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Pathology of Human Resource Management System Based on International and Global Competencies in the National Iranian South Oil Company



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Abstract

The pathology of a competency-based human resource management system results in the managers developing appropriate schedules for employee growth and excellence to gain a competitive advantage. The present study is meant to be an applied study of a descriptive exploratory nature. Information and data gathering involves library and field research making use of interviews and questionnaires. The statistical population of this study is comprised of experts including 10 human resource managers and chief officers, selected using a targeted method. The components were determined and analyzed using the experts' opinions and the Delphi method; furthermore, by implementing the importance-performance analysis, low-performance but high-importance components were categorized in 6 groups of "Human Resource Supply System", "Human Resource Training and Development System", "Human Resource Retention System", "Human Resource Labor Relations System", "Human Resource Performance Management System", "Human Resource Reward System". Moreover, to rectify the problems, the Fuzzy DEMATEL method was implemented with the results showing the "Human Resource Supply System" problem to be the most effective, eventually leading to the problem of "Human Resource Performance Management System", is the most affected. Managers can reach a desirable human resource management system by identifying individuals of professional competence to compete in a dynamic economy.

Keywords: Human resource, Management system, Competencies, Human resource problems.

1 | Introduction

The subject of human resource management and its improvement is one of the concerns and issues faced by organization managers in today's societies [1]. The human resource management system, as one of the most significant operational systems in the management of organizations, has an integrated and strategic approach towards human resources and aims to value human beings both as individuals and as group members [2]. A human resource management system is a group of structured processes aimed at empowering the strategies the compilation of which leads to the endeavors of the individuals to reach the organizational goals [1]. The current complicated situations of organizations and the rapid environmental changes, has shown the pathology and update of human resources in organizations to be tangible more than ever because the systematic and consistent evaluation of the plans of an organization officially and in fixed intervals would be effective in its performance

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improvement and the human resource growth and development [3]. The pathology of a human resource management system means determining the causes of problems in a human resource management system in organizations. Detection of problems and problematic factors of a human resource management system begins with the observation of symptoms and continues until their removal which is a path to the improvement of organizational systems [2]. The pathology of this human resource management system results in the emergence of an effective framework to interact with human resources enabling managers not only to identify the present situation but also to pursue the elimination of future shortcomings [4]. Moreover, it should be noted that human resource management system pathology is built upon various frameworks, including employee competencies [5].

The available evidence indicates various organizational problems in human resource management systems based on human resource competencies. A lack of understanding of environmental changes and insufficient flexibility in human resource management in addition to negligence towards future necessities based on competency models has resulted in an ineffective human resource management system in organizations [6]. Furthermore, a competency-based human resource management system pathology represents one of the most important challenges of contemporary managers in organizations, to be insufficient usage of intellectual capital, mental capabilities, and human resource potentials, which should be detected and eliminated [7]. In our country, it is also necessary for organizations to have appropriate human resource management systems to make use of human resource competencies in the most suitable way. National Iranian South Oil Company is one of these organizations. Regarding the significant role of human resources in this company, their expertise, and unique techniques, and their high level of career profile and experience; attention to employee competencies, and pathology of human resource field aligned with the competencies of each field seems crucial. In other words, the human resource management system in the National Iranian South Oil Company is one of the most important sub-indicators of the company management, having a special place in recent years due to the imminent retirement of a notable number of oil-industry experienced employees who will leave the company in the next few years, making it necessary for the company to absorb elite, able and competent human resources. Achieving ideal human resource management conditions first needs a pathology of human resource management system based on the human resource competencies in the company to detect the current problems and their consequent elimination by providing applicable and purposeful solutions. This research aims to address the question of finding the problems in the human resource management system of the National Iranian South Oil Company based on international and global competencies and determine the nature of their inter-relations by a comprehensive and accurate study of human resource management system fields.

The research purposes are as follows:

- I. Identification of the aspects and components of human resource competencies based on international and global competencies in the National Iranian South Oil Company.
- II. Identification of the problems in the human resource management system based on international and global competencies in the National Iranian South Oil Company.
- III. Defining relations, effects, and vulnerabilities of the damages in the human resource management system based on international and global competencies.

However, the challenge facing the National Iranian South Oil Company these days is the international and global competition and training a workforce based on international and global competencies. This challenge has led to a loss of motivation and enthusiasm in the human resource to carry out their tasks and has had a negative impact on their productivity. Therefore, the present study aims to detect the damages in the human resource management system based on international and global competencies in the National Iranian South Oil Company, to present applicable solutions to reduce the damages and gain competitive advantage; a point that indicates the significance of this study.

Moreover, as per the review of the theoretical literature, various models for human resource management systems are studied. However, there were no findings of the problems of human resource management

systems based on international and global competencies and the research gap in this field constitutes an innovation in this study.

In this study, by primarily reviewing the theoretical literature, the components of a human resource management system based on international and global competencies were identified and screened implementing the Delphi method. As the other aim of the research is identifying damages, components of a low performance were identified using the importance-performance analysis and designated as damages. Finally, using the Fuzzy DEMATEL method, the relationships between the damages were defined.

2 | Literature and Theoretical Principles of Research

In recent years, due to the changes in the business environment, such as alterations in technologies implemented by organizations, the rise in globalization, the ongoing reduction in organizational expenses, the high speed of changes in organizational structures, and the growing importance of knowledge capital, the concept of human resource management has also changed [8]. In fact, in recent years human resource management has acted as a science and action that is related to the nature of human relations and all decisions, actions, and subjects about the human resources in organizations, being seen as a strategic approach in the management of the most valuable organizational resource [9].

