Impact of suggestions system on the employee performance in Mazandaran University of Medical Sciences

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Abstract
This study aimed to evaluate the impact of suggestions system on employee performance in Mazandaran University of Medical Sciences through descriptive-survey research.

The population of this study included 1051 employees of Mazandaran University of Medical Sciences and the optimal sample size was estimated equal to 281 by the formula of Cochran and they were selected by simple random sampling.

The data was collected by researcher-made questionnaire with 33 questions with 5-point Likert scale. Its content validity was examined based on the views of supervisor and related experts and consultants and the Cronbach’s alpha was estimated equal to 0.79 for its reliability.

The results showed that implementing the suggestions system among the employees of Mazandaran University of Medical Sciences has affected the financial aspects, customer-care, growth and innovation and internal processes of organizational performance.

Keywords: suggestions system, employee performance, financial aspects, customer care, growth and innovation, internal processes

Introduction
In last two decades, organizational performance management become a topic of interest and the desire has led to many innovations in the areas of research and application. Performance evaluation is one of the widespread issues that influenced by a wide range of disciplines and pundits and new reports and articles have been written on it (Alvani, 2001). Performance evaluation is a strategic and integrated process that can provide the possibility of the stable success of organizations by improving the performance of the employees who work in them and developing their individual and collective capabilities (Armstrong, 2006). Basically, one of the logical, correct and effective ways to enhance the performance of the employees in the organization is proper implementation of factors and variables creating the empowerment in the organization. It seems that one of these ways is implementing the suggestions system that gives the development and increase of performance (Alvani, 2001).

Organizational performance is a behavior and method that organizations, groups and individual do it to achieve the goal of organization and in other words, organizational performance includes both behavior and results arose from performer individual (Safari, 2006, p4). Financial performance indicators have detrimental consequences and may lead to job tensions and mistrust of administrators (Wong-on-Wing et al., 2007). The exclusive focus on traditional financial accounting measures such as return on investment and payback period have been criticized (Banker and others, 2000).

Balanced scorecard was introduced by Robert Kaplan and David Norton. In 1992, they published an article entitled “balanced scorecard” in which provided a new approach to measure the performance (Kaplan and Norton, 1992). In fact, using this model in organization, some goals are determined in each of the four perspectives of the balanced scorecard and based on them, some indices are selected for measuring in each of these areas (Kaplan and Norton, 1992). Performance goals are precise and concise statements that demonstrate the certain actions which required for the successful implementation of the strategy (Niven, 2003). Performance indices are the tools used in order to ensure the realization of goals and move towards the successful implementation of the strategy (Goran Olve and Sjostrand, 2005).

The reason of naming this approach as Balanced Scorecard is that it establishes a balance between short and long-term goals, financial and non-financial measures, leader and follower parameters and internal and external performance perspectives (Milis and Mercken, 2004). The criteria of Balanced Scorecard are: 1- financial criterion: it consider the balanced scorecard of funding and maximizing the profits as the ultimate goal of economic institution (Kaplan and Norton, 1992). It is obtained by measuring the profit rate, cash flow, return on capital invested, economic added-value, return on total assets and financial ratios (Milis and Mercken, 2004). 2- Customer criterion: in the business strategy, how to differentiate the organization from its competitors is very important to attract, retain and deepen the relationships with target customers (Kaplan and Norton, 1992). In Balanced Scorecard, customer care is very important and refers to customer satisfaction of products, considering and investigating the customers’ complaints, timely delivery of products to customers and reducing their complaints (Wongrassam et al., 2003). 3- Internal process criterion: it means those criteria which must exist in internal process of firm to create satisfaction of stakeholders and clients (Kaplan and Norton, 1996). It develops two

