ELECTRONIC SYSTEM OF HUMAN RESOURCE MANAGEMENT AND EXERCISE OF LEADERSHIP IN HUMAN RESOURCES: A CASE STUDY OF AMIRALMOMENIN HOSPITAL OF ARAK CITY, IRAN

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A B S T R A C T

This study aims at examining the relationship between electronic system of human resource management and exercise of leadership in human resources in Amiralmomenin Hospital of Arak city in Iran. In this survey study, the population consisted of all nurses in this hospital. We utilized questionnaires for data collection and assessed validity of each measure by using construct validity along with confirmatory factor analysis. Regarding that KMO value greater than 0.7 in all cases, there was good correlation among data for factor analysis. Additionally, reliability of variables was ensured by Cronbach's alpha. Hypotheses were analyzed by multiple regression (level of significance was less than %5) and SPSS software. As far as educational services was concerned, there was relationship between electronic system of human resource management and exercise of leadership in human resources. Conversely, there was no relationship between them in terms of two other components.

KEYWORDS: Leadership human resources human resource management (HRM) electronic system Arak city

Nowadays, human resource management acts as an essential component of employees' guidance and may be considered as the most significant skill for managers in organizations and team attempts, without which humans can not attain their ultimate objectives (Zaree, 2000). Human resource management is defined as development of programs, on the basis of which performance of human resources is improved and personal and organizational objectives are attained. Indeed, human resource management is generation and development of human resources for accomplishment of objectives. Managers are Personnel or human resources who hold consultation with executive managers as regards affairs of human resources, along with taking executive duties related to human resources. As a result, managers are required to gain knowledge about human resource management (Huub et al, 2004).

According to Hensen, labor and technology act as heart beat for human resources. As human resource management is the most significant sector of departments in organizations, information technology components are ways and means for accomplishment of these objectives. In general, rapid growth encouraged in human resource management and information technology has made a large number of public and private companies and organizations utilize information technology in human resources or in other words electronic human resource management (E-HRM). This is because demands for

further flexibility and maximum potential efficiency in human resource services make shifts in human resource management essential and E-HRM provides opportunities for this shift (Bondarouka., 2009).

Health services as leading organizations in establishment of different management services to which different certificates are awarded for offering services to patients attempt to set up electronic system in their departments especially in human resource sector and to examine its impact on performance of their human resources. This study intends to examine the impact of E-HRM (as regards education, research, and treatment) on performance of human resources as regards leadership in Amiralmomenin Hospital of Arak, Iran.

Farsijani and Arefnejad (2011) determined ranking of crucial factors in E-HRM by using AHP approach. They took viewpoint of 25 top managers and human resource managers in Khoramabad water and electricity departments into consideration. Findings of expert choice software analysis revealed that working components, organizational components, environment, personal components and innovation exerted the most significant on E-HRM.

Lujan et al studied the Impact of e-HRM strategies and Concluded that a correct understanding and effective implementation of e-HRM, according to today's competitive situation and globalization, can provide a

competitive advantage for organizations. They also found those factors such as level of education, social status, financial status of the organization and the competitive environment are effective on the use and implementation of e-HRM strategies. (Huselid, 1995)

Zafar et al (2010) in their research sought to know How the Banks benefit from of Information Technology in the fields of human resources and improving human and in the end concluded that the use of information technology in HR can improve services, efficiency, and effects of human resources (Zafar et al, 2010).

MATERIALS AND METHODS

Electronic Human Resource Management (E-HRM)

Development of information technology for establishment of network at least between two persons or a set of factors in a shared environment related to human resource management (Strohmeier, 2007).

Human Resource Leadership

Management of organization changes in cooperation with human resources for accomplishing related strategic objectives (Alvani, 2010).

Objectives of tendency towards E-HRM

Zeliak and Ansel indicate 4 crucial factors in E-HRM which are as follows:

- Human resource departments are asked to concentrate on strategic questions.
- These departments are required to provide flexibility in terms of policy making and actions.
- They should achieve higher efficiency and develop sensitivity to (or build awareness of) costs.
- HR departments must be constantly strategy-oriented, flexible, efficient and customer-oriented. (Mehrjoo and Noursina, 2013)

Using e-HRM

Objectives of using e-HRM can be summarized as follows (Seyyed Javadin, 1994):

- Improving efficiency
- Improving administrative processes
- Improving customer service
- Improving the strategic role of HR

e-HR functions (Kazemi & Abtahi, 2000)

- Staff training
- Hiring processes
- More communication and staff management
- Archival records
- Everyday activities of human resources

Implementation stages of e-HRM

Many managers are looking to implement E-HRM in their organization due to its significance. For this, the following steps should be taken (Voermans, 2007):

1) Identifying key HRM strategies and policies, regarding the organization's strategies
2) Considering the goals of e-HRM
3) Getting familiar with Electronic HRM using each of them with respect to goals of the organization and HRM
4) Monitoring the measures taken and achieving e-HRM results

Research Method

In this survey study, the sample consisted of all nurses of Amiralmomenin Hospital (Arak, Iran) including 120 females and 59 males. The final sample was selected by using available non-probability sampling method.