Human resource management is gathered and operated by human resource systems with an integrated method. Having a systemic approach to human resource management enables individuals to view the interaction between different units inside the organization, the function of the human resource management, and the limitations existing outside the organization as significant factors [10]. Employing and retaining a loyal workforce, diverse training, increasing employee satisfaction, long-term rewards for employee cooperation, expert selection, giving freedom to employees are among the characteristics that will impact the absorption system, selection and appointment, training and development system, individual performance evaluation system, service compensation system, human resource planning system based on competencies, which are all factors of human resource competence [11]. The components of a human resource management system have been addressed in various forms by different theoreticians. For instance, French believes human resource management systems to be comprised of detection, selection, recruitment, training, and development of human resources [12]. The Society for human resource management in the USA identifies the main duties of human resource management to be planning, selection and recruitment, human resource development, salary and bonus, safety and health, work and labor relations, and human resource research [13]. Regarding the human resource issues in Iran, human resource management systems were viewed as mentioned hereinafter.

2.1 | The Human Resource Supply System

Regarding the human resource issues in Iran, the human resource supply system is deemed to be a human resource management system so that the organization could succeed in the absorption and selection of eligible individuals for positions [14]. The goal of the design and implementation of human resource supply strategies in a human resource management system is to gain and absorb appropriate employees possessing the necessary competencies, expertise, knowledge, and potential. These strategies can address the needs of the organization for professional competencies and the absorption of elites in the best possible way [15].

2.2 | The Human Resource Reward System

Each person joining the organization brings in their capabilities, strengths, expertise, and sometimes credit, which constitute the individual's input to the organization, and expects these inputs to be rewarded by an output from the organization to the individual [10]. A reward can be any form of financial payment, tangible services, and bonuses that employees receive as a party to their employment

contract [16]. Reward results in the integration of remuneration processes and policies with the performance development and enhancement strategy and empowering organizational values, especially values such as creativity, teamwork, flexibility, and high-quality services to the customers [15].

2.3 | The Human Resource Training and Development (Improvement) System

Human beings are changeable, with unlimited potentials; therefore, human capabilities need to be assessed and turned into action with proper education and training so that human societies and institutions can benefit from these capabilities. This responsibility can be addressed inside the framework of human resource training and development or improvement systems in human resource management [10]. The important task of the training and development system is to provide processes, tools, and strategies aimed at empowering and elevating the capacities and capabilities of the workforce. Among the various human resource management systems, this system has the most impact on the behavior and attitude of employees and their competencies in their interaction with each other and the customers; moreover, these activities have a direct effect on the mindset and behavior of the workforce and ultimately on the overall performance of the organization [17].

2.4 | Human Resource Performance Management System

The goal of any kind of performance management in an organization is to assess human resources and improve the use of human resources in different sections of the organization. The gathered data in the assessment phase can be used in other human resource management responsibilities such as planning, recruitment, reward, improvement, and training [18]. Provided that the human resource performance management is designed properly, organizations can witness growth and excellence in a competitive environment [19]. To design a performance management system, firstly, work criteria and standards have to be defined [20].

2.5 | Human Resource Retention System

Human resource retention as managerial operational initiatives results in the retention and persistence of employees instead of them leaving the organization [21]. Human resource retention addresses the process of making employees loyal and willing to continue their activities in the organization [22], reflecting the employee's desire to continue working in the organization and not thinking of resignation [23]. Retention of human resources goes beyond keeping individuals in a specific and fixed position. Retention entails motivation and encouraging individuals to become dedicated to the organization [22].

2.6 | Human Resource Labor Relations System

Labor relations with the human resource is considered as one of the most important strategies for organization participation, teamwork, involvement, and work responsibility in an organization and if mindfully conducted, it can be considered as added value for the organization and the manager [24]. A human resource relations system is one of the regulations, operations, and agreements between the managers and employees, implemented to avoid and resolve organizational conflicts [19]. Numerous competencies such as valuation of human dignity, having a code of ethics, cooperative management, conflict management, and industrial relations management have significant impacts on the human resource labor relations system [23].

3 | Human Resource Competence

Competencies are a set of inter-related knowledge, characteristics, attitudes, and skills which have a high impact on human resource and their behavior, being correlated to individuals' performance at work, assessable by acceptable standards, and improvable by training and development [25]. It is defined as the

knowledge, capability, and judgment needed to perform ethically developed action. Competency is not merely carrying out tasks, but it is also behavioral actions needed by employees to implement their knowledge depth and largess, risk-taking, and compatibility with environmental changes sufficiently [26]. Competence is defined as a characteristic or skill, leading to better occupational performance. Ulrich et al. [27] define competence as a kind of knowledge, skill, or approach that aligns the individual to have optimum performance and guides him/her towards a more effective way of conducting tasks. In another definition, competence is defined as a combination of motivation, character, knowledge, skill, self-awareness, social role, and abilities that are detectable, definable, and measurable; being crucial to carry out the organizational tasks and defining personal performance standards [28].

Based on a theory by Beatty, the necessary capacity to play effective organizational roles is also the basis of competence [29]. The human resource is like the main engine that mobilizes organizations and can be identified as a competitive advantage. Thus, activists and scientists look for mechanisms to increase the productivity and effectiveness of human resources in organizations. One of the subjects that are tackled more than previously in organizations is planning for human resource competence [30].

Overall, the literature review and the definitions of competence manifest two main points; firstly, competence is a kind of intrinsic capacity, ability, or qualification which can be expressed by flourishing personal talents. Secondly, competence is acquired experience, knowledge, wit, or a behavioral characteristic, which can be implemented by the individual's wisdom and ability to carry out occupational tasks [28].

4 | Pathology

Pathology is a systematic process of data gathering to interact effectively and gainfully to tackle problems, challenges, pressure, and environmental limitations in an organization [31]. Organizational pathology is a kind of data-based assessment, necessary for the analysis and more accurate recognition of structures, interactions, processes and methods, management style, and other parts of the system. Pathology is essential and fundamental in the detection of the issue and its scientific core to determine the necessary actions needed to improve the performance of the organization [32].

