Feasibility of establishing the strategies developed at the Naft Hospital in Tehran according to the excellence model of European Foundation for Quality Management (EFQM)

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Abstract

The realm of health care which organizations face in the recent years has been described at a high level of dynamism. To survive in such these conditions, performance appraisal can have an effective role in providing the quality services. The objective of this study is to investigate the feasibility of establishing the strategies developed at the Naft Hospital in Tehran according to the excellence model of European Foundation for Quality Management (EFQM). This study was a descriptive survey. The collecting data tool was the standard questionnaire of EFQM excellence model. Research information was gathered from a sample of 48 patients of the experts in Tehran Naft Hospital. Samples were randomly selected. A statistical analytic descriptive method was used to analyze the gathered data. The results show that Tehran Naft Hospital has obtained the score 61.35 of the considered 100 points. This score indicates that the hospital is in a good situation. According to the hospital's performance in mid to high range, more attention to the treatment management in this hospital is required. Therefore, providing an effective and efficient program to improve the performance of this hospital is essential. Meanwhile, it seems that the business excellence model can be used as a comprehensive model for evaluating the performance of hospitals.

Keywords: Feasibility, establishing, Hospital, excellence, European, Quality, Management.
Introduction

Along with the global trend in increasing tendency to take advantages of tools and strategic management techniques, the need of effective application of such tools is increasing in our country due to the reasons including privatization and readiness to join the World Trade Organization (Bayrami, 2011). In today's competitive world, the creation and implementation of new and innovative strategies to take advantage of opportunities seems hard. Definitely, it can be said that each strategy is not appropriate for all organizations. If a strategy is desirable and effective for an organization, it will not be necessarily useful for other organizations (MirzaeiChaboki, 2012). Almost all people in the society have consumed the manufactured products and services provided by different companies and factories. The strategic decisions taken in organization have a large impact on the employees, customers, competitors, investors and even the society in all trade (MirzaeiChaboki, 2012).

Despite the importance of strategic planning, its crucial effect in achieving the organization's goals is not still understood in many organizations and even in some cases; directors consider it as a luxury and costly affair. According to some scholars, strategic planning reflects the creativity power of managers and building the future (Tabibi and Maleki, 2013) In the current environment, organizations are forced to consider the strategic management of their affairs. Strategic management is the process of ensuring access of organizations to the benefits of utilizing proper organizational strategies as well as the art and science of formulation, implementation and evaluation of multidimensional decisions with emphasis on the integration of management, marketing, finance, production and services and etc (Pahlevanian, 2011).

European Foundation Model of Quality as the primary framework for evaluating and improving organizations has been introduced. A model that reflects the advantages of stability that a leading organization should achieve them. Designing this model has started from 1989 and the excellence model of EFQM was introduced in 1991. This model was quickly attracted the attention of European companies and sound that public sector and small industries are also interested in using it. In 1995, edition of the public sector and in 1996 the model related the small organizations were developed. In 2003, a new edition in EFQM model was presented that had a significant changes in the criteria and guidelines compared to the edition of 1999. Organizations regardless of the type of activity, size and structure or maturity require establishing an appropriate management system to achieve their strategic goals (Hosseinpour, 2009).

The excellence model of EFQM is a non-prescriptive framework based on 9 criteria that five criteria are enablers and four criteria are the results. Empowerment criteria (how) cover what the organization does. Results criteria cover what the organization achieves and the results are achieved by the enablers.
Statement of the problem and framework of the study

The process of strategic management leads to the decisions that cause important and long-term results. Incorrect strategic decisions may cause severe traumas and irreparable losses and cause that organization face with many troubles and in some cases, the situation in such that the companies could not return to the path or change the processes. Therefore, most of the strategies agree in this case and evaluation and control of strategy is very important in terms of the health and survival of the organization. On time assessment can inform the management from the issues and problems which will be involved the company or corrective actions may be taken before the situation gets worse. Evaluation of the strategy involves three principle activities:

