Factors Affecting Human Resource Development in the Iranian Social Security Organization’s Hospitals

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Abstract: Yet, Human Resource Development is very important issue, but very difficult component for effective health care delivery, especially in the public sector. The present study aimed to identify the main factors of Human Resource Development in the Iranian Social Security Organization’s Hospitals. This study was descriptive and applicable. Ninety six Iranian Social Security Organization Hospitals (the major governmental health institutions in Iran) were chosen as a sample among all Iranian healthcare centers. The members of research community were educational managements of these hospitals (n=96). To achieve this objective, the conceptual model of Human Resource Development was first designed and approved by managers and experts of hospitals. Then a questionnaire was designed for reviewing the current state of Human Resource Development. Content validity and construct validity were assured with expert judgment and the reliability of the questionnaire was determined using Cronbach’s alpha and Pearson correlation (first and second times). Cronbach’s alpha coefficient was respectively as 0.925 and Pearson correlation was 0.977 (p<0.001). After the sample size was shown to be sufficient, the exploratory and confirmatory factors were analysed. Then, a structural equation approach was used to determine direct and indirect relations of factors. The findings of the present Study showed that after the factor analysis of the components “Commitment”, “Planning”, “Action” and “Evaluation”, 3, 2, 1 and 3 factors were extracted, respectively. The calculated fitness indices emphasised the desirable fitness. The application of the structural equation approach showed that the corresponding factors of commitment (organization development, management commitment and employment system) have a direct relation with the factors of planning (career development path and master plan for education). The career development path and master plan for education have bilateral relations and these factors relate directly to the factor human resource development activities. Furthermore, the factors of evaluation development system, welfare system and performance management was known to be an independent factor having effects on all of the known factors. The calculated fitness indexes prove the desirability and appropriateness of the components and their structural relations.

Key words: Human resource development · Iranian healthcare · Social security organisation

INTRODUCTION

In the last 20 years, research has shown that the strategic use of human resource management (HRM) is likely to be one of the most important determinants of organizational performance [1]. HRM involves all management decision and practices that directly affects or influence the people, or human resources, who work for the organisation. Human resources are significant strategic levers and the sources of sustained competitive advantage. Therefore, HRM practices should be central to the organizational strategy [2, 3].

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With globalization and technological advances, today's organizations are continuously changing. Thus, organizational change impacts not only the business but also its employees. In order to maximize organizational effectiveness, human potentials, individuals' capabilities, time and talents must be managed and developed [4].

Companies began to realize that human resource is an important asset and started developing their employees particularly to improve their performance and develop or enhance their skills to increase productivity. Since then, HRD is considered as an important business strategy and processes [5].

Human resources are an organization's greatest assets because without them, everyday business functions such as managing cash flow, making business transactions, communicating through all forms of media and dealing with customers could not be completed. Human resources and the potential they possess are key drivers for an organization’s success. With globalization and technological advances, today's organizations are continuously changing. Thus, organizational change impacts not only the business but also its employees [4].

Human Resource Development is a very important for effective health care delivery, especially in the public sector. Bureaucratic barriers, discontinuity, ineffective or ineffective leadership and lack of systematic approaches are major reasons for failures [6].

Papmehl argued that when the culture works in a mutually reinforcing manner and employees feel satisfied, their contributions can be felt at the bottom line. Progressive organizations understand this. Progressive organizations have also established means of converting their employees' knowledge into power [7].

In recent years, Iranian healthcare centres have paid some attention to Human Resource Development. For instance, studies on the proprietary hospitals of Social Security Organisation showed that some of these hospitals were moving towards Human Resource Development with the implementation of the pattern of ISO 9001 and ISO10015 the patterns of EFQM and BSC were also used at some health care centres.

Khameda’s study showed that in Iran’s social security organization the education management and human resource development and knowledge management are in improper levels [8].

In fact there is no perfect method to develop human resources, each country and organization with considering its goals and domestic and environmental problems should provide proper educational courses, improving process and necessity facilities to promote its managers and employees and allocates the financial resources [9].

The factors of human resource development have not yet been studied in Iranian healthcare centers and factors associated with the human resource development in Iranian hospitals are not recognized now therefore, the present study was performed with objectives such as the identification of factors having an effect on human resource development and the determination of the structural relations between such factors.

**Conceptual Framework**: In the 1980s, original writers in the area of human resource management (HRM), Beer et al. stressed that in the face of increasing international competition, organizations had to focus on the value of investments in human resources as a major source of competitive advantage [10]. More recently the rise in the status of knowledge workers has highlighted the focus on human resources as the key to organizational productivity [11, 12].

