes
Talents can reach the stage that rejects other good proposals from outside the organization	Rejection of job proposals
Using talents at an appropriate place and time increases drastically the satisfaction of the capital owners	Increased satisfaction of capital owners

Because T^+, T^- equal the sum of all the ranks, which is $1 + 2 + ... + n = n(n+1)/2$, these three statistics are related by

$$T^+ = n(n+1)2 - T^- = n(n+1)4 + T2$$
$$T^- = n(n+1)2 - T^+ = n(n+1)4 - T2$$
$$T = T^+ - T^- = 2T^+ - n(n+1)2 = n(n+1)2 - 2T^-. \tag{4.6}$$

Because T, T^+, and T^- carry the same information, any of them may be used as the test statistic.

The positive-rank sum and negative-rank sum have alternative interpretations that are useful for the theory behind the test. Define the Walsh average W_{ij} to be $1/2(X_i + X_j)$.

As can be seen, all variables or input and output components of the talent management system are confirmed by the Wilcoxon test.

5 Conclusion and recommendations

In considering the future landscape of talent management, it is important to acknowledge the evolving context we live in. We find ourselves amidst the era of the Internet, where individuals' actions in the virtual realm significantly influence the flow of information [39]. Simultaneously, our world grapples with challenges such as low levels of critical thinking among university students [38] and the prevalence of fake news and disinformation, highlighting the critical importance of individuals' skills and knowledge [40]. As we shape the trajectory of talent management, future studies should aim to address these dimensions of talent and knowledge, creating strategies that not only nurture conventional attributes but also navigate the complexities of the modern age.

Based on the study's literature and the opinions of the experts' panel, the variables of the organization's strategy, management of talents conflicts, meritocracy system, organizational culture, managers support, human resources management, rules and regulation, and personal excellence are considered as inputs of talent management system in the education department. Moreover, by considering functional definitions it can be said that for promoting the

Table 4: The results of the experts' panel for independent, dependent, and mediation variables of the amended talent management system

Element	Systemic role	Average	Standard deviation	Wilcoxon statistic	P-value	Estimated mean	Result
Organization's strategy	Input	4.45	0.36	0.55	0.006	4.5	Confirmed
Conflict management of talents	Input	4.63	0.29	0.55	0.006	4.6	Confirmed
Succession	Input	4.4	0.24	0.55	0.006	4.5	Confirmed
Meritocracy system	Input	4.47	0.32	0.55	0.006	4.5	Confirmed
Strategic human resource management	Input	4.33	0.49	0.55	0.006	4.33	Confirmed
Rules and regulations	Input	4.3	0.48	0.55	0.006	4.25	Confirmed
Managers' support	Input	4.37	0.39	0.55	0.006	4.33	Confirmed
Organizational culture	Input	4.35	0.41	0.55	0.006	4.5	Confirmed
Personal efficiency	Output	4.45	0.42	0.55	0.006	4.5	Confirmed
Personal maturity	Output	4.65	0.41	0.55	0.006	4.75	Confirmed
Human force agility	Output	4.4	0.4	0.55	0.006	4.5	Confirmed
Personal satisfaction	Output	3.42	0.3	0.55	0.006	4.4	Confirmed
Emotional commitment	Output	4.33	0.22	0.55	0.006	4.33	Confirmed
Perceived justice	Output	4.3	0.29	0.55	0.006	4.33	Confirmed
Acquiring competitive advantage	Output	4.3	0.35	0.55	0.006	4.25	Confirmed
Adjustment with global changes	Output	4.4	0.45	0.55	0.006	4.5	Confirmed
Increased satisfaction of beneficiaries	Output	4.44	0.24	0.55	0.006	4.5	Confirmed
Increased organizational efficiency	Output	4.25	0.35	0.55	0.006	4.25	Confirmed
Personal excellence	Output	4.55	0.36	0.55	0.006	4.5	Confirmed
Organizational excellence	Output	4.35	0.33	0.55	0.006	4.25	Confirmed

