

Performance of the libraries in Isfahan University of Medical Sciences based on the EFQM model

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ABSTRACT

Introduction: Performance measurement is inevitable for university libraries. Hence, planning and establishing a constant and up-to-date measurement system is required for the libraries, especially the university libraries. The primary studies and analyses reveal that the EFQM Excellence Model has been efficient, and the administrative reform program has focused on the implementation of this model. Therefore, on the basis of these facts as well as the need for a measurement system, the researchers measured the performance of libraries in schools and hospitals supported by Isfahan University of Medical Sciences, using the EFQM Organizational Excellence Model. **Materials and Methods:** This descriptive research study was carried out by a cross-sectional survey method in 2011. This research study included librarians and library directors of Isfahan University of Medical Sciences (70 people). The validity of the instrument was measured by the specialists in the field of Management and Library Science. To measure the reliability of the questionnaire, the Cronbach's alpha coefficient value was measured (0.93). The *t*-test, ANOVA, and Spearman's rank correlation coefficient were used for measurements. The data were analyzed by SPSS. **Results:** Data analysis revealed that the mean score of the performance measurement for the libraries under study and between nine dimensions the highest score was 65.3% for leadership dimension and the lowest scores were 55.1% for people and 55.1% for society results. **Conclusion:** In general, using the ninth EFQM model the average level of all dimensions, which is in good agreement with normal values, was assessed. However, compared to other results, the criterion people and society results were poor. It is Recommended by forming the expert committee on criterion people and society results by individuals concerned with the various conferences and training courses to improve the aspects.

Key words: The European Foundation for Quality Management Model, Isfahan University of medical sciences, libraries, performance

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INTRODUCTION

Considering the speed and the size of data as well as the challenges to be dealt by organizations, it appears increasingly vital to have some criteria available to decide about the success and to plan based on advantages and disadvantages. The development of a seriously competitive atmosphere among organizations and their never-ending attempts toward the promotion of quality of services and products as well as satisfaction of customer expectations and demands have made the organizations to look for a comprehensive, reliable, and flexible method to measure their performance to obtain accurate and comprehensive information on their status,

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position, and performance in the society and to avoid further mistakes in the future while taking their past advantages and disadvantages into consideration. In this manner, they would be able to guarantee their survival.^[1]

The introduction of a performance measurement system into any organization has great significance and the lack of such a system at various dimensions of the organization, including the measurement of utilization of facilities and resources, purposes, strategies, etc., are considered to be the symptoms for the malady of the organization. Therefore, to become aware of the acceptability and quality of its performance, especially in dynamic and complex spaces, every organization is in a serious need for a measurement system.^[2]

Libraries cannot skip performance measurement like organizations and nonprofit organizations. However, no serious attempt has been made so far to measure the performance of libraries. As the ideal of all libraries is to increasingly improve their performance quality and to promote their excellence, it is primarily necessary to study the current status of management performance in these libraries to measure their distance from the ideal situation of excellence. Then, through the recognition of advantages and disadvantages, they would be able to make required decisions for taking measures toward promotion and excellence.^[3]

As a process for judging about the efficiency of the predetermined plans, evaluation needs to use specific instruments and models. Various models have been suggested for the evaluation of organizational performance and each one has its own specific features. Taking into consideration the significance of the implementation of a universal management as a universal solution to the organizational efficiency improvement, the model mostly focused by the specialists of management for organizational performance measurement is organizational Excellence Model, among other models.^[2]

Organizational Excellence Model helps the directors as a universal instrument with a comprehensive attitude to all aspects of organizations in order to assist them in a better and more definite recognition of the organization. These models are used for the measurement and comparison of the organizational performance. They enable an organization not only to measure the level of its successes in implementation of the programs in different periods and times, but also to identify their advantages and disadvantages and to include some projects in their performance indicator, regardless of the sector that the organization belongs to or the size it may enjoy in economic scales. It is worth noting to add that the organizational promotion is not a theoretical conception, rather it is the acquisition and presentation of tangible and observable results that are based on evidence, sustainability, and persistence.^[4]

Various kinds of organizational promotion models have been suggested and applied. They are formed based on the elements and values of Total Quality Management. Among these models, Deming Model, Malcolm Baldrige Performance Excellence, and EFQM Excellence models are three most popular organizational Excellence models with the highest level of applications for organizational performance measurement [Figure 1].^[5]

As Iranian National Quality Award (INQA) has been taken from the EFQM Excellence Model,^[5] it can be predicted that the models used in the Iranian libraries will be so much similar to the EFQM model in the future.^[2]