There are many strategies to improve the effectiveness of the organizational human resource. One of these strategies is a human resource management system pathology which entails recognition or assessment of various tasks or functions of human resource management systems to design appropriate organizational interventions for change [33]. The first steps of the search for the pathology of a human resource management system must be done by tackling the sub-systems which are the center of damage and the source of main problems [31]. The pathology of the human resource management system shows that long and excessive working hours, low salary, lack of job security, lack of job independence, and insufficient resources can be named as challenges related to the employees being unmotivated and hopeless [34].

Hereinafter, there will be a review of the background of local and foreign research. In [35], authors researched the pathology of the Shahid Beheshti University human resource management system, concluding that proper human resource management, timely pathology, and the elimination of existing problems are related to a higher motivation among employees, proper absorption and recruitment, the design of a correct reward system, work-life quality improvement, creation of a feeling of job security, correct assessment of employee performance, correct knowledge management, and employee relationship management. The results of research [36] have shown that structural, behavioral, and contextual factors are the most important aspects of pathology. In their research on the competence model needed for human resource managers and experts, Authors of [37] concluded that architect and strategic partner, organizational change management, ability to design and review the organization, business understanding, and knowledge, technical competencies, defining and solving issues, environmental control, acceptance towards criticism, and knowledge management strategies are the

competencies needed for human resource managers and experts. In [38] research titled “a pathology of the human resource retention system with a strategic approach, providing a proper model” concluded that the most significant problems in the field of human resource inside a defense organization were mostly related to the factors of organizational loyalty, organizational justice, and employee attitude. The work [39] cites the structural factors of selection and recruitment, appointment and promotion, and performance assessment and the behavioral factors of motivation and job satisfaction, leadership, organizational culture, and job security as the most important problems of a human resource management system. In [5], authors conducted a critical analysis of the human resource competence model and stated that the evolution of human resource skills is related to human resource strategic competencies (including professional, individual, and social) in the human resource management system. Authors of [40] concluded that there is a gap between human resource management methods and the competencies needed from human resources in modern industries and pathology must be carried out. The mentioned gap is found to be related to education, human resource flexibility, and the involvement of individuals in potentially managerial activities in their research. Prabawati and AOktariyanda [6], in their study concluded that one of the forms of human resource development is training based on competence, focusing on skills, competencies, and standardizing them. Strategic planning, qualification development, analysis of the gap between competence and human resource application, and the development of novel competencies constitute the educational model framework of the human resource management based on competence. In their research [41] titled “modelling organizational adaptation to human resource pathology of organizations based on organization internal processes” cited the four intra-organizational processes of educational need assessment, performance improvement actions assessment, resource allocation, and communications as the most important vulnerable aspects in the field of human resource management. The research [42] showed that the damages to the human resource with a strategic approach could happen in the three areas of organizational commitment namely affective, continuance, and normative commitment.

Based on the findings of the study, some components of the human resource management system competencies mentioned in the theoretical and previous research literature section were identified and classified in *Table 1*.

5 | Research Method

The present research aims to be an applied study, and regarding data collection, it is a descriptive-exploratory one. The library research data collection consisted of searching credible and related papers, books, theses, and dissertations implementing field data collection. The data collection tools were interviews and questionnaires based on the 5-point Likert scale. The statistical population of experts consisted of managers and chief officers of the human resource department of the National Iranian South Oil Company. Purposive sampling was the method used, by which only 10 experienced and motivated managers and chief officers of the human resource department were selected. The content validity of the questionnaires was reviewed according to the comments of the experts, whose opinions were given and applied on the deletion, modification, integration, and addition of factors implementing the Delphi Technique. In the Delphi method, in case the answers of the experts between the Delphi method stages were less than 0.2 as per the Pareto principle, and the experts reach a unanimous agreement about the effectiveness of the component in question, then there is a theoretical saturation. The questionnaire stability was calculated to be 0.815 by the Cronbach's alpha coefficient. Three methods were used for data analysis including the Delphi Technique to screen the problems, the Importance-Performance Analysis to realize the current and favorable status of the human resource management system and determine the problems, and the Fuzzy DEMATEL method to define the relations between the problems.

Table 1. Human resource management system competency components based on the theoretical literature of the study.

Level of Analysis	Competencies (Components)	Source
Human resource management system	Identifying individuals with professional competencies.	[15]
	Elite absorption.	[15]
	Employee flexibility.	[40]
	Talents management.	[43]
	Having strategic approach.	[29]
Human resource reward system	Employee motivation ability.	[44]
	Different payment combinations.	[16]
	Reward as per performance.	[23]
	Payment adjustment based on cooperation criteria.	[44]
	Payment of team reward.	[45]
Human resource training and development (improvement) system	Business knowledge.	[46]
	Problem-solving.	[47]
	Technical and task skills.	[47]
	Organizational adaptation.	[41]
	Initiative.	[45]
Human resource performance management system	IT literacy (networking).	[46]
	Decision-making skills.	[28]
	Optimum use of organization resources.	[18]
	Process improvement.	[46]
	Individual effectiveness.	[46]
	Performance-based on work standards.	[19]
	Carrying out missions and organization goals.	[47]
	Change management.	[47]
	Strategic cooperation in organization performance.	[27]
	Strategy architect.	[27]
Reducing environmental pollution.	[27]	
Human resource retention system	Organizational well-being (safety and health).	[23]
	Subjective wellbeing (inner peace).	[23]
	Cultural development and management.	[45]
	Growth possibility (continuous progress).	[46]
	Values-based and ethical competencies.	[28]
	Performance freedom (job independence).	[28]
	Working with others (cooperation).	[48]
Human resource labour relations system	Effective labour relations.	[44]
	Inter-personal awareness.	[47]
	Integration of approaches.	[47]
	Valuing human dignity.	[23]
	Industrial relations management.	[23]
	Ability to share knowledge.	[28]
	Teamwork.	[29]