strategic level of the organization, the managers and education practitioners should pay attention to the retention of their competitive advantage (through more differentiation), to resource-oriented view (through considering human resources especially talents as the most important source and assess of education department), focus on star strategy (through putting efficiency and output of the organization at priority and consequently selection of the potent and fit persons) and talent resource strategy (that refers to paying attention to talent resources and emphasis on the accumulation of a great resource of talents at the level of education organization that have the potential to transfer to sophisticated managers in the near future). To promote the level of rules and regulations managers and practitioners of education should formulate rules affecting on talent management (through considering incentives and punishment respectively for prioritizing and ignoring talents). To improve organizational culture, the managers and practitioners of the education department should pay attention to the culture of talent support and the cultural tendency to innovation (by considering innovation as the basic criterion for promotion and development). To promote the level of human resource management, the managers and practitioners of the education department should pay attention to knowledge management (through preparing the bed for sharing knowledge, formulating incentives for sharing and acquiring knowledge, and documentation of knowledge forces information), organizational learning (through holding courses for the familiarity with the organizational learning principles and making the jobs competitive) and psychological empowerment (through a sense of independence, the right of selection sense, the sense of job meaningfulness and to be important). To improve the level of support, managers and practitioners of the education department should pay attention to the identification, application, and retention of talents. To improve the level of the meritocracy system managers and practitioners of the education department should pay attention and be sensitive to the identification of merit individuals. To promote the level of succession, managers and practitioners of the education department, should pay attention to the identification of supervisory and managerial candidates of the organization (through taking job feedback into account and focusing on the performance of the staff and screening working standards), preparation of supervisory and managerial candidates of the organization (through holding justification sessions and training courses, using experts network to improve the level of supervisory and managerial knowledge of the candidates), meeting supervisory and managerial future needs of the organization (through fore sighting and screening the progress of the managers). Finally, to improve the level of talents conflicts, managers and practitioners of the education department should pay attention and be sensitive to the identification of unique talents (through testing and monitoring special talents), prioritization of special talents (through putting superior and unique talents at priority) and try to solve the problems of unique talents (through designing problem statement system and formulating on time reaction mechanisms) to be able to improve the variables and factors helping talent management, i.e., inputs of the talent management system.

Based on the study's literature and the opinions of the experts' panel, personal efficiency, personal maturity, the agility of human force, personal satisfaction, emotional commitment, perceived justice, acquiring competitive