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previous criteria and refers to issues such as revenue to marketing costs ratio, net income to the number of full-time staff ratio, total income to total personnel ratio, cycle time of conversion of idea to product and cost growth during a year (Wongrassam et al., 2003). 4- Learning and growth criterion: it refers those measures to be used in learning, developing and training the employees in order to realize the ideal situation for stakeholders and customers (Kaplan and Norton, 1996). Learning and growth criterion addresses the ability of employees, quality, information system of the organization and arrangement of tools and equipment to achieve the goals (Wongrassam et al., 2003). Suggestions system is consisted of two words: system which is a concept of a set of interconnected components interconnected which have mutual interactions and strive for a common goal and a word of suggestions with a concept of any new idea and thought that could make a positive change, improve procedures, increase the quality and lower the production costs and boost the morale of the staff (Moghimi, 2006, p. 23). Suggestions system is a system of intellectual and practical cooperation of the staff of a body of work with different organizational levels (Bayani, 2008). Countries and communities that have embraces the idea of employee participation, have implemented it in various form and at different levels (Moghadasi, 2009). Suggestions system is considered as the simplest, most basic, least expensive, safest and fastest way of employee participation in organization (Hewitt, 2002; Abdel Moneim, 2009; Wales, 2009). The word of “suggestion” is a lasting term, not descriptive and not explanatory. Suggestion is an idea that can be accepted or denied (Miller, 2003). It was said the suggestion is to express constructive, positive and main thought that is provided voluntarily by the staff and used to raise productivity in the organization (Price, 2000). Easy and simple implementation of suggestions system, strong support of senior management and staff, reviewing and timely implementation of suggestions, timely and justly payment of rewards to mover can be pointed out as factors contributing in the success of suggestions system (Arfi et al., 2010). With the implementation of suggestions system, the increased job satisfaction and organizational commitment among the staff, reduced staff absenteeism, reduced conflicts, complains and low staff turnover (Sundaray et al. 2010) and increased organizational sense of belonging, detection of creativity and actualization of the talent of employees, increased motivation of staff (Fairbank & Williams, 2001), an increase in staff morale, saving the costs, the increase in staff income by proving a constructive idea (Wilson et al., 2010) and improvement of the workplace, qualitative and quantitative development of the firm, increased customer satisfaction and gaining the more share of the market will be obtained (Ghasemi et al.,2010). Today, Quality Control Circle is of other mechanisms increasing the employee participation in the organizations (Hewitt, 2002; Abdel Moneim, 2009; Wales, 2009). Recently, the programs of quality control circle are proposed as the techniques to increase the decision-makings of employees and employee satisfaction in the organization (Lee et al., 2000). Quality control circle are the small groups of employees who hold regular meetings in the same fields of work voluntarily in order to detect the quality and related issues in their work field and then, analyze them (Sapuan et al., 2006). The features of quality control circles are that the members voluntarily join the group, take required training and evaluate the solutions provided by the members and implement them wherever they are applicable (Stassen, 2006) and also, the success of quality control circles in the group depends on the strong support of the senior managers to quality control circles and cooperation and accountability of middle managers. Preparation and training of members,
organizational space based on honesty and trust (Sapuan et al., 2006), timely encouragement and giving appropriate reward to these staff, motivated employees, welcoming the new changes in the organization and creating a new method to assess the quality are the new methods in the organization (Holl & Grabert, 2003). Implementing the quality control circles, increased customer satisfaction, reduced costs and losses, increased quality, productivity, increased employee morale in the organization, reduced employee absenteeism, reduced recruitment costs and reduced displacement of employees in the organization (Lee et al., 2000), improvement of labor relations, increased confidence and solving complex problems related to production, creating a good teamwork among male employees and time saving are achieved (Chakraborty et al., 2011). This program is a set of activities that start in a certain area of participation such as suggestions system so that the managers don’t know the participation system as a threat and other employees gradually become ready to participate in collective decision-making (Moshabaki, 1998, p.19). This important way of managing organizations is to use the thoughts or certain wealth of these organizations through the acceptance of suggestion system (Sepasgozar, 2001, p.194). To understand the concept of suggestions system in a variety of improvements in organizations better, table 1 is useful (Fattolahi rad, 2001, p. 39). Table1 shows four areas of improvement in organizations and make the position of suggestions system in them clear:

Table1. Suggestions system and organizational improvement (Fattolahi rad, 2001, p. 39)

<table>
<thead>
<tr>
<th>Improvement scale</th>
<th>Small improvement</th>
<th>Big improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improvement of the work of mover or his work unit</td>
<td>First area Working area of individual suggestions system (number of improvements: unlimited )</td>
<td>Second area Working area of individual suggestions system (number of improvements: limited)</td>
</tr>
<tr>
<td>Improvement of the whole organization</td>
<td>Third area working area of problem-solving groups</td>
<td>Forth area working area of Board or special groups (number of improvement: very limited)</td>
</tr>
</tbody>
</table>

In first area in which there are small improvements made in individual work or business unit, there is individual suggestions system. In second area, there a collective suggestions system that great improvement is made in work area of individuals. Third area is related to the work area of problem-solving groups and limited improvements are conducted in it. Fourth area related to conducting the great improvements throughout the organization, is not placed in the framework of suggestions system and is placed within the scope of the activities of the board of directors and or special groups.