The Importance-Performance Analysis to analyze the importance and performance degree of each factor, implementing the experts and questionnaire method, can be effective in the realization of the current situation and the presentation of strategies and solutions. The first step towards this goal is determining the factors, which were extracted based on the previous theoretical concepts and studies. A 2-D matrix is formed with the axes of performance and importance, having four dimensions. Each factor will be assessed from the two aspects of “importance” and “performance”. The importance criterium is used to determine where it is more crucial to allocate resources. Importance reflects the relative value of factors in quality. The data relating to the level of importance and performance of the

factors is presented on a two-dimensional network in which the vertical axis represents the important aspect and the horizontal axis represents the performance aspect; then the assessment of factors can be done on a 5-point scale. The data of the level of importance and the degree of performance is gathered using questionnaires. Two questions are asked about each factor from the experts and authorities regarding the level of importance and the degree of performance of each [49]. DEMATEL is a well-known systematic framework for the design and assessment of a complex system, including causative relations between the effective factors. DEMATEL specifically classifies the effective factors into the two groups of causes and effects. Most importantly, the DEMATEL findings provide valuable information about the importance of each factor in the whole system. The fuzzy method is a string one that overcomes the ambiguity, inconsistency, and inconsistency of human judgment and assessment in decision making. A fuzzy set transforms linguistic expressions into fuzzy numbers to prevent the mixing of various experiences, opinions, ideas, and motivations of an individual or group decision-maker [50].

6 | Findings

The aspects and components of a competency-based human resource system were identified by the review of the literature and theoretical background and classified into the 6 categories of “human resource supply”, “human resource service compensation”, “human resource performance management”, “human resource labor relations”, “human resource retention”, and “human resource training and development”. Then the Delphi method was implemented for the determination and domestication. To accomplish that task, a questionnaire of 41 questions was designed based on *Table 1* and the 5-point Likert scale, and the Delphi method was used after the comments of the experts about the effectiveness of each component were gathered. Delphi was conducted in four stages and the experts added, integrated, modified, and deleted some components, eventually leading to 52 components in 6 categories for the human resource management system based on international and global competencies in the National Iranian South Oil Company. In the Delphi stage, the mean difference between the stages was less than 0.2 and the scores higher than 4 were accepted as per the opinions of the experts. *Table 2* illustrates the findings of the Delphi method.

Moreover, to determine the problems of the human resource management system based on competency, a questionnaire was prepared drawing upon the 5-point Likert scale, with the experts giving answers about the components’ level of importance and the organization’s performance regarding that component. The opinions of the 10 experts were integrated using the geometric mean method, yielding the value for the importance-performance of the components for the National Iranian South Oil Company. The decision value resulting from the mean of all the components for the importance level was calculated to be 3.701 and for performance, it was 2.088. These figures indicate that if the score gained by any component is bigger than this value, that component possesses high importance and performance. However, if the score gained by a component is less than the value, that component has low importance and performance. Eventually, the findings of the importance-performance analysis are depicted in *Fig. 1*.

Based on the findings in *Fig. 1*, the organization must focus on the components in the first quarter (high importance- low performance), as the experts believe that these components have a high priority for the organization, yet the level of organization performance is low, making it an urgent issue to be tackled by the organization. These components are the problems in the human resource management system based on international and global competencies, where the organization is vulnerable. The components in the second quarter represent the main strengths of the organization, and the organization must continue that situation. The low priorities can be seen in the third quarter. The importance and performance of components are low in this quarter and the managers mustn't pay a lot of attention to this section. Ultimately, in the fourth quarter, with low importance and high performance, concentration leads to loss of resources due to the low importance of the components.

Table 2. Data analysis based on mean, standard deviation, and Delphi method results.

Study Level (aspects)	Competencies (Components)	Descriptive Factors			Result	
		Mean	Standard Deviation	Difference Between Stages		
Human Resource Supply System	Identification of professionally competent individuals.	4.59	0.61	0.10	approved	
	Elite individual absorption.	4.38	0.75	0.15	approved	
	Employee flexibility.	4.25	0.76	0.01	approved	
	Talent Management.	4.28	0.58	0.01	approved	
	Strategic viewpoint.	4.34	0.60	0.09	approved	
	Valid information supply for human resource planning.	4.19	0.69	0.15	approved	
	Planning for succession.	4.75	0.51	0.18	approved	
Human Resource Service Compensation System	Ability to motivate employees.	4.72	0.52	0.12	approved	
	Different payment combinations.	4.84	0.67	0.10	approved	
	Reward as per performance.	4.22	0.79	0.93	approved	
	Payment modification based on cooperation criteria.	4.44	0.50	0.10	approved	
	Team reward payment.	4.41	0.49	0.08	approved	
	Cooperation to lower organizational costs.	4.50	0.62	0.18	approved	
Human resource training and development (improvement) system	Know-how.	4.81	0.39	0.10	approved	
	Problem-solving development in employees.	4.78	0.42	0.10	approved	
	Technical and obligational skills.	4.63	0.61	0.19	approved	
	Organizational adaptability.	4.22	0.75	0.10	approved	
	Employee creativity and innovation development.	4.72	0.52	0.10	approved	
	Employee IT literacy development.	4.34	0.55	0.10	approved	
	Giving options and developing decision-making skills.	4.97	0.57	0.13	approved	
	Preparing employees for measured risk-taking.	4.53	0.17	0.14	approved	
	Developing meritocracy culture.	4.44	0.56	0.10	approved	
	Raising awareness about the organization strengths and weaknesses.	4.38	0.61	0.15	approved	
	Human resource performance management system	Optimal use of human resources.	4.31	0.64	0.10	approved
		Obligation and activity improvement.	4.13	0.94	0.15	approved
		Performance based on work standards.	4.56	0.56	0.01	approved
Fulfilling missions and organization goals.		4.88	0.34	0.01	approved	
Facilitation and change skills.		4.69	0.54	0.09	approved	
Strategic cooperation in organization performance.		4.47	0.76	0.15	approved	

Table 2. Continued.