advantage, adjustment to global changes, increased satisfaction of the beneficiaries, improved organizational efficiency, individual excellence, and organizational excellence are considered as outputs of talent management system in education organization. Since pointed inputs can leads to improve personal efficiency including the amount of ability (the sense of occupational achievement and training programs), understanding from the work and objective, organizational support (spiritual and financial support), incentive (cash and non-cash compensations such as appeasement of superior from his subordinates at the time of problems, welcoming innovation and opportunities for promotion), feedback (awareness from performance), validity (taking fair and ethical decisions, appointment based on qualification and regulations) and adjustability (how much competitive condition affects on performance), personal maturity including the ability to accept heavy responsibilities and the ability to accept varied responsibilities, agility of human force including the speed of doing tasks and the ability to respond to changes, personal satisfaction including satisfaction from personal working , satisfaction for personal promotion, satisfaction from organizational promotion, satisfaction from superior, and satisfaction from personal right, deep interest to stay in the organization, perceived justice including feeling the fair behavior on behalf of the individual in the reward distribution process, feeling transitional justice from managers to subordinates and the amount of demonstrating behaviors that causes dissatisfaction, acquiring competitive advantage including superior de-facto talents compared to competitors and the ability to provide distinctive services compared to competitors, adjustment with global changes including the ability to move parallel to global changes and flexibility at the way of transformation align with adjustment with global speed, increased satisfaction of the stakeholders including increased satisfaction of the professors and faculties, increased satisfaction of staff and students, increased satisfaction of the society, increased satisfaction of the boards of directors and capital owners, and increased satisfaction of governmental and private organizations, improved efficiency of the organization including increased outputs of the organization and decreased consumption of the resources on behalf organization, personal excellence including perfection at personal quality and the level of satisfying the needs of the organizational stakeholders and finally organizational excellence including the level of perfection in organizational quality and the level of satisfying the needs of organizational and social stakeholders, the authorities of education should especially pay attention to implementation of the principles and stages of talent management including attraction and identification of the talents through designing mechanisms to attract more talents. It should also be tried to select the best talents, attract unique talents, identify and assess talents, select talents through a selection of the best talents, apply and develop talents through efforts to promote talents, apply best talents, hold training courses for talents, design service compensation system, plan for succession and finally retain talents through efforts for maintaining talent. It should also be tried to prevent talent separation, meet the talents' requirements, and design mechanisms for the survival of the talents. Moreover, it is seen that personal excellence and organizational excellence are considered the final outputs for a set of personal and organizational outputs of talent management. Therefore, special attention should be paid to these variables and tried to improve and increase personal excellence and consequently organizational excellence through appropriate application and implementation of four principles of talent management that play the role of processing variables and desirable inputs for a talent management system, which is described before in details. Meanwhile, the superiority of this study compare to similar ones is that the current study analyzes the talent management system process systematically and the extracted model from this study indicated that none of the previous models looked at talent management from a systemic view. Therefore, this study while paying attention to different aspects of talent management covers existing gaps in talent management fields with a systemic view.

References

[1] S. Abdollahi, *What are the education challenges in Iran?*, Online news, https://www.khabaronline.ir/news/289105/, 2013.

[2] B. Adamsen, *Demystifying Talent Management; A Critical Approach to the Realities of Talent*, Palgrave Macmillan UK, 2016.

[3] E. Akins, E. Giddens, D. Glassmeyer, A. Gruss, M. Hedden, V. Friedman and M. Weand, *Sustainability education and organizational change: A critical case study of barriers and change drivers at a higher education institution*, Sustainability **11** (2019), no. 2, 501.

[4] E. Aksakal, M. Dağdeviren, E. Eraslan, and İ. Yüksel, *Personel selection based on talent management*, Proc. Soc. Behav. Sci. **73** (2013), 68–72.

[5] A. Ataiz, A. Al-Amry, and O. Green, *Assessment and geospatial distribution mapping of fluoride concentrations in the groundwater of Al-Howban Basin, Taiz-Yemen*, Arab. J. Geosci. **10** (2008), 1–11.

[6] J.P. Beckmann and J. Berger, *Rapid ecological and behavioural changes in carnivores: The responses of black bears (Ursus americanus) to altered food*, J. Zoology **261** (2003), no. 2, 207–212.

[7] P.M. Bican and A. Brem, *Digital business model, digital transformation, digital entrepreneurship: Is there a sustainable "digital"?*, Sustainability **12** (2020), no. 13, 5239.

[8] W.F. Cascio and J.W. Boudreau, *The search for global competence: From international HR to talent management*, J. World Bus. **51** (2016), no. 1, 103–114.

[9] L. Claus, *HR disruption—time already to reinvent talent management*, Bus. Res. Q. **22** (2020), 207–215.

[10] N. Collins-Kreiner, *Pilgrimage holy sites: a classification of Jewish holy sites in Israel*, J. Cultural Geog. **18** (1999), no. 2, 57–78.

[11] P.J. Davis, J.L. Leonard, and F.B. Davis, *Mechanisms of nongenomic actions of thyroid hormone*, Front. Neuroendocr. **29** (2008), no. 2, 211–218.

[12] R.J. Dobson, T. Colling, C. Brooks, C. Roussi, M.K. Watkins, and D. Dean, *Collecting decision support system data through remote sensing of unpaved roads*, Transport. Res. Record **2433** (2014), no. 1, 108–115.

