

Designing a Talent Management Model of Employees (Case Study: Iran Technical and Vocational Training Organization)

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Abstract: Talent management is a tool to attract, select, recruit, develop and retain the potentials or talents to improve organizational performance. Technical and vocational organization also needs to develop and design a suitable model for employing talented and capable staff. The main objective of this study is to design a talent management model in accordance with the technical and vocational training organization of the country. Data were collected in the period of 2015-16. This study is a fundamental-developmental research in terms of objective and it is descriptive-survey study in terms of nature. The population consisted of managers, employees and trainees of Technical and Vocational Training Organization. Data were collected through interview and questionnaire. In the interview, sampling was targeted and random cluster sampling was done in the questionnaire. Morgan and Cochran formula were used for determining the sample size. The 278 managers, 374 employees and 384 trainees were selected as the sample. The method used in this study is based on grounded theory and data analysis in interviews is conducted in qualitative format and based on open, axial and selective coding and data analysis in questionnaire is conducted in quantitative format by using descriptive and inferential statistics. For statistical analysis, SPSS Software was used. Findings showed that the obtained model is consisting of 6 components in accordance to the grounded theory (causal conditions, pivotal concept, confounding conditions, strategies, context and outcome). In causal conditions, the main sub-components include senior management approach, expectations of employees, training system and improvement of human resources, working resume and education. In the pivotal concept, the model components include modern recruitment system, talent identification, motivating talented and elite people and talent measurement. In confounding conditions, the sub-components include organizational structure, hoping to organizational evolution, job security, independency, laws and regulations. The sub-components of the strategy include performance-competency-based payment system, performance appraisal, quality of work-life, financial incentives and identifying vacant jobs. In the context, the components include growth opportunities, fair payment, systematic approach and proper use of talent. The last component of the model is the outcome which includes job satisfaction, productivity increase, work enjoyment, discipline and creativity.

Key words: Model designing, talent management organizational evolution, strategic decisions, financial incentives

INTRODUCTION

In recent years, the concept of human capital has replaced by human resources and knowledge development is considered the most important foundation of human civilization. Facing with complex organizational issues needs knowledge and human talent rather than having advanced tools. Of course, recruiting talented and qualified human resources in organizations is considered as an essential issue, studies show that many organizations are having difficulty in this area and do not have the ability in preservation of their staff as organizational capital.

Today organizations know very well that although competitive advantage depends on the characteristics of each organization like structural and cultural characteristics, certainly having capable, smart and knowledge creator staff plays a decisive role in this direction; people with the knowledge and skills who can empower and bring about organizational growth. Today, achieving sustainable competitive advantage is not dependent on resources, geographical location, technology or processes because they can be competed with them or be bought. Knowledge, skills organizational performance and culture are major separators (Bhatnagar, 2007).

Successful organizations try to adopt procedures, programs and strategies to attract and maintain talents that are essential for the continuation of their existence. Therefore, organizations need to know what requirements they need met now and in the future so that, they are able to identify actual and potential abilities and talents among staff and in other words be able to manage talents (Sims and Gay, 2007).

Technical and vocational organization as one of the authorized organizations in the education and training of young people, need to plan and design a suitable model for the application of capable staff. This organization certainly would not be able to achieve its objectives in the field of empowerment of the trainees regardless of the talent management system. Managers and employees of all corporate and organizational levels should attract and act according to talent management principles. The talent management system creates a mechanism that would focus on organization's elites and strategic management of human resources which is consistent with today's dynamic and competitive environment. Therefore, in technical and vocational organization, trainees can be provided with trainings through appointing talented people in key positions as well as hiring experienced and caring teachers so that trainees can be quickly enter into the labor market after learning technical and vocational trainings. Therefore, designing a talent management model in this field is one of its main needs.

Main objective: Designing a talent management model in accordance with Iran technical and vocational training organization.

Secondary objectives: In order to achieve the main objective, the following sub-objectives have been considered:

- Determine the size and components of talent management system
- Designing talent management process
- Identifying the components of effective causal conditions in talent management model
- Identifying the components of pivotal concept in talent management model
- Identifying the components of confounding conditions in talent management model
- Identifying the components of strategies in talent management model
- Identifying the components of context in talent management model
- Identifying the components of outcome in talent management model

- Providing a strategy for proper implementation of talent management system in the organization

Conceptual definitions

Talent: Talent is the sum of a person's abilities, including intrinsic gifts, skills, knowledge, intelligence, attitude, drive and the ability to learn. Having talent in a field is often interpreted as slightly above average abilities (Cartwright, 2008). In another definition, people who regularly show an exceptional ability or achievement in a range of activities and situations or often show a high competency in activities within a specific area lead to significant changes (Khanlari, 2011).

Talent management: Talent management is facilitating improvement and career development of talented and skilled people in the organization with official processes, policies, methods and procedures. The process of talent management is focused on staff development and leadership for the organization's future (Khanlari, 2011). Talent management is for describing the concept and integration of human resource management activities with the objective to attract and retain the right people for key positions at the right time. Supplying and retention of talent is more important than anything or some reasons: knowledge economy, intense competition, transferring staff. Organizations are moving by people and it is the individual's talent that determines the success of organizations. Thus, talent management is defined as a core of management (Michaels *et al.*, 2001).