Study Level (Aspects)	Competencies (Components)	Descriptive Factors				
		Mean	Standard Deviation	Difference Between Stages	Mean	
Human resource retention system	Strategic situation identification.	4.16	0.88	0.18	approved	
	Understanding and analysis of environmental processes.	4.02	0.69	0.12	approved	
	Creating synergy in the organization.	4.41	0.61	0.10	approved	
	Accurate and regular feedback.	4.28	0.68	0.93	approved	
	Employee motivation.	4.09	0.78	0.10	approved	
	Mindfulness and awareness of organizational issues.	4.19	0.78	0.08	approved	
	Organizational well-being (safety and health).	4.50	0.76	0.18	approved	
	Cheerful environment.	4.25	0.88	0.10	approved	
	Cultural development and management.	4.62	0.57	0.10	approved	
	Growth possibility (continuous progress).	4.53	0.55	0.19	approved	
	Performance freedom (job independence).	4.06	0.72	0.10	approved	
	Integrating with the organization and high tolerance.	4.88	0.42	0.10	approved	
	Maintaining and elevating ethical values.	4.66	0.70	0.10	approved	
	Human resource labour relations system	Group effectiveness.	4.16	0.45	0.13	approved
		Effective labour relations.	4.94	0.24	0.14	approved
Integration of approaches.		4.72	0.63	0.10	approved	
Valuing human dignity.		4.34	0.60	0.15	approved	
Industrial relations management.		4.75	0.57	0.08	approved	
Ability to share knowledge.		4.59	0.56	0.18	approved	
Teamwork.		4.13	0.61	0.10	approved	
Negotiation and conflict resolution skills.		4.81	0.47	0.10	approved	
Forming relationships based on trust.		4.28	0.58	0.19	approved	
Representing a collective framework and language.	4.94	0.25	0.10	approved		

Therefore, regarding the outputs of the importance-performance method data, the 25 components in the first quarter, which have high importance for the organization, yet the organization manifests low performance in, are determined as the problems for the human resource management system based on international and global competencies. These problems consist of 6 main problems and 25 sub-problems mentioned in *Table 3*.

