Influential Factors in Human Resource Excellence and Employees’ Satisfaction in Manufacturing Companies’ of Small and Medium Industries in Industrial Park of Tabriz city

Reza Nasrolahi Saeidloo
Department of Management, Bonab Branch, Islamic Azad University, Bonab, Iran

Mojtaba Ramazani
Department of Management, Bonab Branch, Islamic Azad University, Bonab, Iran
dmramazani@gmail.com

Abstract

Today, organizational excellence is considered as the basic framework for organizational success which encompasses several dimensions. One important criteria in organizational excellence approach is human resources. The main objective of this paper is to investigate the relationship between human resource excellence and employees’ satisfaction in the industrial sector. This paper is a correlation analysis and uses regression analysis to estimate the statistical coefficients. The statistical population consists all employees of manufacturing companies of small and medium industries in industrial park of Tabriz city. Sample was determined through simple random sampling which includes 120 respondents. To collect data, two questionnaires of human resources satisfaction and human resources excellence have been used. The findings showed that the highest correlation coefficient is related to the relationship between salary and benefits with employees’ satisfaction. In regression model, all estimated coefficients are positive and statistically significant, which describes that all variables have a positive effect on employees’ satisfaction. Totally, the results of this study emphasizes the importance of salary and benefits as the most important factor of human resource excellence; the results have confirmed significant relationship of this variable with satisfaction. In addition, other variables in regard to correlation coefficient and estimated value of coefficient include organizational facilities, empowerment and supportive system. In the end, some suggestions for improving the human resources excellence and employees’ satisfaction levels are provided.

Keywords: excellence in human resources, employee satisfaction, small and medium industries, the city of Tabriz.
Introduction

Organizational Excellence is defined as organizational commitment to sustainable growth and development of organizations in all-round development of resources and services in an inclusive and supportive environment. Organizational Excellence subjects to certain conditions, culture, internal and external business environment, the characteristics of human resources, strengths, weaknesses, opportunities, and threats that surrounds the organization. In one word, organizational excellence is achieved by recognition, diagnosis, development and success in an organization (Mirsepassi et al., 2010).

One important criterion in organizational excellence-based evaluation is employees and human resources. In fact, organizations try to create targets in line with their strategic objectives in the field of human resources and defining and implementing appropriate approaches and processes to move toward excellence in an integrated system (Phillips, 2004).

Human resources is one of the most important factor in different sources of production. Human factor in the organization encompasses all employees in the organization including managers, supervisors, analysts, employees and workers at different levels. And employment is one the issues that have always concerned governments and nations with. Although career and profession apparently is concerned to human’s earning, it has close ties with their individual, familial, social, political and cultural aspects of life and attention to these charachtristics is influential in organizations’ quality and excellence. (Miller et al., 2003).

Excellent organizations identify their skills and competencies needed to achieve the mission, vision and strategic objectives, and with respect to the human capital, create a culture in the organization where skills, talents and creativity of their employees develop and their ability to achieve a balanced development of organizational and personal goals will improve. These organizations develop organizational development through shared values, accountability, ethics and a culture of trust and openness; They align individual and team goals with the organization's strategic goals; They ensure all employees can utilize their partnership in a real environment through diversity management and establishing work-life balance, so that employees can contribute to their and organization’s sustainable success (Bamber and Sharp, 2003).

Today, employees are intangible assets and strategic capitals of organizations which directly affect the organization's performance and efficiency. Employees’ satisfaction is one of the most important strategies in the areas of human resources that many organizations use this index to measure the effectiveness of their activities in the field of human resources (Kaplan and Norton, 2007). Low job satisfaction decreases organizational performance (Gravelle et al., 2005). In the modern organizational management systems, one of the main factors in human resources excellence is employees’ satisfaction (Spector, 1997).