1- Evaluating the basic rudiments of organization strategies
2- Comparison of actual results with the expected results
3- Performing the corrective actions in order to ensure that these performances are matched with the anticipated programs

Successful evaluation of the strategies are based on the fact that the results of operations will be provided in due time and in an appropriate way. Strategy evaluation cannot be better than the information on the action which the action is based. If senior officials are exerting pressure on lower-level managers, it is possible that they modify the numbers to make a satisfactory results. Evaluating strategies in a very sensitive and complicated work. Overemphasis on evaluating strategies can be costly and sometimes act as a counter-attack (David, 2006).

In other words, EFQM excellence model is a non-prescriptive framework based on nine assessment criteria. Five of these criteria are enablers and other four of them are the results that 500 points from 1000 points are related to the enablers and the other 500 points are related to the results. Enablers’ criteria show what an organization should do and criteria of the results determine what an organization should achieve. In fact, the results are resulted from the enablers. Enablers are improved using the feedbacks received from the results.

**Uses of EFQM model can be stated as follows**

1-Self-assessment, 2- Strategy formulation, 3- Vision, 4- Project management, 5- integration of the organizations, 6- Suppliers management (SID of Tehran, 2009).

But the Europe model is used for three purposes:
As a reference for quality management in the organization
- As a tool assessment and self-assessment
- For quality awards

Summary of the criteria and sun-criteria of the European Excellence Model
1- Leadership
How leaders determine the goals and mission of the organization and facilitate achieving them and create the required values for a long-term success and apply them through the activity and an appropriate behavior and ensure personally about the creation and application of the management system by their participation.

2- Employees
How the organization develops and implements knowledge and full potentials of the employees at all organizational levels of office individually and collectively and how plan these activities in order to support the policy and strategy and the effectiveness of operations.

3- Areas of policy and strategy
How the organization implements its mission and goals through a clear focused strategy on the interests of beneficiaries by the programs policy, long and short terms goals and supported processes.

4- Partnerships and resources
How the organization can identifies, coordinates and runs the external facilities and internal resources in order to support the policy, strategies and increase the efficiency its operations and processes.

5- Process areas
How the organization design, manage and improve its processes to support the policy, strategy and satisfaction and increase the value for its customer and other beneficiaries.

6- Area of employees results
What the organization achieves in relation to its employees.

7- Area of customers results
What the organization achieves in relation to its external customers.

8- Area of society results
What the organization achieves well in relation to the local, national and international societies.

9- Area of function results
What the organization achieves in relation to its planned function.

Also, Tehran Naft Hospital is to improve the health level of the oil industry family providing the qualitative specialized and ultra-specialized treatment services with the use of the last scientific information and available technologies for the treatment support of all healthcare
centers of oil industry across the country. So the main question of this study is whether the feasibility of establishing the strategies developed at Naft Hospital in Tehran according to European excellence model of EFQM?

According to this hypothesis based on EFQM model is as follows:

1- There is the feasibility of establishing the strategies developed at Naft Hospital of Tehran in terms of leadership.
2- There is the feasibility of establishing the strategies developed at Naft Hospital of Tehran in terms of policy and strategy.
3- There is the feasibility of establishing the strategies developed at Naft Hospital of Tehran in terms of employees.
4- There is the feasibility of establishing the strategies developed at Naft Hospital of Tehran in terms of commercial cooperation and resources.
5- There is the feasibility of establishing the strategies developed at Naft Hospital of Tehran in terms of processes.
6- There is the feasibility of establishing the strategies developed at Naft Hospital of Tehran in terms of customers' results.
7- There is the feasibility of establishing the strategies developed at Naft Hospital of Tehran in terms of employees' results.
8- There is the feasibility of establishing the strategies developed at Naft Hospital of Tehran in terms of society's results.
9- There is the feasibility of establishing the strategies developed at Naft Hospital of Tehran in terms of key results of performance.