The EFQM Excellence Model is defined based on nine criteria. Five criteria of this model are related to the enablers and explain the components of an organization and the quality of their interactions; and other four criteria form the results obtained from the performance of an organization.^[5]

The arrow emphasizes on the dynamic nature of this model. The arrow of innovation and learning helps the

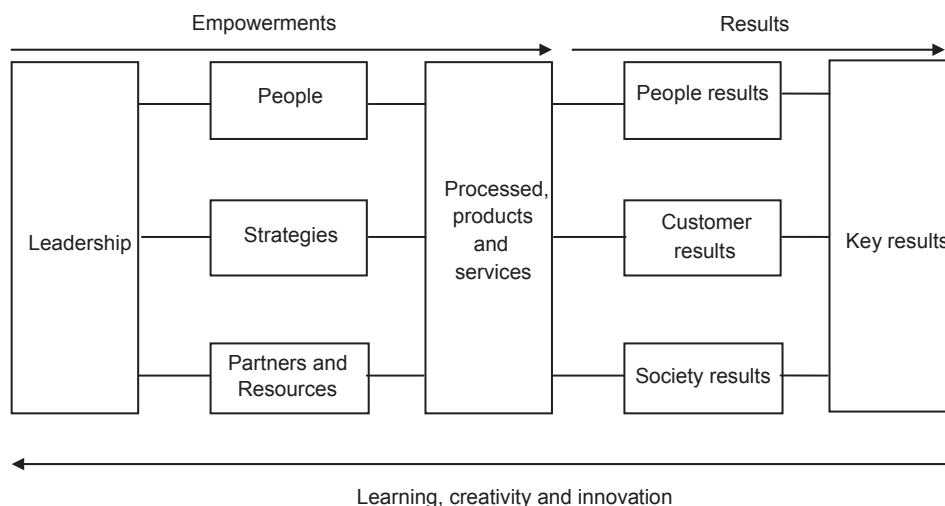


Figure 1: An outline of EFQM Organizational Excellence Model 2010

improvement of enablers and this, in turn, leads to the improvement of the results.^[6,7]

The criteria of this model are mentioned below:

Leadership, Strategy, People, Partnership and Resources, Processes, Products and Services, Customer Results, People Results, Society Results, and Key Results.^[8,9]

Richness of libraries affects the support for the planning process (reduction in costs, time, and creation of peace of mind). Library resources play a significant role in qualitative and quantitative promotion, determining the model, and introduction of new ideas. Therefore, appropriate library services can have favorable effects on planning. In contrast, inefficiency of quantitative methods and increasing demand for justification of efficiency against costs and inputs have made the managers and authorities of libraries and information centers to resort to qualitative assessment. Some instrumentation has recently been developed for qualitative assessment. The Excellence Model is used as a strong instrument for the measurement of establishment rate in different organizations. Using this model, organizations assess their success in implementing improvement plans in several levels, on the one hand, and then they compare their performance with other organizations, especially with the best ones. As an inclusive instrument with a comprehensive view to all aspects of organizations, the EFQM Excellence Model assists the managers in a better and more accurate recognition of their organization.^[10]

Considering the fact that management is considered as the center of gravity for all organizations, the analysis of management performance can provide us with an understanding of the current situation of management and it would enable us to compare the situation with a favorable one.^[3] This performance measurement for the libraries in Esfahan University of Medical Sciences will give an insight into the library managers regarding the current situation as well as the measures that should be taken in the future in order to enable them to plan for a desirable management and to improve the quality of their services, as a result. Therefore, we will measure the performance of the libraries in Esfahan University of Medical Sciences, using the EFQM Excellence Model in nine dimensions: leadership, strategy, people, partnerships and resources, processes, products and services, customer results, people results, society results, and key results. Then, we will determine its advantages and disadvantages and try to improve the performance and excellence of the libraries in Esfahan University of Medical Sciences.

