QUALITY ENHANCEMENT IN MEDICAL EDUCATION

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Abstract:

Since ancient time, education has been evaluated in terms of its practical value among the Chinese; however, despite its long history, performance evaluation is the most complex and controversial of human resource management techniques (Roberts, 2003), and a little understood function of organizational life.

Performance appraisal in both the private and the public sectors have become an integral part of work life. Of course, there is a growing interest to use performance management techniques in educational institutes in order to increase the competitiveness and quality of university education in a globalized environment .Accordingly, medical education requires special performance management and excellence models to improve the quality of course materials and provided services.

The aim of this article is to develop a model of academic excellence based on a combination of SERVQUAL technique, Balanced Scorecard model, and EFQM Excellence Model. The SERVQUAL technique can be used to identify the gap between medical students' expectations and perceived experience as indicators of service quality, to measure quality of services offered by medical universities.

In this article, with the use of Balanced Scorecard and EFQM, a comprehensive model will be introduced to enhance the quality of medical education. The model will recommend a process within different academic quality dimensions. In addition, the paper will introduce approaches to use available resources effectively to improve educational development.

Keywords: Performance measures, Medical education, excellence model, Quality enhancement

Introduction

Service industries are playing an increasingly important role in the economy of many nations. In today's world of global competition, providing quality service is a key for success, and many experts concur that the most powerful competitive trend currently shaping marketing and business strategy is service quality (Abdullah, 2006, p. 31). Institutes of higher education are also focusing on ways to render high quality education to their educators and have a better performance.

Higher education institutes are facing new challenges in order to improve the quality of education. There is a pressure for restructuring and reforming higher education in order to provide quality education and bring up graduates who become fruitful members of their societies. Therefore, these institutes are trying to recognize the dimensions of a quality education and define strategies to reach their pre-defined standards and goals.

The purpose of this article is to examine the concept of quality education within higher education institutes, specially the medical institutes, and explore the use of performance models and goal-setting in universities as a means for higher education excellence. The article discusses the most practical models for universities' performance enhancement, and proposes a model to improve quality in higher education. It also suggests the related performance indicators as well as quality improvement approaches for medical higher education institutes.

Literature Review:

Quality is a relative and contestable concept (Barnett, 1994, p. 68). Though there are different definitions for this term which all might be true depending on the context that the term has been used. Thapisa and Gamini (1999) consider quality as an ongoing process where the user is a key determinant.

In the higher education context, there are also different perspectives about quality. For example, to the committed scholar the quality of higher education is its ability to produce a steady flow of people with high intelligence and commitment to learning that will continue the process of transmission and advancement of knowledge. To the government a high quality system is one that produces trained scientists, engineers, architects, doctors and so on in numbers judged to be required by society. To an industrialist a high quality educational institution may be one that turns out graduates with wide-ranging, flexible minds, readily able to acquire skills, and adapt to new methods and needs (Tam, 2001, p. 47). But generally, quality can be considered as a feature that is consistent with some pre-defined standards and requirements.

In the context of higher education, quality is more related to rendering up-to-date knowledge, and meeting the expectations of the university stakeholders.

Westerheijden (2001) believes that in all levels of higher education, there is a need for a differentiated offer of more academically directed and more professionally directed programs. Also, much of the work on the quality aspects of higher education has focused on the quality of courses and teaching, as well as effective course delivery mechanisms (Athiyaman, 1997; Bourner, 1998; Cheng and Tam, 1997; McElwee and Redman, 1993; Oldfield and Baron, 2000; Palihawadana, 1996; Soutar and McNiel, 1996; Varey, 1993; Yorke, 1992).

Brocato and Potocki (1996) defined teaching quality as a student's education meeting the student's expectations including well-prepared classes, relevant materials, well-presented materials, challenging assignments, highly interactive and cooperative sessions, and opportunities to improve knowledge and skill. Mustafa and Chiang (2006) suggest in their study that teacher abilities, teacher attitudes, course load, and course materials are four main dimensions describing the quality of education.

There are a variety of stakeholders in higher education, including students, employers, teaching and non-teaching staff, government and its funding agencies, accreditors, validators, auditors, and assessors (Tam, 2001, p. 47), which are important in determining the quality perspectives of the organization.
Although there are different stakeholders for the educational institutes, many studies believe students as the most important stakeholders of higher education institutes. A survey conducted by Owlia and Aspinwall (1997) shows that customer-orientation in higher education is a generally accepted principle and that from the different customers of higher education, students were ranked the highest.

