IDENTIFICATION OF EFFECTIVE FACTORS ON HUMAN RESOURCE EXCELLENCE IN SARKHOON AND QESHM GAS REFINERY AND ASSESSMENT OF ITS IMPACTS ON PERFORMANCE

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ABSTRACT

The present research attempts to identify the effective factors on human resource excellence in Sarkhoon and Qeshm Gas Refinery and assesses its impacts on performance. A descriptive-survey type was the research method of this study. Necessary data was collected through a questionnaire. The data was gathered from among administrative personnel of Sarkhoon and Qeshm Gas Refinery through simple random sampling method. Furthermore, PLS software was used to evaluate the hypotheses. The findings of this current study indicate that employees’ empowerment, management of knowledge, organizational justice, and employees’ participations are the effective factors on human resource excellence in Sarkhoon and Qeshm Gas Refinery. Moreover, the human resource excellence is also influential on performance.

Keywords: human resource excellence, employees’ empowerment, management of knowledge, organizational justice, employees’ participation, performance, task performance, implicit performance
1. Introduction

One of the necessities and logical, significant, and inevitable obligations for any country that wishes to have an active and dynamic presence in the world is moving towards progress and promotion and attaining organizational excellence. “Organizational excellence includes obtaining and offering tangible and observable results based on evidence, stability, and permanence” (Ja'fari, 2005, p. 49). It is for granted that moving towards excellence necessitates a positive and constructive change in all organizational dimensions. Such a change requires promotion of organizational innovation, creativity and responsibility. It is evident that the central point for all the subjects mentioned above is human. Thus, an organizational individual possessing all the above features is known to be the main key for an organizational stability and excellence. Excellence of human resources is perceived as a comprehensive framework based on a series of central values, criteria, and indices. “This framework contributes to managers of human resources in their identification of strong points and improvable grounds as well as planning for their optimization through a continual assessment of activities, procedures, and outcomes of their own human resources” (Safarzadeh and Poordayani, 2010, p. 48). The current research seeks to identify the effective indices on human resource excellence and evaluate its impacts on performance in Sarkhoon and Qeshm Gas Refinery.

Experts in management have consistently sought to find solutions to the improvement of conditions and movement towards excellence by relying on experiences of successful and pioneer organizations. Results of their studies have led to creation of several instruments each of which can bring numerous material and nonmaterial benefits to organizations in case that they are applied at a correct time and place.

Along with the advent of diverse managerial techniques, models of organizational excellence were created since 1950. These models have been able to offer a proper framework for organizational management in a competitive environment by imitating the pattern of global successful companies. The most evident characteristic of these models is a holistic attitude towards organizations. It allows management to make a comparison between organizations under their supervision and other similar organizations. On the other hand, models are usually designed in such ways that make possible the application of different techniques for an organization.

There are several excellence models each of which point to various indices for human resource excellence as shown in table 1:
Table 1: Indices of human resource excellence taken from theoretical fundamentals

<table>
<thead>
<tr>
<th>Models of organizational excellence</th>
<th>Organizational excellence indices related to human resources</th>
</tr>
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<tbody>
<tr>
<td>TQM</td>
<td>Empowerment Participating employees</td>
</tr>
<tr>
<td>Deming</td>
<td>Appointing individuals to the managerial posts</td>
</tr>
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<td></td>
<td>Training individuals</td>
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<td></td>
<td>Respecting individuals' dignities</td>
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<td>EFQM</td>
<td>Planning, management and improvement of human resources</td>
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<td></td>
<td>Creating and spreading knowledge</td>
</tr>
<tr>
<td></td>
<td>Participating and empowering employees</td>
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<td></td>
<td>Having a dialogue between employees and organization</td>
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<td>Belderij</td>
<td>Work systems</td>
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<td></td>
<td>Employees’ motivation and learning</td>
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<td></td>
<td>Employees’ health conditions and satisfactions</td>
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<td>Almas Ta’ala</td>
<td>Employees’ participation</td>
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<td></td>
<td>Management of knowledge</td>
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<td></td>
<td>Employees’ empowerment</td>
</tr>
<tr>
<td>UBEM</td>
<td>Values of individuals</td>
</tr>
<tr>
<td>Nakha‘ee&amp;Zahedi</td>
<td>Employee’s satisfaction</td>
</tr>
<tr>
<td>Alvani&amp;Riahi</td>
<td>Reverence of clients</td>
</tr>
<tr>
<td></td>
<td>Employees’ empowerment</td>
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<td></td>
<td>Observing Merits</td>
</tr>
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1.1 Empowerment

