Studying the impact of human resources functions on organizational performance using structural equations method (case study: Iran Behnoush Company)

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Abstract
Several studies have been conducted to examine the relationship among human resources functions, employees' commitment and organizational performance. A model is represented in this survey to show the relationship between human resources functions and organizational performance in Iran Behnoush Company better by means of structural equations technique. Effective factors on human resources functions and organizational performance were studied through the represented model and finally validity of the model was confirmed using results obtained from analysis of data related to the questionnaire by LISREL software and relations among the proposed hidden criteria were studied.

Key words: human resources functions, organizational performance, structural equations model

1- Introduction
Today companies are faced with major challenges to maintain their identity and continue their activity as efficient companies as a result of globalization, liberalization of markets and more privatization of business environments. Human resources management is one of the important issues that companies are encountered in the field of their business activities. It contains effective guidance of individuals in work environment and it is obvious that employees are valuable assets of an organization. Most companies grant special value to employees nowadays, because activity in such competitive environment could not be leaded to survival and success in economic and social activities without employees' loyalty and attention. Iran Behnoush Company is a manufacturing company that is active in production of all types of beverages. Customer satisfaction for such manufacturing company is very important and enhancement of current, new and potential customers' satisfaction rate has been leaded to maintenance and survival of loyalty which requires satisfied and committed employees. Key factors of human resources functions are identified and degree of their effectiveness on effective factors on organizational performance will be specified in the present survey. This has been resulted in identification of the organization's strengths and weaknesses and consequently will be resulted in efficient and effective decisions that improve performance of the organization. This issue will affect customer satisfaction and finally increasing of the organization's profit.
Therefore, the present survey intends to study factors of indexes in each aspect through proposing a conceptual model and using structural equations model and prioritize and weight key factors given to degree of effectiveness. At last it represents a model to determine final criteria.
2- Theoretical principles of research
Organizations are always seeking enhancement of profit and survival and they are encouraged to adjust the best operations in the organization in order to enhance profit and decrease costs. Factors such as motivation, teamwork and participation, wage and bonus, proficiency and education could be used to measure human resources functions (Appelbaum, 2000)
Although there are many differences in combination of human resources system in various studies, the difference is in studies regarding management and studies with industrial relations bed. Management researchers are interested to establish their studies based on organizational industrial model of psychology to obtain optimal performance of work through using human resources procedures for selecting, training and motivating of individuals. Researchers in industrial field want to accomplish their researches based on human resources model, general improvement of employees' welfare. Recent studies confirm positive and considerable relationship among employees' perceptions, employees' attitude, reports of customers and quality of services and final performance. (Golmohammadi, 2008)

2-1 Human resources management and organizational performance
This issue became more important in beginning of the 1990's when field studies revealed that human resources management functions in organizations have positive relationship with improving total output of the organization. In other words, applying human resources functions has been connected with better performance in financial and operational scopes in such organizations. Most of these studies have been conducted in the private secretor organizations and mainly in the USA. Traditional researches conducted in this field include researches of Huselid (1995), Becker & Gerhart (1996), Huselid et al (1997), Macduffie (1995) and Ichnoiwski et al (21997).
Through taking an opinion poll human resources functions in this survey were related with motivation processes, human resources planning and education program, employees' relations, compensation and offering rewards and benefits, performance appraisal, education and development. (Golmohammadi, 2008)
Huselid perceives that human resources functions affect organizational performance from various aspects such as displacement, productivity and financial performance (Huselid, 1995)
Lai and Cheng state market performance and productivity performance as important indexes of the organization's performance (Lai, 2005). Moreover, Guest believes that output performance of the organization is regarded as employees' performance rate, employees' innovation and relations (Guest, 2004). Experimental researchers have used impacts of human resources functions on financial performance, productivity, output and employees' relations (Ahmad, 2003)
Human resources management creates competitive advantage through participation in strategic planning team, emergent strategies and creating innovation and creativity for organizations (Ghazitabatabaee, 1996). Impact of human resources strategy on organizational performance is subjected to three interrelated processes. First there is this probability that human resources strategy is formed through policies and practices of human act. Second, there is this probability that human resources strategy affects the degree or amount that the organization could use human capital. Third, human resources strategy could affect performance of the organization through influencing the degree or amount that elites and competent individuals have job opportunities and freedom of action for participation in organizational affairs
Only recently some studies have examined these two subjects clearly and specifically. For example, it has been specified in a case study that strategic planning of human resources is leaded to improve performance and the related indexes. There is a direct relationship among them (Khosravi Ruzbahani, 2003)
Also these studies indicate that there is a direct relationship between human resources planning and improving performance quality and human resources planning has a valuable and certain impact on productivity (Ostadzade, 2006).