Here's an overview on studies done in the field of excellence and employee satisfaction. Rezaifar and Badihzadeh (2015) evaluated the relationship between human resources productivity, job satisfaction, organizational commitment and organizational behavior in Alborz Province Water and Wastewater Company. Findings showed that there is a significant and positive relationship between productivity of human resources with organizational behavior, job satisfaction and organizational commitment. In addition, there is a significant and positive relationship between organizational commitment with organizational behavior and job satisfaction, and ultimately
there is a significant and positive relationship between job satisfaction and organizational behavior.

Gholtash (2014) examined the relationship between organizational culture and organizational intelligence with employees’ job satisfaction. Data analysis showed that there is a direct relationship between organizational culture and job satisfaction and between organizational intelligence and job satisfaction; there is a significant and direct relationship between all aspects of organizational intelligence and job satisfaction. The highest correlation was for agreement. All aspects of organizational culture had a significant relationship with job satisfaction. Yarmohammadian et al. (2013) evaluated the relationship between organizational justice, job satisfaction and organizational trust in the Islamic Azad University through EFQM approach. The research method is descriptive and correlational. The findings showed that organizational trust has direct and the indirect effects mediated by self-assessment of organizational excellence. Trust in colleagues also have direct and the indirect effects mediated by organizational commitment.

Mirsapassi et al. (2010) explained a model of excellence in human resources in Iranian public organizations by using Fuzzy Delphi technique. Human resource excellence model was designed in 4 dimensions, 15 indicators and 57 standards and presented as a model for the pathology of human resources and human resource excellence awards in Iranian public organizations. Using quantitative models and measurable indicators provides a capability for organizations benefit it in designing human resource dashboards and designing decision support system for managers and experts.

Abadidoost and Mahboubi (2009) examined Human Resources Excellence in Saipa Group. In this regard we can mention APQC, PDS, IIP, Deming, EFQM, and so on. This model has two main parts: the strengths and the results of human resources. Hazavei and Samadi (2007) reviewed factors affecting job satisfaction of administrative staff Hamedan province. Results showed that seriousness and scientific evaluation and feedback about the results of the performed tasks through various ways, providing advancement opportunities for all employees and manager’s discerning on employee all have significant effect on job satisfaction of employees.

Tomaževič et al. (2016) examined the relationship between value and professional excellence and employees’ satisfaction in the executive public agencies. The findings shows positive relationship between them. Lisa et al (2015) evaluated the relationship between psychological capital, structural empowerment and competence of human resources and employee satisfaction. The results showed that the relationship of independent variables with satisfaction was significant and 38% of the variation in satisfaction is explained by the independent variables.

Rottenberry & Moberg (2010), Carmeli & Freund (2004) and Wegge (2004) examined the relationship between job satisfaction, leadership, job performance, participation and organizational commitment. The results showed that job satisfaction is positively associated with participation and other variables. Baron and Greenberg (1990) showed that job security, role ambiguity, organizational structure, physical conditions, environmental factors such as access to leisure facilities, sport and welfare in the workplace, relationships with colleagues, staff participation in the processes and management models work are among the most important external factors of job satisfaction.
As it is indicated through reviewing the studies, limited studies about the relationship between human resources excellence and employee satisfaction was conducted in the industrial sector, which requires the need for further evaluation. Therefore, the present study aims to investigate and evaluate the relationship between components of human resource excellence in industrial enterprises with employees’ satisfaction. In the next section, methodology and tools for data collection are discussed. In findings section, results are evaluated separately in two parts: descriptive-analytic markets, correlation and regression analysis. Finally, conclusions and some practical suggestions are provided.

