

PERFORMANCE DIAGNOSIS OF FOOD INDUSTRY IN URMIA BASED ON EFQM MODEL

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Abstract: *In this Study the diagnosis was discussed, based on the EFQM model in food industry of Urmia and was solutions were presented for it's to Improve the level of performance of industries units. So, by descriptive - survey Were studied 73 men for randomly sample among managers and experts of industrial units operating in the food industry in Urmia city. Was used the Scholar made questionnaire contains 29 questions that was the whole 5-item Likert scaled. Its validity has been approved by the masters and its reliability was reported by Cronbach's alpha coefficient equal to 0.762. To analyze the data and test hypotheses was used t-Student test in SPSS software. Results showed that; The influence of the food industry Urmia by Policy and strategy Criteria is very high, Human resources (staff) criterion is medium, Partnerships and resources criterion is very high, processes criterion is very low, Results Human Resources Criteria is very high, Society Results Criteria is medium, Effective Performances Results Criteria is very high and Customer Results Criteria is very low.*

Keywords: *Diagnosis, EFQM model, performance of industrial units*

1. INTRODUCTION

Like humans, organizations can also suffer from a variety of illnesses and show their symptoms. Such illnesses in organizations are generally transmitted by people who make the most essential decisions. On the other hand there is an interaction between the products of a system and its surrounding environment. These impacts can grow such that they be able to threaten the whole organization. It is clear that the cure for an illness in an organization is more successful when its roots are recognized at first stages (Manzini, 2006, 35).

Diagnosis is the process of identifying the problem symptoms, finding their causes and proposing solutions to them. Using diagnosis and noting different factors it can be determined that:

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1. Whether the operation or process is operating correctly?
2. Whether the organization has achieved its goals?
3. What is the main problem in different operations and essentially what solutions can be used to improve it?

By answering these questions operations can be to some extent directed in their main course to achieve the goals (Akhavan Sarraf and Abdolbaghi, 2005, 6).

Institutional diagnosis is one of useful and primary tools for the organizations who think of excellence and try to climb the steps of success.

In Iran it has been a few years that the issue of organizational excellence including the introduction of international and national models and patterns for excellence and superiority and selection of promoted organizations such as National Efficiency Award and Iranian National Quality Award (NIQA) has been proposed. These activities, along with the creation of competition, have caused the organizations and institutions to get acquainted with the features and specifications of a promoted organization (Mir Shafiei, 2010, 23).

Business superiority models play a key role in the correct orientation of business organizations. These models present a template of an organization which is excellent in theory and practice compared to other organizations and shows the required changes for growth and superiority.

The superiority of an organization or an industrial unit is a continuous process which begins with planning and goal setting and along its path the shortcomings and inefficiencies are determined by frequent evaluations and predetermined goals and with the required corrections the obstacles are removed and the advantages are reinforced. The start point of any change and improvement is to fully understand and identify the present situations of the organization and finding the problems which is called diagnosis (Mirshafiei, 2010).

The superiority model of quality management and European foundation, more than other models, has been used as the reference to win international awards and is selected as the reference model in most of the European countries. Therefore it is possible to model a wide range of organizations in different European countries with different situations and properties. Also based on the systematic and strong attitudes of this model which relies on careful attention to the management of the organizational processes and conclusions, its application for Iranian organizations, which generally have

problems in this regard, is very informative applicable. Now the basis of the evaluation of the organizations and awarding the national efficiency and organizational excellence award in Iranian industry and mining sector is conducted according to this model (Akhavan Sarraf and Abdolbaghi, 2005, 20).

EFQM¹ is a excellence model and applicable and non-prescriptive framework which makes the organizations capable of:

1. Evaluating in which point of the path to excellence they stand, helps them understand their key advantages and potential gaps related to the expressed vision and mission;
2. Creating the language and the method of thinking related to the organizations in order to facilitate the efficient transmission of the ideas within and out of the organization;
3. Integrating the existing and planned innovations, removing the reworks and identifying the gaps;
4. Preparing the basic structure for the time management regime (Valizadeh, 2013, 32).

