Quality evaluation of Payam Noor University of Isfahan in the field of student based on Baldrige Excellence Model

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Abstract

The objective of the present study was to examine the quality performance of Payame Noor University of Isfahan about student based on Baldrige Excellence Model. Among all students and the students of economy and educational sciences who had been studying in 2012-2013 year, the numbers of 196 people were selected randomly based on stratified sampling and Cochran formula, among which 66 questionnaires were eliminated. As a result, the analysis was performed on 130 (99 females and 31 males) students. The results show that between male and female students, there is a significant difference about performance qualities of university and male students' opinions are more favorable than females' in this respect. Also, there is no significant difference between undergraduate and postgraduate students, and opinions are the same in both groups and there is no significant difference between educational sciences and economics students. The results of the Friedman test indicates there is significant differences between three measured components of the questionnaire, information and knowledge component have been located in the first place, satisfaction in the second place and communication component in the third, respectively. Thus, it can be stated that these three factors are effective on evaluating the performance of students, and information and knowledge component influence has an effective role in the evaluating.

Keywords: quality, performance, information and knowledge, communication, satisfaction, Baldrige model

Introduction

Higher education is considered as one of the key elements of human development in each country. Important characteristic of higher education has been rapid expansion of higher education institutions in developing countries, including our country, in the last four decades. Indeed, higher education represents a significant kind of investment in human resources that with providing and promoting the required knowledge, skills and attitudes in the human resources helps to the comprehensive development of country. Thus the higher education undertake undeniable role in the development of community, especially organizations (Baron, 2000). University and in general, higher education is most valuable resource that any society has it for the development and extension and universities have earned a great reputation in term of knowledge and are considered the way of researcher of science and progress (Longbottom, 2008). Today, improving the quality of education is inseparable part of brokers political and administrative discourses associated with managing of higher education of country (Mitchell, 2007). David Dale expresses that educational quality is equivalent educational standards. In fact, quality is a relative concept and is subject to many factors that are effective in the performance. Although little research has been done on the quality of educational factors in this field so check the quality of factors based on a standard model of this study is necessary.

Educational services must be provided so that students feel place in a safe environment, and in this manner be provided their ready to learn more (Katnr, 2000). The consequences of organizations and enterprises negligence in performing duties and providing services are related to organizations more. (Morgan 0.1984) but not having the program, officials and employees of educational centres neglect and provide services to learners related to society. Therefore, management of educational institutions, especially in universities level from Faculty of two ministries has critical and sensitive role in realizing educational goals (Elliott, 1997).

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Baldrige model is one of most important models in order to improve the quality of organizational excellence that were created first to increase the competition between companies and then was used in other organizations, including educational organizations.

Malcolm Baldrych, the Commerce Minister for previous years of America, provided the propose to establish a prize to America Congress in 1987, which was eventually adopted and was named Malcolm Baldrych Award as a law and reminds .Baldrych Malcolm And was awarded to Precursor and excellence organizations in industry and services since 1988 and also to activate organizations in the health and education sectors since 1999. This model has evolved over time and has been used worldwide for performance excellence. The main concepts of the model have been set in seven major criteria of leadership, strategic planning, focus on customer, information and analysis, human resources (Chand, 2007), processes management, organizational performance (Mayga, 2004). One of the main subjects of evaluation in this model is customer orientation or focus area on customers. An organization has the administrative classifies, organizational charts, different parts, goals and ways, instructions and so other cases that certainly is not important for customers and the great of organization and its different parts but they want to solve their problems. A customer-oriented organization is one which its aim is taking customer inquiries in issues which have most value to them and know customer satisfaction as their capital and guaranteed to return capital of organization. In the colleges, main customers are students. Therefore, in this area this subject should be examined how the organization to provide needs, desires, expectations and preferences of students. Other items of examination in this area is that organization how to communicate with students and how to provides the key factors that cause to attraction, satisfaction, confidence, maintain them, enhance educational programs and services and organizational survival (Sohrabi, 2008). Thus, the performance quality of university in relation to students based on the Baldrige model can be defined in form of three factors of knowledge acquisition related to students; communicate with students and student satisfaction (Nave Ebrahim *et al*, 2010).