So, at the individual stage of suggestions system, the small improvements of staff in their works should be reported and thus, in addition to the high percentage of acceptance and implementation of suggestions, suggestions system will show its capabilities as an efficient tool for deploying the ambition of seeking improvement for staff (Fattolahi rad, 2001, p.40).
Literature review

In line with the impact of suggestions system on organizational performance, numerous studies have been conducted. Bagheban et al. (2011) showed that deploying suggestions system has had positive impact as much as 10% on profits and financial savings, 18% on the participation and innovation of employees and 16% on organizational agility and reduced time of doing tasks in National Iranian Oil Refining and Distribution. Ismail pour et al. (2012) showed that implementing suggestions system in the public sector increases the capabilities and performance of employees and improves the decision-making of managers. In the study by Kordi et al. (2011), the impact of suggestions system on the improvement of the spirit of participation and cooperation, job satisfaction and organizational sense of belonging, qualitative and quantitative improvement of performance, fostering and strengthening the capabilities of the staff, increase of their flexibility in response to constructive changes and strengthening the spirit of creativity and innovation in the organization has been proved. Imani (2012) showed that participatory management can predict the effectiveness and among its components, only the component of structure can predict the effectiveness. Salari et al. (2009) found that the most important problem was the lack of the managers’ confidence and trust to the employees as a result of the lack of the influence of employees in the organization. Jei-Chen Peng (2010) showed that the positive feedback of director may enhance the citizenship behavior and performance of employees. Aminu Mamman et al. (2012) stated that although the diversity of workforce can have positive results such as new and diverse ideas but if it is not accompanied with organizational support and justice, it can lead to undesirable results. Chun-Fang Chiang (2010) showed that perceived organizational support and mental empowerment have positive impact on performance. Kaminsky et al. (2009), in their study, proposed suggestions system to fix existing failures in the work process and improve the procedures and increase the quality of services or production. Liu (2008), in his study, found that the relationships between individuals and relationship between managers and employees play an important role in the success of participatory management and improve the effectiveness of their activities. Buchan et al. (2005) showed that allowing employees to participate in decision making, despite the increase in the volume of their work, helps to enhance morale, create a sense of solidarity and have a common goal and also improve their effectiveness.

In this study, Balanced Scorecard technique was used to examine and evaluate the employee performance. This approach which was introduced in the early 1990s by Robert Kaplan and David Norton, enables managers to convert the strategic goals of the company to a series of performance evaluation measures associated with each other by having a comprehensive framework. It means successful companies don’t depend on only financial measures to evaluate their performance and evaluate their performance in terms of three other perspectives, i.e. customer, internal processes and learning and growth perspectives. So, to evaluate the performance of the organization completely, the performance is evaluated in terms of four perspectives: 1- financial perspective, 2- customer perspective, 3- internal processes perspective and 4- learning and growth perspectives (Kaplan et al., 2008).
1. Suggestions system impacts on the financial aspect of the employee performance in Mazandaran University of Medical Sciences.
2. Suggestions system impacts on the custom care aspect of the employee performance in Mazandaran University of Medical Sciences.
3. Suggestions system impacts on the growth and innovation aspect of the employee performance in Mazandaran University of Medical Sciences.
4. Suggestions system impacts on the internal processes aspect of the employee performance in Mazandaran University of Medical Sciences.

Methodology

This study is a descriptive- survey research. The population of this study included all employees of Mazandran University of Medical Sciences (1051 persons- 685 men and 393 women) and the optimal sample size was estimated equal to 281 by the formula of Cochran and they were selected by simple random sampling. The data was collected by researcher-made questionnaire with 33 questions with 5-point Likert scale. Its content validity was examined based on the views of supervisor and related experts and consultants and the Cronbach’s alpha was estimated equal to 0.79 for its reliability. To analyze the data obtained from the questionnaire, descriptive statistics (frequency, mean and standard deviation) and inferential statistics (t-test) were used.

Results

Of 281 samples, 198 of them were men and 83 of them were women. Table2 shows that following sociological variables have the maximum frequencies: 45% of respondents had diploma and Associate degree, 38% of them had 10-20-years work experience, 38% of them were 30-40 years old, 83% of them were married and 52% of them were fixed-term employment.