Tam (2001) expresses that students are a necessary part of the concept of higher education; the role of institutions is just to provide the optimal favorable conditions to promote quality learning in students. Therefore, at the forefront in any considerations of quality in higher education should be the improvement of the student experience

As a result of the diversity in views about quality and higher education, a variety of systems, approaches, reform strategies and measures have been developed for monitoring quality of different kinds and at different levels, displaying varied emphases and priorities. These monitoring systems are shown in Table 1 (Tam, 2001, pp. 49-50; Mok, 2003, p. 117).

Measuring Service Quality:
There are different techniques to measure service quality, and clarify stakeholders' perceptions regarding quality. SERVQUAL, as a popular instrument for measuring service quality, aims to measure perceptions of service across the five service quality dimensions identified by Parasuraman et al. (1988).

SERVQUAL has already been tested and used to measure service quality education (Ekinci and Riley, 1999; Kwan and Ng, 1999; Oldfield and Baron, 2000).

Abdullah (2005; 2006) proposed HEdPERF (Higher Education PERFormance-only), a new and more comprehensive performance-based measuring scale that attempts to capture the authentic determinants of service quality within higher education sector. Through questionnaires designed based on the quality dimensions of the introduced techniques, the perceptions of higher education stakeholders about the issue of quality can be clarified.

Existing excellence model:
There exist different performance management and excellence models, like Balanced Scorecard, EFQM, and etc., for organizations, corporate, and institutes of various working field.

Balanced Scorecard (Kaplan and Norton, 1996) offers a framework for translating strategic objectives into performance measurements that measure the effects of implemented strategies and provide feedback on the performance of strategic initiatives (Oliveira, 2001, p. 42).

The EFQM Excellence Model was introduced at the beginning of 1992 as the framework for assessing organizations for the European Quality Award which can be used as a tool for self-assessment and a guide to identify areas for improvement

Despite their considerable performance improvement functions within organizations, these excellence models may be further developed and enhanced, or get customized for a special use. For example, the Balanced Scorecard model ignores the concept of stakeholders in its model and just focuses on the organizations' customers. EFQM Model, though more comprehensive than BSC, can be customized in for the higher education institutes.

Developing an academic excellence model:
Based on the existing models on performance enhancement and excellence achievement, and the authors' research in the field, a new academic excellence model has been developed (Fig. 1). As it can be seen in Fig. 1, the model comprises six excellence dimensions which cover the extensive quality perceptions of higher education institutes.

Institutes of Higher Education should define their vision at the first step; that is to clarify which point they want to reach. Then, they should define Performance indicators (PIs) to compare their progress with them. These performance indicators will have a monitoring function; therefore they should be defined so that they are measurable. Table 2 suggests the most important performance indicators which can be used to define the quality standard of higher education institutes.

Using techniques such as SERVQUAL or HEdPERF, help to get a more clear understanding of quality perceptions of institute stakeholders. Benchmarking, which should run concurrently, ensures that institute's vision and its performance indicators are defined at a competitive level with other institutes of higher education. The feedback process and regular performance appraisal will guarantee that educational institutes are moving toward higher levels of excellence and satisfying their stakeholders' needs.

Methodology:

Six quality dimensions have been culled from the vast literature reviewed and an academic excellence model has been developed. Performance Indicators (PIs) for each of these six dimensions have been developed through discussion with students, extensive personal experiences, and critical thinking of the authors, supported by review of literature.

Results and Discussion:

In determining the six quality dimensions for academic institutes, it should be noticed that, although "students" are also among the stakeholders of higher education institutes, but due to the special position which students have in determining the quality education, they have been considered as a separate quality dimension in the proposed Academic Excellence Model. Although the model is applicable for all higher education institutes, there are suggestions for improving quality under each of the model's quality dimensions which have been suggested more for the medical higher education. These approaches have been introduced in Table 3.