Numerous attempts to HRD by academics, researchers and practitioners have led to confusion in the literature, illustrating the elusive nature of this concept. This suggested that a distinctive conceptual or theoretical definition of HRD has not yet been established and this issue has hence become a subject of constant debate and discourse [13-15].

A single definition for HRD has been suggested by Watkins, which focuses on learning [16], whilst Swanson focuses on performance [17]. However, disagreement arises, with some authors arguing that it is not possible or feasible to provide a single definition of this concept [18-20]. This lack of agreement has been further aggravated by the epistemological and ontological perspectives of individual stakeholders, commentators and scholars in the field of HRD [21].

The components of HRD as identified by Thomson and Mabey provided a theoretical model from which HRD related undergraduate course content could be mapped to HRD disciplines. They identified three components of HRD: (a) organizational development (OD), (b) career development (CD) and (c) training and development (TD) [22].

Behind the theoretical debates concerning the nature of HRD, there is a set argument pertaining to the purpose of HRD. The purposes of HRD are said to influence the nature and extent of HRD activities being implemented [14]. Holton proposes that the purposes
of HRD are centered on learning and performance perspectives, both benefiting the individual and the interests of shareholders [23]. In a wider perspective, Hatcher argues that the purposes centre on economic benefits, social benefits and the ethics of HRD [24]. These points indirectly suggest that a reconciliation of the purposes of HRD centrally focus on training, development and learning within organizations for individual development to achieve business strategies and for the development of organizational competence [25]. In general, the purpose of HRD, extracted from the definitions above, is to enhance individual performance and improve organizational effectiveness and productivity [see, for example, 26-28].

Blake claimed that the field of HRD “defies definition and boundaries” [29]. Weinberger argued that there seems to be no consensus, despite the fact that numerous efforts have been made to define HRD [13]. On the other hand, Lee contested that some writers refused to define HRD and it could not be defined sufficiently [19]. However, it is still important to analyze and differentiate HRD from T&D.

HRD and T&D may be similar in their concepts and purposes, but HRD is different in that it has roles that extend far beyond training and development [30]. HRD is a strategically orientated organizational process for managing the development of human resources and is strategically associated with employees’ T&D and overall business success [5].

The theoretical framework of HRD can be viewed from a general context, as discussed above, or from a more specific context, such as a national context. Indeed, it has been reported that the theoretical framework of HRD varies from one country to another due to economic influences, political factors, government legislation and the country’s value system [14]. These influences are particularly influential in shaping the development of human resources [31]. The theoretical and conceptual framework of HRD varies by country according to three dimensions, namely the scope of activities within HRD, the intended audience for development and the national purposes of HRD [14].

MATERIALS AND METHODS

During the Study the researchers first studied nine Human Resource Development models of People Development Standard, Investors In People, Excellence Through People, American Society for Training and Development (ASTD), People-Capability Maturity Model, Raymond’s Human Resource Development model, WHO’s Human Resource Development model, Human Resources Excellence Model of Iran, ISO 10015 and to compile a conceptual model on the basis of such models. Twelve managers and experts of human resource management of Social Security Organisation’s hospitals expressed their views on the compiled conceptual model and approved it. Then, the researchers designed a questionnaire to examine the ongoing state of human resource development in the hospitals of Social Security Organisation on the basis of the components and variables of the conceptual models compiled. The questionnaire consisted of two parts: “demographic data”, “variables of human resource development” and one open question.

To assess the validity of the questionnaire, expert judgment method was applied. So the designed questionnaire, along with explanations regarding terms and concepts were presented to five university professors, ten managers in the Social Security Organisation’s hospitals and two officials in charge of human resource management in hospitals and they were asked to express their views on its construct, content, formal appearance and writing mode. Then the necessary amendments were made and the validity of its content and construct were assured.

The questionnaire was sent to all the educational managements of Social Security Organization Hospitals (N=96). The questionnaire was filled out by the research community two times within an interval of 20 days. The members of research community were in charge of human resource management of the Social Security Organization hospitals.

Then, the reliability of the questionnaire was determined using Cronbach’s alpha and Pearson correlation (first and second times). In addition the correlation of each variables and internal consistency of all variables were calculated in each component. Cronbach’s alpha coefficient of the components “commitment”, “planning”, “action” and “evaluation” were respectively as follows: 0.848, 0.813, 0.859 and 0.748. In general, the general alpha coefficient of the questionnaire was determined at 0.925 with its correlation at 0.977 (p<0.001), which are evidences of the reliability and fitness of the questionnaire (Table 1).

