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Designing Brilliant Model for Human Resources Excellence in Industry with Fuzzy Delphi Technique

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Abstract

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The aim of this research is to design a model for excellence in human resources emphasizing its results in organizational behavior. This research depending on the purpose of basic research is also based on the research project and the terms of data collection, research is a descriptive (non-experimental), exploratory and adaptive. The instrument used in this study is a questionnaire consisting of 31 questions. To assess the validity of the judgment validity and Cronbach's alpha coefficient was used to test its validity. To validate the proposed model, were based on the Delphi technique several times asked of professors, scholars, pundits and experts. Until finally the ultimate model is to be adopted by consensus among respondents who were 30. Which eventually had 26 people willing to answer the final phase Delphi. The survey was conducted in four stages and results of each stage using formulas fuzzy Delphi technique was refined and feedback was given to respondents. Finally, brilliant pattern of human resource excellence in five main processes, 22 component and 10 standard designed as the model for Pathology of Human Resources and Human Resources Excellence Award was presented in Industry.

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Introduction

The main goal of human resource management in any organization is to contribute better performance to achieve organizational objectives. Productivity could be defined as effective use of human and financial resources; though, human resource management is unable to directly intervene in type of procedures for using other resources in an organization, since human factors are actively available in all scenes, human resource management can design plans and systems to properly recruit organizational manpower and play a key role in sustainability and efficiency of an organization (Armstrong, 2005).

On the other hand, model of excellence is a management structure that brings about improvement and progress with an emphasis on basic principles and concepts, bearing in mind major criteria of inclusive quality management and self-assessment system. Model of excellence is an instrument to assess how systems are established in organization; it is a tool for self-evaluation and guidance to identify and determine the direction in which managers operate in order to improve performance. Therefore, the key message of model of excellence is based on answering two questions: How this model is identified as a proper and rational management structure and who can play a fundamental role in such communication and interaction chain? The first level of this model deals with general objectives and in the next level, general objectives are analyzed in quantitative and measurable degrees and scales (Mirsepasi & et al, 2010).

By applying the above models, organizations are able to evaluate their success in implementation of improvement programs at various timeframes and on the other hand, they compare their performance with other establishments, particularly with the best ones. Such models are considered a common language to compare organizations' performance and success. That is true to a large extent that there is not such a standard and universal version of human resource management. So far, numerous patterns have been introduced by thinkers and researchers in the field of human resources for excellence of human resources that will be addressed in the present study.

A deeper contemplation on the issue reveals that such topics have barely been taken into

account theoretically and in terms of management; our managers are not well acquainted with these subjects; they have no knowledge on these systems and they have found it very challenging to apply them. Despite all efforts by universities in training skilled manpower and notwithstanding all initiatives in raising awareness in the field of human resources in order to indicate importance of human capitals for managers and leaders of organizations, managers' attitude toward human resources is basically instrumental. As such, it seems that a broader and more appropriate solution needs to be introduced and provided to managers; models that could be effective even for managers unfamiliar with modern management systems, so as to enable them to find the right path by a simple review of the model in hand. For instance, when we deal with human resource strategies, there should be a model to outline the topics of the issue and to be usable for those who examine the model. Such models could be a guide and/or a primary instruction for managers who are only beginners in this road.

The core role of committed, creative, intelligent, capable, accountable and motivated human resources as the most important element and the most valuable organizational capital and its impact on improvement, efficiency and effectiveness of education system has always been underlined. No doubt, management of this matchless and effective element for realization of education main objectives requires key initiatives, specially - tailored mechanisms and decent guidelines for professional training and building expert manpower and consequently, increasing their service motivations and further efficiency (jazani & rostami, 2011).

Based on the above discussions, the present research is to design a suitable model for evaluation of excellence of human resources, taking into account specifications of public organizations, with an emphasis on the outcomes of its organizational behavior in order to provide organizations with needed ground for development of their human and social capitals. Thus, we try to develop and present fitting criteria for each and every different aspect of human resources in the primary offered conceptual model to enable human resource managers to evaluate and plan processes and systems of management and to

bring up their human resources and constantly improve them. To this end, and by underscoring the results of organizational behavior, we have to ask which model can best evaluate excellence of human resources in organization? What are the dimensions and components of this model? To answer this question, while defining various concepts of excellence, its dimensions and components, and by identifying various models of human resource excellence, the recommended model of research is designed and by applying delphi technique, its components and criteria will be refined and validated.

Innovation

1. As the researcher has studied, there is no model for human resource excellence in the industry that will be designed in this research.
2. The criteria, components, and structure of this model will be designed that does not exist in other excellence models.

Diamond

Most people have somehow good information about diamond; they know that diamonds are at the top of the scale in terms of hardness among precious and semi-precious stones. They are very expensive. There are diamonds with a specific history, backing countries' national money. Their transparent and colorless type is the most admired one; however, nowadays various colors of diamond are popular among customers...