The first definition of the term "empowerment" dates back to 1788. It was known as “vesting powers to an individual within an organization. This power must be entrusted to an individual and observed in his organizational role” (Aqayar, 2003, p. 28). This expression points to managerial expectations of early 1990s. It was regarded as “an antidote for all the organizational problems” (Swarnaalatha, and Prasanna, 2012, p. 108). Akraft& Beresford (2000) believe that empowerment is innately a political idea in which such subjects as power, power ownership, inequality of power, and power redistribution are the basic axes. Empowerment is a process by which employees' abilities and powers for cooperation, participation, and decision-making increase in order to achieve a collaborative management and provide a ground for entrustment of responsibilities to groups and individuals. Empowerment induces a “sense of power and self-confidence in individuals and develops potential human talents” (Smith, 1997, p. 122). Empowerment means “enabling employees to understand their duties very well before they are told what to do” (Lawson and Savery, 2001, p. 97).

Kowan&Speritz (1997) have identified two different approaches for empowerment through field study and on the level of middle managers of pioneer companies: Mechanistic Approach and Organic Approach. Empowerment also means vesting of powers to lower level employees. Empowerment is a “process along which high-rank managers design an explicit insight and determine definite plans and duties inside an organization” (Abdollahi, and Nave, 2006, p. 44). According to Organic Approach, empowerment is defined on the basis of personal beliefs. In this attitude, capable individuals possess common features known as dimensions of empowerment according. These dimensions are not certain managerial actions.
However, they reflect employees’ experiences or beliefs about their roles inside an organization. Therefore, empowerment is nothing for managers to do for their employees but employees' own way of thinking about their roles inside an organization. Kanger&Kanengo (1988) call this attitude a motivational approach. In the literature of psychology, power is known to be a motivational state or internal expectation. “Any managerial guideline or technique reinforcing the need of autonomy or self-efficiency in the employees leads to enhancement of a sense of power in them” (Abdollahi, and Nave, 2006, p. 46). Thomas and Volthus (1990) have defined empowerment on the basis of cognitive variables which determine motivation in the employees and believe that it is a multidimensional subject. They know it to be a process of enhancement of occupational internal motifs including effectiveness, worthiness, meaningfulness and the right of selection. Based on Thomas and Volthus pattern, Spritzer (1995, 1996) defines psychological empowerment as a motivational concept constituted of four dimensions of capability, autonomy (right of selection), meaningfulness, and efficiency. These four aspects together reflect personal orientation towards the role of work inside an organization. Witten and Cameron (1998) have added the dimension of confidence to the aforementioned aspects besides emphasizing on the multidimensionality of empowerment.

2.1 Management of knowledge

Having knowledge and awareness in a company is somewhat useful but it would be more valuable “when it is available and its value increases by the degree of its accessibility” (Mackenreny and Loufur, 2000, p. 121). “Management of knowledge is a process of data application.” (Silwattananusarn, and Tuamsuk, 2012, p. 13) and is known as an “attempt to enhance and promote useful knowledge inside an organization” (Silwattananusarn, and Tuamsuk, 2012, p. 16). It is attributed to a series of regular and systematic organizational activities. In order to reach a higher value, it includes “organizing what individuals inside an organization have experienced and learned and covers all the documents and reports inside that organization” (Marwik, 2001, p. 814). Newman (1999) has suggested a general model of knowledge. In his model, knowledge is organized based on four grounds as follows:

1- Creation of knowledge: Behaviors relevant to the entrance of new knowledge into human or social system overshadow a vast range. Creation of knowledge consists of discovery, acquisition, summoning, development, and a close relation with a sort of behavior called innovation. “The second step after acquiring or learning knowledge is preserving it” (Adli, 2005, p. 22).

2- Preservation of knowledge: It includes “all kinds of knowledge that cause it to stay permanently in a system” (Abtahi, and Salavati, 2006, p. 49). All the activities leading to maintenance and preservation of knowledge after entering a system falls in this category. The activity of maintenance consists of miscellaneous behaviors such as those related to the reliability and update of knowledge, etc. whenever more than one employee exist. The next step which is necessary is “transferring of knowledge” (Adli, 2005, p. 22).

3- Transfer of knowledge: It includes highly diverse behaviors such as relationship, translation, interpretation, refinement, and offering of knowledge.

4- Knowledge application: Application of the present knowledge is directed towards decision-making, performance, and attaining goals.

