Iranian Journal of Management Studies (IJMS)
Vol 1. No.1. winter 2007 pp: 133 - 141

Designing a Model for Evaluation of Universities System

Seyed Mostafa Razavi
(Assistant professor, University of Tehran, Iran)
E-mail: mrazavi@ ut.ac.ir

Abstract

Control and evaluation are major secrets of an organization's survival. Universities, as research and educational organizations, need to be evaluated in order to survive. The results of educational activities encompass a vast spectrum including the graduates, researchers and planners, scientific publications, as well as satisfaction of students, parents, professors and staff (Ramsden, 1996). Therefore, various aspects of universities' performance should be evaluated.

This study tries to provide an answer to the addressed necessity. In this research an attempt has been made, by integrating performance evaluation models of organizations, antecedent of research and utilizing of opinions of experts and the stakeholders, the different indexes of performance evaluation of an organ of higher education has been categorized in a frame work of a model. Twenty-two main indicators are presented under three general indicators of Inputs, Processes and Outputs, and in the seven schools of Humanities colleges of the University of Tehran, one hundred seventy nine sub- indicators are studied and analyzed.

Keywords:

Higher education, Performance measurement, Higher education evaluation, Higher education management

Introduction

Training manpower by higher educational institutes is vital to development. Therefore, development of higher education has been stressed during the past recent years, so that, university students have increased by eleven-fold after the Islamic 1979 Revolution (statistics provided by the Ministry of Science, Research and Technology, 2003). Studies show that higher education gets about 3.1 percent of total budget [Budget Act for 1383 (2004-05)]. The same studies have also revealed that performance and quality of higher education system is not satisfactory and the rate of failure is high among university students (Golshani, 2001).

To achieve high performance standards, universities should evaluate their performance (Betorek, 2003) and (Hudd Leston, 2002). Environmental developments, higher social expectations and development of information technology make constant monitoring of productivity and efficiency of universities a necessity (Mutch, 2002) while development of unattended higher education has intensified competition among universities (Zhao, 2003). Experts have provided various indicators for evaluating performance of universities (Ramsden, 1996). Scott believes that all performance evaluation indicators can be divided into three categories of output, process, and structure (Scott, 2003).

The objectives of this research are to find such indicators for faculties of humanities including faculties of literature, economics, divinities, law and psychology, foreign languages, social sciences, and management. In this way, indicators related to output, process and structure (input) have been determined and ranked. In addition, performance of the said faculties has been evaluated and reported according to the said indicators. The main research questions include:

1. What are the main criteria for evaluating performance of faculties of humanities of Tehran University? Auxiliary questions of this section are related to determination of structural, process, and output indexes.
2. Are output, process and structural indexes equally important?
3. Do performances of eight faculties of humanities at Tehran University stand at the same level?
4. Is performance ranking for faculties of humanities at Tehran University equal from the viewpoint of the said three indicators?

The research was conducted at the said faculties of humanities during the academic year 2002-03. Its main subject was evaluation of organizational performance.

Background

As suggested by Drucker, performance evaluation is the basis of all management systems (Drucker, 1990). Richard Scott maintains that organizations are means of achieving goals through a rational system model while in the natural system model survival of organization is a priority. According to the open system, environmental interactions, adaptability and resilience are suitable criteria for evaluating an organization's performance. In addition, organizations will be evaluated through different criteria according to their preferred outlook in time. Various levels of analysis take into account different criteria according to whether they are small-scale (individual or group), large-scale (environmental or trans-cultural), or ecological. In addition, depending on the stage of evolution of organizations, various indicators could be used for evaluating their performance. Diversity of stakeholders at an organization, social situations, and differences in expectations give rise to many complexities. Environment and competitors facing organizations sometimes play an effective role in determining performance of organizations and efficacy of their performance is evaluated against their behavior in the face of such factors. Performance of governmental organizations that work in environments other than markets is sometimes determined according to governmental goals and expectations and process control is more important that output indicators (Scott, 2003).

As said before, performance evaluation is the basis of all programs that aim to improve organizational performance and this issue has been subject to special attention in the recent years (Tangen, 2003).