Table2. Frequency of the variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Frequency (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td></td>
</tr>
<tr>
<td>education</td>
<td>Diploma and associate degree</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bachelor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Master and higher</td>
<td></td>
</tr>
<tr>
<td>Work experience</td>
<td>Less than 10 years</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10-20 years</td>
<td></td>
</tr>
<tr>
<td></td>
<td>More than 20 years</td>
<td></td>
</tr>
<tr>
<td>age</td>
<td>Younger than 30 years old</td>
<td></td>
</tr>
</tbody>
</table>
30-40 years old
Older than 40 years old

Married status
Married
Single

Employment status
Fixed-term
Official
Experimental official
Contractual
Projective

In this study, the normality of variables was examined by Kolmogorov–Smirnov test, in the case of normal variables, the parametric test (t-test) was used and in the case of non-normal variables, the non-parametric test (chi-square-test) was used.

Table 3. Kolmogorov–Smirnov test

<table>
<thead>
<tr>
<th>Variables</th>
<th>z-test</th>
<th>p-value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial aspect</td>
<td></td>
<td></td>
<td>Normal</td>
</tr>
<tr>
<td>Customer care aspect</td>
<td></td>
<td></td>
<td>Normal</td>
</tr>
<tr>
<td>Growth and innovation aspect</td>
<td></td>
<td></td>
<td>Normal</td>
</tr>
<tr>
<td>Internal processes aspect</td>
<td></td>
<td></td>
<td>Normal</td>
</tr>
<tr>
<td>Employee performance</td>
<td></td>
<td></td>
<td>Normal</td>
</tr>
</tbody>
</table>

Given that the values of all employee performance variables (p-value) are greater than significance level of 0.05, it can be concluded that all variables are normal and parametric test is used.

First hypothesis: suggestions system impacts on the financial aspect of the employee performance in Mazandaran University of Medical Sciences.

Table 4. T-test (impact of suggestions system on financial aspect of employee performance)

<table>
<thead>
<tr>
<th>Number of questions</th>
<th>Number of respondent</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t-statistics</th>
<th>Calculated t-statistics</th>
<th>Degree of freedom</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>281</td>
<td>4.11</td>
<td>0.47</td>
<td>1.64</td>
<td>120.98</td>
<td>280</td>
<td>0.05</td>
</tr>
</tbody>
</table>

As can be seen in above table, the calculated mean is equal to 4.11 that is greater than the theoretical mean (3). It means that in the view of the employees of Mazandaran University of Medical Sciences, suggestions system has impact on financial aspect of employee performance.
Furthermore, in order to generalize the respondents’ views to the entire population of the study, t-test was used.

According to Table 4, p-value is less than $\alpha=0.05$ and the calculated t-statistics (120.98) is greater than t-statistics provided in table (1.64) and also, the calculated mean is greater than theoretical mean (3), with the significance level of 95%, it can be concluded that suggestions system has impact on the financial aspect of the employee performance in Mazandaran University of Medical Sciences.

Second hypothesis: suggestions system has impact on the customer care aspect of the employee performance in Mazandaran University of Medical Sciences

Table 5. T-test (impact of suggestions system on customer care aspect of employee performance)

<table>
<thead>
<tr>
<th>Number of questions</th>
<th>Number of respondent</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t-statistics</th>
<th>Calculated t-statistics</th>
<th>Degree of freedom</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

As can be seen in above table, the calculated mean is equal to 4.10 that is greater than the theoretical mean (3). It means that in the view of the employees of Mazandaran University of Medical Sciences, suggestions system has impact on customer care aspect of employee performance. Furthermore, in order to generalize the respondents’ views to the entire population of the study, t-test was used.

According to Table 5, p-value is less than $\alpha=0.05$ and the calculated t-statistics (101.94) is greater than t-statistics provided in table (1.64) and also, the calculated mean is greater than theoretical mean (3), with the significance level of 95%, it can be concluded that suggestions system has impact on the customer aspect of the employee performance in Mazandaran University of Medical Sciences.

Third hypothesis: suggestions system has impact on the growth and innovation aspect of the employee performance in Mazandaran University of Medical Sciences.

Table 6. T-test (impact of suggestions system on growth and innovation aspect of employee performance)

<table>
<thead>
<tr>
<th>Number of questions</th>
<th>Number of respondent</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t-statistics</th>
<th>Calculated t-statistics</th>
<th>Degree of freedom</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As can be seen in above table, the calculated mean is equal to 3.63 that is greater than the theoretical mean (3). It means that in the view of the employees of Mazandaran University of Medical Sciences, suggestions system has impact on growth and innovation aspect of employee performance.
performance. Furthermore, in order to generalize the respondents’ views to the entire population of the study, t-test was used.