Technical and vocational training organization: Iran technical and vocational training organization is affiliated to the Ministry of Cooperatives, Labor and Social Welfare. It established by merging three educational institutions in 1980 by revolution council in order to provide vocational, professional and competency trainings. Subsequently, based on >10 regulations, the mentioned organization is unofficial for a short period and executes its activities by using governmental and public sectors. Besides the organizations headquarter in Tehran, there are 31 nation wide general offices and a teacher training center in Karaj. Currently, the organization trains >3 million people in different parts of the training courses including fixed and mobile urban facilities (barracks, prisons), rural and tribal mobile centers, education in industry, virtual education and technical and vocational schools. Technical and vocational training organization has always been trying to expand international relations with the International Labor Organization (ILO) and the

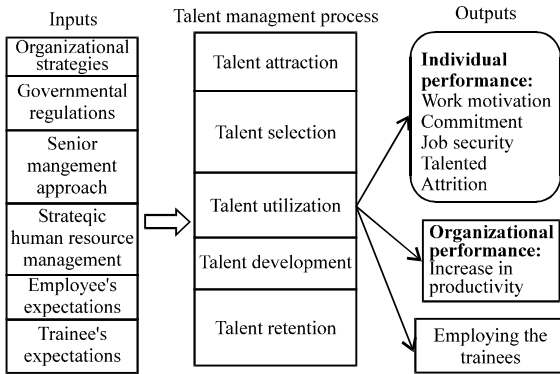


Fig. 1: Primary conceptual model

international organization of professional training and different countries of the world to achieve new science, skills, technology and being in line with international standards. The organization's strategies are based on the development of human resources productivity, financial and physical progress with regard to competencies maintenance and promotion policies (knowledge, skills and attitude) for the staff.

Literature review: Van *et al.* (2016) worked on identifying the characteristics of talent management of employees in international companies. Delphi and open encryption methods were used in this study. Results showed that the developed model has five characteristics for talent management: achieve accurate results, communication, creativity and innovation, inner reflection (in the case of their mistakes) and reciprocity. According to the results, the most obvious factors include innovation, creativity and having road map for achieving the objective.

Alvani *et al.* (2016) conducted a study on succession management system based on employee talent. This study was carried out on knowledge-based companies in science and technology parks of Tehran university and tarbiat modarres university and quantitative and qualitative composition method is used. The study is exploratory and its population consisted of 27 university experts and specialists. Targeted snowball sampling method was used to determine the sample. The results show that model designing is based on organizational capabilities and in accordance with its internal and external factors and the relationships between the model's elements are significant. Aksakal *et al.* (2013) conducted a study on personnel selection based on talent management. They concluded that the abilities, knowledge and skills have an important role in the success of the organization and having the wrong

personnel may lead to many affecting problems in productivity. This article suggests a hybrid model based on multi-criteria approach to solve the problem of personnel selection (Aksakal *et al.*, 2013).

Based on the results of studies by Sahaia and Srivastava (2012) in a study titled as "targeting and performance evaluation written as a tool for talent management", best practices in talent management are based on personal interviews and archival data. Maruta (2012) studied turning knowledgeable staff into innovative staff. He concluded that vision is the key to knowledge creation. In this study, a just-in-time conceptual model to improve productivity of innovative staff is used and details related to system development and management effects are introduced after the establishment of the system (Maruta, 2012).

Primary conceptual model: The model's framework has used previous researcher's talent management models for its input and the central part. Finally, it was designed according to the outputs of Collins Model and taking into account the organizational conditions. As it is seen in designing the conceptual model, 6 factors of organizational strategies, governmental regulations, senior management approach, strategic human resource management, employee's expectations and trainee's expectations are considered as input parameters. These factors will be guided to the outputs by the talent management process that is done in 5 steps. Talent management process includes talent attraction, talent selection, talent utilization, talent development and talents retention. This model is based on previous studies and will change according to the grounded theory during the study. The primary conceptual model is shown in Fig. 1.

MATERIALS AND METHODS

Given that in this study, library research methods and field methods (interviews and questionnaires) are used for data collection, it can be noted that this study is descriptive-survey research in terms of its nature.

Statistical population: Research information and data were collected in two stages of interviews and questionnaires. The population in interview stage is managers, experts and trainees, respectively. The population in the questionnaire is divided into three groups. The first group includes staff and non-staff managers. The second group includes staff and non-staff

Table 1: Sample selection for interview

Row	Population	Sample
1	Managers	1 head of the organization; 3 deputies; 3 staff managers; 3 director general
2	Staff experts	10 experts
3	Trainees	20 trainees

experts (including all administrative staff and coaches) and the third group are the trainees (trainee of technical and vocational training organization in this study refers to individuals who completed the course. In fact, the technical and vocational skills are learned and they are on the verge of employment).

Sampling and sample selection method: According to targeted and judgmental sampling among the provinces in the interview stage, the Director General of Gilan province, Khorasan province and Ardebil province are selected. Easier access and greater work experience was considered and among trainees, trainees of vocational training center (branch No. 3) of Gilan are selected which has more varied fields (Table 1).