The process of knowledge acquisition is to follow that organization how determine needs and demands of students to ensure fitness of educational programs, educational aid and educational services with needs and desires. In fact, the factor refers to all of the important characteristics of educational programs, educational aid and educational services are available for students during its studying in organization. This ac-

cess is included time interval between student's initial decisions based on enrolment in organization while they want to leave there. The focus of action should be attended on cases which affect students' choices, confidence, general and specific demands and other requirements. These characteristics may be including a focus on the program, student's workplace after completing educational objectives or apprenticeship goals. About students' communication and satisfaction is a note to this point that university how to form the communications in order to attract students and to enhance their confidence. In other words, an organization how work to students' attract and retain, enhance performance and to meet the expectations in their learning and increase learning, and obtain satisfaction and creation permanent relationships with them? Do students have access easily to the necessary facilities to search for information, to follow up on specific issues and express their objections? How to check proposed objections and complaints by students? How does identifies students' satisfaction and dissatisfaction (surveys, formal and informal feedbacks, withdrew from the study rate, absenteeism rates, complaints) (Sohrabi, 2008). Considering the importance of relationship quality with students and decisive role in promoting the quality of university and according to this issues, the studied population in this regard has not been done a systematic and prominent research, therefore there is not necessary identifying from performance quality of university in relation to students based on the Baldrige model and implementing of this study was recognized to be essential. Furthermore, the results and findings can be used as the improvement of bedder of status quo in the studied universities in the performance improvement of communicates with students' field. Therefore, the performance of university in relation to the students is descriptive variable of the research which will be evaluated based on the Baldrige model.

Materials and Methods

The study sample

In the study the statistically population consisted of all undergraduate and graduate students of economics and education scientific of Payam Noor University of Isfahan who studying in the academic year 2011-2012 whose number is 240 undergraduate students and 160 graduate students. The sample size was estimated 196 people by the Cochran formula. The number of samples was selected using stratified sampling randomly among Economics and Education Scientifics students.

Table1. The number of samples in different classes according to the Cochran formula

graduate	undergraduate	categories
23	75	Economics
23	75	Education Scientics
46	150	total

After collecting the desired information (through a questionnaire) of 196 students, flawed questionnaires that is the people who did not answer all questions or have answered careless to questions also eliminated and all of who were considered for the study which were130 people identified at the end.

Research Tools

Measurement tool of the study is a researcher made questionnaire of 26 questions based on the Baldrige model that has placed in likert spectrum of 1 to 5. Questions of the questionnaire will be assessed three factors of knowledge and information, communication, and satisfaction. The factor of obtaining information and knowledge about the students has measured the important characteristics of educational program and educational aid which is available to students during studying course. The factor in the assessed questionnaire covers terms of 1 to 11. The communication factor will be questioned cases such as attracting and retaining of students, meet students' expectations for learning and increasing it, the accesses, information search possibility, tracking specific issues and express the objections and complaints how to consider them. This factor has placed in terms of 12 to 19. The factor relating to satisfaction is questioned how to use the surveys, school dropout rate, absenteeism rate, student access to the Internet and so forth. It covers questions of 20 to 26. Grading each term is measured through the Likert spectrum and using five option of too much (score 5), high (score 4), partially (score 2), low (score 2), and very low (score 1).

Validity and reliability

Content validity and formal were used to study the reliability. The formal validity of the questionnaire before implementation questionnaire was subject to 3 experts and professionals to be studied further that individuals not make error when answer to the question. Because they have good ideas and respondents were able to answer the questions without confusion, the questionnaire has formal validity. About content validity, with sharing this questionnaire to 3 experts and adapting it to content of what about assessed, that is evaluating quality performance based on the Baldrige model; According to the studies conducted by experts, all content is adapted to questionnaire model. Therefore, the questionnaire has content validity. The reliability of questionnaire is calculated 0.951 using Cronbach alpha's coefficient for the whole questionnaire that this values indicate the questionnaire has good reliability and validity.

Results

Findings of the research demonstrate about knowledge factor that the mean values equal to 3. 16, the median equals to 3.14 and the view is 3.45 that are different from each other. Standard deviation is equal to 0.729. Skewness value is equal to 0. 123 and the strain distribution is equal to 464.0 which indicates that information and knowledge factor has not any insensibility difference in comparison of normal distribution. With high confidence it can be said that frequency distribution of the information factor has not any insensibility from a normal distribution.

The mean values of communication factor are equal to 2.72, the median equals to 2.75 and the view is 2.13 that are different from each other. Standard deviation is equal to 0.845. Skewness value is equal to 0.100 and the strain distribution is equal -0.295 which indicates that communication factor has not any insensibility difference in comparison of normal distribution. With high confidence it can be said that frequency distribution of the communication factor has not any insensibility from a normal distribution.

About satisfaction factor, the mean values is equal to 3.11, the median equals to 3.14 and the view is 4.00 that are different from each other. Standard deviation is equal to 0.948. Skewness value is equal to -0.309 and the strain distribution is equal -0.295 which indicates that communication factor has not any insensibility difference in comparison of normal distribution. With high confidence it can be said that frequency distribution of the satisfaction factor has not any insensibility from a normal distribution. In overall performance evaluation, the mean values equal to 3.02, the median equals to 3.04 and the view is 2.04 that are different from each other. Standard deviation is equal to 0.724. Skewness value is equal to 0.001 and the strain distribution is equal -0.605 which indicates that overall performance is normal, approximately.