According to Table 6, p-value is less than $\alpha = 0.05$ and the calculated t-statistics (64.47) is greater than t-statistics provided in table (1.64) and also, the calculated mean is greater than theoretical mean (3), with the significance level of 95%, it can be concluded that suggestions system has impact on the growth and innovation aspect of the employee performance in Mazandaran University of Medical Sciences.

Forth hypothesis: suggestions system has impact on the internal processes aspect of the employee performance in Mazandaran University of Medical Sciences.

Table 7. T-test (impact of suggestions system on internal processes aspect of employee performance)

<table>
<thead>
<tr>
<th>Number of questions</th>
<th>Number of respondent</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t-statistics</th>
<th>Calculated t-statistics</th>
<th>Degree of freedom</th>
<th>$\alpha$</th>
</tr>
</thead>
</table>

As can be seen in above table, the calculated mean is equal to 3.90 that is greater than the theoretical mean (3). It means that in the view of the employees of Mazandaran University of Medical Sciences, suggestions system has impact on internal processes aspect of employee performance. Furthermore, in order to generalize the respondents’ views to the entire population of the study, t-test was used.

According to Table 7, p-value is less than $\alpha = 0.05$ and the calculated t-statistics (118.88) is greater than t-statistics provided in table (1.64) and also, the calculated mean is greater than theoretical mean (3), with the significance level of 95%, it can be concluded that suggestions system has impact on the internal processes aspect of the employee performance in Mazandaran University of Medical Sciences.

Main hypothesis: suggestions system has impact on the employee performance in Mazandaran University of Medical Sciences.

Table 8. T-test (impact of suggestions system on the employee performance)

<table>
<thead>
<tr>
<th>Number of questions</th>
<th>Number of respondent</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t-statistics</th>
<th>Calculated t-statistics</th>
<th>Degree of freedom</th>
<th>$\alpha$</th>
</tr>
</thead>
</table>

As can be seen in above table, the calculated mean is equal to 3.94 that is greater than the theoretical mean (3). It means that in the view of the employees of Mazandaran University of
Medical Sciences, suggestions system has impact on the employee performance. Furthermore, in order to generalize the respondents’ views to the entire population of the study, t-test was used.

According to Table 8, p-value is less than α=0.05 and the calculated t-statistics (115.23) is greater than t-statistics provided in table (1.64) and also, the calculated mean is greater than theoretical mean (3), with the significance level of 95%, it can be concluded that suggestions system has impact on the employee performance in Mazandaran University of Medical Sciences.

Discussion

Participation of employees in the works related to themselves will be voluntary and informed participation that encourage the individual to help achieve the goals of group. This makes the financial relations profitable and improves their trend. Participatory system has helped employees to find the best solution to solve their problems. The result of this study is consistent with the result of the study by Bagheban et al. (2011).

Suggestions system encourages the employees to think about their work and workplace creatively and if each of the two components of creativity and suggestions system is promoted and improved within vital organs, we will see the development and growth of the organization over time. This result is consistent with the results of the studies by Bagheban et al. (2011), Kordi et al. (2011), Amini et al. (2007), Aminu Mamman et al. (2012) and Parker (2002).

Participatory management is a comprehensive approach to attract individual and group employee participation in problem solving and continuous improvement in all aspects. Also, it improve the collaboration among employees and has led to that the employees and managers evaluate their works regularly. This result is consistent with the results of the studies by Bagheban et al. (2011), Kordi et al. (2011), Amini et al. (2007), Imani (2011), Salari et al. (2009), Hosseini (2005) and Mosaddegh rad (2003), Kaminsky (2009) and Luthans and Peterson.

Conclusion

In organizational participation system, managers and employees exchange their ideas with each other and this leads to a friendly environment and with confidence and mutual trust in the organization. The employees share in the profits and losses of organization by participating in works and all of them try to increase efficiency and organizational effectiveness with the help of managers. In the organizational participation system, managers encounter with many solutions proposed by the employees to achieve their goals that the can select the best solution after evaluating them, so, the implementation of this process in Mazandaran University of Medical Sciences can increase the employee performance. The results of this study are consistent with the results of the studied by Bagheban et al. (2011), Kordi et al. (2011), Imani (2011), Salari et al. (2009), Kaminsky (2009), Peterson (2002), Aminu Mamman et al. (2012), Chun-Fang Chiang (2010) and Parker (2002).
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