Another point to consider is the difficulty level of Performance Indicators. They should neither be so difficult that achieving them remains impossible for the institutes, nor should they be too easy to reach, because level of goal difficulty increases the effort to achieve the goal (Talib, 2003, p. 576). The feedback process and regular performance appraisal will ensure that the Performance Indicators become updated as the institute excels. The suggested Performance Indicators are not the only Indicators which can be sued to evaluate institutes' performance. Other indicators can be defined under each of the model's quality dimensions, or the existing indicators may be revised. However, authors believe that the proposed indicators cover the most important quality perceptions within higher education institutes.

Conclusion:

In this article, a model of Academic Excellence and its related performance indicators have been developed. The model can be used for educational institutes, especially those related to higher education. Besides, some suggestions for improving medical education quality under each of the model's quality dimensions have been given.

References:

Abdullah, F. (2005), "HEdPERF versus SERVPERF: The quest for ideal measuring instrument of service quality in higher education sector", Quality Assurance in Education, Vol. 13 No. 4, pp. 305-28.

Abdullah, F. (2006), "Measuring service quality in higher education: HEdPERF versus SERVPERF", Marketing Intelligence & Planning, Vol. 24 No. 1.

Athiyaman, A. (1997), "Linking student satisfaction and service quality perceptions: the case of university education", European Journal of Marketing, Vol. 31 No. 7, pp. 528-40.

Barnett, R. (1994), "The idea of quality: voicing the educational", in DOHERTY, G.D. (Ed.) Developing Quality Systems in Higher Education (London, Routledge).

Bourner, T. (1998), "More knowledge, new knowledge: the impact of education and training", Education+Training, Vol. 40 No. 1, pp. 11-14.

Brocato, R. and Potocki, K. (1996), "We care about students...one student at a time", Journal for Quality & Participation, Vol. 19, Jan/Feb Issue.

Cheng, Y. and Tam, W. (1997), "Multi-models of quality in education", Quality Assurance in Education, Vol. 5 No. 1, pp. 22-32.

Ekinci, Y. and Riley, M. (1999), "Measuring hotel quality", International Journal of Hospitality Management, Vol. 11 No. 6, pp. 287-93.

European Foundation for Quality Management [website]. http:// www.efqm.org (accessed Sep 2007).

Kaplan R.S., Norton D.P. (1996), The Balanced Scorecard, Boston: Harvard Business School Press.

Kwan, P. and Ng, P. (1999), "Quality indicators in higher education – comparing Hong Kong and China's students", Managerial Auditing Journal, Vol. 14 No. 1, pp. 20-77.

McElwee, G. and Redman, T. (1993), "Upward appraisal in practice: an illustrative example using the Qualed model", Education+Training, Vol. 35 No. 2, pp. 27-31.

Mok, K. (2003), "Globalisation and Higher Education: Restructuring in Hong Kong, Taiwan and Mainland China", HERDSA, ISSN 0729-4360 print, EBSCO Publishing.

Mustafa, S.T., and Chiang, D. (2006), "Dimensions of Quality in Higher Education: How Academic Performance Affects University Students' Teacher Evaluations", The Journal of American Academy of Business, Cambridge, Vol. 8 No. 1, pp. 294-303.

Oldfield, B. and Baron, S. (2000), "Student perceptions of service quality in a UK university

business and management faculty", Quality Assurance in Education, Vol. 8 No. 2, pp. 85-95.

Oliveira, J. (2001), "The Balanced Scorecard: An Integrated Approach to Performance Evaluation", Healthcare Financial Management, May 2001.

Owlia, M.S. and Aspinwall, E.M. (1997), "TQM in higher education – a review", International Journal of Quality & Reliability Management, Vol. 14 No. 5, pp. 527-43.

Palihawadana, D. (1996), "Modeling student evaluation in marketing education", Proceedings of the 1996 Annual Marketing Education Group Conference.

Parasuraman, A., Berry, L.L. and Zeithaml, V.A. (1988), "SERVQUAL: a multiple-item scale for measuring consumer perceptions of service quality", Journal of Retailing, Vol. 64 No. 1, Spring, pp. 12-40.

Parasuraman, A., Berry, L.L. and Zeithaml, V.A. (1991), "Refinement and reassessment of the SERVQUAL Scale", Journal of Retailing, Vol. 67 No. 4, pp. 420-50.

Roberts, G.E. (2003) "Employee performance appraisal system participation: a technique that works," Public Personnel Management, 32(1), pp.89-99.

Soutar, G. and McNeil, M. (1996), "Measuring service quality in a tertiary institution", Journal of Educational Administration, Vol. 34 No. 1, pp. 72-82.