Since questions in the questionnaire are Multi-valued with interval scale to estimate the value of sample, the following equation was used: (Hafeznia, 2005):

$$n = \frac{N \times Z_{(\alpha^2/2)} \times \sigma^2}{\varepsilon(N-1) + Z_{(\alpha^2/2)} \times \sigma^2}$$

The minimum sample size was required to consist of 120 subjects in order to ensure sufficient accuracy, yet we distributed 150 questionnaires in order to compensate for incomplete questionnaires. We considered exercise of leadership in human resources as dependant variable and electronic human resource management (E-HRM) (as regards education, research, and treatment) as independent variable. We collected our data by using questionnaires. As far as dependant variable was concerned, we framed 17 question items in accordance with experts' viewpoints and library achieves. We examined independent variable in compliance with

questionnaires of Smith and others (2004). We assessed validity of measures by using construct validity along with confirmatory factor analysis. We ensured adequacy of sample size by KMO and Bartlett's test of sphericity. As KMO value is greater than 0.7 in all cases, the data are correlated well for factor analysis. Chi-square index in Bartlett's test of sphericity for all constructs was measured (p<0.001) which was statistically significant. We assessed reliability of variables by using Cronbach's alpha. Since value of Cronbacha's alpha was greater than 0.7, the reliability was accepted. Additionally, we used multiple regression and SPSS software (with level of significance less than %5).

Hypotheses

H1. There is significant relationship between E-HRM in terms of education and leadership in human resources.

H2. E-HRM is significantly related with leadership in human resources.

H3. There is significant relationship between E-HRM in terms of medical treatment and leadership in human resources.

RESULTS AND DISCUSSION

We were required to test Hypotheses which we were necessary for regression prior to performance of regression test. As regards freedom of errors, we used Durbin-Watson test. Statistical values of this test lie between 0 and 4. In the case that we observe its values between 1.5 and 2.5, the errors are considered uncorrelated. Otherwise, they are correlated. As we observed a value of 1.982, freedom of errors was accepted.

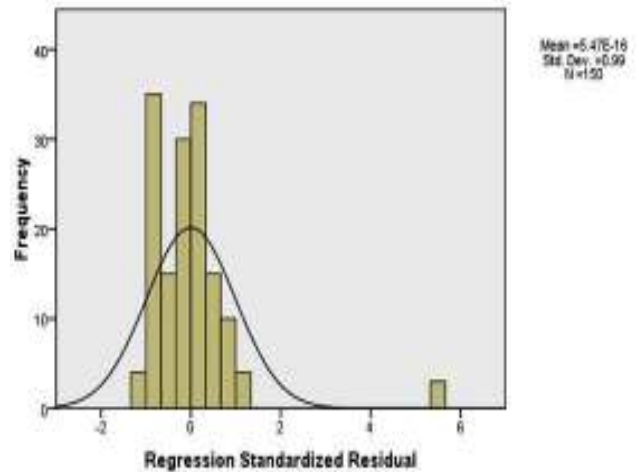As another assumption of the regression, errors should contain distribution of normality with a mean of zero

Figure 1: Normality of Errors

Dependant variable: leadership in human resources

As figure 1 indicates, the mean value was close to zero and standard deviation close to 1 (0.99). As a result, normality of errors was confirmed.

Table 1 shows information of regression variance for examining zero probability of regression coefficients or in the other words linear relationship between independent and dependant variables. Hypotheses on level of significance of the whole regression model are as follows:

Hypothesis 1: All regression coefficients are zero.

Hypothesis 2: At least one of coefficients is not zero

Table 1: Regression Variance of Independent & Dependant Variables

Model	Total Squares	Level of freedom	Mean of Squares	F Statistics	Level of Significance
Extent of changes in dependant variable by independent variable	56.765	3	18.922		0.000
Extent of changes in dependant variable by random factors	393.312	146	2.694	7.024	-
	450.077	149	-		-

As Table 1 indicates, it is confirmed that at least one of independent variable coefficients show values other than zero. Therefore, there is relationship between independent variables and dependant variable. The calculated coefficients are provided in Table 2.

Table 2: Coefficients of Three-Variable Regression Equation as Regards Leadership in Human Resources

Model	Non-standardized Coefficients		Standardized Coefficients	T statistics	Level of Significance	Result
	B	**Standard Deviation of Error**				
Fixed Value	-0.106	0.666	-	-0.159	0.874	
Education	0.392	0.167	0.215	2.354	0.020	confirmed
Research	0.123	0.247	0.050	0.500	0.618	rejected
Medical Treatment	0.411	0.218	0.173	1.887	0.061	rejected

In this regression model, independent variable of education contains coefficient of 0.215: per one unit of change in education, leadership increases by 0.215 units. As t value is 2.354, level of significance is 0.02, and level of researchers' error is 0.05, this regression coefficient is statistically significant and there is significant relationship between human resource management in terms of education and leadership in human resources (in 95-percent level of confidence) (hypothesis 1 is accepted).

As far as the correlation between research in human resource management and leadership in human resources, level of significance is 0.618. As it is greater than considered level of errors i.e. 0.05, human resource management in terms of research is not significantly related with leadership in human resource management i.e. hypothesis 2 is rejected. In respect of medical treatment consideration in human resource management, the calculated level of significance is 0.061.

As compared with 0.05- level of error and as regards 95-percent level of confidence, there is not significant relationship between medical treatment consideration in human resource management and leadership in human resources. In a sense, hypothesis 3 is rejected.

CONCLUSION

Our study indicated a number of findings which are as follows: A unit of change in educational consideration of human resource management results in 0.215 units of improvement in leadership in human resources. Therefore, human resource management in terms of education is significantly correlated with leadership in human resources (level of significance = 0.02).

Regarding level of significance with a value of 0.618 which is greater than 0.05, the significant relationship between research consideration in human resource management and leadership in human resources is rejected. As a result, the top managers in nursing department are required to change their attitude about interaction with personnel and should stimulate their interest in areas of study.

Since we calculated a value of 0.061 for level of significance as compared with 0.05-level of significance and considered 0.95 level of probability in case of medical treatment, there is not significant correlation between human resource management in this respect and leadership in human resources. Hospital managers are suggested to bring about extensive changes in turnover, to offer proper training courses, develop trust in employees and improve performance of nurses.

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