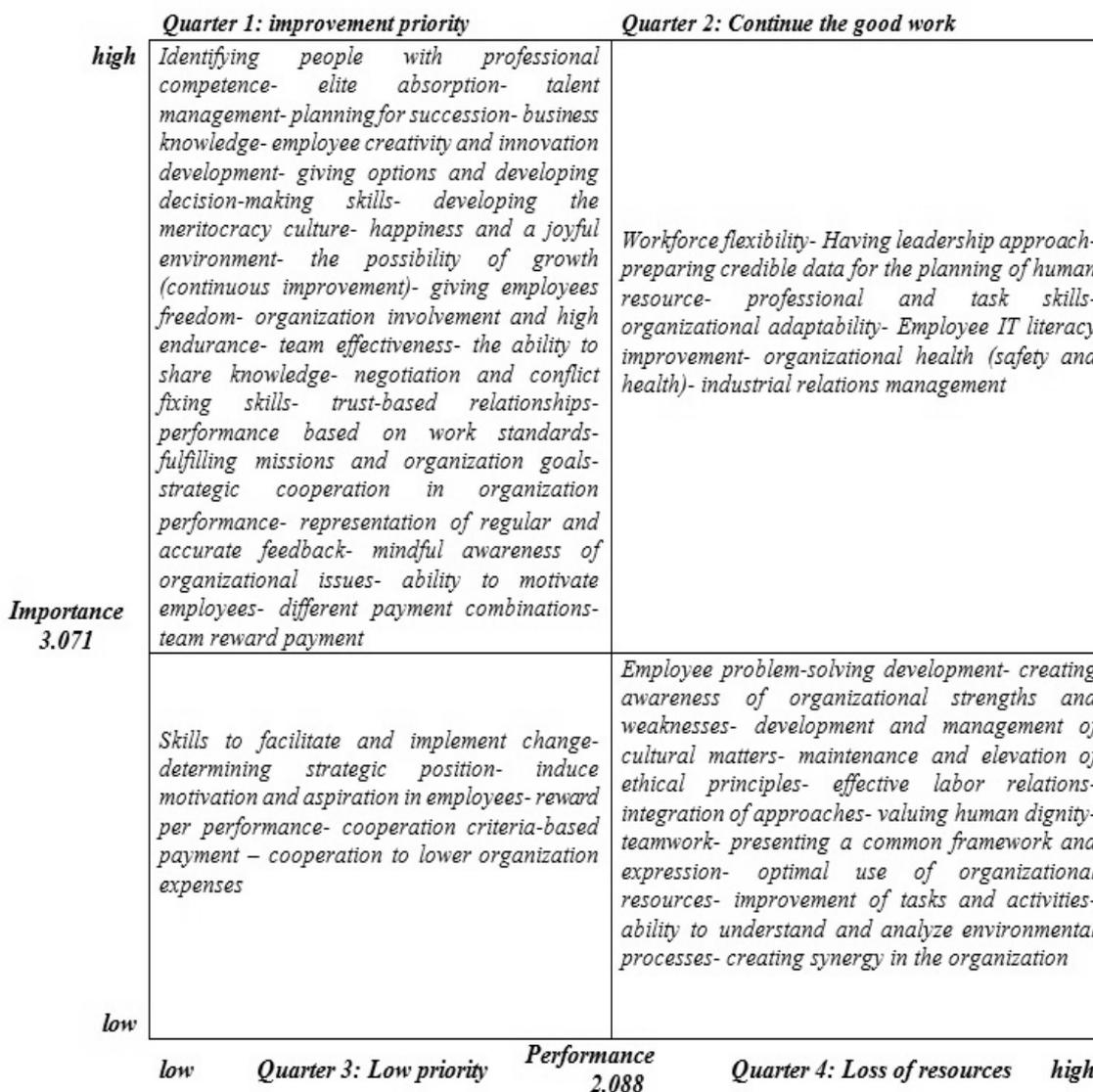


Fig. 1. The importance-performance matrix of the human resource management system based on international and global competencies.

Furthermore, to represent mechanisms to reduce problems and elevate the human resource management system, the Fuzzy DEMATEL method was implemented; by determining the relations between the problems and their level of importance for the organization, some strategies could be proposed. A paired comparison scale questionnaire was prepared, including a 6*6 matrix for the main problems and a 25*25 matrix for the sub-problems. Moreover, the 10 experts conducted the paired comparisons among the problems using the scales “very high impact (4)”, “high impact (3)”, “low impact (2)”, “very low impact (1)”, and “no impact (0)”. Thereafter, these comments were integrated using the arithmetic mean method, and the Fuzzy matrix was formed. *Table 4* shows the fuzzy decision matrix for the main problems, while *Table 5* illustrates them for the sub-problems:

Table 3. The damages for the human resource management system based on international and global competencies.

Main Problems	Sub- Problems	
Human resource supply system C1	Identification of professionally competent individuals.	C11
	Elite individual absorption.	C12
	Talent Management.	C13
	Planning for succession.	C14
Human resource training and development system C2	Business knowledge.	C21
	Giving options and developing decision-making skills.	C22
	Employee creativity and innovation development.	C23
	Preparing employees for measured risk-taking.	C24
	Developing the meritocracy culture.	C25
Human resource retention system C3	Organizational involvement and high endurance.	C31
	Employee freedom of action.	C32
	Possibility of growth (continuous improvement).	C33
	Happiness and a joyful environment.	C34
Human resource labour relations system C4	Team effectiveness.	C41
	Ability to share knowledge.	C42
	Negotiation and conflict fixing skills.	C43
	Trust-based relationships.	C44
Human resource performance management system C5	Performance-based on work standards.	C51
	Fulfilling missions and organization goals.	C52
	Strategic cooperation in organization performance.	C53
	Representation of regular and accurate feedback.	C54
	Mindful awareness of organizational issues.	C55
Human resource reward system C6	Ability to motivate employees.	C61
	Different payment combinations.	C62
	Team reward payment.	C63

Table 4. Direct fuzzy relations matrix between the main problems of the human resource management system based on competencies.

	C1			C2			C3			C4			C5			C6		
	L	M	U	L	M	U	L	M	U	L	M	U	L	M	U	L	M	U
C1	0	0	0	0.75	1	1	0.7	0.95	1	0.6	0.85	1	0.6	0.85	0.95	0.2	0.4	0.65
C2	0.1	0.35	0.6	0	0	0	0.55	0.8	0.9	0.7	0.95	1	0.65	0.9	1	0.3	0.45	0.7
C3	0.15	0.4	0.65	0.25	0.5	0.75	0	0	0	0.7	0.95	1	0.55	0.8	1	0.55	0.75	0.85
C4	0.2	0.35	0.6	0.25	0.5	0.75	0.5	0.75	0.85	0	0	0	0.6	0.85	0.95	0.2	0.3	0.55
C5	0	0.25	0.5	0.05	0.3	0.55	0.25	0.5	0.75	0.35	0.6	0.85	0	0	0	0.4	0.55	0.7
C6	0.6	0.85	1	0.2	0.35	0.55	0.55	0.8	0.9	0.25	0.4	0.65	0.45	0.7	0.9	0	0	0

Table 5. Direct fuzzy relations matrix between sub-problems.

	C11			C12			C...	C62			C63		
	L	M	U	L	M	U		L	M	U	L	M	U
C11	0	0	0	0.542	0.75	0.875	...	0.375	0.583	0.792	0.375	0.583	0.792
C12	0.333	0.542	0.708	0	0	0	...	0.458	0.667	0.833	0.417	0.625	0.833
C13	0.292	0.5	0.708	0.375	0.583	0.792	...	0.292	0.5	0.708	0.292	0.5	0.708
C14	0.167	0.375	0.625	0.208	0.417	0.667	...	0.417	0.625	0.75	0.25	0.458	0.667
C21	0.25	0.458	0.667	0.25	0.458	0.667	...	0.042	0.25	0.5	0.125	0.333	0.583
C22	0.333	0.542	0.708	0.417	0.625	0.792	...	0.542	0.75	0.833	0.417	0.625	0.792
C....	...	...	...	...	...	...	...	...	...	...	...	...	...
C51	0.083	0.292	0.542	0.083	0.292	0.542	...	0	0.167	0.417	0.167	0.375	0.625
C52	0.083	0.292	0.542	0.083	0.292	0.542	...	0.25	0.458	0.667	0.083	0.292	0.542
C53	0	0.208	0.458	0.042	0.25	0.5	...	0.208	0.417	0.667	0.083	0.25	0.5
C54	0	0.167	0.417	0	0.208	0.458	...	0.292	0.5	0.667	0.125	0.292	0.542
C55	0	0.125	0.375	0	0.125	0.375	...	0.167	0.375	0.625	0.042	0.125	0.375
C61	0.458	0.667	0.792	0.25	0.458	0.667	...	0.208	0.417	0.625	0.125	0.333	0.583
C62	0.417	0.625	0.792	0.292	0.5	0.708	...	0	0	0	0.208	0.417	0.667
C63	0.208	0.417	0.625	0.333	0.542	0.708	...	0.208	0.417	0.667	0	0	0

Note: Due to the large scale of a 25*25 matrix and page number limitation, this matrix is summarized.