Review of the related literature

In the 71st IFLA general conference, Diaz *et al.* (2005) presented an article on “Excellence and Quality in Andalusia University Library System” focused on this issue that the national plan for quality measurement and its approval by the regional and academic authorities since 1996 led to an expanded recognition of quality measurement in university libraries by the Spanish academic society who benefit a lot from the challenges and opportunities provided as a result of

quality measurement and quality assurance activities. To them, the reason behind the utilization of the EFQM Excellence Model was the increasing and remarkable influence it had on many service-providing and nonprofit units in Europe.^[11]

Truccolo *et al.* (2005) carried out a research on “EFQM and Libraries: An Organizational Challenge for Improving the Provided Services”. These researchers used the EFQM Excellence Model to measure the service quality in the specialized libraries of National Cancer Institute in Eastern Italy. In their analysis, the lowest score was obtained by the criterion of customer results (74 out of 200) and the highest score belonged to the criterion of leadership (67 out of 100). The findings indicate that Spain is one of the pioneers for the application of EFQM Excellence Model in the libraries.^[12]

In their research on “Excellence in Libraries: A Systematic and Integrated Approach”, Herget and Hierl (2007) studied the application of EFQM Excellence Model in the systematic and integrated evaluation process of libraries and they referred to the existing RADAR logic structure in this model as its advantage for the stability and persistence of the libraries. They implemented a plan in Estuary University in Switzerland according to this model, which can be successfully used to analyze the existing situation and to identify the library’s advantages and disadvantages. The purpose of this study is to suggest an integrated concept for management that is in consistency with the context and future demands of the libraries. The method used for this research is the content analysis for suggesting a convenient model for libraries that would improve the library management performance. The findings of this research show that the suggested model results in the establishments of an integrated foundation for benchmarking and optimization of the libraries in the future.^[13]

In his article titled “Factors Influencing Self-Assessment in a Changing Library Environment: Case Study”, Borbely (2010) explained the results of two consecutive self-assessment periods carried out in the Debrecen Library in 2007 and 2008. The method of this study was based on a former study carried out by the researcher, which resulted in the creation of an EFQM-based instrument for library self-assessment. The factors influencing the organizations were evaluated and analyzed based on the EFQM Model: Leadership, strategy, people, partnerships and resources, and processes. The findings of this research reveal that the results of the second self-assessment were normally more positive than the results of the first self-assessment. This was due to the improvement in the modern environment. The comparison between these two investigations yielded unexpected results. For instance, the empowering of human resources had a constantly higher rate in 2007 than in 2008. The purpose of this study is to investigate an interesting dilemma, which resulted in the modification of senior management in the organizational bases.^[14]

Mohammadesmaeil, Ebrahimi, and Ghavidel (2011) reported a study titled “Comparative Study of Application of the EFQM Excellence Model in Central Libraries of Governmental and

Medical Sciences Universities of Tabriz (Iran)". The statistical society of this research included 22 managers and authorities in the central libraries of University of Tabriz and Tabriz University of Medical Sciences. These people were sampled by census. Interview and EFQM Standard Questionnaire were used for data collection. The findings of this study indicate that the score of quality management for the central library of Tabriz University of Tabriz was 446.07 out of 1000.^[15]

Akhishk and Farajpahlou (2010) discussed the quality measurement in their study entitled "The Analysis of EFQM Excellence Model and IT management Quality Measurement in the Library of Jundishapur University of Medical Sciences". This was a survey-based study and its statistical population included all IT managers and personnel in the library of Jundishapur University of Medical Sciences who consisted of 30 people. A workshop was held for each group on the way of answering the questionnaire prior to the implementation of the questionnaire. The findings show that the library of Jundishapur University of Medical Sciences is at an average level, with the score of 441.4208 out of 1000 of which 203.304 is estimated out of 500 for the enablers' indices and 238.3904 out of 500 for the result indices. The results reveal that the management of Jundishapur University of Medical Sciences in Ahvaz and the senior decision-makers at this university have to pay more attention to the IT quality issues, situation of the personnel, and customer satisfaction and to try to improve them.^[16]

Esfandiarimoghadam, Zarei, and Familrohani (2011) carried out a study entitled "Performance Measurement for All Archives and Libraries of the IRIB based on EFQM Excellence Model". This is a descriptive study with a survey-based approach. The main instrument for data collection is the Standard EFQM Model Questionnaire. The statistical population includes all managers, authorities, and personnel at the General Department of Archives and Libraries of IRIB and the sample includes all statistical population. Forty out of 50 managers, authorities, and experts from the general department participated in this research. The findings reveal that the general department obtained the lowest level of Excellence with the score of 295.83 and the society results (56.7%) have the highest score and customer results (6.67) have the lowest one.^[10]

MATERIALS AND METHODS

This descriptive study with a survey-based approach is carried out as a cross-sectional study in 2011. The statistical population for this research includes the librarians and managers of hospital, faculty, and central libraries including 12 hospital libraries in Esfahan (libraries of Alzahra, Imam Mousa Kazem, Amin, Seyed Shohada, Imam Hossein, Shahid Beheshti, Shahid Chamran, Eisa-Ibn-Maryam, Farabi, Nour, Hazrat Aliasghar, and Feiz Hospitals), 7 school libraries (libraries of the Faculties of Medical Library and Information Sciences, Health and Nutrition, Medicine, Pharmacy, Dentistry, Nursery and Midwifery, and Rehabilitation) and a central library with

a total staff number of 70 (directors and librarians) who were sampled by the census. The data collection instrument was a Standard Functional Assessment Questionnaire based on the EFQM Excellence Model.