[13] J. Dowell, E. Seltzer, M. Buckwalter, T. Marbury, D. Simoneau, and E. Boudry, *The pharmacokinetics of dalbavancin in subjects with mild, moderate, or severe hepatic impairment*, Critic. Care **12** (2008).

[14] M. Entezari, *The role of education on quality management and productivity of human resources in education and organizational excellence model*, Int. Conf. New Res. Manag. Econ. Account., 2014.

[15] B. Frankiewicz and T. Chamorro-Premuzic, *Digital transformation is about talent, not technology*, Harv. Bus. Rev. **13** (2020), no. 2, 2–6.

[16] E. Gallardo-Gallardo, L.A. Moliner, and P. Gallo, *Mapping collaboration networks in talent management research*, J. Organ. Effectiv.: People Perform. **4** (2017), no. 4, 332–358.

[17] H. Ghafari, M. Pourkiani, G.A. Shekhari and A. Sheikhi, *Designing talent management model with integration approach*, Gen. Manage. Stud. **10** (2017), no. 26, 117–142.

[18] J.M. Guerra, I.D. Danvila-del-Valle, and M. Méndez-Suárez, *The impact of digital transformation on talent management*, Technol. Forecast. Soc. Change **188** (2023), p. 122291.

[19] L. Haji, N. Valizadeh, and H. Karimi, *The effects of psychological capital and empowerment on entrepreneurial spirit: The case of Naghadeh County, Iran*, Int. J. Financ. Econ. **27** (2010), no. 1, 290–300.

[20] N. Harun, N. Mahmood, and S. Othman, *The effect of talent management factors on teacher's leadership at the secondary schools*, Manage. Sci. Lett. **10** (2020), no. 1, 225–234.

[21] R. Hasannejad, *Studying the association between talent management and organizational development with job motivation of employees (Studied case: Tehran's social security organization)*, New Res. Approaches Manage. Sci. Quart. **4** (2020), no. 22.

[22] A. Hasanpour, B. Abdulahi, S. Jafarinia and M. Memari, *Designing talent management model in banking industry using grounded theory*, Manage. Stud. (Improvement and evolution) **28** (2019), no. 93, 93–129.

[23] M. Hazrati and G. Memarzadeh Tehrani, *A model of ethical leadership consistent with Iranian public organizations*, J. Dev. Transform. Manag. **4** (2014), 63–70.

[24] S.E. Jackson and R.S. Schuler, *Understanding human resource management in the context of organizations and their environments*, Ann. Rev. Psycho. **46** (1995), no. 1, 237–264.

[25] D. Jarvis and P. Burney, *ABC of allergies: the epidemiology of allergic disease*, BMJ: Br. Med. J. **316** (1998), no. 7131, 607.

[26] M. Kaliannan, D. Darmalinggam, M. Dorasamy, and M. Abraham, *Inclusive talent development as a key talent management approach: A systematic literature review*, Human Resource Manag. Rev. **33** (2023), no. 1, 100926.

[27] M.R. Karami, S.M. Mirkamali, and J. Poorkarimi, *Investigate and explain the moral leadership and its dimensions (case study: Tehran university staff)*, Mission Public Admin. **7** (2016), no. 2, 17–34.

[28] B. Laurel and S.J. Mountford, *The art of Human-Computer Interface Design*, Addison-Wesley Longman Publish-

ing Co., 1990.

[29] A.S.M. Li, S. Kimani, B. Wilson, M. Noureldin, H. González-Álvarez, A. Mamai, L. Hoffer, J.P. Guilinger, Y. Zhang, M. von Rechenberg, and J.S. Disch, *Discovery of nanomolar DCAF1 small molecule ligands*, J. Med. Chem. **66** (2023), no. 7, 5041–5060.