Next, Kaiser-Meyer-Olkin was used to determine the sufficiency of the sample size and Bartlett’s Test of Sphericity was applied to calculate the meaningfulness of the correlation matrix for each component. Then, the
Table 1: Cronbach’s alpha coefficients and Pearson correlation of the components

<table>
<thead>
<tr>
<th>Component</th>
<th>Cronbach’s alpha coefficient</th>
<th>Pearson correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment</td>
<td>0.848</td>
<td>P &lt; 0.001, 0.951</td>
</tr>
<tr>
<td>Planning</td>
<td>0.813</td>
<td>P &lt; 0.001, 0.973</td>
</tr>
<tr>
<td>Action</td>
<td>0.859</td>
<td>P &lt; 0.001, 0.961</td>
</tr>
<tr>
<td>Evaluation</td>
<td>0.748</td>
<td>P &lt; 0.001, 0.944</td>
</tr>
<tr>
<td>General</td>
<td>0.925</td>
<td>P &lt; 0.001, 0.977</td>
</tr>
</tbody>
</table>

Table 2: Abundance distribution of research community in accordance with demographic characteristics

<table>
<thead>
<tr>
<th>Demographic factors</th>
<th>Abundance percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>58%</td>
</tr>
<tr>
<td>Male</td>
<td>42%</td>
</tr>
<tr>
<td>Age groups</td>
<td></td>
</tr>
<tr>
<td>Less than 30 years</td>
<td>8%</td>
</tr>
<tr>
<td>30-39</td>
<td>38%</td>
</tr>
<tr>
<td>40-49</td>
<td>31%</td>
</tr>
<tr>
<td>50 years and older</td>
<td>3%</td>
</tr>
<tr>
<td>Educational degree</td>
<td></td>
</tr>
<tr>
<td>Associate’s degree</td>
<td>5%</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>59%</td>
</tr>
<tr>
<td>Higher</td>
<td>36%</td>
</tr>
<tr>
<td>Acquaintance with of Human Resource Development topics</td>
<td></td>
</tr>
<tr>
<td>Very high</td>
<td>13%</td>
</tr>
<tr>
<td>High</td>
<td>45%</td>
</tr>
<tr>
<td>Medium</td>
<td>36%</td>
</tr>
<tr>
<td>Low</td>
<td>3%</td>
</tr>
<tr>
<td>Very low</td>
<td>3%</td>
</tr>
</tbody>
</table>

Fig. 1: Conceptual model

exploratory factor analysis was performed with a maximum probability approach to identify the rate of the loading of variables identified in the components and a Varimax orthogonal approach was used to interpret the variables.

Then, confirmatory factor analysis was used with the application Lisrel 8.7 to verify the fitness of factors achieved during the exploratory factor analysis the fitness indices were as follows:

The Chi square index, the goodness-of-fit index (GFI), the comparative fit index (CFI), root mean square error of approximation (RMSEA) and root mean square residual (RMR). If CFI and GFI are higher than 0.90 and RMSEA and RMR are less than 0.05, desirable and appropriate fitness is indicated [32]. After this stage, the structural equation model approach and Lisrel 8.7 were used to determine the direct and indirect structural relations between the components of human resource development.

RESULTS AND DISCUSSION

The researchers studied nine human resource development models to compile a conceptual model on the basis of the main components of human resource development. This model was confirmed with gathering opinions and interview with experts. The model is shown in (Figure 1).

Table 2 shows some of demographic characteristics of the research community. As indicated in the table, a majority of the members of the research community are very familiar with human resource development topics and
more than half of them have participated in training courses on Human Resource Development for more than 30 hours (Table 2).

In analyzing the current status of the Logistic Departments of the Iranian Social Security Organization’s Hospitals was determined the only component of the average assessment is planning and other three components (commitment, action and evaluation) of assessment are in improper levels (Table 3).

In answering to open question and in performed interviews with research society, any variable was added to variables of questionnaire.

The exploratory factor analysis was performed with maximum probability approach and the variables were interpreted with Varimax rotation approach. The results showed that three factors were come out from the commitment component with special values of greater than one. The first, second and third factors showed respectively 40.153, 11.912 and 10.800 percent of total variances of variables. Therefore, these three factors explained 62.865 percent of the total variances of variables of the component “commitment”. For this component.

The Following Variables Formed the First Factor:
- Promoting a system approach.
- Appreciation of employee participation.
- Adequate funding.
- Allocate adequate human resources.
- Professional Human Resource Development Unit.
- Supportive work environment.
- Promote collaborative work culture.
- Allocate sufficient time.