Talib, A.A. (2003), "The Offspring of New Public Management In English Universities", Public Management Review, Vol. 5 No. 4.

Tam, M. (2001), "Measuring Quality and Performance in Higher Education", Quality in Higher Education, Vol. 7 No. 1.

Thapisa, A.P.N. and Gamini, V. (1999), "Perceptions of quality service at the University of Botswana library: what nova says", Library Management, Vol. 20 No. 7, pp. 373-83.

Varey, R. (1993), "The course for higher education", Managing Service Quality, September, pp. 45-9.

Westerheijden, D. F. (2001), "Ex oriente lux?: national and multiple accreditation in Europe after the fall of the Wall and after Bologna", 1470-1081 online/01/010065-11, Taylor & Francis Ltd, ISSN 1353-8322.

Yorke, M. (1992), "Quality in higher education: a conceptualization and some observations on the implementation of a sectoral quality system", Journal of Higher Education, Vol. 16 No. 2, pp. 34-46.

Table 1: Different Monitoring Systems

System	Function	Main problem/concern in Higher Education
Quality Control	To check products/services against pre-defined standards	The belief that quality should be a main concern of the whole system is ignored
Quality Assurance	An organizational quality-driven and ever-improving	It requires the commitment of everyone in the institution which is difficult to expect
Quality Audit	To check that relevant systems/structures within an institution support its key mission and to ensure that provision is at a satisfactory level of quality.	Educationists generally find audit distasteful -shallow, undemanding- since either the evidence of conformance to processes and procedures is there or it is not. There is no argument about it.
Quality Assessment	The judgment of performance against criteria, either internally or externally	- Quality criteria for education are so difficult to agree. - It is usually intended to be mission sensitive which might lead to fail in assessing the real quality of a higher education institute due to differences in the mission and aspiration levels.
Indicator Systems	To compare performance across a range of indicators	The performance indicators are objective-related and should be measurable.

Table 2: Universities Quality Education Indicators

Perspective		Performance/Quality Indicators
Financial		o Income growth from university projects o Income growth from new students' enrollment o Income growth from international students' enrollment
Leadership		o Growth rate in university collaboration with other renowned institutes and universities o Number of resign in the managing board
Customers		o The ratio of students to professors' numbers o Maximum number of students per class o Students' satisfaction level about knowledge acquired o Students' satisfaction level about professors' capabilities o Students' satisfaction level about university performance o Capabilities/knowledge/research level
Stakeholders	Professors	o The responsibility-feeling level toward social responsibilities o Belief in the responsibility to educate students as useful members of the society o Capabilities/knowledge/research level
	Staffs	o Technical/administrative knowledge level
	Society	o Providing university with budget for research activities o Facilitating the process of quality education o Mutual respect, and ethical behavior level of university students, professors, & staffs
Learning & Growth		o Availability of reference books in the library o Number of students' journals published within the university o Number of equipped laboratories o Number of research groups o Number of articles in renowned academic journals o Number of conference presentations o Number of excellence/extra-curriculum programs for university students, professors, & staffs o Ratio of Research budget to the total university budget o Computer/Internet availability to students
Processes		o Performance appraisal period o ICT development rate o Period of revision in educational programs

Table 3: Universities Quality Education Approaches

Perspective		Quality Education Approaches
Financial		o Improve costs' structure
Leadership		o Expand relationships and knowledge exchange with medical institutes/universities o Sign partnership contracts with other renowned universities
Customers		o Provide students with more flexible educational programs o Provide students with more flexible classes/exams scheduling o Provide students with more practical courses and comprehensive internship programs in hospitals
Stakeholders	Professors	o Provide professors with better research facilities o Assign research budget to the professors
	Staffs	o Clarify roles and responsibilities
	Society	o Expand relationships with community/society o Provide courses on "Ethics" for the students
Learning & Growth		o Form research groups to involve interested students in research activities o Support students' journals and publications o Support students and professors financially to attend conferences o Provide Career Development opportunities for university professors and staffs o Provide extra-curriculum development opportunities for students o Organize equipped research laboratories
Processes		o Evaluate performance regularly o Provide more electronic services for students o Enhance ICT access for students, professors, & staffs o Provide a feedback system to ensure other opinions are expressed

Figure 1: Academic Excellence Model

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