Points in the European Excellence Model

Each of enabler criteria and results criteria has fifty percent of the total value of weight in the model that shows the same value for the path that guided the improvement activities and results obtained. The enabler criteria and results, each sub criteria has an equal weight with other sub-criteria (Hooper, 2009). For example, the sub criteria (a-1) obtains one-fifth of points that is devoted to criterion 1. This is an exception in the following criteria:

- The sub-criteria A-6, 75% of the total weight of criterion 6 and the sub-criteria B-6 allocated 25% of this weight to itself.
- The sub-criteria A-7, 75% of the total weight of criterion 7 and the sub-criteria B-7 allocated 25% of this weight to itself.
- The sub-criteria A-8, 25% of the total weight of criterion 8 and the sub-criteria B-8 allocated 75% of this weight to itself.

A) Results:
Results show that the organization is achieving to what and in what direction it moves. The results are obtained from the enablers. Results, "excellence" and "scope" measures the value-adding activities for the beneficiaries and effectiveness and efficacy of the organization.

The results were measured in three general areas of "beneficiaries perceptions", "internal functional goals of the organization in terms of financial and ultra-financial and operational aspects" and "external comparisons" (Rafeizade, 2006).
In the area of EFQM model results that is included four areas of customer's results (6), employee's results (7), society results (8) and key results of performance (9) will be evaluated and scored using the outcomes. In the results, the following cases are discussed:

- Processes, goals, comparison, reasons and roots, scope

B) Enablers:
In the area of enablers, five areas:

- Leadership, scope and strategy, employees, companies and resources, processes
  Are discussed with the four elements of approach, spreading, evaluation and review.

  • Approach:
    The approach shows that an organization has designed what to do and what are the reasons for doing them. In fact, objectives and orientations for each of sub-criteria are considered associated with definition and development of the most effective processes to achieve them (Jose Tari, 2007). So, approaches in the excellent organizations have the following characteristics:
    - They are proper, correct and logical and also integrated.

  • Spreading:
    Spreading shows that an organization can do what to spread and establish an approach. In fact, spreading is the applicable translation of approach. So in the excellent organizations:
    - Approaches are established in related areas through the levels and proper organizational divisions.
    - Approaches have been implemented well and systematically.
    - Approaches were understood and accepted by all beneficiaries.
    - Approaches are measurable (efficient).

  • Evaluation and review:
    Evaluation and review shows that an organization how approach and spreading monitor and measure it, how learning is done and how the results of these activities are analyzed for identifying, prioritizing, planning and implementing improvements (Jose Tari, 2007). Therefore, in excellent organizations:
    - Approaches and their spreading will be a matter to measure the effectiveness legally.
    - They were compared with the competitors, the industry average, the best in the industry or service or best in the world class.
    - Learning activities are known as the commitments and are used to identify and share of the best experiences and improving opportunities.
    - Learning and measuring outcomes were analyzed and its results are used for identifying, prioritization, planning and implementing improvements. In fact, improvement refers to maintain the strengths as well as improving in the improvement areas and reflects the innovation and creativity in the organization (Jose Tari, 2007).
• **Logic applications "Radar"**

The logic "Radar" has numerous applications, including:

1. The scoring matrix: the most common known application of radar logic is evaluation or self-evaluation by the scoring matrix.

2. Creating a management system; components of "Radar" associated with the sub-criteria of EFQM model can be used to stimulate thinking. Elements of the cycle "Radar" guide us rapidly to some questions regarding the obtained results, the applied approaches, how they are spread and how measures effectiveness of approaches and their spreading as well as learning and improvement and help us to create a management system.

3. Analysis of issues and problems, implementation of the structural radar cycle for operating a process, project or approach from beginning to end are presented and identifies issues.