The industries in Iran have faced with serious problems after the revolution and after overcoming these problems and economic improvements in Iran, they efficiently entered the Iranian economy and formed a part of Iranian economy in development but eventually a new problem was raised and it was the requirement of transformation to modernized industries instead of traditional industries and this in turn required the top managers of this part of the economy of the country to be provided with up to date knowledge; anyway the industry in our country has faced with a variety of serious problems in this transition step which imposed a great obstacle namely sanctions against the economy and firstly industry in our country and in the meantime manufacturing industries especially food industries faced complex challenges and as many economic scientists admit the only solution of overcoming this obstacle for the industries in our country is for the industrial managers of our country to be provided with the knowledge of rooting the problems or so called diagnosis so that by using this method they carefully overcome the created obstacle and catch up with the world industry as fast as possible.

¹ European Foundation for Quality Management

This research has tried to investigate the effects of diagnosis based on EFQM model on food industries in Urmia City and present solutions for those problems in order to improve the performance levels of industrial units.

2. THEORIES OF THE RESEARCH

2.1 Introduction to EFQM Model

The European Excellence Model includes a variety of components and concepts which are described below:

- EFQM is a self-evaluation framework and template which results in continuous movement and directing the activities towards activity improvement. EFQM model is a total quality management (TQM) establishment approach (Majidi and Bagheri, 2012).
- EFQM is an excellence model and a practical and non-prescriptive framework which makes the organizations capable of:
 - ❖ Evaluating in which point of the path to excellence they stand, helps them understand their key advantages and potential gaps related to the expressed vision and mission;
 - ❖ Creating the language and the method of thinking related to the organizations in order to facilitate the efficient transmission of the ideas within and out of the organization;
 - ❖ Integrating the existing and planned innovations, removing the reworks and identifying the gaps;
 - ❖ Preparing the basic structure for the time management regime.

EFQM model is based on nine criteria, five enabler criteria and four results criteria. Enabler criteria cover what and how the organization does things and result criteria cover what an organization achieves.

- Enabler criteria include:
 - ❖ Leadership; 2-strategy; 3-people (staff); 4-partnership and resources; 5-processes, products and services.
- Result criteria include:
 - ❖ People results; 2-customer results; 3-society results; 4-key performance results.

These nine criteria for the organizations are investigated based on EFQM guidelines and weight of each criteria and a total point between 0 and 1000 is assigned to the organization (Valizadeh, 2013).

2.2 Diagnosis

Diagnosis is not a new concept which was discovered or started in the past two decades; but in different past time periods whenever an organization has attempted to solve its problems and organizational shortcomings with different methods, it has somehow used some kind of diagnosis. In fact in the past this concept had been used in different ways. But most of scientific books and papers have identified the history of diagnosis back in 1950s in chemical industries in Japan. In those years the Japanese have widely used diagnosis concept for the identification of sicknesses (weak points) in the organizations in chemical industry based on this approach that the organization, like a human, can get sick. On the other hand, it can be said that the diagnosis concept, because it has wide conceptual diversity and can be used in different fields according to the specifications and situations of different organizations, have been used many times during the history. Following successful applications of this concept in Japan, the importance of this topic was also revealed for other organizations in other countries and finally it resulted in the application of absolutely different methods and models in such studies in today's world. In our country also this concept was applied in oil industry in 1380 with the approach of maintaining and repairing. At that time, due to the sensitivity of oil industry equipment, the diagnosis concept was limited to identifying weak points in equipment. Fortunately from 1382 Iranian Industrial Renovation Company has seriously mentioned its plans for organizational diagnosis and helping them in improvement and optimization as consulting service in its article of association and activities. In this regard different organizations including Urum Tarh Industries, Gorgan Kesht-o Sanat, Parsou Lamp Company, etc. have used such services (Rezaeian, 2012, 28).