Cluster random sampling method (two-step) is used for the questionnaire, among the provinces, the first 31 provinces adjacent to each other are considered in 12 categories and in the second phase one province was chosen from each category. To determine the sample size both Morgan table and Cochran formula were used. In both cases, the answer was the same. Cochran formula is as follows:

$$n = \frac{\frac{t^2 pq}{d^2}}{1 + \frac{1}{N \left(\frac{t^2 pq}{d^2} - 1 \right)}}$$

In the equation, n is the sample size, the maximum permissible error (d) is 0/05, t = 1/96 and p and q values are each = 0/5 and population size is considered as N. p-value is considered = 0/5. Because if p = 0/5, n gains its maximum possible value. This may in turn make the sample be large enough. The population size of managers is 1000 and the sample size based on Cochran formula is 278 people, as by dividing to 12 provinces, the number of questionnaires for managers is considered = 23. As well as employee's population size is 14,000 and the sample size based on Cochran formula is 374 as by dividing to 12 provinces, the number of questionnaires for employees is considered is equal 31. The population size

of trainees is 700000 and the sample size based on Cochran formula is 384 people as by dividing to 12 provinces, the number of questionnaires for trainees is considered is equal 32.

Questionnaire: Due to providing more efficient questionnaire in management studies carried out in Iran, attempts are made so that most necessary data to analyze the hypothesis of this study be collected through a questionnaire. In this study, the 5 point Likert scale questionnaire was used to collect data. According to the grounded theory, 51 items are designed in six parts: causal, pivotal concept, intervening conditions, confounding conditions, strategies, context and outcome as their components are determined by detailed interviews. Likert scale is one of the most important scale taken by questionnaire and had been devised by Likert. In this scale, it is tried to design items of agreement and disagreement simultaneously. And items of ambiguity should be removed and it is better to have approximately equal number of positive and negative items:

- (++) very high, 5
- (+) high, 4
- (+ -) medium, 3
- (-) low, 2
- (- -) Very low, 1

This scale is known as the scaled scores set. The real value of the scale can be achieved by the respondents. In addition to these characteristics, items could be much lower, around 30-15 items. In this scale, it is tried to design items of agreement and disagreement simultaneously. And items of ambiguity should be removed and it is better to have approximately equal number of positive and negative items. Since, referees are not used to measure the items values, it is necessary the items be available for respondents after a preliminary study and checking the validity and reliability. The respondents are asked to rate their agreement or disagreement with the content of the specified items. Each item offers five options for answer. Likert scores:

- Since, the respondents respond to the items, the value of this scale increases
- Since, the answers are not limited to yes and no, measurement accuracy is increased
- Since, respondent's answer all the questions, assessment is closer to the realit

Table 2: Different interpretation of Kendall's coefficient of concordance

Reliability on factor's order	Interpretation	Value W
Does not exist	Very poor consensus	0/1
Low	Poor consensus	0/3
Medium (appropriate)	Average consensus	0/5
High	Strong consensus	0/7
Very high	Very strong consensus	0/9

RESULTS AND DISCUSSION

Validity and reliability: Reliability is one of the technical features of the measurement tool. Different methods are used for calculating the reliability of the measurement tool. In this study, Cronbach's alpha was used to determine the final reliability of the questionnaire. The method used to measure the internal consistency of measurement tools such as questionnaires or tests that measure various properties. An acceptable level of Cronbach's alpha for practical purposes is at least 0/7. This method is used to calculate the coordination and internal consistency of measurement tool. For calculating Cronbach's alpha coefficients, the sample variance of each subset questions must be calculated. Then, using the following equation, one can calculate the alpha:

$$\alpha = \frac{k}{k-1} \left(1 - \frac{\sum_{i=1}^k S_i^2}{S_{sum}^2} \right)$$

Where:

- k = The number of questions
- S_i^2 = Variance of question ith
- S_{sum}^2 = The total variance of questions

As Cronbach's alpha is closer to one, internal correlation of questions is higher and as a result, the questions will be more homogeneous. In Cronbach's alpha index, 0/45 is low, 0/75 is medium and 0/95 is high. The coefficient of zero indicates a lack of reliability and +1 indicates full reliability. Therefore in the case of low alpha value, it should be checked to remove any questions that in turn may be raise the Cronbach's alpha index.