The validity of the instrument was measured by the specialists in the field of Management and Library Science. To measure the reliability of the questionnaire, Cronbach's alpha coefficient was used and its value was 0.93.

Two levels of descriptive and inferential statistics were used in this research. The percentage and frequency distribution table were used at the descriptive statistics level and *t*-test, ANOVA, and Spearman's Rank Correlation Coefficient were used for the inferential statistics level. The collected data were analyzed by SPSS according to the purposes of this study.

Findings

The performance measurement was carried out in all school, hospital, and central libraries covered by Esfahan University of Medical Sciences. Sixty-one out of 70 personnel filled in the questionnaires and the data were analyzed after studying and analyzing the completed questionnaires.

Figure 2 illustrates the mean score for the points of view of the subjects with regard to nine dimensions in general. According to Figure 2, leadership has the highest score (65.3%) and the people and society results have the lowest score (55.1%).

Table 1 shows the mean score for the points of view of the subjects based on their sex and their positions. The points of view of the female subjects with regard to the society results shows a significant difference with that of the male subjects. Generally, it can be claimed that the female subjects have a more positive point of view, as compared with the male subjects.

Table 2 shows the mean score for the points of view of the subjects based on their field of study and libraries that they worked there. As it can be observed from Table 2, the mean score for different dimensions of the EFQM model

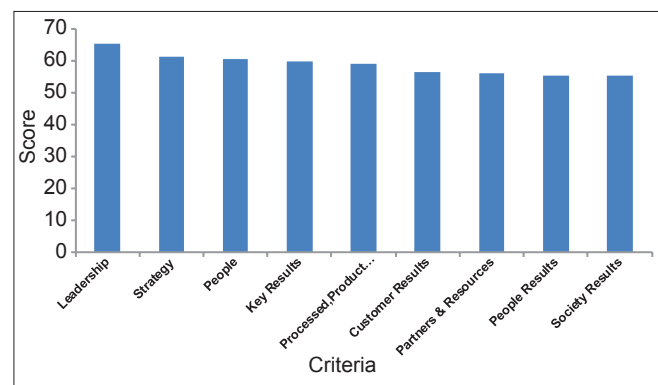


Figure 2: Mean score for the point of view of the subjects in nine dimensions of the EFQM Model

Table 1: Mean score of the points of view of the subjects about the nine dimensions of EFQM based on sex and their position

P value	Average		P value	Average		Dimensions
	Male	Female		librarian	Manager	
0.59	63.5	66.2	0.331	64.3	70.1	Leadership
0.21	57.5	62.9	0.428	59.5	63.8	Strategy
0.44	52.9	56.3	0.265	54	60	Peoples
0.8	55.3	56.2	0.966	55.9	56.1	Partners and resources
0.53	57.01	59.7	0.676	58	60.3	Processed, products and services
0.22	56.8	62.3	0.585	61.1	58.1	Customer results
0.67	55	57	0.956	56.5	56.8	People results
0.04	49.1	58.2	0.988	54.4	54.3	Society results
0.24	56.8	61.2	0.875	59.4	60.1	Key results

EFQM = The European Foundation for Quality Management

Table 2: Mean score of the points of view of the subjects about the nine dimensions of EFQM based on their field of study and library (place of service)

P value	Average		P value	Average			Dimensions
	Non-librarianship	librarianship		Central	Hospital	Faculty	
0.24	70.3	64	0.003	80.1	70.5	58.8	Leadership
0.1	66.5	58.7	0.04	67	66.1	56.1	Strategy
0.19	59	52.8	0.23	56.3	60.1	52.3	Peoples
0.29	58	53.9	0.3	58.7	58.7	53.2	Partners and resources
0.19	62.7	56.5	0.01	71.1	63.1	53.8	Processed, products and services
0.63	61.8	59.5	0.04	66.5	65.8	55.2	Customer results
0.32	59.6	54.7	0.22	61.2	59.9	52.5	People results
0.78	53.4	54.8	0.4	57	58.5	52.1	Society results
0.53	60.8	58.3	0.3	60	63.3	57.2	Key results

EFQM = The European Foundation for Quality Management

is not significant for the people studied in Library Science and those studied in other fields of study ($P > 0.05$). As it can be observed from Table 2, the mean score of different dimensions of EFQM is significant for the managers and librarians ($P > 0.05$).