[30] A.A. Lu, A.H. Baig and R. Gururajan, *An examination of talent management processes in Australian higher education*, Int. J. Product. Perform. Manag. **69** (2020), no. 6, 1271–1299.

[31] J. Mackea and D. Genarib, *Systematic literature review on sustainable human resource management*, J. Clean. Prod. **208** (2019), no. 1, 806–815.

[32] S.K. Mersely, *The effect of talent management dimensions on the quality of staff services of governmental organizations*, Second Nat. Conf. Improv. Rebuild. Organ. Bus. Tehran, 2020.

[33] K.W. Morton and D.F. Mayers, *Numerical Solution of Partial Differential Equations: An Introduction*, Cambridge University Press, 2005.

[34] Z. Nasiri and R. Jahanian, *Talent management strategies in education system*, Manage. Account. Econ. Quart. **2** (2018), no. 2.

[35] O.I. Omotunde and G.O. Alegbeleye, *Talent management practices and job performance of librarians in university libraries in Nigeria*, J. Acad. Librarianship **47** (2021), no. 2, 102319.

[36] H. Rangrazi and M.H. Karim, *Designing talent management model using grounded approach in Imam Khomeini relief foundation*, Decision Engin. Quart. **3** (2019), no. 9, 67–101.

[37] M. Rashki, H. Salarzahi and A.R. Kamalian, *Designing entrepreneurially talent management system using grounded approach for country's higher education institutions with grounded approach*, Entrepr. Dev. Sci. Quart. **10** (2017), no. 4, 595–614.

[38] S. Sabbar, A. Abdollahinezhad, A. Heidari and F. Mohammadi, *Knowledge management in the age of unreliable messages. do university students trust online messages? (a survey from the Middle East)*, AD-Minister (2021), no. 39, 143–162.

[39] S. Sabbar and D. Hyun, *What makes it likeable? A study on the reactions to messages in a digital social network: the case of Facebook in Farsi*, SpringerPlus **5** (2016).

[40] M. Sabzali, M. Sarfi, M. Zohouri, T. Sarfi, and M. Darvishi, *Fake news and freedom of expression: An Iranian perspective*, J. Cyberspace Stud. **6** (2022), no. 2, 205–218.

[41] S. Sharifi, A. Monazzami, Z. Nikousefat, A. Heyrani and K. Yari, *The acute and chronic effects of resistance training with blood flow restriction on hormonal responses in untrained young men: A comparison of frequency*, Cellul. Molecul. Bio. **66** (2020), no. 1, 1–8.

[42] A. Shirvani, M. Jahangir Fard, H. Sanatigar, and K. Ahmadi, *Investigating the relationship between ethical leadership and learning organization (a case study in pension fund of oil industry)*, Human Resource Manag. Oil Ind. **6** (2015), no. 23, 9–34.

[43] M.M. Tafti, M. Mahmoudsalehi, and M. Amiri, *Critical success factors, challenges and obstacles in talent management*, Ind. Commer. Train. **49** (2017), no. 1, 15–21.

[44] S. Vafaei Feijani, *A review on talent management concept in the organization (Dimensions and fields)*, 9th Nat. Conf. Mod. Stud. Res. Human. Manag. Entrepreneur. Iran, Tehran, 2022.

[45] O.I. Vaganova, Z.V. Smirnova, A.V. Chanchina, O.V. Korobova, V.G. Lizunkov and G.A. Stepanova, *Developing socio-cultural competencies of students at professional educational institutions*, SHS Web Conf., EDP Sci. **69** (2019), pp. 00113.

[46] E.S. van Zyl, R.B. Mathafena, and J. Ras, *The development of a talent management framework for the private sector*, SA J. Human Resource Manag. **15** (2017), no. 1, 1–19.

[47] M. Yagoubi Nader and B. Yazdani, *Talent management and succession in innovative organizations*, 3rd Nat. Conf. Bus. Manage. Entrepreneur. Account., Tehran, Iran, 2022.