Objectives of diagnosis

The main objective of the project was the diagnosis of activities, general evaluation of situations and current status of different organizational and industrial units and determining the main troubles in how the activities of the organization or company are being conducted. In these situations by using standard revision questionnaires and forms, interviewing organizational managers and experts and evaluating the performance of the

organization or the company on the one side and interviewing partner companies of different units on the other side, all aspects of the activities were scrutinized and scientifically investigated. In this investigation all advantages, disadvantages, opportunities and threats were identified.

The other objective of diagnosis is to help small industrial units develop and make necessary changes to improve compatibility. The objective of this plan was to help small industrial units develop and increase their compatibility. In diagnosis model overall information of small industrial units are collected by competent consultants through interviews, questionnaires, visits and reviewing the documents and then the required calculations to determine the productivity and profitability indices of the unit were conducted (Akhavan Sarraf and Abdolbaghi, 2005).

3. METHODOLOGY OF THE RESEARCH

Methodologically this research is descriptive-survey due to the investigating and describing of current status and delving into the interest community; the statistical society of this research included all industrial units active in food industries in Urmia City. Noting the diversity of the target society, namely Urmia City, a group of managers and experts from active industrial units were chosen as sample and were consequently investigated and ultimately following the distribution of questionnaires, 73 correct and complete questionnaires were collected.

The research questionnaires were prepared and then validated according to the theoretical foundations and research history by the help of professors and were scored based on Likert spectrum; the Cronbach alpha coefficient for the questionnaires was 0.762 which showed the stability of the questionnaires. For hypothesis test, student's t-test was conducted using software SPSS.

4. RESEARCH FINDINGS

The research hypothesis were formed based on the mean scores of organizational excellence model EFQM criteria with variation domain of 1 to 5. The statistical tests for the mean value comparison of the assumed variables were conducted using standard student's t-test such that in order to investigate the research hypothesis based on the type of hypothesis made, mean value comparison test (two-way t-student) with mean value (=3) was used. Therefore noting the magnitude of the significance level and observed mean values, acceptance or rejection of the hypothesis was conducted.

4.1 Hypothesis evaluation

Hypothesis one

The magnitude of the effects of policy and strategy criteria on the performance level of food industry in Urmia City was very high.

Statistical evaluations showed that there was a significant difference between the test value (average=3) and the observed mean value and it can be said that the magnitude of the effects of policy and strategy criteria on the performance level of food industry in Urmia City was not at average level. According to the observed value of 4.4541, the magnitude of the effects of policy and strategy criteria on the performance level of food industry in Urmia City was high and very high which confirmed the hypothesis of the author and it can be said that policy and strategy criteria in an industrial unit in order to improve the performance and profitability were significantly effective and by carefully determining the strategies of the industrial unit one can be optimistic about the future.

Hypothesis two

The magnitude of the effects of human sources (staff) criteria on the performance level of food industry in Urmia City was very high.

Student's t-test results statistically confirmed significant differences between the test value (average=3) and the observed mean value. According to the observed value of 2.9692, the magnitude of the effects of human resource (staff) criteria on the performance level of food industry in Urmia City was average. Therefore the hypothesis of the author on very high effect of human resource (staff) criteria on the performance level of food industry in Urmia City was accepted.

Based on these results it can be said that industrial units should be as careful as it can be when it comes to choosing expert staff whether in office or production and they should not neglect training the staff, but according to the statistical results obtained, having an expert and trained human source for improving the performance level of the organization is necessary but not enough.

Hypothesis three

The magnitude of the effects of partnerships and resources criteria on the performance level of food industry in Urmia City was very high.