It is necessary to recall that today there are seven different programs to manage employees' affair that are basis of managers' task including: job security, selective recruitment, self-managing teams, compensation based on performance of the organization, extensive education, reduction of the difference between managers and employees' rank and finally information sharing. Human resources management creates competitive advantage through participation in strategic planning team, emergent strategies and creating innovation and creativity for organizations (Mehrabi & Hassanpour, 2008) Employees create visions at various levels of the organization, define values and missions, determine purposes, design strategic plans and execute them according to the specified values. Human resources sector helps create value added by attracting employees with essential competencies and motivation (Seyyed Javadin, 2004)

According to above literature and generally we can infer that effective factors on human resources functions include motivation, cooperation and participation, reward and salary and effective factors on organizational performance include output, productivity, financial performance, performance of employees, innovation and customer satisfaction. The present survey intends to show existence of a significant relationship among human resources functions and organizational performance through the designed model and studies the obtained model in Iran Behnoush Company which helps improve the organization more and more. The applied conceptual model is illustrated in figure (1) as the problem of this survey that includes two elements of human resources functions and organizational performance.

**Insert Figure 1 here**

The dependent variable in the represented model is "human resources functions" which has been described by motivation, participation, education, wage and reward. The dependent variable of "organizational performance" is described by output, productivity, financial performance of the company, employees' performance, innovation, employees' relations and customer satisfaction. This survey tries to study the significant relationship between human resources functions and organizational performance in Iran Behnoush Company. Also it studies the fact that impact of which factor is more, i.e. which factor should attract the highest attention and capital.

**Research question**
Do human resources functions affect organizational performance?

**3- Research methodology**
This survey is of applied type in terms of purpose and is descriptive-correlation from structural equations model type in terms of manner of data collection.

**3-1 Statistical population, sample and sampling method**
The statistical population of the present survey is Iran Behnoush Company. Given to obtained information number of managers of this company is equal to ten (10) persons, number of supervisors at various ranks is equal to thirty nine (39) persons and number of workers is equal to four-hundred seventy (470) persons. This information is summarized in table (1) by separating organizational ranks of Iran Behnoush Company. Given to volume of the statistical population that is equal to five-hundred twenty (520) persons including managers, supervisors and workers kukran formula is used to determine number of sample volume:

\[ n = \frac{Nt^2e^2}{Nd^2 + te^2} \]

Where
N= number of individuals in the society
s= ratio of the population not having a certain feature
t= percentage of standard error of acceptable confidence coefficient
d= confidence level or desirable probable precision

Number of estimated sample from employees is equal to one-hundred twelve (112) persons using this formula. Sampling method of the present survey is simple random sampling given to volume of statistical sample.

3-2 Research tools
Questionnaire is the measurement tool in this survey which includes twenty seven questions based on Likert five-option scale. It is illustrated in appendix. Since validity and reliability of the questionnaire have previously been confirmed (Ya-Fen Tseng & model, 2009)

3-3 Data analysis method
Structural equations method has been used to analyze the impact of human resources functions on organizational performance and features such as $\chi^2$/df, RMSEA, GFI, CFI and AGFI are used to evaluate the intended model. Index $\chi^2$/df doesn't have a stable criterion for an acceptable model. But small amount of $\chi^2$/df indicates better value of the model (Human, 2009) According to Clain if amount of this ratio is between 2 and 3, it is acceptable and the smaller the amount of this ratio the better the model's goodness. Thus, 0.51 shows suitable goodness of the model in the present survey. RMSEA index for good models is equal to 0.05 or lower and higher amounts up to about 0.08 show a reasonable error for approximation in statistical population. Models in which RMSEA is equal to 0.10 or higher have a weak goodness. Goodness of fit indexes (GFI) and adjusted goodness of fit index (AGFI) show the model has better goodness to what extent with regard to its nonexistence. Amount of GFI, AGFI and CFI based on convention must be equal to 0.90 or higher so that the model will be accepted. (Azar, 2003)

3-4 Research findings
As it is observed in figure (2) variables of motivation, participation, education, wage and reward are settled as subcategory of hidden variable, i.e. human resources functions and variables of output, productivity, financial performance of the company, employees' performance, innovation, employees' relations and customer satisfaction are settled as subcategory of hidden variable of organizational performance based on research conceptual model. Research variables were analyzed based on the compiled conceptual model in LISREL software (figure 2). The obtained primary output reveals that innovation and work relations variables (op5 and op6) have factorial loads equal to 0.08 and -0.05 respectively on organizational performance and these factorial loads are not significant statistically. However, all variables effective on human resources activities at level P<0.05 are significant and variables of output, productivity, financial performance of the company, employees' performance, innovation, employees' relations and customer satisfaction have significant factorial loads on organizational performance.