Brilliant is the way a diamond stone is cut; i.e. a version of diamond Swiss cut that used to be applied for a variety of stones in the past (Tappert, 2011). Optical properties, great hardness and scarcity have made diamond the king of the gemstones. The word Brilliant is usually used for diamonds round cut. The most perfect brilliant cut has at least 32 facets on pavilion. The girdle in modern round cut could have 32, 64, 80 or 96 facets, which is not counted on total facets of brilliant (58) (Tappert, 2011).

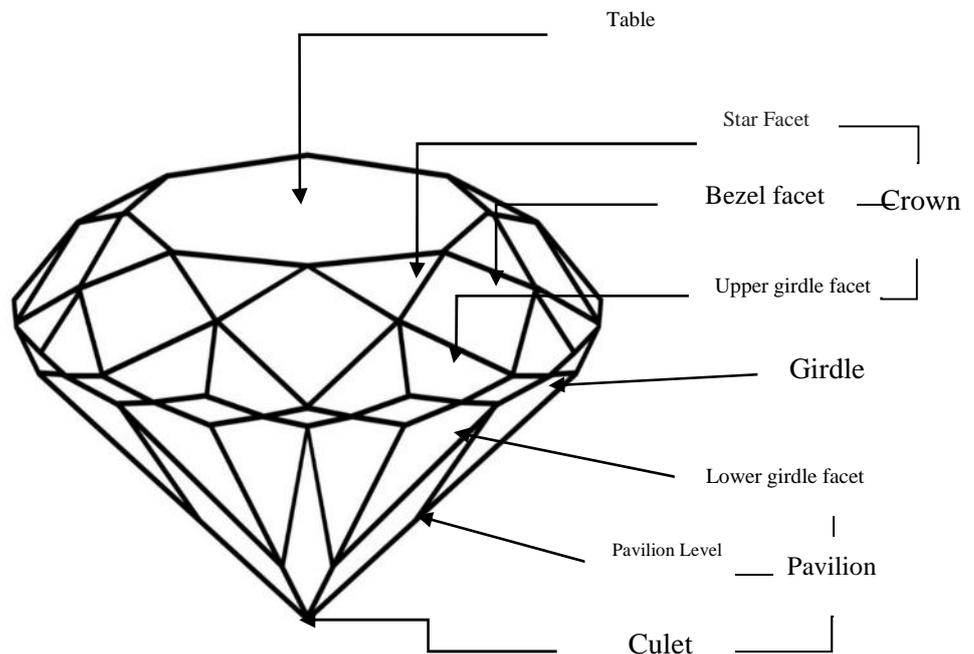


Figure 1: A display of different parts of Brilliant (http://www.allaboutgemstones.com/diamonds_4cs.html)

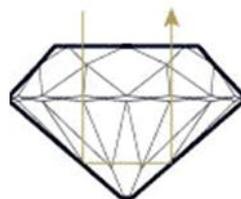
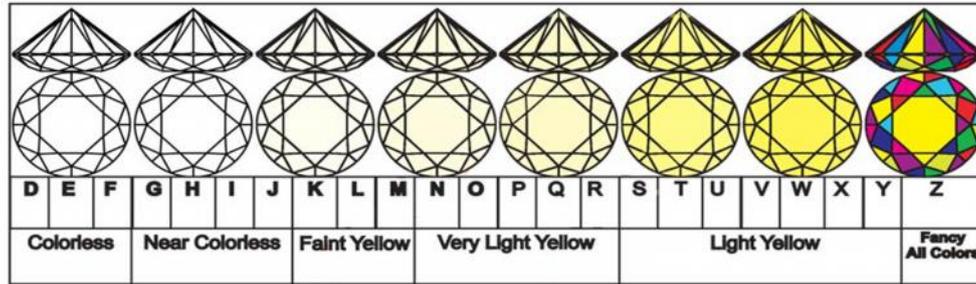


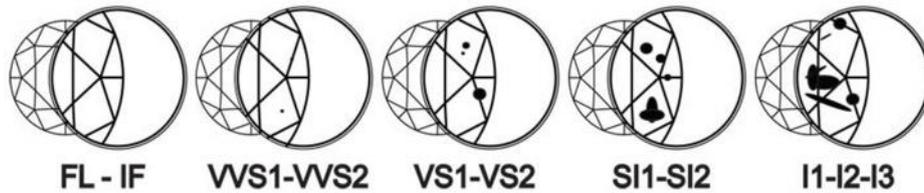
Figure 2: Light reflection in Brilliant

Brilliant Color: The GIA D-to-Z scale is the industry standard for color-grading diamonds.



Brilliant clarity scale:

The criteria for scaling impurity in brilliant is observing impurity with a magnifier with magnification of X10.



A cut of standard diamond stone has many specifications illustrated in the following figure.