The Following Variables Formed the Second Factor:
- Active partnership of managers.
- Comprehensive career development with training plans.
- Select qualified people.

The Following Variables Formed the Third Factor:
- Role of manager as a pattern in organisation.
- Provide a comprehensive policy development staff by managers.

Two factors were extracted for the component “planning”, which had special values of greater than one. The first and second factors showed 45.008 and 15.586 percent of the total variances of variables, respectively. These two factors in total showed 60.597 percent of the total variances of the variables of “planning”. For this component.

The Following Variables Formed the First Factor:
- Determine the overall and minor goals of human resource development.
- Set career development path for each job.
- Determine criteria for evaluating the training results.
- Updated training records.
- Determine the overall training plan.
- Adviser team of experts (outside the organization).

The Following Variables Formed the Second Factor:
- Employment based on personality factors (self-esteem - order - customer satisfaction).
- Notified the path specified career development with staff development plan.

One factor was extracted for the component “action” with a special value of greater than one. The factor showed 54.564 percent of the total variances of variables. All of the corresponding variables of the component “action” were formed on the factor.

The Following Variables Formed the First Factor:
- Job analysis.
- Staff training needs analysis.
- Start training.
- Determined entrepreneur team.
- Use job experiences.
- Self development.
- Identification and development of individual capabilities.

Three factors were come out from the evaluation component with special values of greater than one. The first, second and third factors explained 37.707, 17.482
Table 4: Recycled matrix of components

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Action</th>
<th>Planning</th>
<th>Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
<td>Variables</td>
<td>Variables</td>
<td>Variables</td>
</tr>
<tr>
<td>3rd factor</td>
<td>2nd factor</td>
<td>1st factor</td>
<td>3rd factor</td>
</tr>
<tr>
<td>.316</td>
<td>Performance Management</td>
<td>0.693</td>
<td>Virtue of job analysis</td>
</tr>
<tr>
<td>.919</td>
<td>Psychological assessment staff</td>
<td>0.545</td>
<td>Staff training needs analysis</td>
</tr>
<tr>
<td>.788</td>
<td>Introducing the best</td>
<td>0.651</td>
<td>Justify a new job training</td>
</tr>
<tr>
<td>.395</td>
<td>Staff motivation</td>
<td>0.615</td>
<td>Determined trained entrepreneur team</td>
</tr>
<tr>
<td>.441</td>
<td>Performance Self assessment</td>
<td>0.873</td>
<td>Use job experiences</td>
</tr>
<tr>
<td>.455</td>
<td>Review human resource development System</td>
<td>0.656</td>
<td>Self development</td>
</tr>
<tr>
<td>.942</td>
<td>Feedback system</td>
<td>0.820</td>
<td>Identification and development of individual capabilities</td>
</tr>
<tr>
<td>.788</td>
<td>Measuring human resource development indicators</td>
<td>.475</td>
<td>Employment based on personality factors (self-esteem - order - customer satisfaction)</td>
</tr>
</tbody>
</table>

and 13.420 percent of total variances of variables, respectively. Therefore, these three factors explained 68.609 percent of the total variances of variables of the component “evaluation”. For this component, the following variables formed the third factor:

- Self assessment.
- Performance Management (Table 4).

Then, the confirmatory factor analysis was made with the use of the software “Lisrel 8.7” to verify the fitness of the factors achieved by the exploratory factor analysis. The fitness indexes of RMSEA, GFI, CFI and RMR were respectively 0.0016, 0.94, 0.92 and 0.033 for the component “commitment”; 0.030, 0.93, 0.96 and 0.028 for the component “planning”; 0.031, 0.93, 0.97 and 0.021 for the component “action”; and 0.025, 0.95, 0.97 and 0.025 for the component “evaluation” (Table 5).
Table 5: Fitness indices calculated for each component