Statistical analysis showed significant differences between the test value (average=3) and the observed mean value and it can be said that the magnitude of the effects of partnership and resources criteria on the performance level of food industry in Urmia City was not at average level, but according to the observed value of 4.1638 it can be concluded that the magnitude of the these effects were higher than average and were very high. Therefore the hypothesis of the author on very high effect of partnership and resources criteria on the performance level of food industry in Urmia City should be more carefully considered.

Based on above results industrial units should pay more attention to the future partnerships and make accurate plans based on the benefits of their units in their policies and provide resources based on their production strategies and target markets so that they can improve their performance level through accurate determining and monitoring on their partnerships and resources.

Hypothesis four

The magnitude of the effects of process criteria on the performance level of food industry in Urmia City was very high.

In his statistical report the author has stated that there was a significant differences between the test value (average=3) and the observed mean value and it can be said that the magnitude of the effects of process criteria on the performance level of food industry in Urmia City was not at average level, but according to the observed value of 1.904 it can be concluded that the magnitude of the these effects were less than average and the hypothesis of the author could not be confirmed.

Based on above results it can be said that the processes used by the industrial units had no significant effect on the growth and performance level of the units and principally the units do not have serious problem with these criteria but that should not be neglected as well.

Hypothesis five

The magnitude of the effects of human source outcomes criteria on the performance level of food industry in Urmia City was very high.

Statistical analysis have showed a significant difference between the test value (average=3) and the observed mean value and according to the observed value of 4.0912 it can be concluded that the magnitude of these effects were higher than average and were very high and the hypothesis of

the author on very high effects of human source outcomes on the performance level of food industry in Urmia City required more investigation.

Based on above results which were obtained from data analysis it can be said that the industrial units should have a precise plan in order to evaluate and monitor the performance of human sources capable of both controlling the performance of human sources and using the maximum capacity of feedbacks and results of human sources.

Hypothesis six

The magnitude of the effects of society outcomes criteria on the performance level of food industry in Urmia City was very high.

Statistical findings did not show a significant difference between the test value (average=3) and observed mean value and according to the observed value of 3.0048 for the magnitude of the effects of society outcomes criteria on the performance level of food industry in Urmia City was average.

Based on above results it can be said that the industrial units should analyze their target society and be sensitive towards their ideas and tendencies and use these criteria in their planning. And to do this they need to receive and analyze the reaction of the society towards their new product in different ways. Note that the average effect of these criteria on the performance level of industrial units should not result in neglecting these criteria.

Hypothesis seven

The magnitude of the effects of key outcomes criteria on the performance level of food industry in Urmia City was very high.

According to the statistical report there was a significant differences between the test value (average=3) and the observed mean value and the magnitude of the effects of key outcomes criteria on the performance level of food industry in Urmia City was not at average level. The observed value of 4.5342 the magnitude of the effects of key outcomes criteria on the performance level of food industry in Urmia City were a little more than high and close to very high. Therefore statistically in the confidence interval of 95% that was not enough to reject the hypothesis of the author could not be confirmed.

Therefore it was obvious that the policies and strategies of industrial units, as it was mentioned in hypothesis one, was very important in improving the performance level of the industrial units which resulted in the outcomes of the policies and strategies to be very important for industrial units as well and of course effective in future decision makings of the units, therefore the industrial units should be very careful in evaluating and getting the feedbacks of these performances.

Hypothesis eight

The magnitude of the effects of common outcomes criteria on the performance level of food industry in Urmia City was very high.

Statistical findings showed a significant difference between the test value (average=3) and the observed mean values and it was shown that the magnitude of the effects of common outcomes criteria on the performance level of food industry in Urmia City was not average. The observed value of 1.9416 for the magnitude of the effects of society outcomes criteria on the performance level of food industry in Urmia City was low.

Based on above results it can be said that the industrial units should analyze their target society and be sensitive towards their ideas and tendencies and use these criteria in their planning. And to do this they need to receive and analyze the reaction of the society towards their new product in different ways. Note that the average effect of these criteria on the performance level of industrial units should not result in neglecting these criteria.