According to Table 2, the dimensions of leadership, strategy, processes and products, services, and customer results have a significant relationship with the place of service and the people who work in central library have more positive points of view.

Table 3 shows the Spearman correlation coefficient for the Score of the Points of View of the Subjects about the nine dimensions of EFQM based on their Educational Level and Work records. The educational level is only directly related with leadership and the work record is directly related with the dimensions of partnerships and resources, processes, products and services, customer result, people result, society result, and key result and it has no significant relation with other dimensions.

The mean score of the EFQM model criteria is illustrated in Table 4. Based on Table 4, the mean of performance measurement of enabler's criteria was 290 out of 500 and in results criteria was 290.95 out of 500. Generally, the mean score for this model is 586.95 out of 1000 in this study.

CONCLUSION

The results of this study reveal that the score of the criteria of enablers and results is generally at a poor situation [Table 4]. Among all these dimensions, the leadership has the highest score (65.3%) and the dimensions of people and society results obtain the lowest score (55.1%). The low score of the society score generally indicates that the libraries of Esfahan University of Medical Sciences are at a poor position in fulfilling the expectations of the society. The low score of the people result shows that the library managers have totally had a poor performance in planning and in their attempt to improve the quality of performance among the personnel, to identify and to expand knowledge and qualifications of the personnel and staff of the library based on the context and objectives of the library, to involve them in library affairs, and to hold a mutual communication with these individuals. The data show that the cause behind the poor management of the personnel in university libraries is the inconvenient attention paid to appreciation and encouragement of the personnel which undoubtedly results from the fact that the attempts and achievements of these people are not properly recognized and no record is kept for them.

The findings of this research was poor and the lower scores were obtained, as compared with those reported by Akhishk (2007),

Table 3: Spearman correlation coefficient for the score of the points of view of the subjects about the nine dimensions of EFQM based on their educational level and work records

Work experience in a library		Educational level		Dimensions
P value	Spearman correlation coefficient	P value	Spearman correlation coefficient	
0.73	-0.04	0.01	0.315	Leadership
0.4	0.1	0.98	-0.003	Strategy
0.3	0.13	0.27	0.14	Peoples
0.05	0.25	0.87	-0.02	Partners and resources
0.004	0.36	0.75	0.04	Processed, products and services
0.009	0.33	0.33	-0.12	Customer results
0.05	0.25	0.35	-0.12	People results
0.001	0.41	0.3	-0.13	Society results
0.04	0.26	0.5	0.08	Key results

EFQM = The European Foundation for Quality Management

Table 4: Mean score of the EFQM model criteria

Criteria	Score	Percent
Empowerments	296	59.2
Results	290.95	58.19
Total	586.95	58.69

EFQM = The European Foundation for Quality Management

Farajpahlou and Akhishk (2009), Farajpahlou, Mehralizadeh, and Akhishk (2009), Akhishk and Farajpahlou (2010), and Esfandiarimoghadam, Zarei, and Familrohani (2011). The scores lower than the ones obtained in other similar studies is indicative of the fact that the quality management in these libraries is at a poor situation and needs further reconsiderations and improvement of quality management.

Hopefully, some measures have been taken during the last years which include holding several conferences and courses. These activities have influenced the promotion of performance measurement concepts and the application of new evaluation methods in nonprofit organizations including libraries. This fact proves the significance of education and preparation. It should be noted that through this study and the training of and consultation, we were successful in ensuring the libraries that the purpose of performance measurement is to help the libraries themselves and we created incentives for providing accurate and precise information.

The results of the investigation can be helpful for identifying the advantages and disadvantages and the improvement areas. As it was mentioned earlier, the main purpose of performance measurement based on the EFQM Excellence Model is to primarily recognize the current situation of the organization and to identify its advantages and disadvantages. In the next step, the attempt should be made to strengthen

and support the advantages and to alleviate the deficiencies and to improve the situation of the organization. One of the significant aspects of this analysis is to identify the advantages and disadvantages of the libraries under investigation. These can be used as a guide and assistance for managerial decision-making and policymaking. Advantages and disadvantages of the libraries covered by Esfahan University of Medical Sciences have been elicited as follows based on the results of performance measurement of these libraries.

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