Table 2. Descriptive statistics for the variables

Factors	mean	middle	View	Variance	Standard deviation	Skewness
Information and knowledge	3.16	3.14	3.45	0.523	0.729	0.123
communication	2.72	2.75	2.13	0.715	0.845	0.100
satisfaction	3.11	3.14	4.00	0.900	0.948	-0.309
Overall performance	3.02	3.04	2.04	0.526	0.724	0.001

The independent sample t-test are used in order to answer the research questions to compare the obtained mean in measured people and the average of population for each of the examined factors in the questionnaire and for the all of them. The participating students' opinion about evaluated knowledge and information factor is compared with the mean of society (theoretical mean 5.2). Single group t test results can be seen In the Table 3, t = 42.10 that is significant in the level of 0.001. The comparison of the factor with theoretical mean shows that students' quality of performance about evaluated students' knowledge and information acquisition is higher than mean value of society.

Table 3. Summary of independent sample t-test for knowledge and information acquisition factor

Significantly level	Degree of freedom	Mean difference	Mean of error	Standard deviation	mean	
0.001	129	10. 423	0.064	0.729	3.16	knowledge and information

The results of independent sample t-test can be seen In the Table 4. The test value t= 3.008 is significant in the 0.003 level. Comparison of the means can be shown that the mean of communication factor in this study is higher than the theoretical mean.

The results of the t-test are seen at Table 5. The test value t= 7.409 is significant at the 0.001 level. Comparison of the means can be shown that the mean of satisfaction factor in this study is higher than the theoretical mean.

Table 4. Summary of independent sample t-test for communication factor

Significantly level	Degree of freedom	Mean difference	Mean of error	Standard deviation	mean	
0.003	129	3.008	0.074	0.845	2.72	communication

Table 5. Summary of independent sample t-test for satisfaction factor

Significantly level	Degree of freedom	Mean difference	Mean of error	Standard deviation	mean	
0.001	129	7.409	0.083	0.948	3.11	satisfaction

The results of the t-test can be seen in the Table 6. The test value t= 8.125 is significant in the 0.001 level. Comparison of the means can be shown that the evaluating value of overall performance quality of Payame Noor University in this study is higher than the theoretical mean.

Table 6. Summary of independent sample t-test for overall evaluation of quality performance.

Significantly level	Degree of freedom	Mean difference	Mean of error	Standard deviation	mean	
0.001	129	8.125	0.063	0.725	3.02	Overall evaluation of quality performance

Comparison of the factors by using Friedman test

Friedman test was used in order to answer this question of research whether the students' opinion has significant difference in the evalu-ated components of performance quality of uni-versity in the areas of student? The summary of non-parametric test (Friedman) is presented in the Table 7 to compare students' opinion in three measured factors by the questionnaire based on the Baldrige model.

Table 7. Summary of the Friedman test to examine students' opinion in the evaluated components of performance quality of university

Significant level	Degree of freedom	K-squared test	mean	Rating mean	components
0.001	2	47.591	3.16	2.28	knowledge and information
			2.72	1.51	communication
			3.11	2.20	satisfaction

The summary of results of the Friedman test is presented at Table 7 to compare the evaluated com-ponents of performance quality of university in the areas of student. The K-squared test (chi-square) is equal to 47.591 and is significant in the 0.001 level, namely three evaluated components in performance quality questionnaire of university in view of par-ticipating student in this study are significantly dif-ferent from each other. The differences have seen in the mean of given ratings or even in the mean scores of the three components that the information and knowledge component has more difference and is locate in the first place, the score of satisfaction com-ponent in second, and communication component is in third order. The number of the first component questions to have an impact in the rankings, likely.

Conclusion

The results of the comparison of performance in relation to the knowledge acquisition and the theo-retical mean show that the evaluated information and knowledge factor is higher than theoretical mean, but not excellent. The research is almost consistent with similar studies such as the study of Fateh Panah (2007) in Hashemi Nejad Hospital of Tehran and also with Tofighi's study (2011) about the quality of knowledge management in a military hospital on Baldrige Excel-lence Model parameters. Hence, it can be stated that the use of knowledge acquisition systematically and to create channels and the opportunities for knowledge transfer will help to maintenance and dissemination of Hidden knowledge in academia. The need to infor-mation technology and knowledge acquisition plays a very important role in developing nations through socio - economic development in the higher education and the future of higher education. But this expansion de-pends on human capabilities in information and knowl-edge acquisition and their management. So, an era has named information and knowledge era higher educa-tion systems have been active consistently in this regard and enhanced their capacity to accept the variable needs of a society based on knowledge. Thus, it is appropriate that universities to proceed more benefit of knowledge acquisition as a potential solution to achieve their real identity and position in wisdom based and knowledge based society of Iran by providing experts ,manpower, raising the scientific level of teachers, increasing stu-dents' interest to science and knowledge through appro-priate ways, providing required culture through high-level managers' support, allocating sufficient resources, appropriate organizational structures, reward systems which have consider suitable reward for knowledge dissemination and especially innovation, providing ap-propriate solutions of both fields of hardware issues and software issues. The averages comparison of obtained