Methodology
The method used in this paper is correlational analysis. Since the paper aims to investigate the relationship between human resources excellence and employees’ satisfaction is excellent, correlation analysis can be used to find the best approach in these circumstances in which the relationship between several categories of information about a group are compared with other groups (Naderi and Seif Narghi, 2012). Regression analysis is used to measure the statistical coefficients and to study the independent variables in predicting the dependent variable. The statistical population consists all employees of manufacturing companies of small and medium industries in industrial park of Tabriz city. Sample was determined through simple random sampling and the sample size was determined through Cochran formula. According to this method:

\[
\frac{p \times q \times t^2 \times N}{N \times d^2 + p \times q \times t^2 - d^2}
\]

In the above formula, the maximum permissible error (d) is equal to 0/05, reliability is 0/95, t=1/96, p and q are each equal to 0/5 values and population size is N. P value is considered equal to 0/5. Since, if P=0/5, N obtains its maximum possible value and this makes the sample large enough (Hafeznia, 2008). The sample size was calculated as 120 individuals through this method and questionnaires are completed by their opinions. Two questionnaires were used in this paper. A) The first questionnaire is related to satisfaction of human resources. In 1969, the first satisfaction questionnaire was developed by Smith. The questionnaire included 72 questions in five dimensions of salary, administration, promotion, work hardness (difficulty) and colleagues’ interaction. In 1987, Gregson refined the questionnaire and reduced the number of items to 30 questions. Questions are designed in 5 options for the answer; strongly agree to strongly disagree. Minimum score on this questionnaire is 30 and the maximum is 150 (Carmel and Freund, 2004). The main issue in this questionnaire is the relationship between reliability and validity; a test must be valid to be reliable. If the test gives different results every time one runs the sample, the test is not valid; in fact, nothing will be properly measured. If a test does not accurately measure something, it will give us no useful information. Thus, a test must be valid to be reliable, but reliability is not necessary for validity (Manshadi, 2001). Cronbach's alpha was used to assess the internal reliability of the questionnaire. Gregson determined that Cronbach's alpha range is from 0/84 to 0/9, which confirms the reliability of questionnaire. There are different methods for determining validity of measuring tool; but this method was used in this study. The questionnaire was given to experts, and validity were reported as suitable.
B) The second questionnaire is related to human resource excellence. Most of organizational excellence models such as Deming, Baldrige and European Foundation for Quality Management in the criteria related to human resources management have major flaws, because they may introduce the following sub criteria too generally and this makes human resource managers confused during evaluation, planning and staff management. Thus, a conceptual model that would include all indicators related to these criteria is essential for an organization that takes steps toward excellence (Babakus et al., 2003). The present study used Investors in People model, People Capability Maturity Model, People Developer Standard and Philips Model to develop human resources excellence (Miller et al. 2003, Phillips 2004, Elon and Bamberger, 2000). 10 variables have been identified which include: Performance appraisal, accountability, equal opportunity to progress, empowerment, salary and benefits, organizational facilities, appreciation and encouragement, interaction with the organization, supportive and meritocracy systems. Questionnaire was designed with 7 options and distributed among respondents. Validity of 0/86 was calculated through Cronbach's alpha and its validity was confirmed by HR professionals.

**Findings**
In this section descriptive findings related to research variables are described. In Table 1, the mean and variables related to excellence in human standard deviation of resources and employees’ satisfaction are shown. Based on this analysis, interaction with the organization gained the highest mean (5/8) and salary and benefits gained the lowest mean (3/2) among variables of excellence. The mean and standard deviation of other are as follows: performance appraisal 5/1 and (0/65), accountability 4/7 and (0/32), equal opportunity to progress 4/2 and (0/66), meritocracy 4/1 and (0/79), facilities 3/9 and (0/24), appreciation and encouragement 3/9 and (1/65), empowerment 3/5 and (1/2), and supportive system 3/6 and (1/3). Employees’ satisfaction was 95/6 with standard deviation of 13/8 and maximum satisfaction score of 150. The highest response rate for the employees’ satisfaction was 118 and the lowest satisfaction rate was 42.