Based on information already provided, the following table is a comparison of diamond and human being and their points in common:

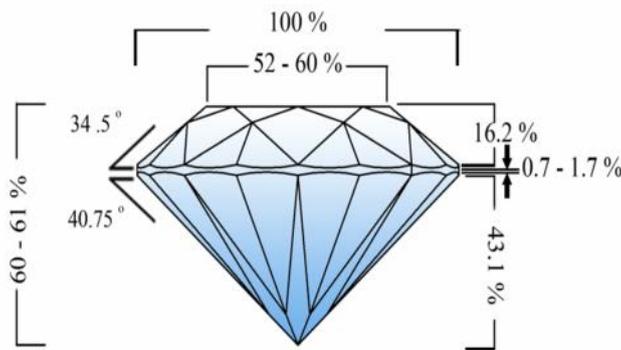


Table 1: Comparison and Contrast between Diamond and Human Being

Comparison/ Criterion	Diamond	Human being
Single chemical formula	Has (pure carbon)	Has (carbon atoms)
Standard structure	Has	Has
System	Has	Has
Impurity criterion	Has	Has
Color	Has	Has
Grading possibility	Has	Has
The best	Existing stone	Existing stone
Hardness relation	Has	Has

Primary model design

After studying various models of human resource excellence, a Table was drawn in columns of which, human resources were inserted and in the rows, human resource indicators of excellence were included in order to indicate the distinctive and similar points of

each model; then, by reviewing these models and by considering strong and weak points of every model and previous experiences of researcher under guidance of professors, the primary conceptual model was designed. According to the studies of different models of human resource excellent, a comparison could

be performed based on indicators including the ones mentioned in the following Table:

Table 2: Comparison of Criteria of human resource excellence models

(Jazani, 2015) and (Gholipour, 2013)

Indicators	Standard 34000	excellence Combination	Filiphs	HR E	P.D	I.I.P	EFQM	Baldrige	Deming	Iran excellence
HRP	**	**	*		*	*	**	*		**
Selection and Employment	**	**	**	**			**	**		
talent management	**	**	**	**	*	**		*		*
Teaching	**	**	*	**	**	*		**	**	*
Career management	**		**	**	**	*		**		
Performance evaluation system	**		**		**	**		**		
Reward Management	**		**	**		**		*		*
Safety and Health	**	**	**					**		*
Compensation for Services and Welfare	**	**	**	**				**		**
Employee- management relationships	**		**	**	**			**	**	**
Empowering human resources	**				**	**				
Learning					**	**	**	**		
Organizational Commitment	**	**								**
Job Satisfaction	**	**		**				**		**
Motivation	**	**						**		
Succession	**		**	**						
Human Resource Productivity	**									
Human Resources Information System	**	**	**	**					**	
Regulation				**						
Strong relationship ** weak relationship * non-relationship --										

By comparing models of organizational excellence, as depicted in previous models, it

could be said that most criteria in domain of their human resources have strong link

together. This result not only shows focus of organizational excellence models on various aspects of human resource management and development; but it means an inclusive coverage and alignment of human resource excellence model with human resource aspect of organizational excellence models and various aspects of human resource management and development.

Thus, in the primary recommended model, we tried to develop and present proper criteria for each and every aspect of human resources in order to enable human resource managers to evaluate and plan the processes and systems of their human resource management and development based on them and to constantly make improvement.

The offered model is based on the best diamond cut, i.e. brilliant, the facets of which were introduced in Figure 1, as its shape is standard and any piece of which has a specific name; meanwhile, one of its features is reflection (when the light falls on diamond surface and crown facets, the glare is reflected), shown in Figure 2. Now, the researcher takes it as the basis of its model according to the features of this shape of

diamond; and he/she is able to find the proper relationship based on various surfaces of brilliant and various measures by human resources. As mentioned in the recommended model, this is a systemic model as well the surroundings of which is diamond upper facet (covering the entire diamond surface), its input is crown facets, its process is girdle, its output is pavilion facets and finally, its feedback is incorporated within diamond. Four variables of culture, strategy, technology and structure are taken into account as variables of system's environment and in the model's girdle, five major processes of human resource management were discussed, including: human resource supply, human resource development, human resource retention, performance management and designing and developing; each of such major processes has a set of inputs, distinguished by a specific color (diamond color spectra); for the outputs, the results of human resource initiatives as organizational behavior, the results of each process is referred to with a specific color. One of the features of this model is displaying link between human resource management and organizational behavior management.