Unfortunately the statistics show that the tendencies and demands of the customers were not important for industrial units and customers also did not show any reaction for this scorn of industrial units, therefore the effects of these tendencies on the performance industrial units in our country, unlike the rest of the world, was very low which shows that a revision is inevitable in this regard.

4.2 Discussion and Evaluation in the Research

Akhavan Sarraf and Abdolbaghi (2005) in a research under the name "Diagnosis of Industrial Units Based on European Foundation Quality Management Model" prioritized the troubles of comprehensive quality management system in textile industries and stated: "the Excellence Model of European Foundation Quality Management, more than other models, has been used as the reference to win international awards and is selected as the

reference model in most of the European countries. The research results showed that the priorities of the troubles were as follows: 1. Lack of strategy; 2. Lack of staff satisfaction; 3. Lack of shareholders' satisfaction; 4. Lack of management systems; 5. Lack of liquidity; and 6. Lack of education system, which were in line with the results of this research.

Mirabi et al. (2010) in a paper under the name "diagnosis of performance outcomes for Iran Radiator Company from customers' points of view (case study of Iran Radiator Company)" attempted in diagnosis of industries and stated that: this research was conducted to identify, analyze and determine the improvement methods in a company for the costumers in two qualitative and quantitative sections.

The obtained results confirmed that there was a significant relation between the ideas of the customers and the price and the quality of the products. The evidences showed there were troubles in efficiency, effectiveness, performance, innovation, flexibility and quality which resulted in the identification of the existing performance of the company in the combination of prices and products and based on those the main trouble of the company was identified. Then the causes of the trouble were analyzed separately for each internal fields of Iran Radiator Company which did not comply with the current research.

Haeri (2013) in his research under the name "comprehensive investigation of clothing industry in Iran and diagnosis the causes of the lack of proper development in the country" stated that: "the textile industry and consequently clothing industry, more than any other industry in the world has been affected by globalization". The research results showed that the priorities of the troubles were as follows: 1. Lack of strategy; 2. Lack of management systems; 3. Lack of education system; 4. Lack of staff satisfaction; 5. Lack of liquidity; and 6. Lack of shareholders' satisfaction, which were in line with the results of this research.

Shokuhe Yar and Alian (2013) in a research under the title "Diagnosis of manufacturing companies in applying organizational balance model and ranking the problems based on hierarchical process of data" stated that competitiveness is among the factors that guarantees the stability of the organization. This advantage is not achieved simply but it requires vast amount of activities through long term planning on all organizational aspects so that the organization can be excellent in all aspects. The obtained results showed that unpreparedness of industrial infrastructures in our country, lack of competition, traditional attitudes towards quality and structural

differences among EFQM model indices of manufacturing industries with the structures presented by European Foundation Quality Management, has resulted in unsuccessful implementation of this model which did not comply with this research.

Maleki et al. (2012) in a research named “presenting an evaluation model for organizational excellence of quality management of EFQM in cement industry” showed that this organization was in a good situation from component empowerment point of view, but in outcome components it was not in a good situation which was in line with this research.

5. PRACTICAL RECOMMENDATIONS

Finally in order to apply the findings of this research following evaluating the effects of diagnosis according to EFQM model for the improvement of performance level of industrial units in food industry in Urmia City the following recommendations are presented as policies to address the troubles of the units and improve their performance levels:

Hiring expert managers for departments such as research and development, human sources, etc. with high educations in their related fields and market mentality and creative in administrative, human sources and marketing fields.

Holding numerous training courses about social marketing, merchandise psychology, customer treatment and the way of combining it with production and attractive package designing based on common interests of the experts and managers who are in charge of these affairs.

Creating departments for the analysis of the data obtained from the society and customers in order to make a database in the company.

Creating a direct communication line between all departments of the company and research and development department in order to receive creative ideas in general and make practical use out of them.

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