Some observers consider performance evaluation as a process for determining efficiency of organizational activities and others consider it as analysis of the quality of organizational measures. This research believes in describing performance evaluation as a process to gather information and data in order to identify weaknesses and fortes of an organization's performance aimed at improving that performance. A historical study shows that performance evaluation has originally consisted of accounting systems based on traditional accounting, which were mainly retrospective and emphasized on the performance of internal parts of an organization (Johnson 198).

After 1940s, such concepts as efficiency, effectiveness and adaptability gradually entered managerial jargon. Achieving goals at lower cost and using by fewer resources were introduced as methods for evaluation of performance (Campbell, 1970). Since 1980s, interest in developing balanced performance evaluation systems paralleled such innovations in providing frameworks such as Keegan's works. Those concepts overcame the shortcomings of traditional accounting. Gradually, new concepts like measuring satisfaction of all stakeholders and developing frameworks such as performance prism were introduced into the related literature (Neely, 2002). Now, performance should be evaluated not on the basis of judgment about performance, but according to development strategy (Neely, 1998). Since 1970, answering systems were worked out for performance evaluation and reporting (Hachbart, 2000).

In the present study, a total of 22 models including that of the European Foundation for Quality Management (EFQM), Balanced Scorecard (BSC), quality management system of International Standards Organization (ISO), Total Quality Management (TQM) system, and Activity-Based Costing (ABC), have been adopted as models for evaluating organizational performance while credit evaluation model, management-based CCIP model and the model of goal realization have been chosen as models for the evaluation of educational performance. Then a model for academic evaluation has been proposed according to conclusions and in view of Scott's systemic model (Scott, 2003). According to previous studies, 16 factors have been studied in evaluation system for universities including quality, productivity, effectiveness, economy, capability-based education, goals, leadership, social role of university, information technology, strategic planning, and research and their role in performance of universities has been analyzed. Attention has been also paid to UNESCO's universal declaration of higher education in the 21st century (UNESCO, 1998). In addition, some international experiences about academic performance indicators, especially at faculties of humanities, including experiences gained at universities of Texas, Newcastle, Australia, Deakin, a group of Australian universities, Evalue research on evaluation of 31 European universities (Evalue, 1998), universities of Wisconsin, New York, South Carolina, Illinois, State University of California, and Restock University have been reviewed through a comparative study and a system has been proposed for the evaluation of performance according to environmental and military conditions.

In general, the most focal points in this stage included identifying stakeholders of higher education, factors affecting performance, comparison of performance evaluation models and recognizing their limitations.

Research Methodology

The research was a survey research and used Delphi method to survey academic elite for determination of performance evaluation indicators and their weight. Some performance evaluation indicators were based on actual data such as budget, per capita educational expenses, ratio of professors to students and the like. This part of research is based on causal-comparative method.

Research model variable can be divided in three general categories of input, process, and output. Performance of each category determines the performance score of accessory indicators. The number of input accessory indicators is seven while process accessory indicators are 8 and those of output are 7.

Stratified random sampling has been carried out on the cohort and the population of cohort for students, faculty members, staff of humanities faculties, parents of students, elites, and employers of graduates respectively stood at 10157, 435, 375, 9957, 60, and 547. A total of five quantitative indicators were used including 4 input indicators of professors' capabilities, equipment, budget, and quality in addition to an output quantitative indicator.

Narrative testing of research model has been carried out through opinion polls of the elite and comparing the results with similar studies.

There was no meaningful difference between viewpoints of the elite and ranking according to 22 indicators as well as ranking of research results with regard to ranking performance of the said faculties. When compared with similar research methods or similar researches that were carried out on smaller scale, the results were not rejected.

Reliability of measurement device according to Cronbach's Alpha was 64% - 98%.

Binomial test method, Friedman analysis of variance test, correlation test of Spearman and T test were used to analyze data.

Analysis of Research Data

In this research, in addition to 22 accessory indicators, a total of 179 less important indicators were ranked with quality of entering studies being the

most important, and process management, the least important ones. The results have been offered in the following model and points related to every section have been determined for input, output, and process categories.