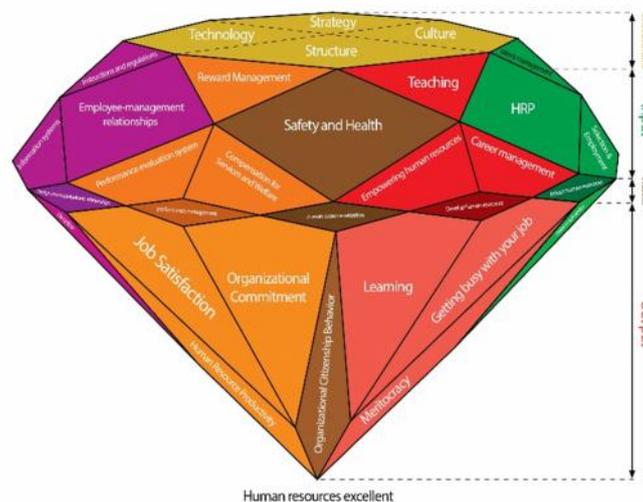


Figure 3: Research Primary Model

Material and methods

Since this research deals with human resource model of excellence and presents a modern design of particulars of human resource excellence and seeks to develop the existing knowledge about principles and relationships between excellence indicators of human resources, it is considered a fundamental

research based on its objective. Also, based on research plan and in terms of collecting data, the present study is a descriptive research (non-experimental). The other method used for this research is exploratory method of research as well as comparative method; since by exploring structure of models and comparing

various models on human resource excellence, the recommended model will be designed.

Since the present research is a comparative type of research; therefore, its statistical population includes all models of human resource excellence as paradigms to be studied.

In order to validate the recommended model, based on Delphi technique, the recommended model was put into a survey of university professor's opinion, thinkers, scholars and experts, and finally, the best model was unanimously accepted by responders, among which, 30 persons were selected and at the end, 26 persons attended the final stage of Delphi to reply the questions.

A: Library Method: To collect information on literature of the topic and research background through library method, books, theses, essays and database have been used.

B: Field Study: The main instrument in this research is a researcher made questionnaire, which includes 31 questions. The questions were measured using 5-point Likert scale.

To assess validity of questionnaire, judgment validity was used by seeking opinion of professors in the field of management who approved the validity.

To measure reliability, Cronbach's alpha coefficient was used. To this end, the questionnaire was distributed among 15 professors in the field of management and information were entered in Spass software; since alpha coefficient was 0.86 and is above 0.7; therefore, the reliability of questionnaire is approved.

To evaluate and test the validity of designed model, the Fuzzy Delphi Method (FDM) is

used. Fuzzy Delphi method was invented in 1980 by Kaufman and Gupta (Cheng & lin, 2002). In the first phase, the opinions of experts are expressed as fuzzy numbers. In the second phase, inverse of matrices are formed. In the third phase, the relative weight of each parameter is determined and weights are defuzzified in the fourth phase in order to specify the weight or priority of each parameter (Ataei, 2010).

A Fuzzy Delphi-Analytical Hierarchy Process Approach (FDAHP)

The phases of FDAHP include:

- 1) A survey of expert and professionals opinion
- 2) Calculation of fuzzy numbers
- 3) Formation of fuzzy reverse matrix
- 4) Defuzzifying parameters weight (Habibi et al, 2015)

The questionnaire of the present research has been designed to obtain expert opinions on their agreement with the components and criteria of the designed model; therefore, experts expressed their agreement through verbal variables such as very little, little, fair, high, very high. Since individuals' different features affect their mental perceptions towards quality variables; therefore, by defining range of quality variables, experts replied to the questions with the same mentality. Such variables have been defined in form of triangular fuzzy numbers based on Table 3 and Chart 1.

Table 3: Triangular Fuzzy Numbers of Verbal Variables

Verbal variables	Triangular fuzzy number
Very much	(0.75,0.1,0.1)
Much	(0.5,0.75,0.1)
medium	(0.25,0.5,0.75)
Low	(0,0.25,0.5)
Very low	(0,0,0.25)

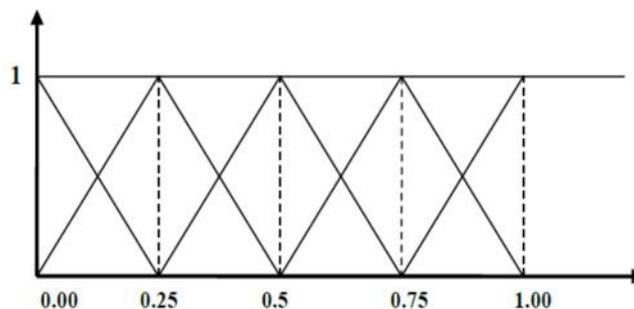


Chart 1: Triangular Fuzzy Numbers (Habibi et al., 2015)

Meanwhile, Excel has been used to analyze fuzzy numbers.

Results

Outcome of First Round Survey

At this phase, conceptual model presented along with a description on designing and explanation on components, criteria and sub-criteria were submitted to the expert group and their agreement with every component was obtained and their recommendations and

corrective opinions have been collected as follows.