• **The scoring matrix "Radar"**

The scoring matrix "Radar" is an evaluating method to award in Europe (as well as Iran). The scoring matrix "Radar" also is used as a tool for self-evaluation (as one of self-evaluation approaches).

The scoring matrix "Radar" due to its wide range of use is used as a tool to compare, modeling and other purposes.

In EFQM model, there are a total of 32 sub criteria that 24 and 8 of them are related to the enablers and results, respectively. To score the sub criteria of enablers, the properties or characteristics related to approach, spreading, evaluation and review are used and to score the sub criteria of the results, the properties or characteristics of the results are used (Telvin, 2009).

• **The advantages of using this model**

Using this model has a lot of advantages that some of them have been mentioned in the following:

- Quantitative evaluation and determining its current status.
- The possibility of gaps identification, improvement opportunities and strengths and weaknesses of the organization and prioritization for implementation of improvement projects as well as monitoring the process and improving speed in the organizational excellence path.
- The possibility of comparison with other leading organizations and about each criterion, determining the position of organization in different levels of industrial, commercial, national and international.
- The possibility of learning from the other organizations by sharing best experiences.
- The possibility of receiving feedback and learning from directors, consultants and senior executives of industries and different sectors of trade and services and industry through independent and face to face evaluation as well as receiving their reports.
- The possibility of identifying the criteria that lead to empower organizations and achieving better results.
- The possibility of creating a balance between the interests of all beneficiaries including customers, society, employees, partners, shareholders, owners, regulators and etc..
The possibility of identifying approaches that can be useful to lead organization in order to dominate trade.

- Strengths and weaknesses of the European Quality Award

Strengths
- Accurate determination of strengths and the areas for improvement
- Supporting the demand of customers
- Creating insight or pattern for excellence and perfection-seeking
- Measuring the function of enablers, processes and their relationship with the results of work
- Measuring the financial and non-financial business areas
- Help to bench marketing and comparing the components of the organization with the rival ones.
- Measuring in order to improve instead of measuring for control
- It has a comprehensive look to the beneficiaries of the organization: society, customer, employees and shareholders
- A comprehensive look at the selection of criteria and indexes
- Providing a systematic method based on the reality in order to evaluate the organization
- It provides an appropriate structure to analyze the results of organization evaluation.
- The possibility of quantitative measurement
- The logic "Radar" evaluates criteria from different aspects
- It has utmost flexibility (Razani, 2003)

Weaknesses
- Gathering information, evaluation, scoring for the considered aspects are difficult.
- It takes time and focus.
- Its operation is difficult, as the phrases and concepts used in this model is so general that can be interpreted in different ways and each organization will be enable to create different evaluation indexes with these titles.
- Is not rich enough to analyze the causes.

History of the research

Younesifar et al (2013) conducted a study entitled "evaluating the performance of Shahid Sadughi Hospital in Yazd based on the organizational excellence model of EFQM". This study was a cross-sectional and descriptive one. Data collecting tool was the standard questionnaire of EFQM organizational excellence model. Research data were collected from a sample of 320 people from the staff working in different wards of Shahid Sadughi Hospital in Yazd. The samples were selected by a stratified random sampling method. Descriptive statistical method was used to analyze the collected data in this study. The results of this research show that Shahid Sadughi Hospital of Yazd has obtained 185.41 of 500 points in EFQM model. This score indicates that this hospital is very far from the defined optimum condition. According to the performance of this hospital, it is placed in the low-middle class
and more attention to the treatment management of this hospital is required. So, providing an effective and efficient program is required to improve the performance of this hospital.