Figure1: Performance Evaluation Model

Input Criteria (.36)	Weight
College Capabilities : Organization & Management	0.12496
College Capabilities: Faculty	0.15245
College Capabilities :Equipment, Buildings	0.14602
College Capabilities: Budget	0.14281
Quality of the Entering Students	0.16066
Environmental Supports	0.14995
Organizational Systems	0.12317

Process Criteria (.27)	Weight
Education	0.12639
Research	0.12056
Leadership	0.13306
Strategic Planning	0.12444
Information and Analysis	0.12444
Management of Human Resources	0.11000
Feedback	0.10278
Process Management	0.15833

Output Criteria (.37)			
Indicators	Weight	Indicators	Weight
Professors' Satisfaction	0.16871	Student's Satisfaction	0.14602
Parents Satisfaction	0.12496	Quantitative Indicators of Performance of the Collage	0.16581
Staff Satisfaction	0.10139	Satisfaction of the Employers of Graduates	0.16580
Satisfaction of the University	0.12960		

University/College Performance

Also, in this research, performance of every faculty has been evaluated with regard to 22 indicators and final scores of faculties have been presented for every indicator.

Conclusion

As said before, qualitative indicator of entering students was the first priority followed by satisfaction of professors, quantitative performance indicators, and satisfaction of employers of graduates. In Iran, in particular, the main goal of higher education is training specialized manpower. If entering students lack the adequate quality to avail of higher education system, the facilities will not be used to the best effect. Satisfaction of professors is also a basic problem. Ramsden (1997) believes that dissatisfaction of faculty members about the rewards that they get for optimal teaching at universities has become an international problem. The results of this research about importance of performance conform to Ramsden's results on challenges of leading a university who says keeping quality through fewer resources as well as working less through fewer resources, are major challenges facing chancellors and other university managers. In this research, process management ranks the lowest among 22 indicators and this conforms to Ramsden's survey.

The results of this research also show that output, input, and process indicators weigh 0.37, 0.36, and 0.27 respectively. A glance at other studies like Brown (2003) and Severson (1997) will highlight the importance of output aspects of university performance. In addition, great emphasis has been put on priority of output in the Universal Declaration of Higher Education (UNESCO, 1998).

The following proposals can be extracted from this research for promoting performance of faculties of humanities:

1. Planning and investment in promoting quality of entering students and attracting better talents;
2. Attention to satisfaction of professors and related factors including better working conditions, providing research facilities, opportunities for study, and participation in academic decision-making;
3. Attention to promoting quantitative indicators of performance and satisfaction of employers of graduates. Major employers' expectations include needed knowledge, flexibility, innovation and creativity, team work abilities, speed of learning and other similar skills, which are not strengthened at universities.

4. Formulating a dynamic system for upgrading curricular content;
5. Formulating a system for promoting abilities of faculty members;
6. Developing a system for exploiting new educational technologies.

It seems that if similar studies are carried out at other faculties and across the whole university and needed mechanisms for upgrading performance evaluation system of the university are installed in order to help needed reforms within universities, we could expect a tangible boost in performance of the higher education.

Reference:

1. Bazargan, Abbas(2000). Internal Evaluation as an Approach to Revitalize University System: The Case of The Islamic Republic of Iran, Higher Education Policy.Journal of Higher Education Policy and Management, v13 n2 .
2. Bertoret and Tomas (2003), Evaluation of University Teaching/ Learning Process for Improvement of Quality in Higher Education. Assessment and Evaluation in Higher Education. 28(2).
3. Grandy(2003) Quality and Accountability in Higher Education: Improving policy, Enhancing performance, Westport
4. Halsey, (1992) Decline of Donnish Dominion, Oxford, Clarendon press.
5. HEFCE (Higher Education Funding Council for England), (2000), Better accountability for Higher Education.
6. Henkel(1999) Changing Relationship between Higher Education and the State, Jessica Kingsley publisher.
7. Hirsch(2000) Challenges Facing Higher Education at the Millennium
8. Mc Innis, (1992) Changes in the nature of academic work. Australian Universities Review, 35.
9. Ramsden, (1996) Recognition of Good University Teaching: Policies from Australian Higher Education, 23.
10. Schaaf, (2003). Developing Performance Standards for Teacher Assessment by Policy Capturing. 28(4).
11. Scott Richard (2003). Organizations: Rational. Natural and open systems, prentice Hall.
12. UNESCO, (1998) World Declaration on Higher Education for the Twenty- first century: Vision and Action. WWW.Unesco.Org/education/declaration-eng.htm