To examine the validity of the questionnaire, expert's opinions and were used. The questionnaire was given to experts and cited notes for increasing the reliability of the questionnaire will be compiled. Adopted validity to measure the aspects of this study is based on observable validity of literature and experts views and then it confirmed by the delphi method. To determine the degree of consensus among panel members, Kendall's Coefficient of Concordance was used in Delphi method. Kendall's Coefficient of Concordance is a measure for

determining the degree of coordination and agreement among several categories rankings of N objects or persons. In fact, by using this scale, one can rank correlation between K ranking series. This scale is useful especially in studies of the "inter judge reliability". Kendall's Coefficient of Concordance shows that people who have arranged several categories based on their importance have essentially adopted same criteria for judging the importance of each category and are agree with each other. The scale is calculated using the following equation:

$$W = \frac{s}{\frac{1}{12}k^2(N^3 - N)}$$

$$s = \sum \left(R_j - \frac{\sum R_i}{N} \right)^2$$

Where:

- R_j = Sum of squares of deviations R_i from the mean of
- R_j = Total rankings related to one factor
- k = The number of ranking sets (number of judges)
- N = The number of ranked factors

Maximum possible sum of the squared deviations $R_j = 1/12k^2(N^3 - N)$ (i.e., the sum as which would occur with perfect agreement among k rankings). The value of this scale is = 1 when there is full coordination and in absence of complete harmonization, it is zero. "Schmidt" provided two statistical criteria for making decisions about stopping or continuation of Delphi cycles. The first criterion is strong consensus among the panel members which is determined by Kendall's coefficient. In the absence of such consensus, the constant coefficient or low growth in two consecutive rounds show that there has been no progress in consensus of members and survey process should be stopped. Table 2 shows different interpretation of these values.

It should be noted that statistical significance of W coefficient to stop the Delphi process is not adequate. For panels with >10 members, even very small values of W are also considered significant. Accordingly, the following hypotheses for each of the items are considered:

- H_0 : There is no consensus mean among experts for the items in hypotheses
- H_1 : There is consensus mean among experts for the items in hypotheses

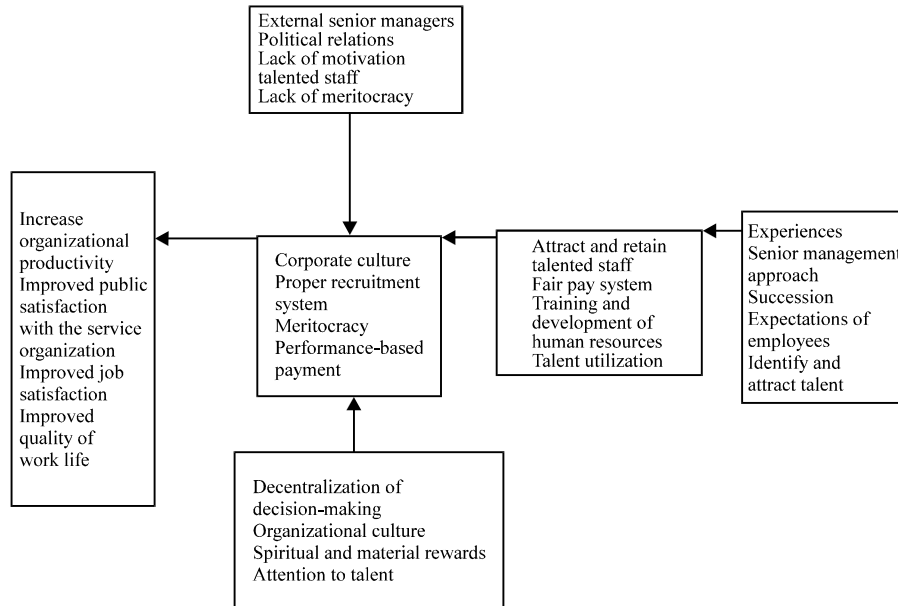


Fig. 2: The basic model of talent management based on the selective coding

After modification and deletion of the questionnaire’s questions conducted by the opinions of 22 experts, delphi method was used in the second time. According to the results obtained in this step, questionnaire has been confirmed.

In order to analyze the obtained data from interviews, three-stage process of open, axial and selective coding is used. The process begins by reading the data of interviews related to talent management and similar data that have the same meaning. Will be coded and appropriate concepts is allocated to each. During this phase which is called open coding, the action is different and researcher tries to design characteristics and dimensions to better understand and identify each concept’s volatility.

Once the categories are formed. Researcher tries to select a category in which its trace is visible in different data. This issue is called pivotal concept is driven by data coding and all source and root of topics related to talent management can be understood. Next, the researcher tries to find out about the relationship of each. In this stage, the position of other categories around the key category will be identified. Thus, the researcher has identified the causal conditions and outcomes among other categories. Then, the involvement of each of these categories in the pivotal concept in form of narrative events is described. In the final stage of refinement and categories completion and concepts obtained from the data, the theory related to talent management is created. This stage is called selective coding and the course of

Table 3: Mean, SD, minimum and maximum age

Group	Mean	SD	Min.	Max.
Managers	3/42	44/7	31	55
Employees	02/36	26/9	26	51
Trainees	3/21	21/4	15	28

talent management events is described by using categories and existing or new concepts. This step provides a model for talent management.

Analysis of interview

Selective coding: According to adopting open and axial coding, results of selective coding of talent management model within the framework of grounded theory are presented in Fig. 2.

Analysis of the questionnaires: The frequency and the frequency percentage of gender of the three groups are given in March 13, 2017 (Table 3 and 4). The frequency and the frequency percentage of educational levels of the three groups are given in Table 5. The frequency and the frequency percentage of working experience of the three groups are given in Table 6.

Assessing the components of talent management model

Descriptive analysis: Table 7 the results of the descriptive analysis of the components of talent management from the perspective of the first group (managers) are provided.