Insert Figure 2 here

On the other hand, goodness of fit indexes in table 2, i.e. $\chi$/df, RMSEA, CFI, GFI and AGFI indicate that this model doesn't have suitable goodness.

Insert Table 1 here

Insert Figure 3 here
Factorial loads and explained variance of each component of human activities and organizational performance have been estimated. Results of this estimation are demonstrated in table 3 for components of human resources activities.

Insert Table 2 here

Results of table 3 show that education component has more relative importance than other components with factorial load of 0.82 and explained variance of 0.67. Factorial loads of all components are significant statistically. Employees' performance has more relative importance than other components of organizational performance with factorial load of 0.89 and component variance of 0.79.

Also, explained variance of output, productivity, employees' performance and customer satisfaction components are equal to 0.38, 0.53, 0.47 and 0.34 respectively. Factorial loads of all components are significant statistically. Finally, direct impact of human resources activities on organizational performance according to figure (3) is equal to 0.26 which is significant statistically ($p<0.5$). After the model's re-estimation goodness indexes of model, i.e. $x/df$, RMSEA, CFI, GFI and AGFI reveal that it has a suitable goodness, as CFI, GFI and AGFI indexes are more than 0.9 and RMSEA index is relatively acceptable.

Insert Table 3 here

4- Conclusion and recommendations

Obtained findings demonstrate that motivation, participation, education, wage and reward variables are effective on human resources functions so that education among these variables has more relative importance regarding influencing human resources functions. Factorial loads of all variables effective on human resources functions are significant statistically. On the other side, employees' performance has more relative importance than other components of organizational performance with factorial load of 0.89 and explained variance of 0.79. Moreover, factorial loads of output, productivity, employees' performance and customer satisfaction variables on organizational performance are significant. Previous experimental studies show that functions of human resources management (recruitment and selection, performance appraisal and career development, compensation/offering reward and benefits) have a positive relationship with organizational performance separately. However, research process of group impacts of human resources functions on organizational output is followed more. Field studies have been conducted regarding the impact of human resources management functions on business performance of the organization in an extensive range of industries (manufacturing, automotive, financial services, telecommunications, insurance, hotel industry and etc). Bartell has analyzed the relationship between human resources management functions and performance of bank branches in one of the large banks of Canada. He states that importance of human resources management in service sector could be more than the production sector and this is due to the direct relationship among employees and customers in service organizations. Before that Terpestra and Ruzel found out human resources functions have stronger and more correlation with criterions of organizational performance such as profitability and sales in service industries in comparison with manufacturing industries. They explain that success of service organizations has a more direct relationship with nature and quality of their human resources, since human resources are major inputs of the organization in service industries. It is recommended to future researchers to study the represented model in this survey in service organizations and compare these two kinds of organizations (manufacturing and service organizations) with each other. DEA/AHP method could be used for comparison.
Acknowledgment
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References


Annexure

Figure 1- Conceptual model regarding existence of relationship between human resources process and organizational performance
Figure 2- path diagram of LISREL model regarding human resources functions and organizational performance in Iran Behnoush Company

Table 2- features of model goodness

<table>
<thead>
<tr>
<th>AGFI</th>
<th>GFI</th>
<th>CFI</th>
<th>RMSEA</th>
<th>x/df</th>
</tr>
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<tbody>
<tr>
<td>0.88</td>
<td>0.82</td>
<td>0.75</td>
<td>0.13</td>
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</tbody>
</table>
Figure 3- The modified model of path diagram

Table 3- factorial loads and common estimated variance of components related to human resources activities

<table>
<thead>
<tr>
<th>Components of human resources activities</th>
<th>Factorial load</th>
<th>The explained variance</th>
<th>Components of organizational performance</th>
<th>Factorial load</th>
<th>The explained variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>0.68</td>
<td>0.47</td>
<td>Output</td>
<td>0.67</td>
<td>0.38</td>
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<tr>
<td>Participation</td>
<td>0.37</td>
<td>0.11</td>
<td>Productivity</td>
<td>0.73</td>
<td>0.53</td>
</tr>
<tr>
<td>Education</td>
<td>0.87</td>
<td>0.67</td>
<td>Financial performance</td>
<td>0.69</td>
<td>0.47</td>
</tr>
<tr>
<td>Wage</td>
<td>0.80</td>
<td>0.64</td>
<td>Employees' performance</td>
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<td>0.89</td>
</tr>
<tr>
<td>Reward</td>
<td>0.73</td>
<td>0.061</td>
<td>customer satisfaction</td>
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<td>0.58</td>
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</tbody>
</table>

Table 4- features of model goodness

<table>
<thead>
<tr>
<th>AGFI</th>
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<th>CFI</th>
<th>RMSEA</th>
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<tr>
<td>0.90</td>
<td>0.93</td>
<td>0.95</td>
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