With regard to the outcomes of this table, fuzzy weighted average of each component has been calculated, bearing in mind relationships mentioned in research methodology:

Table 4: Making Numbers from First Delphi Round Fuzzy

Indicators	l	m	u	Average Fuzzy
Culture	0.74	0.99	1.00	0.91
Strategy	0.63	0.88	0.96	0.82
Structure	0.53	0.78	0.93	0.75
Technology	0.54	0.79	0.94	0.76
Selection and Employment	0.72	0.97	1.00	0.90
talent management	0.68	0.93	0.99	0.87
HRP	0.67	0.92	1.00	0.87
Teaching	0.73	0.98	1.00	0.90
Career management	0.64	0.89	0.98	0.84
Empowering human resources	0.38	0.63	0.84	0.62
Safety and Health	0.55	0.80	0.92	0.76
Reward Management	0.10	0.21	0.45	0.25
Employee payment system	0.01	0.12	0.37	0.16
Performance evaluation system	0.71	0.96	1.00	0.89
Human Resource Strategies	0.06	0.20	0.45	0.24
Information systems	0.50	0.73	0.90	0.71
Instructions and regulations	0.55	0.80	0.95	0.77
Attract human resources	0.62	0.87	0.98	0.82
Develop human resources	0.69	0.94	1.00	0.88
Human resource retention	0.58	0.83	0.97	0.79
performance management	0.72	0.97	1.00	0.90
Design and editing	0.17	0.34	0.57	0.36
Desire to quit service	0.45	0.69	0.85	0.66
Meritocracy	0.03	0.14	0.38	0.19
Getting busy with your job	0.51	0.76	0.91	0.73
Learning	0.63	0.88	0.98	0.83
Human Resource Productivity	0.47	0.72	0.90	0.70
Organizational Commitment	0.07	0.26	0.50	0.28
Job Satisfaction	0.06	0.23	0.46	0.25
Organizational Citizenship Behavior	0.54	0.79	0.91	0.75
Discipline	0.52	0.76	0.89	0.72

In the above table, triangular fuzzy weighted average has been calculated by a formula, then it is defuzzified by a formula. The final weighted average indicates the strong agreement of experts with each component of research conceptual model.

As illustrated in Table 4, the highest degree of experts agreement (their fuzzified weighted average is higher than 0.7) is expressed for the components of culture, structure, strategy, technology, selection and employment, talent

management, human resource planning, training, career path management, safety and health, performance evaluation system, information systems, instructions and circulars, manpower supply, human resource development, human resource retention, performance management, inclusion in job, human resource productivity, organizational citizenship behavior and discipline.

Since in the mentioned questionnaire, experts viewpoints have been obtained in form of open questions, in addition to closed questions; therefore, after refining presented opinions and holding in person meetings with them from time to time and consultation with thesis supervisors and advisors, the following corrective measures were taken in components and criteria of the first conceptual model:

1. In view of the role of employee's payment system and rewarding management in retaining personnel and its role in preventing dissatisfaction of individuals and making personnel committed, such criteria have been separated from performance management and added as input components for human resource retention.
2. Based on the foregoing, the criteria of job satisfaction and organizational commitment have also been divided

from performance management and were added as output of the process of human resource retention.

3. Change of title from information systems to information system and personnel payment system for welfare and service compensation was performed.
4. Considering strategy criterion in environmental factors, employee-management relationship was proposed and replaced human resource strategies.

Outcome of Second Round of Survey

In this phase, while applying required amendments in model components and criteria, the second questionnaire was developed and was sent for members of the expert group together with previous viewpoints obtained from each member and the extent of their differences with opinion on other experts. In fact, during the second phase, members of expert group again answered to the provided questions by considering viewpoints expressed by other group members as well as based on applied modifications in components, criteria, the results of which are included in Table 5.

With regard to the results of this table, fuzzy weighted average of either components have been calculated based on relationships:

Table 5: Outcome of Making Fuzzy Numbers Obtained from Second Round of Delphi

Indicators	l	m	u	Fuzzy Average
Culture	0.75	1.00	1.00	0.92
Strategy	0.73	0.98	1.00	0.90
Structure	0.75	1.00	1.00	0.92
Technology	0.70	0.95	1.00	0.88
Selection and Employment	0.75	1.00	1.00	0.92
talent management	0.73	0.98	1.00	0.90
HRP	0.72	0.97	1.00	0.90
Teaching	0.75	1.00	1.00	0.92
Career management	0.71	0.96	1.00	0.89
Empowering human resources	0.54	0.78	0.90	0.74
Safety and Health	0.65	0.90	0.98	0.85
Reward Management	0.66	0.91	0.97	0.85
Employee payment system	0.65	0.90	1.00	0.85
Performance evaluation system	0.75	1.00	1.00	0.92
Human Resource Strategies	0.59	0.84	0.94	0.79
Information systems	0.57	0.82	0.95	0.78
Instructions and regulations	0.55	0.80	0.95	0.77
Attract human resources	0.72	0.97	1.00	0.90