Ahmadvand et al (2013) evaluated a study entitled "integrated model of the balanced scoring card and organizational excellence in order to improve performance". The objective of this study was to provide a framework of integrated conceptual model from two models of balanced scoring card (BSC) and the organizational excellence model (EFQM) using the matrix (QFD) to improve the continuous performance in faculty area. In this descriptive study, combination of documentary and field studies (interviews and questionnaires) was used to collect data. After reviewing the theoretical concepts, two models were evaluated and compared and the strengths and weaknesses of both models were indicated and then the conceptual model of performance management was presented using the integration of two models. To identify the strategic goals with the approach of balanced score card with the determined vision, two validity and reliability questionnaires were used. To determine the cause and effect relationship of goals and integrating two models, the matrix of quality function deployment was used. After determining the strategic goals and their relationship with the survey of experts, university strategy map was drawn. Also, after determining the relationships between BSC goals and EFQM criteria, the relationship among them was drawn by the QFD matrix. The results showed that the balanced evaluation models and organizational excellence of EFQM in case of integration can provide an appropriate framework to evaluate the performance. Aligning these two models is able to improve continuously and increase the improvement in university.

Andrea Senova and Maria Antosova (2015) evaluated a study entitled "Business performance and organizational excellence evaluation 2010 (EFQM), a case study of a mining company". The objective of this paper was to note the expanded organizational knowledge using a new management method. In this study and in order to identify the weaknesses of the studied company and present the suggestions for its improvement, evaluates the performance using the EFQM. The findings indicate that the use of the latest management methods for the integration to the European Committee and business success in international markets is essential.

De Paolo et al (2004) in a survey in conjunction with "quality management in the sport clubs of Azad University in Brussels, Belgium" concluded that EFQM excellence model is more applicable in industrial and service sectors and using it for self-evaluation of traditional sport clubs is difficult. But if all managers and employees do the necessary cooperation, it can be an appropriate tool for competitiveness and growth of organizations.

The type of research
Research methods in behavioral sciences are usually classified according to two criteria of goal and nature (Hafeznia, 2011: 56). The objective of this study was to establish the feasibility of developing strategies in Tehran Naft Hospital based on the organizational excellence model of EFQM. Since this study is conducted aims to using the existing knowledge to evaluate an organization and also it helps to the directors in Naft Hospital in decision making, so it is considered as an applied research in terms of purpose.
Population and sample

In this study, the statistical population includes middle managers and operations managers of Tehran Naft Hospital. The sample consists of a collection of signs which are selected from a part, a group or a larger society. So that, this set represents the qualities and characteristics of that part, group or larger society and is usually shown with n (Khaki, 2001; 250).

To do this study, a number of 55 people of the middle and operations managers of Tehran Naft Hospital were selected. Using Cochran formula was obtained with the error percentage of 0.05 and a number of 48 questionnaires.

\[ n = \frac{z^2 pq}{d^2} \left( 1 + \frac{1}{N} \left( \frac{z^2 pq}{d^2} - 1 \right) \right) \]

In the above formula, the maximum permissible error (d) is usually equaled to 0.05, the confidence interval of 0.95, \( t=1.96 \) and \( p = 0.5 \) and \( q \) are equaled to 0.5 and the population volume was considered as N. \( p \) value is considered as 0.5. Because if \( p=0.5 \), \( n \) finds its maximum possible value and it causes that the sample is large enough.

Data collecting method

Library and field methods were used to gather information.

1- Library methods: library methods were used to gather information related to the literature and research background.

2- Field methods: field methods were used to collect primary data and information in order to confirmation or refusing the research theories.

Data collecting tools and assessing variables

Collecting actual data in each research is very important according to the object and purpose of the research. The process of gathering information includes numerous activities which concluded collecting data that show the numerical values of some features or description of the qualitative characteristics of the studied people or elements. The questionnaire was used to collect the primary data in this research.

The questionnaire is designed to evaluate the feasibility of establishing the developed strategies in Tehran Naft Hospital based on EFQM and is a standard questionnaire. This questionnaire includes 9 aspects and 5 questions.

The way of response is as table 1.