Newman states that observing the sequence of behaviors in the general model of knowledge is necessary (Adli, 2005).
3.1 Organizational justice

Nowadays, employees in most of organizations have an increasing concern about justice and equality in work called as organizational justice. This problem is particularly “corresponding to justice in the assessment of performance i.e. what each individual receives after his own different performance” (Warokka, Gallato, and Moorthy, 2012, p. 5).

In Oxford dictionary, justice is defined as “preservation of legal, social, and moral principles by applying authority or power” (Taylor, 2003, p. 3). Concepts of justice and equality are posed in an organizational environment and among employees. They are generally called “organizational justice” (Lamber, 2003, p. 156). Justice in an organization is indicative of employees' perception of fair treatments in job. It leads to the identification of three different components inside an organization: “distributive justice, procedural justice, and interactive justice” (Fernandes, Cedwyn, Awamleh, and Read, 2006, p. 703).

1- **Distributive justice**: This kind of justice is mostly based on Adams' Theory of Equality (1965) and points to the “fairness of occupational results and consequences a person receive” (Dowall, and Fletcher 2004, p. 10). Historically, the Theory of Equality is focused on a “sort of justice perceived by the amount of rewards distributed among individuals” (Robbins, 2001, p. 170). This type of justice is related to employees' expressions of prizes and distribution of resources and results. This is “individuals who determine fairness of divisions by making a comparison with others” (Fernandes, et al., 2006, p. 702).

2- **Procedural justice**: It is related to the “assessment of a formal and organizational system or process” (Slan, Jerusalim, and Hausdorf, 2007, p. 934] and points to the fairness of the methods used for the determination of occupational outcomes. In other words, “procedural justice incorporates a widespread concept of fairness of the methods used for decision-makings about the way facilities are to be distributed” (Na'amri, and Shekarkan, 2004, p. 58).

3- **Interactive justice**: In the literature of organizational justice, interactive “justice is another dimension perceived by employees during their interactions with managers and is often focused on a subset of procedural justice” (Silwattananusarn, and Tuamsuk, 2012, p. 347). This kind of “justice is related to the quality of interpersonal behaviors perceived by individuals at the time of executing procedures” (Warokka, Gallato, and Moorthy, 2012, p. 566). It is related to the human sector of organizational trends i.e. the way managers and decision-makers behave towards persons under their influence. “Interactive justice emphasizes on the importance of courtesy, honesty, and reverence” (Wong, Y., and Ngo, Hang-Yue, Wong, 2006, p. 347).

4.1 Participation

Participation of all the employees in the managerial system is one of the most effective approaches used for the development of a safe culture. “Participation changes employees into a valuable source for solving problems” (Osha, 2001, p. 117). Participation relates to employees' mental and sentimental involvements within a team situation. It stimulates them to contribute to the group objectives and have a feeling of responsibility for attaining the goals [28, p. 7].

Steal and Mento (1987) found out the degree of penetration perceived by the employees when participating in decision-makings considerably relates to job satisfaction in different organizations of the United States. Participation in decision-makings encompasses a multi-faced concept and can be analyzed from different points of view including the subjects it covers, organizational level on which it is executed, degree of penetration employees apply, and range of individuals' involvement in the
participating system. Finally, the “degree of success of for a collaborative plan almost depends on the adjustment of these dimensions and their reciprocal impacts based on legal fundamentals” (Rahnavard, 1998, p. 36).

5.1 Performance

Work performance is defined as a “sort of personal behavior towards expectations, organizational regulations, and obligations of the roles played by individuals at the time of membership in an organization” (Zaheer, Rehmanur, and SaifIqbal, 2008, p. 181). It is also known as a “type of behavior related to organizational objectives under the control of the person employed” (Liao, and Chuang, 2004, p. 42).

There has always been a concentration on the improvement of work performance based on “two widespread categories of employees' that incorporate all the main psychological industrial and organizational performances: task performance 3 and implicit performance 4” (Kahya, 2007, p. 515). “Task performance includes behavioral patterns directly involved in the production of goods and services or those activities that provide a direct support for technical-central processes” (Johnson, Jeff, Emily, Muros, and Ferstl, 2008, p. 1). On the other hand, implicit performance is defined as personal attempts not directly related to individuals' job duties. However, they are important since “they shape psychological, social, and organizational texture within which task activities and processes are performed” (Kahya, 2007, p. 515). In sum, within an organizational context, “work performance is usually defined as the extent to which a member of an organization participates in activities for attaining organizational goals” (Islam, and Rasad, 2005, p. 1).