results showed that the performance quality mean of university in term of establishing the communication is higher than the theoretical mean value. This study are consistent with Qadami's study (2007) (University of Medical Sciences of Arak that knew expression skills and teaching skills of teachers in view of students as the most important effective factors on relationship between students and teachers), also with Sabzwari's study (2006) (Kerman University of Medical Sciences that showed that students' establishing the communication skills with patients in hospitals is acceptable).

According to comparison of performance mean and theoretical mean, it can be observed that the performance mean of University is higher than theoretical mean in view of satisfaction, but not excellent. This study is consistent with Siadat's study (2002) (in Isfahan University) which had known students' satisfaction factor of graduate studies from management performance of educational services as the significant intermediary for freshmen's satisfaction. So it can be said that according to the important role of students' satisfaction factor of universities as learning environments should be provided essential positions for positive and constructive changes in students' attitude to encourage and create more interest are led to in a stable and continuous learning and existence of descriptive information about the current status and inform about students' attitude from provided services which is essential to make constructive changes. Their satisfaction from all performed activities at the University can be effective on their attitude rather than their field of study and in motivation creation and educational promotion. Three evaluated components in the performance evaluation questionnaire of University have significant differences in view of the participating students in this study. The differences are seen in the mean resulting of given rating or even in the resulting scores mean of the three components that information and knowledge component is more and in place in the first rank, score of satisfaction component in the second rank and communication component is in third rank.

References

Baron, A. (2000). *Behaviour in organization*. 1st Ed, New York: Allyn and Bacon Inc.

Chand, M., India, K. & Katou, A. A. (2007). The impact of HRM practices on organizational performance in the Indian hotel industry, *Employee Relations*, 29(6):576-594.

Elliott J. (1991). Action research for educational change, 1st ed. Philadelphia: Open University Press.

Fateh panah, A., (2007). *Educational performance evaluation of Hashemi Nejad Hospital of Tehran based on the Malcolm Baldrige Excellence Model, Master's thesis, field service management, health care, Health Services Management*, Faculty of Tehran University of Medical Sciences.

Ghadami A., Salehi B., Sajjadi sh., & Naji, H. (2007).Effective Factors on the communication between students and teachers of Arak University of Medical Sciences *Iranian Journal of Medical Education,* 7 (1 7):149-154.

Gunter, H. M. (2000). *Thinking theory: the* field of education management in England and Wales. Br J Sociology Edu, 21(4): 623-35.

Longbottom, D. (2008). The need for education and training in the use of the organizational excellence models for quality management in UK higher education institutions", *Quality Assurance in education,* 10(1):26-36.

Maiga, A.S., & Jacobs, F.A. (2004). Association between Benchmarking and Organizational Performance: An Empirical investigation», *Managerial Finance*, 30(8).

Mitchell, K. (2007). *Entitled "Quality of primary education Vrahnmayy Impact on Quality Enhancement in Higher Education at the University Of Zurich*, Switzerland.

Morgan, C.T., King, R.A., & Robinson, N.M. (1984). *Introduction to management psychology*, 3rd ed, New York: McGraw Hill co.

Naveh Ebrahim, A., & Homsi, S. (2010). Evaluating of scientific – practical centres of Markazi Province using Excellence Model of Organization, *Journal of educational leadership and management,* Islamic Azad University Vahdgrmsar, IV(3):165-149 .

Tofighi, Sh., Falah, M., & Khaje Azad, M. (2011). Educational Leadership Quality Assessment of Baqiyatallah hospital based on the Malcolm Baldrige Excellence Model", Journal of Qazvin University of Medical Sciences, XVI (2).

Sabzevari, S., Soltani, K., Shokrabi, R., Kouhpayeh zadeh J. (2006). Relationship between nursing students and patients in hospitals of Kerman University of Medical Sciences, *Iranian Journal of Medical Education*, 6 (1):43-49.

Siadat, A., Shams, B., Homaei, R., & Gharibi, L. (2000). Students' and faculty of Graduate Studies courses' satisfaction from performance of Educational Services Management of Isfahan University of Medical Sciences, *Iranian Journal of Medical Education Winter.*

Sohrabi, Z. (2003). Step by step to the excellence of universities - based on the Malcolm *Baldrige Excellence Model.* p. 175.