<table>
<thead>
<tr>
<th>Quite existing</th>
<th>Significant progress</th>
<th>A little progress</th>
<th>Not started</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>90</td>
<td>80</td>
<td>70</td>
</tr>
</tbody>
</table>

Content validity method was used to evaluate the validity of questionnaire in this research. So that the questionnaire is given to a number of experts and professors and they were asked about the questions and evaluating hypothesis that they confirmed the questionnaire together.
One of the methods calculating the reliability is the Cronbach's alpha coefficient. If the Cronbach's alpha coefficient for a scale is more than 0.7, the reliability scale is evaluated as desirable.

$$\alpha = \frac{k}{k-1} \left( 1 - \frac{\sum s_i^2}{s^2} \right)$$

The Cronbach's alpha coefficient in this research is calculated 0.932. So, the reliability of the questionnaire is considered as desirable.

The statistical methods used in this research can be divided into two categories of inferential and descriptive statistical methods. To evaluate and describe the general characteristics of responders, descriptive statistical methods such as tables of frequency of distributions and average. Inferential statistical methods were also explained briefly. Also, the analysis of obtained data was done by SPSS software.

Data analysis

Descriptive statistical indices were used to describe the general characteristics of responders. The frequency of responders was considered based on sex, age, education, work experiences and employment that its results can be seen in Table 2.

Table 2 - frequency of responders

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative frequency percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Man</td>
<td>26</td>
<td>54.2</td>
<td>54.2</td>
</tr>
<tr>
<td>Woman</td>
<td>22</td>
<td>45.8</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative frequency percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-40 years</td>
<td>2</td>
<td>4.2</td>
<td>4.2</td>
</tr>
<tr>
<td>41-50 years</td>
<td>21</td>
<td>43.8</td>
<td>47.9</td>
</tr>
<tr>
<td>&gt;50 years</td>
<td>25</td>
<td>52.1</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative frequency percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma</td>
<td>1</td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td>BA</td>
<td>20</td>
<td>41.7</td>
<td>43.8</td>
</tr>
<tr>
<td>MA</td>
<td>12</td>
<td>25</td>
<td>68.8</td>
</tr>
<tr>
<td>PhD</td>
<td>15</td>
<td>31.3</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Work experience</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative frequency percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5 years</td>
<td>11</td>
<td>22.9</td>
<td>22.9</td>
</tr>
<tr>
<td>5-10 years</td>
<td>14</td>
<td>29.2</td>
<td>52.1</td>
</tr>
<tr>
<td>11-15 years</td>
<td>17</td>
<td>35.4</td>
<td>87.5</td>
</tr>
<tr>
<td>&gt;15 years</td>
<td>6</td>
<td>12.5</td>
<td>100</td>
</tr>
</tbody>
</table>
Normal distribution of the variables
One of the main assumptions of each study is to examine the normal distribution of the studied variables. To test the normality of the data, various methods can be used. The use of the distribution or in other words calculating obliquity and skewness of the studied variables are of the methods that researchers believe that when the obliquity and skewness of data is between 2 and -2, the distribution is normal (Klein, 2010). The Kolmogorov-Smirnov techniques were used to determine the normal distribution of data. So assuming the normal distribution of the data, 5% significance level is tested by the Kolmogorov-Smirnov technique. For this test, the statistical assumptions are set out as follows:

H₀: the study variables have normal distribution.
H₁: the study variables do not have normal distribution.

The results of normal distribution test are presented in Table 3.