Table 4: Frequency and the frequency percentage of gender in the entire sample

Gender	Managers		Employees		Trainees	
	Frequency	Frequency (%)	Frequency	Frequency (%)	Frequency	Frequency (%)
Male	236	92/84	241	43/64	228	37/59
Female	42	10/15	133	56/35	156	62/40
Total	278	100	374	100	384	100

Table 5: Frequency and the frequency percentage of educational levels

Education	Managers		Employees		Trainees	
	Frequency	Frequency (%)	Frequency	Frequency (%)	Frequency	Frequency (%)
Diploma	-	-	26	6/95	237	71/61
Associate degree	15	5/39	124	15/33	96	25
Bachelor	138	49/64	142	96/37	49	76/12
Master's degree or higher	125	44/96	82	92/21	-	-

Research findings

Table 6: Frequency and the frequency percentage of working experience

Experience	Managers		Employees	
	Frequency	Frequency (%)	Frequency	Frequency (%)
10-5	59	21/22	98	20/26
15-10	141	50/71	132	29/35
20-15	46	16/54	84	45/22
20 over	32	11/51	60	04/16

Table 7: Descriptive analysis of the components of talent management from perspective of managers

Component/item	Mean	SD	Min.	Max.
Causal conditions				
Human resource training and development system	3/91	0/84	2	5
Senior management approach	4/32	0/74	2	5
Job interviews in the process of recruitment	2/9	0/89	1	4
Resume	3/72	0/77	1	5
Educational level	3/07	0/98	1	5
Expectations of employees	4/12	0/92	2	5
The interests of employees in the organization	3/57	0/65	1	5
Personality	3/43	0/61	1	5
Planning for effective preparation of the employees in managerial roles	3/85	0/88	1	5
Pivotal concept				
Encourage the talent and elites	3/73	1/09	1	5
The potential of employees	2/93	0/94	1	4
Staff intelligence	2/81	0/82	1	4
Talent identification	3/38	0/74	1	5
Succession system	3/08	0/95	1	5
Potential survey	3/58	0/19	1	5
Modern recruitment system	4/21	1/14	2	5
Retention of talent	3/96	1/1	2	5
Talent development	3/41	0/88	1	5
Confounding conditions				
Attention to the political relationship in the organization	3/74	1/08	1	5
Hoping to organizational evolution	3/82	1/05	2	5
Independency of staff	2/4	1/01	1	4
The structure of the organization	4/13	0/89	1	5
Rules and regulations	3/55	1/15	1	5
Commitment and organizational identification	2/96	0/94	2	5
Job security	3/06	0/99	1	5
Job quitting	2/83	0/84	1	4
Long-term vision	3/03	0/72	1	5
Strategies				
Financial incentives	3/5	0/85	1	5
Identifying vacant jobs	3/6	0/75	1	5
Quality of work life	2/98	0/83	1	4
Job rotation	3/71	0/85	1	5
Performance evaluation	4/16	0/8	2	5
Performance-based payment system	3/83	0/93	2	5

Table 7: Continue

Component/item	Mean	SD	Min.	Max.
Context				
Being useful for the employees	3/03	1/01	1	5
Trust	3/01	0/95	1	5
Strengthen the sense of responsibility	3/31	1/03	1	5
Growth and promotion opportunities	3/19	0/92	1	5
Appropriate spiritual rewards	3/95	0/88	1	5
Fair payments	3/84	0/86	2	5
Proper use of talents within the organization	4/10	0/97	2	5
Increasing faith and fear of God	4/21	0/64	1	5
Systemic approach	4/22	0/86	2	5
Outcome				
Creativity	2/81	1/02	1	5
Increasing productivity	4/31	1/1	12	5
Job satisfaction	3/71	0/85	2	5
Enjoyment of the job	3/02	0/97	1	5
Desired quality of service	3/32	0/97	1	5
Discipline	3/59	1/36	1	5
Law enforcement	3/65	1/32	1	5
Competitive advantage	3/08	0/91	1	5
Achieve organizational goals	3/83	0/82	2	5

Table 8: T-test results and ranking causal conditions

Sub-component	t-statistics	p-values	Ranking mean
Human resource training and development system	5/76	0/000	6/28
Senior management approach	7/57	0/000	9/23
Job interviews in the process of recruitment	-1/03	0/321	2/62
Resume of employees	-5/76	0/000	5/52
educational level	1/18	0/067	3/45
Expectations of employees	7/21	0/000	8/78
The interests of employees in the organization	4/65	0/000	4/75
Personality	3/25	0/001	4/32
Planning for effective preparation of the employees in managerial roles	3/21	0/001	5/93

Chi-square = 52/53; Degrees of freedom = 8

Inferential analysis: After descriptive analysis of the components of talent management from the perspective of managers, the analytical sub-components are addressed. The first component is the causal conditions to determine the significance and ranking of sub-components from one sample t-test and Friedman have been used. The results of this test are reported in Table 8. To evaluate the hypothesis that components are as follows:

- $H_0: \mu = 3$
- $H_1: \mu = 3$
- H_0 : The impact of causal conditions sub-components in talent management model is average or less than average
- H_1 : The impact of causal conditions sub-components in talent management model is higher than average

In order to confirm or reject these hypotheses regarding the existence of a theoretical mean and experimental mean that is the mean of respondents, one-sample t-test is used. Results show that the value of t-statistics is significant for all sub-components and the p-value for all indexes is less than standard significance level (0/05). However, in to indicators of job interviews in the process of recruitment and education allevel, the t-statistic is not significant. Thus, the null hypotheses for job interviews in the process of recruitment and educational level are confirmed; in fact

this means that the two sub-components in talent management model are not suitable from perspective of managers. In other sub-components, the hypotheses are confirmed and it is shown the importance and necessity of each of the indicators is larger than the average and are desirable. In other words, indicators of improvement and the educational system, senior management approach, resume, expectations, interests, personality and planning to prepare employees in the causal conditions are appropriate and acceptable for designing a model for talent management.

To compare experimental and theoretical means, Radar chart is used. Following radar chart, 3 components of the causal conditions have been reported. The chart also shows that two indicators of job interviews in the process of recruitment and educational level have little experimental and theoretical means difference which is indicative of inappropriate indicators in talent management model (Fig. 3). Radar chart for comparison of theoretical and experimental means for causal conditions thus for all other components including pivotal concept, confounding conditions, strategies, context and outcome, experimental and theoretical means and one sample t-test of Friedman have been implemented. Descriptive and inferential analysis of all components has also been conducted from the perspective of employees and trainees. The results have been used to determine the final talent management model.

Table 9: Selected indicators from the perspective of managers, employees and trainees in talent management model

Component	Row	Managers	Employees	Trainee
Causal conditions	1	Senior management approach (9/23)	Human resource training and development system (8/28)	Working experience resume (8/23)
	2	Expectations of employees (8/78)	Working experience resume (7/75)	Senior management approach (8/17)
	3	Human resource training and development system (6/28)	Expectations of employees (7/18)	Human resource training and development system (7/65)
	4	Planning for effective preparation of the employees in managerial roles (5/93)	Employee's interest (93/6)	Educational level (41/7)
	5	Working experience resume (5/52)	Educational level (6/45)	Planning for effective preparation of the employees in managerial roles (7/08)
Pivotal concept	1	Modern recruitment (8/03)	Modern recruitment (8/28)	Modern recruitment (8/18)
	2	Talent retention (7/83)	Talent retention (8/01)	Talents measurement (7/73)
	3	Motivating talented people (6/68)	Talent identification (7/32)	Motivating talented people (7/22)
	4	Talents measurement (5/73)	Motivating talented people (6/71)	Talent identification (6/81)
	5	Talent development (5/21)	Talent development (5/73)	Talent retention (6/01)
Confounding conditions	1	Structure in organization (9/47)	Structure in organization (8/48)	Job security (10/22)
	2	Hoping to organizational evolution (8/91)	Job security (8/21)	Structure in organization (9/47)
	3	Attention to the political relationship in the organization (8/25)	Hoping to organizational evolution (7/91)	Long-term vision (9/21)
	4	Rules and regulations (6/68)	Rules and regulations (7/75)	Hoping to organizational evolution (8/85)
	5	Job security (5/48)	Independency of staff (6/72)	Independency of staff (7/72)
Strategies	1	Performance Evaluation (5/83)	Performance-based payment system (6/95)	Financial incentives (7/25)
	2	Performance-based payment system (5/33)	Financial incentives (5/26)	Performance evaluation (7/83)
	3	Job rotation (4/37)	Quality of work life (4/97)	Performance-based payment system (7/29)
	4	Identifying vacant jobs (3/95)	Performance Evaluation (4/57)	Quality of work life (6/97)
	5	Financial incentives (3/73)	Job rotation (3/57)	Identifying vacant jobs (5/81)
Context	1	Systematic Approach (8/31)	Fair payments (9/52) opportunities (31/11)	Growth and promotion
	2	Proper use of talents within the organization (7/99)	Growth and promotion opportunities (8/35)	Fair payments (10/45)
	3	Spiritual rewards (7/28)	Being useful for the employees (8/22)	Systematic approach (9/39)
	4	Fair payments (6/52)	Proper use of talents within the organization (8/11)	Strengthen the sense of responsibility (8/51)
	5	Strengthen the sense of responsibility (6/41)	Systematic approach (7/82)	Proper use of talents within the organization (8/02)
Outcome	1	Increasing productivity (9/17)	Job satisfaction (8/33)	Job satisfaction (8/41)
	2	Achieve organizational goals (8/71)	Enjoyment of the job (7/84)	Enjoyment of the job (8/11)
	3	Job satisfaction (7/57)	Increasing productivity (7/22)	Increasing productivity (7/73)
	4	Law enforcement (7/25)	Discipline (6/82)	Creativity (7/18)
	5	Discipline (6/78)	Creativity (6/14)	Discipline (6/84)