<table>
<thead>
<tr>
<th>variable</th>
<th>mean</th>
<th>Standard deviation</th>
<th>min</th>
<th>max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance appraisal</td>
<td>5/1</td>
<td>0/65</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Empowerment</td>
<td>3/5</td>
<td>1/2</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Equal opportunities for progress</td>
<td>4/2</td>
<td>0/66</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Organizational Facilities</td>
<td>3/9</td>
<td>0/24</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>salary and benefits</td>
<td>3/2</td>
<td>0/89</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Meritocracy</td>
<td>4/1</td>
<td>0/79</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Appreciation and encouragement</td>
<td>3/9</td>
<td>1/65</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Supportive systems</td>
<td>3/6</td>
<td>1/3</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 1: Mean, Standard deviation of excellence and employees’ satisfaction components
In Table 2, the correlation matrix of variables consisted of 10 independent and the dependent variables are shown. According to this table, the highest correlation is between salary and benefits with employee satisfaction with coefficient of 0.67 and a significance level of 99 percent. The correlation coefficient between variables of human resource excellences with satisfaction is positive. The correlation coefficient of other variables are as follows: facilities (0.52), empowerment (0.49/), systems support staff (0.47), meritocracy (0.42), equal opportunities of progress (0.39) and encourage (0.36). Variables of performance appraisal, accountability and interaction with organization gained low correlation coefficient than other variables.

Table 2. The correlation matrix of research variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountability</td>
<td>4/7</td>
<td>0/32</td>
<td>1</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction with organization</td>
<td>5/8</td>
<td>0/71</td>
<td>2</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employees’ satisfaction</td>
<td>95/6</td>
<td>13/8</td>
<td>42</td>
<td>118</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: research findings (* P < 0.05 and ** P < 0.01)

Regression is the most common method to create a model. In this method, at any time after entering a variable model, all variables that have already been entered and are not a significant
predictor, leave the model. The variables that their importance decreases with the addition of other variables, will be removed from the model. (Norowsis Maria, 1380).

In this method, the first independent variable enters into the analysis based on the highest correlation coefficient and then other independent variables are entered in terms of correlation coefficients. After the arrival of each new variable, correlation coefficient of variables that have been previously entered will be re-evaluated and if they lose their significance due to the new variable, they will be removed to achieve the best regression model. The independent variable of this study is human resources excellence and the dependent variable is employees’ satisfaction. Three variables of performance appraisal, accountability and interaction with organization are missing in the model due to low and insignificant correlation coefficient. Table 3 shows the results of regression analysis.

Table 3. Regression analysis

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>coefficient</th>
<th>Standard deviation</th>
<th>t statistic</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>y-intercept</td>
<td>2/48</td>
<td>0/25</td>
<td>1/8</td>
<td>0/05</td>
</tr>
<tr>
<td>Empowerment</td>
<td>0/64</td>
<td>0/016</td>
<td>3/55</td>
<td>0/00</td>
</tr>
<tr>
<td>Equal opportunities for progress</td>
<td>0/16</td>
<td>0/07</td>
<td>4/24</td>
<td>0/00</td>
</tr>
<tr>
<td>Organizational Facilities</td>
<td>0/68</td>
<td>0/21</td>
<td>2/58</td>
<td>0/00</td>
</tr>
<tr>
<td>salary and benefits</td>
<td>0/75</td>
<td>0/85</td>
<td>4/6</td>
<td>0/00</td>
</tr>
<tr>
<td>Meritocracy</td>
<td>0/14</td>
<td>0/72</td>
<td>3/29</td>
<td>0/00</td>
</tr>
<tr>
<td>Appreciation and encouragement</td>
<td>0/12</td>
<td>0/14</td>
<td>1/88</td>
<td>0/05</td>
</tr>
<tr>
<td>Supportive systems</td>
<td>0/55</td>
<td>0/17</td>
<td>5/32</td>
<td>0/00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>F statistic</td>
<td>15/58</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DOF</td>
<td>10</td>
</tr>
</tbody>
</table>