Table 3- normal distribution test of the data

<table>
<thead>
<tr>
<th>Variable</th>
<th>K.S value</th>
<th>Freedom degree</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>0.150</td>
<td>48</td>
<td>Normal</td>
</tr>
<tr>
<td>Policy and strategy</td>
<td>0.154</td>
<td>48</td>
<td>Normal</td>
</tr>
<tr>
<td>Employees</td>
<td>0.103</td>
<td>48</td>
<td>Normal</td>
</tr>
<tr>
<td>Business cooperation and resources</td>
<td>0.103</td>
<td>48</td>
<td>Normal</td>
</tr>
<tr>
<td>Processes</td>
<td>0.106</td>
<td>48</td>
<td>Normal</td>
</tr>
<tr>
<td>Customer results</td>
<td>0.091</td>
<td>48</td>
<td>Normal</td>
</tr>
<tr>
<td>Employees results</td>
<td>0.110</td>
<td>48</td>
<td>Normal</td>
</tr>
<tr>
<td>Society results</td>
<td>0.140</td>
<td>48</td>
<td>Normal</td>
</tr>
<tr>
<td>Key performance results</td>
<td>0.107</td>
<td>48</td>
<td>Normal</td>
</tr>
</tbody>
</table>

As it is shown in table 3, in all cases the significant levels is obtained as larger than 0.05. Therefore, there is no reason for rejecting the null hypothesis based on the normality of the data. On the other hand, distribution of the research data was normal and parametric tests can be performed.

Evaluating the feasibility of establishing the developed strategies
Responders' views are investigated around the status of each dimensions of the research using single-sample t-test. In this test, the null hypothesis (H₀) is based on that the studied variable does not have the possibility of establishment and the alternative hypothesis (H₁) is also the claim of the test. Since data were collected from 0 to 100, the average is considered as 50. So the statistical expression of the research hypothesis is as follows:

H₀ : µ ≤ 50  
H₁ : µ > 50

As this study is evaluated at 95% confidence interval, so if the significance level is smaller than 5% error level in calculation of the average of each dimension, the null hypothesis is rejected so the claim of the test will be confirmed. It is obvious that in these conditions, t-test statistic will be larger than the critical amount of t₀.05 means 1.96. Also, both bounds of the confidence intervals will be positive. The results related to the calculations of single-sample t-test are as follows. The results of single-sample t-test are summarized in table 4 based on the average of people insights.

<table>
<thead>
<tr>
<th>Research variables</th>
<th>T amount</th>
<th>mean</th>
<th>Significance value</th>
<th>95% confidence interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower limit</td>
</tr>
<tr>
<td>Leadership</td>
<td>18.071</td>
<td>74.208</td>
<td>0.000</td>
<td>21.513</td>
</tr>
<tr>
<td>Policy and strategy</td>
<td>8.684</td>
<td>64.167</td>
<td>0.000</td>
<td>10.885</td>
</tr>
<tr>
<td>Employees</td>
<td>14.584</td>
<td>67.083</td>
<td>0.000</td>
<td>14.727</td>
</tr>
<tr>
<td>Business cooperation and resources</td>
<td>9.749</td>
<td>61.750</td>
<td>0.000</td>
<td>9.325</td>
</tr>
<tr>
<td>Processes</td>
<td>13.700</td>
<td>67.560</td>
<td>0.000</td>
<td>14.981</td>
</tr>
<tr>
<td>Customer results</td>
<td>4.973</td>
<td>57.060</td>
<td>0.000</td>
<td>4.204</td>
</tr>
<tr>
<td>Employees results</td>
<td>-3.739</td>
<td>44.583</td>
<td>0.001</td>
<td>-8.331</td>
</tr>
<tr>
<td>Society results</td>
<td>26.025</td>
<td>78.819</td>
<td>0.000</td>
<td>26.592</td>
</tr>
<tr>
<td>Key performance results</td>
<td>0.046</td>
<td>50.060</td>
<td>0.964</td>
<td>-2.551</td>
</tr>
<tr>
<td>Total</td>
<td>11.784</td>
<td>61.351</td>
<td>0.000</td>
<td>9.413</td>
</tr>
</tbody>
</table>

**Leadership**

According to the results shown in table 4, the significance level for the leadership index was obtained 0.000 which is calculated smaller than the error level of 0.05, so the null hypothesis is rejected. Also, the upper and lower limits of the confidence interval was a few larger than zero (positive) and due to the average is obtained larger than 50, the claim of study is confirmed and it can be claimed that there is the feasibility of establishing developed strategies in Tehran Naft Hospital from the leadership aspect.
Policy and strategy

The significance level was obtained 0.000 for the policy and strategy index which is calculated smaller than the error level. So, the items of null hypothesis are rejected. Also, the upper and lower limits of the confidence interval was a value greater than zero (positive) and according to that the amount of numerical average is obtained a value greater than 50, the research claim is confirmed and it can be claimed that there is the feasibility of establishing the developed strategies in Tehran Naft Hospital from the viewpoint of policy and strategy.