Based on theoretical fundamentals, objectives of the present research were designed as follows:

6. Research objectives

1) Identification of influential indices on human resource excellence in Sarkhoon and Qeshm Gas Refinery

2) Assessment of the impact of human resource excellence on performance in Sarkhoon and Qeshm Gas Refinery

7. Research methodology

A model must be provided for the identification of indices and their measuring criteria. Our conceptual model was compiled based on experts' opinions. With regard to the indices identified and taken from theoretical fundamentals, a questionnaire was given to them and they were asked to rank those indices considering their own knowledge and skills and their understanding of the country's industries. They could also mention any other cases they found necessary. Finally, after gathering the questionnaires and the experts' viewpoints and suggestions, four indices with the highest ranks including psychological empowerment, management of knowledge, organizational justice, and participation were determined as the basis for the conceptual model used in this research. Thus, the conceptual model of the current research was prepared as follows:
8. Research hypotheses:

H1. Empowerment of employees has an influence on human resource excellence in Sarkhoon and Qeshm Gas Refinery.
H2. Management of knowledge has an impact on human resource excellence in Sarkhoon and Qeshm Gas Refinery.
H3. Organizational justice has an effect on human resource excellence in Sarkhoon and Qeshm Gas Refinery.
H4. Employee's participation has an impact on human resource excellence in Sarkhoon and Qeshm Gas Refinery.
H5. Human resource excellence has an influence on performance in Sarkhoon and Qeshm Gas Refinery.

In the current research, administrative employees of the mentioned refinery were considered as the statistical community and 111 questionnaires were distributed among the participants and assessed at the end.

Data were collected through a questionnaire. In sum, the questionnaire was a Likert type questionnaire with five options (from very low to very high) and 35 items. The questionnaire was assessed by the experts and its validity was confirmed after applying their viewpoints and reformations.

9. Findings

In the present research, the technique of structural equations was used for the analysis of structural relations. This technique is based on the two patterns of measurement and structure. Measurement pattern is focused on the way the measuring variables form the theoretical framework. It addresses the problems related to the validity and reliability of components. Structure pattern represents the causative relations between components (hidden variables) and their power of clarification. Simply speaking, measurement pattern puts the measured variables inside a theoretical structure while structure pattern addresses the relations and effects of those variables.

Although most scholars know the method of structural equations and structural analysis of covariance (used in Lizrel) as identical, there are still other approaches such as the method of Least Partial Roots to be used in this case. This method which was invented by Wald uses data with a high deviation or extension, ranking or nominal measuring level, less number of samples, and numerous lost data and is involved in the problem of multi-co-linearity between variables. Consequently, it leads to more satisfactory results. Also, Faulk knows methods based on variance to be more fit than those used by Lizrel (covariance). On the contrary, PLS applies less assumptions and restrictions about data and usually seeks for fewer samples. Thus, in this research, PLS was used for the assessment of fitness of the model and research hypotheses.
11. Assessment of reliability of the research instrument:
For the assessment of the questionnaire reliability, coefficients of composite reliability ($CR>0.7$) and Cronbach’s alpha ($\alpha>0.7$) were used. In case these coefficients were fit, we could say the research questionnaire was reliable. Results of the assessment of the questionnaire reliability are shown in table 2.

Table 2: Assessment of the reliability of the research instrument

<table>
<thead>
<tr>
<th></th>
<th>Cronbach’s Alpha ($\alpha&gt;0.7$)</th>
<th>Coefficient</th>
<th>Composite Reliability Coefficient ($CR&gt;0.7$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Justice</td>
<td>0.80</td>
<td>0.85</td>
<td></td>
</tr>
<tr>
<td>Participation</td>
<td>0.76</td>
<td>0.80</td>
<td></td>
</tr>
<tr>
<td>Empowerment</td>
<td>0.75</td>
<td>0.82</td>
<td></td>
</tr>
<tr>
<td>Management of knowledge</td>
<td>0.81</td>
<td>0.87</td>
<td></td>
</tr>
<tr>
<td>Human resource excellence</td>
<td>0.89</td>
<td>0.90</td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td>0.83</td>
<td>0.86</td>
<td></td>
</tr>
<tr>
<td>Task performance</td>
<td>0.72</td>
<td>0.74</td>
<td></td>
</tr>
<tr>
<td>Implicit performance</td>
<td>0.78</td>
<td>0.84</td>
<td></td>
</tr>
</tbody>
</table>

11.1 Assessment of the general fitness of Route Analysis Model

For the calculation of Model Fitness Index in PLS model, the following formula can be used:

$$GoF = \sqrt{\text{communality} \times R^2}$$

In PLS model which is based on variance, geometrical averages of two indices (average of cumulative index and average of the squares of coefficients of correlation between components) are used as the general goodness of fit index of the model. If the amount of $GoF$ was greater than 0.36, we could say the model would be generally meaningful and acceptable. In the research model, this amount was calculated as follows:

$$GoF = \sqrt{0.43 \times 0.68} = 0.54$$

With regard to the amount of $GoF$ equal to 0.54, the model was known to be generally fit.