Afterward, the overall relations matrix was formed using the steps of the Fuzzy DEMATEL method. In this matrix, the scale of the impact of each problem is the sum of the columns of the overall relations matrix and their level of susceptibility is the sum of the rows of the overall relations matrix. Furthermore, by adding and subtracting these figures, the level of interaction and the net impact/susceptibility intensity for each problem was determined. The calculated figures were then applied to a coordinate axis to form the cause-effect diagram. In this diagram, the horizontal axis represents the interaction figures and the vertical axis represents the net impact/susceptibility intensity numbers. Fig. 2 illustrates the cause-effect diagram between the main problems

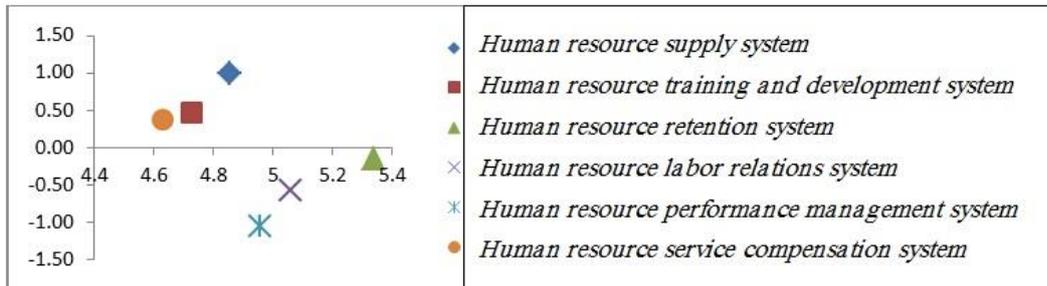


Fig. 2. The cause-effect relations between the main problems.

As can be seen in Fig. 2, among the main problems, “human resource supply system”, “human resource training and development system”, and “human resource reward system” are causes respectively. Therefore, the problem “human resource supply system” is the most effective, having the most impact/susceptibility intensity. Moreover, the “human resource performance management system” is the most susceptible, having the least net impact/susceptibility intensity. Fig. 3 illustrates the cause-effect diagram among sub-problems.

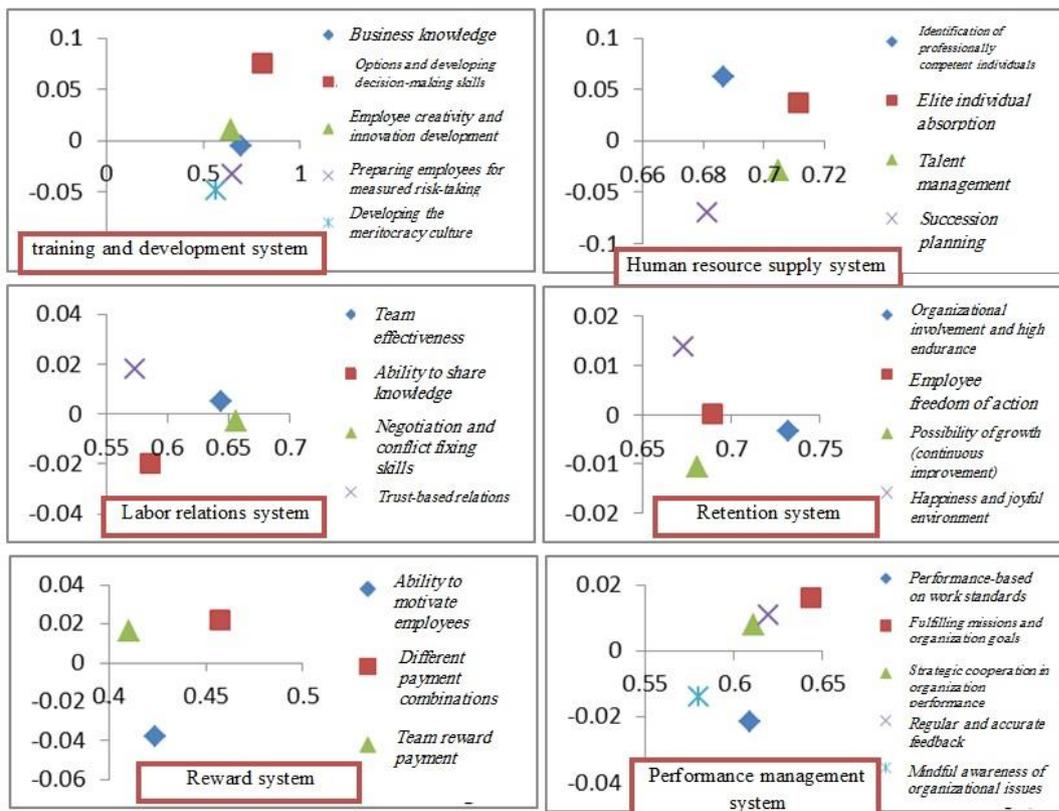


Fig. 3. Cause and effect diagram among sub-problems.