Employees

The significance level for the employees is obtained as 0.000 which is calculated smaller than the error level (0.05). So, the items of null hypothesis are rejected. Also, the upper and lower limits of the confidence interval were a value greater than zero (positive) and according that the amount of numerical average is obtained greater than 50, the research claim is confirmed and it can be claimed that there is the feasibility of establishing the developed strategies in Tehran Naft Hospital from the viewpoint of employees.

Business cooperation and resources

Also, the significance level for the index of business cooperation and resources is obtained 0.000 which is calculated smaller than the error level (0.05). So, the items of null hypothesis are rejected and it can be claimed that there is the feasibility of establishing the developed strategies in Tehran Naft Hospital from the viewpoint of business cooperation and resources.

Processes

The significance level for the index of processes is obtained 0.000 which is calculated smaller than the error level (0.05). So, the items of null hypothesis are rejected and it can be claimed that there is the feasibility of establishing the developed strategies in Tehran Naft Hospital from the viewpoint of processes.

Customer results

The significance level for the index of customer results is obtained 0.000 which is calculated smaller than the error level (0.05). So, the items of null hypothesis is rejected and it can be claimed that there is the feasibility of establishing the developed strategies in Tehran Naft Hospital from the viewpoint of customer results.

Employees' results

The significance level for the index of employees' results is obtained 0.001 which is calculated smaller than the error level (0.05). So, the items of null hypothesis is rejected but the upper and lower limits of the confidence interval was a value smaller than zero (positive) and according to that the amount of numerical average is obtained smaller than 50, the research claim is rejected and it can be claimed that there is not the feasibility of establishing the developed strategies in Tehran Naft Hospital from the viewpoint of employees' results.
Society results

The significance level for the index of society results is obtained 0.000 which is calculated smaller than the error level (0.05). So, the items of null hypothesis are rejected and it can be claimed that there is the feasibility of establishing the developed strategies in Tehran Naft Hospital from the viewpoint of society results.

Key performance results

The significance level for the key performance results is obtained 0.046 which is calculated smaller than the error level (0.05). So, the items of null hypothesis is rejected but the upper and lower limits of the confidence interval was a value smaller than zero (positive) and it can be claimed that there is not the feasibility of establishing the developed strategies in Tehran Naft Hospital from the viewpoint of key performance results.

Overall results of the feasibility of establishing the developed strategies:

The significance level is obtained 0.000 which is calculated smaller than the error level (0.05). So, the items of null hypothesis are rejected. Also, the upper and lower limits of the confidence interval was a value greater than zero (positive) and according to that the amount of numerical average is obtained greater than 50, the research claim is confirmed and it can be claimed that there is not the feasibility of establishing the developed strategies in Tehran Naft Hospital.

Conclusion and recommendations

By conducting this research and using this model, the organization can evaluate its success in the implementation of improvement programs in different periods of time on one hand and it can compare its performance with other organizations especially the best of them on the other hand. Also, this study can show the importance of attention and the use of excellence models especially the famous model of EFQM in organizations an in order to improve employees' attitudes towards change and then the acceptance of change process by them. According to the results of this research some programs can be identified through definition of the improvement projects in accordance with the areas of strength and weakness in order to improve the existing situation and their priorities are defined and presented and so facilitate by moving towards excellence with managing the effective change and establishing the culture of change in organizations.
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