Regression analysis showed that all the coefficients are positive and statistically significant. Empowerment by a coefficients of 0/64 (t statistic of 3/55), equal opportunities for progress 0/16 (t statistic of 4/24), organizational facilities by a coefficients of 0/68 (t statistic 2/58), salary and benefits by a coefficients of 0/75 (t statistic of 4/6), meritocracy by a coefficients of 0/14 (t statistic of 3/29), encouragement and appreciation by a coefficients of 0/12 (t statistic of 1/88) and supportive system by a coefficients of 0/55 (t statistic of 5/32) have significant and positive impact on employees’ satisfaction. The highest coefficient in variables is related to salary and benefits and lowest coefficient is related to appreciation and encouragement. In the regression equation y-intercept estimated 2/48 with standard deviation of 0/25. Coefficient of $R^2$ is equal to 0/76, which describes that 76 percent of satisfaction changes are explained by variables of human resource excellence. F-statistic is equal to 15/58 that affirms the significance of regression.
Conclusion
In this study, correlation and regression analysis of the relationship between employees’ satisfaction and human resources excellence in manufacturing companies of small and medium industries in industrial park of Tabriz city was evaluated by using statistical methods. In conclusion, the results of the study showed that the highest mean is related to interaction with the organization and the lowest mean is related to salary and benefits. This shows that employees consider interaction with the organization at a desirable level but they have a sense of dissatisfaction with salaries and benefits, and. A descriptive analysis for other variables of human resource excellence shows that performance appraisal, organizational accountability are at desirable level. And the variables of equal opportunities for progress, meritocracy, appreciation and encouragement and facilities (welfare) are at average level and the status of empowerment (training skills) and supportive system (insurance and family support services) have been relatively poor.

The correlation analysis showed the highest correlation coefficients are for salary and benefits. The correlation suggests that the most effective factor on satisfaction is salary and benefits. Correlation coefficients of the organizational facilities accountability, empowerment, supportive system, and meritocracy, equal opportunities for progress, and appreciation and encouragement are significant. Performance appraisal, the organization accountability and interaction with the organization have the lowest coefficients.

Three variables of performance appraisal, accountability and interaction with organization are missing in the model due to low and insignificant correlation coefficient. Thus, 7 variables entered into the model with their estimated coefficients positive and statistically significant; which describes all variables have a positive effect on employees’ satisfaction. The highest coefficient was for the salary and benefits and lowest coefficient was for appreciation and encouragement which is consistent with the results of correlation analysis. The overall results of this study emphasized on the importance of salary and benefits as the most important factor in human resource excellence. The results have confirmed significant relationship of this variables with satisfaction. In addition, other variables according to the size of the estimated coefficient of correlation are organizational facilities, empowerment and supportive system.

According to the results of human resources excellence and employees’ satisfaction, some recommendations for the industrial manufacturing companies of small and medium industries are presented.

Salary and benefits had the highest correlation with employees’ satisfaction. However, descriptive review of this variable in the sample indicates it is undesirable status. To increase employees’ satisfaction levels, it is recommended that the scope and level of salary be based on job position and difficulty of job, because the human resources excellence is directly related to salary status. In addition, the organizational facilities such as housing (public housing) and extra-curricular (sports) is the second variable in relation to employees’ satisfaction. Descriptive study shows that the facilities provided by the company are not in line with the needs and demands of staff. It is recommended that managers and planners of companies in industrial cities in Tabriz city provide some basic facilities according to the staff needs. Empowerment is a third variable that is closely associated with satisfaction. This variable investigates education and improvement of professional skills. It is recommended that company focuses on education and require staff to
attend courses and practical training and theoretical classes in order to improve their ability to improve their excellence. Supportive system includes insurance and financial support and pension (disablement). Some of these actions are carried out by the unions and companies can cooperate with the unions to increase the level of support. An important part of the support is offered by the insurance organizations and companies can significantly increase the satisfaction level and excellence by providing the right information to these organization.
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