Develop human resources	0.75	1.00	1.00	0.92
Human resource retention	0.67	0.92	0.99	0.86
performance management	0.75	1.00	1.00	0.92
Design and editing	0.44	0.67	0.82	0.64
Desire to quit service	0.57	0.82	0.95	0.78
Meritocracy	0.06	0.16	0.39	0.21
Getting busy with your job	0.63	0.88	0.98	0.83
Learning	0.63	0.88	1.00	0.83
Human Resource Productivity	0.63	0.88	0.98	0.83
Organizational Commitment	0.63	0.88	0.98	0.83
Job Satisfaction	0.65	0.90	0.98	0.85
Organizational Citizenship Behavior	0.60	0.85	0.93	0.79
Discipline	0.66	0.91	0.97	0.85

In the above table, triangular fuzzy weighted average has been calculated by a formula and then it is defuzzified by a formula. The final average reveals decisive agreement of experts with each component of research conceptual model.

Considering viewpoints provided in the first phase and their comparison with the outcomes of this phase, if the result of fuzzy weighted average of both phases are higher than 0.7, then survey process will be stopped (Habibi et al., 2015).

Table 6: Result of divergence between fuzzy numbers of first and second rounds of Delphi and accepted items

Indicators	First round	Second round	Difference	Result
Culture	0.91	0.92	0.01	accepted
Strategy	0.82	0.90	0.08	accepted
Structure	0.75	0.92	0.17	accepted
Technology	0.76	0.88	0.12	accepted
Selection and Employment	0.90	0.92	0.02	accepted
talent management	0.87	0.90	0.03	accepted
HRP	0.87	0.90	0.03	accepted
Teaching	0.90	0.92	0.02	accepted
Career management	0.84	0.89	0.05	accepted
Empowering human resources	0.62	0.74	0.12	Next round
Safety and Health	0.76	0.85	0.09	Next round
Reward Management	0.25	0.85	0.6	Next round
Employee payment system	0.16	0.85	0.69	Next round
Performance evaluation system	0.89	0.92	0.03	Next round
Human Resource Strategies	0.24	0.79	0.55	Next round
Information systems	0.71	0.78	0.07	accepted
Instructions and regulations	0.77	0.77	0	accepted
Attract human resources	0.82	0.90	0.08	accepted
Develop human resources	0.88	0.92	0.04	accepted
Human resource retention	0.79	0.86	0.07	accepted
performance management	0.90	0.92	0.02	accepted
Design and editing	0.36	0.64	0.28	Next round
Desire to quit service	0.66	0.78	0.12	Next round
Meritocracy	0.19	0.21	0.02	Next round
Getting busy with your job	0.73	0.83	0.1	accepted
Learning	0.83	0.83	0	accepted

Human Resource Productivity	0.70	0.83	0.13	accepted
Organizational Commitment	0.28	0.83	0.55	Next round
Job Satisfaction	0.25	0.85	0.6	Next round
Organizational Citizenship Behavior	0.75	0.79	0.04	accepted
Discipline	0.72	0.85	0.13	accepted

The above table shows that the criteria accepted by experts (their fuzzy weighted average is higher than 0.7) are culture, structure, strategy, technology, selection and employment, talent management, human resource planning, training, career path management, safety and health, performance evaluation system, information systems, instructions and circulars, manpower supply, human resource development, human resource retention, performance management, inclusion in job, human resource productivity, organizational citizenship behavior and discipline. Therefore, survey on the above items are stopped in this phase.

As mentioned earlier, Since in the mentioned questionnaire, experts viewpoints have been obtained in form of open questions, in addition to closed questions; therefore, after refining presented opinions and holding in person meetings with them from time to time and consultation with thesis supervisors and advisors, the following corrective measures were taken in components and criteria of the first conceptual model:

1. Change of title from information systems to human resource information system, instruction and circulars to developing regulations, design and development to organizational designing and relationships.
2. The component of meritocracy was proposed as the output of human resource development process.
3. Outcome of Third Round of Survey
4. In this phase, while applying required changes in model components and criteria, the third questionnaire was prepared and sent for members of expert group along with previous viewpoints of each member and the extent of their divergence with the opinion of other experts. However, this time, from 31 available components in the previous phase, 22 items were stopped and only 9 remaining components were surveyed the results of which are included in Table 7.