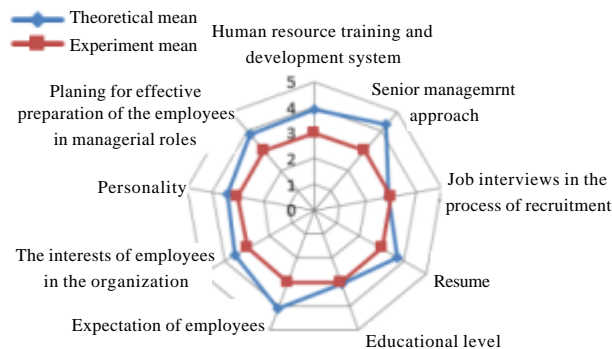


Fig. 3: Radar chart for comparison of theoretical and experimental means for causal condition

The final talent management model: After reviewing descriptive and inferential analysis of the components of talent management model we summarized obtained

sub-components. Table 9 indicators that have achieved the highest rank by managers, employees and students are presented in order of priority. By analyzing the results,

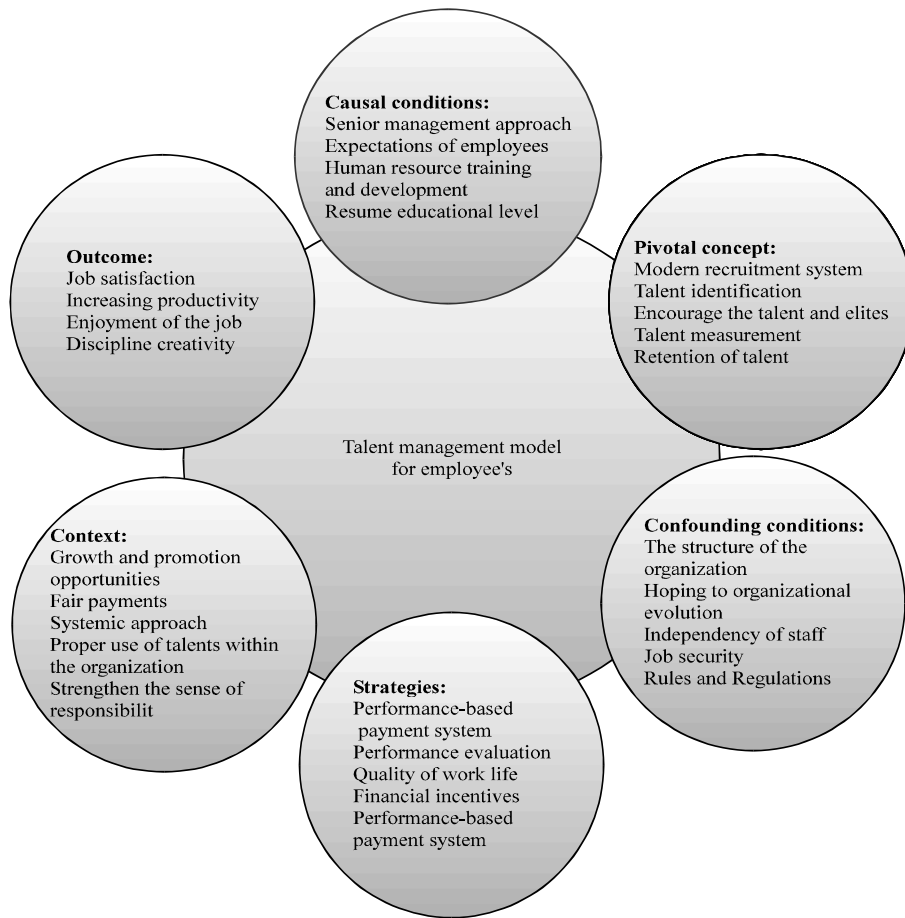


Fig. 4: Final talent management model for employees of technical and vocational training organization

the final talent management model for employees of technical and vocational training organization is achieved.

According to the results in Table 9, talent management model for employees of technical and vocational training organization is shown in (Fig. 4). The obtained model is designed according to perspective of managers, employees and trainees of technical and vocational training organization of selected provinces. Employee's talent management model suggests that in causal conditions, the components of the model include senior management approach, expectations, educational system and improvement of human resources, resume and educational level. In the pivotal concept, the model components include modern recruitment system, talent identification, motivating talented and elite people and talent measurement and talents retention. In confounding conditions, the sub-components include organizational structure, hoping to organizational evolution, job security, independency, laws and regulations. The sub-components of the strategy include performance

competency-based payment system, performance appraisal, quality of work-life, financial incentives and identifying vacant jobs. In the context, the sub components include growth opportunities, fair payment, systematic approach and proper use of talent and accountability. The last component of the model is the outcome which includes job satisfaction, productivity increase, work enjoyment, discipline and creativity.

CONCLUSION

After interview and questionnaire and survey of managers, employees and trainees of technical and vocational training organization in selected provinces, talent management model was developed. The obtained model is based on 6 components in accordance to the grounded theory (causal conditions, pivotal concept, confounding conditions, strategies, context and outcome). In causal conditions, the main sub-components include senior management approach, expectations of

employees, training system and improvement of human resources, working resume and education. In the pivotal concept, the model components include modern recruitment system, talent identification, motivating talented and elite people and talent measurement. In confounding conditions, the sub-components include organizational structure, hoping to organizational evolution, job security, independency, laws and regulations. The sub-components of the strategy include performance-competency-based payment system, performance appraisal, quality of work-life, financial incentives and identifying vacant jobs. In the context, the components include growth opportunities, fair payment, systematic approach and proper use of talent. The last component of the model is the outcome which includes job satisfaction, productivity increase, work enjoyment, discipline and creativity.