11.2 Assessment of the research hypotheses

Figure 2 represents coefficients of the routes in the research model under a standard condition. Under this condition, numerical comparison of the coefficients of the model would be possible.

Figure 3 shows significance of the routes in the Route Analysis Model. With the level of reliability of 95%, we could decide on the significance of the coefficients of the routes based on the amount of $T$. If this amount was greater and 1.96, that route would be significant.

According to the Route Analysis Model, standard coefficients and significance of the research hypotheses were assessed in table 3.
Figure 2: Standard coefficients of the research model

Figure 3: Significant research model
Table 3: Assessment of the hypotheses

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Route coefficient</th>
<th>t statistics</th>
<th>Test result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empowerment of employees has an influence on human resource excellence in Sarkhoon and Qeshm Gas Refinery.</td>
<td>0.861</td>
<td>93.83</td>
<td>Acceptable</td>
</tr>
<tr>
<td>Management of knowledge has an impact on human resource excellence in Sarkhoon and Qeshm Gas Refinery.</td>
<td>0.872</td>
<td>138.92</td>
<td>Acceptable</td>
</tr>
<tr>
<td>Organizational justice has an effect on human resource excellence in Sarkhoon and Qeshm Gas Refinery.</td>
<td>0.747</td>
<td>30.56</td>
<td>Acceptable</td>
</tr>
<tr>
<td>Employee's participation has an impact on human resource excellence in Sarkhoon and Qeshm Gas Refinery.</td>
<td>0.803</td>
<td>48.02</td>
<td>Acceptable</td>
</tr>
<tr>
<td>Human resource excellence has an influence on performance in Sarkhoon and Qeshm Gas Refinery.</td>
<td>0.622</td>
<td>28.31</td>
<td>Acceptable</td>
</tr>
</tbody>
</table>

Based on the level of reliability of 95%, t statistics of greater than 1.96, and the results of the above table, we can say empowerment of the employees, management of knowledge, organizational justice, and participation of employees have an impact on human resource excellence in Sarkhoon and Qeshm Gas Refinery. Moreover, human resource excellence has an influence on task and implicit performance in Sarkhoon and Qeshm Gas Refinery.

12. Conclusion

Qualified and knowledge-based human resource is the main competitive advantage of an organization and the rarest reference in today's knowledge-based economy. Supply of different and distinct products and services with high qualities, reduction of costs, creativity, innovation, and enhancement of competitiveness are of the other advantages of qualified and knowledge-based human resources. Hence, with regard to this fact, pioneer organizations have taken incredible attempts to optimally utilize this key resource in various fields such as quality, production, and management for the accomplishment of their own strategic goals by the use of novel and efficient methods and systems.

Sarkhoon and Qeshm Gas Refinery shows an urgent need for research in the field of identification of effective factors on human resource excellence and assessment of its impacts on performance in order to accomplish its perspectives of the development of human resources. Considering the above explanations,
results indicated that effective indices on human resource excellence include empowerment, management of knowledge, justice, and participation. Furthermore, human resource excellence has an impact on performance in this refinery. Based on the results obtained, the following suggestions are offered:

Providing employees with a positive feedback produces a feeling of efficiency in them and ultimately promotes their motivations. Therefore, employees would take a further endeavor to enhance their powers. In order to make excellent their own human resources, organizations should constitute a department of research and development of human resources and invest on them by allocating a particular fund in this sector. They should use their personnel in the posts proportional to their knowledge and proficiencies. They should also consider some rewards as the results of their employees' performance. Assessment of the employees' performance is not merely adequate. However, results must be tangibly applied so as to improve a sense of justice in the employees. Organizations must welcome their employees' practical suggestions for decision-makings and execute them as much as possible. This way, they can further attract their participations, increase their motivations and promote their excellence. They should also offer convincing reasons for delaying or not executing their suggestions and clarify them to their personnel so that they would not lose their motivations.
References