Table 7: Result of Fuzzy Numbers obtained from Third Round of Delphi

Indicators	l	m	u	Fuzzy Average
Empowering human resources	0.59	0.84	0.94	0.79
Reward Management	0.71	0.96	0.98	0.88
Services and Welfare to Compensation	0.72	0.97	0.99	0.89
Employee-management relationships	0.66	0.91	0.96	0.85
Design and organizational relationships	0.56	0.80	0.92	0.76
Desire to quit service	0.63	0.88	0.97	0.83
Meritocracy	0.50	0.74	0.89	0.71
Organizational Commitment	0.68	0.93	1.00	0.87
Job Satisfaction	0.72	0.97	1.00	0.90

Table 8: Result of Divergence between Fuzzy Numbers of First, Second and Third Round of Delphi and Accepted Items

Indicators	First round	Second round	Third round	Difference	Result
Empowering human resources	0.62	0.74	0.79	0.05	accepted
Reward Management	0.25	0.85	0.88	0.03	accepted
Services and Welfare Compensation	0.16	0.85	0.89	0.04	accepted
Employee-management relationships	-	0.79	0.85	0.06	accepted
Design and organizational relationships	0.36	0.64	0.76	0.12	Next round
Desire to quit service	0.66	0.78	0.83	0.05	accepted
Meritocracy	0.19	0.21	0.71	0.5	Next round
Organizational Commitment	0.28	0.83	0.87	0.04	accepted
Job Satisfaction	0.25	0.85	0.90	0.05	accepted

As indicated in Table 8, criteria accepted by experts (their fuzzy weighted average in two rounds is higher than 0.7) are criteria of human resource empowerment, reward management, welfare and service compensation, employees-management relationship, inclination to leave service, organizational commitment and job satisfaction; therefore, survey on such items is stopped at this phase. Result of Fourth Round of Survey In this phase, while applying required changes in model components and criteria, the third questionnaire was prepared and sent for members of

expert group together with previous viewpoints of each member and extent of their divergence with opinion of other experts for the fourth time; however, this time, from 9 available components from the previous phase, 7 items were stopped and survey has been performed on 2 remaining components, the results of which are included in Table 9 of survey results. In view of recommended options and verbal variables defined in the questionnaire, the outcomes of review of provided answers have been included in Table 10.

Table 9: Result of Fuzzy Numbers Obtained from Fourth Round of Delphi

Indicators	l	m	u	Fuzzy Average
Design and organizational relationships	0.57	0.82	0.95	0.78
Meritocracy	0.53	0.76	0.88	0.72

Table 10: Result of Divergence between Fuzzy Numbers from First, Second, Third and Fourth Rounds of Delphi and Accepted Items

Indicators	First round	Second round	Third round	Fourth round	Difference	Result
Design and organizational relationships	0.36	0.64	0.76	0.78	0.02	accepted
Meritocracy	0.19	0.21	0.71	0.72	0.01	accepted

As mentioned in Table 10, criteria accepted by experts (their fuzzy

weighted average in two rounds is higher than 0.7) are criteria of

designing and organizational relationships and meritocracy; and survey on these items are stopped at this phase.

Designing Final Model

Based on outcomes achieved from consensus of experts on criteria, the final accepted model is drawn as follows:

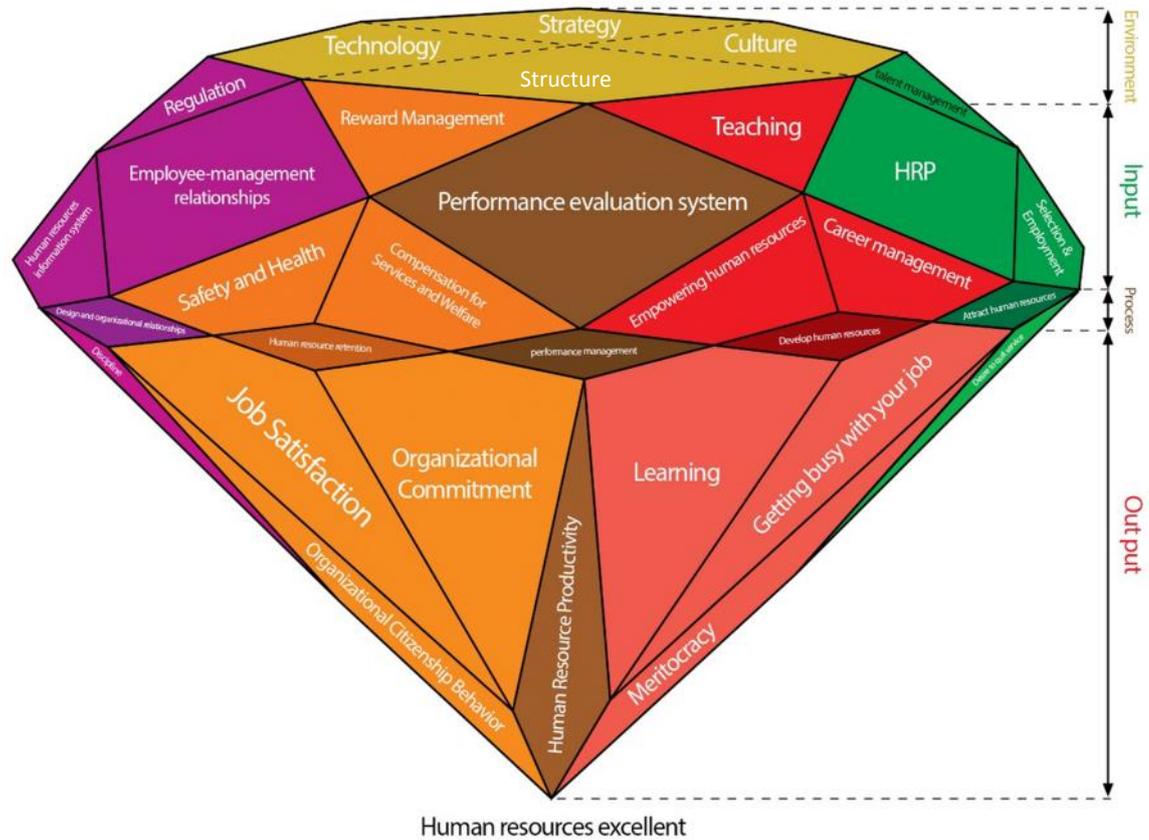


Figure 3: Research Final Model

Discussion and Conclusion

In view of ever-increasing transformation of human society and changes in expectations of beneficiaries and stakeholders in organizations, it seems that providing a fit-for-all model of excellence for all countries and organizations could not be practical; but, taking advantage of a localized model can fill the existing gaps to a great extent. The model presented in this research is able to set the platform for human resource development in Industries and enable them to extract improvement plans and actions and evaluate their success in human resource maturity process, while conducting a comprehensive

pathology of human resource management system.

The conceptual model presented in this research, while having a comprehensive systemic structure, enjoys modern orientation in human resource models of excellence and considers excellence in creating sustainable balance of brilliant structure. The present model has sufficient theoretical supports and is approved by experts in terms of 22 components and 10 designing criteria while being refined in five major processes. The model presented in this research is able to evaluate performance of human resource units in organizations and be discussed as an award of human resource excellence.

Generally, a meaningful relationship was established in this research between brilliant (diamond) as the most precious gemstone in the nature and human resources as the most valuable resource and asset in every organization. Diamond is the fruit of hard pressures, on the other hand, there are valuable human resources as the result of endeavor (either theoretical and experimental); even, by looking more carefully in brilliant structure, we are able to find out other important common points and relevance, such as:

The extent of diamond's shine and sparkle are divided as (poor), (fair), (good), (very good) and (excellent). Therefore, the same degrees could be used for describing organizations in evaluation of human resource excellence.

Diamond crystals are found in all colors; but its prevalent colors are white and/or bluish or yellowish or brownish white; and we can barely find colors such as dark green, red, blue, violet, brown in diamond crystals that are known as fantasy colors. In the designed model, each process is distinguished from diamond color spectrum with a specific color; and since the best diamond is colorless and transparent; therefore, if the result of evaluation of model criteria excellence was excellent, the color of criteria will be transparent and the poor points are perceivable by a specific color and the organization needs to define problems in the same field in order to eliminate them.

Also based on efficiency formula that is the ratio of input to output, since the relationship of inputs and outputs are clear in evaluation of this model, this model could also be used for efficiency assessment (in fact process excellence); i.e. the scores obtained from outputs should be divided by inputs in order to specify extent of efficiency of organization's human resource management system.

With regard to designed systemic and proper model, organizations are able to provide improvement plans and measures while analyzing existing situation and optimization and data mining.

Limitation of Study

- Commercial attitude towards quality and excellence has caused multitude of commercial models on the one hand and insufficient and state-based theoretical models on the other.

- Inaccessible relevant research on human resource excellence in public organizations.

Research Recommendations

Recommendations based on research model

- Using the model provided in this research as award of human resource excellence in Industries
- Evaluation of human resource units performance and assessment of efficacy of their activities by using model designed in research
- Using final score of human resource excellence as one of the indicators for rewarding staff of human resource units
- Creating a human resource dashboard by taking advantage of components, criteria and sub-criteria provided as key factors in human resource management performance
- Using results of research in human resource pathology and diagnosis and determining their strong and weak points and extracting plans and required measures for improvement of existing conditions
- Optimization and data mining of human resource successful experiences within the framework of designed model for the purpose of human resource comprehensive development
- Creating balance in human resource excellence process by creating balance between processes and their results; i.e. lack of unilateralism in goal/process oriented pathway of excellence
- Reforming structures and processes of human resource management based on core human resource processes, components and criteria provided in the model designed in this research

Recommendations for future research

- Scoring criteria of model designed in this research to evaluate award of excellence
- Designing model of human resource excellence by using dynamic systems
- Using world experts to refine designed model
- Designing a brilliant mathematical model of human resource excellence

- Identifying a proper model for evaluation cycle of human resource excellence
- Assessing efficacy of models designed by Iranian Industries

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