In the following, comparisons of our results with previous studies are presented. It is noteworthy to mention that for the first time the study was carried out on technical and vocational organization in the country and the obtained results consists of indigenous and unique components of this organization. However in order to clarify the aspects of the study, it is compared with other studies of organizations. Khalvandi (2013) concluded in designing a model of talent management in the pars oil and gas company that there is a significant difference between talent management and its optimal situation. And viewpoints of managers and employees about talent management process and its components are significantly different which is similar to the findings of our study. Khalvandi (2013) addressed the prominent characteristics of the talent management process optimization model in pars oil and gas company as being systematic. Which is consistent with the results of our study in terms of context components as a systematic approach is considered as one of the components of talent management model. Hosseini concluded talent management in the organization reduced job quitting and vacant key positions which are consistent with the results of this study in terms of strategy component. Karimi *et al.* (1969) cited laws and regulations as the factors underlying strategic talent management which is consistent with the results of this study in terms of confounding conditions. Shahtalebi concluded that dimensions of talent management include the granting of maximum autonomy and independency to talented people in performing tasks (employees independency), motivation (incentive), providing context of creativity and innovation, senior management and middle management approach and support for talent management system, supervisors and

organization's support on implementation of talent management system (structure) that are consistent with the results of this study.

Heugten showed that the most significant factors in for international companies include innovation, creativity and having road map for achieving the objective which is consistent with the results of our study. Sahai and Srivastava (2012) stated that best practices in talent management are based on personal interviews and archival data (resume). Their findings are consistent with the results of this study. Ajanist emphasized on providing opportunities and rewards in their talent management model as their results are consistent with the findings of this study in terms of strategy and context component. Wallis *et al.* (2010) in a study in microsoft enterprise showed that this organization creates opportunities for continuous learning and development for all employees and investing in smaller groups of staff whom have the potential to achieve senior positions. Components of their study are consistent with the findings of our study in terms of growth opportunities and encouraging talented people. Tymon *et al.* (2010) emphasized on internal and non-cash rewards and considered them in maintaining employee's satisfaction and success. This component is known as the spiritual rewards in our study and from the perspective of respondents has not been an effective component for talent management.

REFERENCES

- Aksakal, E., M. Dagdeviren, E. Eraslan and I. Yuksel, 2013. Personel selection based on talent management. *Procedia Social Behav. Sci.*, 73: 68-72.
- Bhatnagar, J., 2007. Talent management strategy of employee engagement in Indian ITES employees: Key to retention. *Employee Relat.*, 29: 640-663.
- Cartwright, R., 2008. The talent management: New views to human capital development. *Rasa Institute of Cultural Services*, Tehran, Iran.
- Karimi, H., A.H. Ali and A. Hasan, 1969. Factors underlying strategic talent management. *Strategic Manage. J.*, 2: 71-81.
- Khalvandi, F., 2013. Designing a model of talent management strategy based on international experience in Pars Oil and Gas Company. Ph.D Thesis, Allameh Tabataba'i University, Tehran, Iran.
- Khanlari, A., 2011. Developing a model for the process evaluation of customer relationship management in the private commercial banks of Iran. Ph.D Thesis, University of Tehran, Tehran, Iran.

- Maruta, R., 2012. Transforming knowledge workers into innovation workers to improve corporate productivity. *Knowl. Based Syst.*, 30: 35-47.
- Michaels, E., J.H. Handfield and B. Axelrod, 2001. *The War for Talent*. Harvard Business Publishing, Boston, Massachusetts, ISBN:1-57851-459-2, Pages: 203.
- Sahai, S. and A.K. Srivastava, 2012. Goal-target setting and performance assessment as tool for talent management. *Procedia Social Behav. Sci.*, 37: 241-246.
- Sims, D. and M. Gay, 2007. *Building Tomorrow's Talent: A Practitioners Guide to Talent Management and Succession Planning*. Authorhouse, Bloomington, IN, USA.
- Tymon, W.G., S.A. Stumpf and J.P. Doh, 2010. Exploring talent management in India: The neglected role of intrinsic rewards. *J. World Bus.*, 45: 109-121.
- Van, H.P., P.M. Heijne, W. Paans and M. Wolfensberger, 2016. Characteristics of highly talented international business professionals defined: Qualitative study among international business professionals. *Eur. J. Training Dev.*, 40: 58-73.
- Wallis, S., B. Underhill and C. Mcnamara, 2010. Microsoft Corporation. In: *Best Practices in Talent Management: How the Worlds Leading Corporations Manage, Develop and Retain Top Talent*, Marshall, G. and C. Louis (Eds.). John Wiley and Sons, Hoboken, New Jersey, ISBN:978-0-470-49961-0, pp: 177-207.