As can be seen in Fig. 3, the “identification of professionally competent individuals” problem has the highest impact and the “planning for Succession” problem has the most susceptibility among the problems of the human resource supply system. Among the problems in the human resource training and development system, the sub-problem of “giving options and developing decision-making skills”

has the most impact and the sub-problem of “developing the meritocracy culture” has the most susceptibility. Moreover, the “Happiness and joyful environment” problem has the most impact and the “possibility of growth (continuous improvement)” problem has the most susceptibility among the sub-problems of the human resource retention system. Among the problems of the human resource labor relations system, the sub-problem of “Trust-based relationships” has the most impact, and the “ability to share knowledge” sub-problem has the most susceptibility. The problem of “fulfilling missions and organization goals” has the most impact and “performance-based on work standards” is the most susceptible in the human resource performance management system. Finally, among the problem of the human resource reward system, the sub-problem of “different payment combinations” is the most impactful and the sub-problem of “ability to motivate employees” has the most susceptibility.

7 | Results

Based on the findings of the importance-performance method, National Iranian South Oil Company had very poor, but important performance in some components of the human resource system based on competencies. This result indicates that the organization has a poor performance regarding these components, whereas these components have high importance in competitions for the organization; therefore, the identified components were defined as problems. If the organization does not prioritize the improvement of these components, there will be a high probability of employee dissatisfaction, which will not be effective for the organization, as the needs of the employees would not be met and they will lose their productivity.

Moreover, the pathology was conducted, implementing the fuzzy DEMATEL method to define relations, to provide suitable solutions. The findings indicated that the “human resource supply system” problem was the most impactful in the human resource management system based on international and global competencies. As researchers emphasize, the human resource of any organization is its valuable asset which could constitute a competitive advantage. Organizations with superior foresight seek individuals with professional competencies to absorb and train them as decision-makers to achieve competitive advantage and performance improvement.

Furthermore, the problem of “human resource performance management system” is the most susceptible in the human resource management system based on international and global competencies. The impactful problems have led to the emergence of this problem. The results show that the issue preventing the success of the human resource management system is the human resource performance management system. Planning feedback for the employees can result in the realization of their strengths and weaknesses, based on which the managers can assist individuals to gain skills and reach international and global competencies.

By decreasing the intensity of the effective problems including the “human resource supply system”, the managers can lead the human resources towards international and global competencies and the National Iranian South Oil Company can be aided in this way to have optimal human resource productivity.

The results of [36] pathology research have shown that organizational culture, motivation and job satisfaction, employee training, job security, and customer orientation are the most effective factors in human resource performance in the Imam-Khomeini complex. Similarly, in the present study employee motivation was identified as the most important component of the human resource management system model pathology in the company under study, gaining the most importance, which complies with the results of [36] research.

In their research on the competence model needed for human resource managers and experts, as seen in [37] studied the east Azerbaijan Gas Company. The aspects and components of their research were different from the present study.

Authors in [51] conducted research on the pathology of the human resource management system the components of which were not similar or in accordance with the present study. This difference results from the distinction between the two organizations under study. Authors in [38] have conducted research on the pathology of the human resource retention system with a strategic approach and representing an appropriate model. The results of their research indicated that the intensity of the problems in the human resource retention system based on priority is organizational justice, strategic approach, organizational commitment, and supplying for higher needs. These results defer from the present results since there is a dissociation between the identified aspects and components.

The results of the present study are not in compliance with the result of [9] which was conducted on human resource management based on competency in the field of nursing. The findings of [9] research indicate that human resource management based on competency can be developed by the two strategic human resource management solutions of training and cooperation.

Furthermore, the results of our study differ from the results of the research conducted by [5], who conducted research on the critical analysis of the human resource competence model (the evaluation of necessary competence for human resource experts). The results of that study showed that human resource skills have revolutionized compared to the past which is related to strategic competencies of the human resources (including professional, personal, and collective competencies) in the human resource management system. The mentioned difference is because of variance in aspects and components.

The results of the present study differ from the research [40], which was on the subject of methods to manage human resources to improve the competencies of project managers and team members in project-oriented organizations. The results of their study indicated that the gap related to training, human resource flexibility and cooperation in potential management activities. The nature of components in the present study is different.

The results of the research conducted by [11] with the subject of competencies pattern of human resources managers for oil ministry in the context of globalization are similar to the identification of some competency aspect of this research such as the service compensation system, performance management, training and human resource development, and human resource planning and supply.

Based on the findings of this research, the "Human resource supply system" problem is the most effective one, resulting in the emergence of the other problems. Therefore, to eliminate this problem it can be suggested that the managers: 1) detect and define the competencies needed for each position and find and recruit individuals for those positions based on the mentioned competencies; 2) pledge to identify and absorb experts to supply human resources, as per the needs of the organization; 3) plan for talent management, appointing talented individuals to positions as per the professional requirements in the organization; 4) plan succession so that the organization would not face a lack of knowledge in case of a layoff of experts.

To eliminate and rectify the problems of the "Human resource performance management system" it is recommended that the managers: 1) educate employees about the missions and goals of the organization and involve them in implementing the missions and goals of the organization, giving them the power of decision-making; 2) the human resource performance management assessment criteria must be as per the strategic goals of the organization. It is suggested to define the criteria based on work standards and the organization's strategic management; 3) the representation of regular and accurate feedback, it the factor that improves the performance of human resources. Planning and monitoring should be conducted along with the definition of appropriate indicators to assess the performance of human resources; in addition, training courses should be forecasted and conducted regarding the strengths and weaknesses of the employees.

Ultimately, this study faces some berries and limitations which are as follows:

- *The findings were based on the viewpoints of the experts and their characteristics. The findings might have been different if these experts had different characteristics.*
- *Another limitation is related to the generalization of the findings to other organizations, which should be done with caution based on the specific conditions in every organization.*

Thus, regarding these limitations, it is suggested for further research that the same study is conducted in other organizations to reach comprehensive results. Moreover, due to the effectiveness of the component of the "Human resource supply system", it can be recommended that the researchers design a model for the supply and layoff system in human resource management in industries.

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