| Component / index | Root mean square error of approximation (RMSEA) | Goodness of fit index (GFI) | Comparative fit index (CFI) | Non-normed fit index (NFI) | Incremental fit index (IFI) | Related goodness of fit index (RFI) | Adjusted goodness of fit index (AGFI) | Root mean square residual index (RMR) | x2 | Pval
|-------------------|-----------------------------------------------|-----------------------------|-----------------------------|---------------------------|----------------------------|-------------------------------------|---------------------------------------|-------------------------------------|----|-----
| Commitment        | 0.0016                                        | 0.94                        | 0.92                        | 0.87                      | 0.90                       | 0.92                                | 0.83                                  | 0.76                                | 0.033 | 22.11 | p>0.05 |
| Planning          | 0.030                                         | 0.93                        | 0.96                        | 0.92                      | 0.93                       | 0.96                                | 0.86                                  | 0.84                                | 0.023 | 28.45 | p>0.05 |
| Action            | 0.031                                         | 0.93                        | 0.97                        | 0.94                      | 0.94                       | 0.97                                | 0.90                                  | 0.85                                | 0.021 | 24.36 | P<0.031|
| Evaluation        | 0.25                                          | 0.95                        | 0.97                        | 0.92                      | 0.94                       | 0.97                                | 0.91                                  | 0.86                                | 0.025 | 21.19 | p>0.05 |

Fig. 2: Structural model

After the above stage, the approved factors were named: The first, second and third factors of the component “commitment” were respectively named “organization development”, “management commitment” and “employment system”. In the component “planning” the first and second factors was respectively named “master plan for education” and “career development path”. In the component “evaluation” the first and second factors were respectively referred to as “welfare system” and “performance management and Evaluation Development system”. All variables of action formed a single factor, to which the name “human resource development activities” was allocated.

After the factors had been named and such names had been approved by experts, the structural equation model approach and the software “Lisrel 8.7” were used to identify the direct and indirect structural relations of the components of human resource development.

The following diagram shows the structural relations between these factors (Figure 2).

Fig. 3: The diagram of the structure of these factors: a simpler model

Note:

c01 = Organisation development.
c02 = Management commitment.
c03 = Employment system.
p1 = Career development path.
p2 = Master plan for education.
p3 = Human resource development activities.
a7 = Performance management.
a8 = Welfare system.
a9 = Evaluation development system.

The diagram of the structure of these factors may be illustrated by a simpler model in Figure 3.

Next, to determine the fitness of the form of the compiled structural relations, the fitness indexes were calculated as follows:

\[
\begin{align*}
\text{RMSEA} & = 0.044 \\
\text{CFI} & = 0.97 \\
\text{RMR} & = 0.028 \\
\text{GFI} & = 0.93
\end{align*}
\]
The above are evidences of desirability and appropriateness of the structural relations.

The findings of this study proved that the identified factors of human resource development and their structural relations presented for the hospitals of the Social Security Organisation were suitable. Application of structural equation approach showed that the corresponding factors of commitment (organization development, management commitment and employment system) have directly related to the factor of planning (career development path and master plan for education). The factors of career development path and master plan for education have bilateral relations and these factors directly related to the factor human resource development activities. Furthermore, the factors of evaluation development system, welfare system and performance management was known to be an independent factor having effects on all the known factors.

Comparing the form of the structural relations of components with the initial conceptual model, we may conclude that the two are in some ways similar to each other with regards to structural relations; in both forms, the factors or the component of commitment is placed at the beginning of the form. After the above component, the factors or component of planning comes followed by the factors or component of action. Moreover, in both of forms, the factor or component of evaluation are understood to be an independent factor with effects on all the known factors.

Swanson’s model) assumed human resources development at the top of pyramid and recognizes the bottom side of Pyramid for leadership, strategy, quality improvement, developing processes, designing work system, job extension and organizational effectiveness and developing and education and organizational development are located at the middle of pyramid [33]. Swanson’s model is same with present research model in leadership, job extension, education and organizational development variables.

In Otto’s study, the main keys of human resource development which include education, budget and planning are same like this study [34].

The findings of Sun in surveying research in 18 countries showed that the automation level and developing human researches are different in countries [35]. According to present research, in Iran, automation has not effective on developing human resources.

The case study of Chaisiri in Thailand includes using quality control techniques, 5S, suggestions system and total quality management in reach human development [6]. The model that has been suggested by Chaisiri was not same present research in Iran.

In the suggestive model of Pahlevan, for human resources development in health care sector of Iran the most effect belongs to human resources, financial resources and physical resources which in fact are the variables of development planning of human resources [36].

Results of the present study are also similar to the study of Pahlevan, all indicating that human resource development contributes to improved performance and organizational effectiveness.

CONCLUSION

After analyzing data and performing exploratory factor analysis on four primary component and forty four research variables, a model with nine factors and thirty five variables were extracted. The confirmatory factor analysis, too, indicated that the structural model of this factor was proper.

The results of performed researches are same with results of current research and it can be concluded that these factors have important roles in human resource development and are considered as effective factors to improve human resources. Since that there are similarities in staff performance of Iranian hospitals, the results of this research can be extended to other health centers of Iran.

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REFERENCES


