

# Enhancing Quality management system

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**Abstract-** This research aims to assess the institutions of higher education based on comprehensive quality standards that have been developed for each member of teaching in higher education institutions. The focus was on scientific performance in the first place and the put a higher rate because it is the main focus of the evaluation of faculty, as well as the efficiency of teaching. Put less proportion of the educational performance and the relationship to the administration because they are linked not many the evaluation, as a teaching and scientific performance. The broader societal benefits of investment in higher education receive less attention, but are fundamental to the well-being of our nation. State governments appropriate billions of dollars per year for public colleges and universities and the federal government provides grants, loans, and work assistance, as well as tax credits and deductions, to help students finance postsecondary education. Nonetheless, awareness of the ways in which we all benefit when educational opportunities increase is limited. It is impossible to evaluate the appropriate level of either private or public investment in higher education without a more concrete sense of the individual and societal benefits, in addition to the costs.

Progress towards a knowledge-based society and economy will require that all universities, as centres of knowledge creation, and their partners in society and government give creativity their full attention. The complex questions of the future will not be solved "by the book", but by creative, forward looking individuals and groups who are not afraid to question established ideas and are able to cope with the insecurity and uncertainty this entails. If Europe should not succeed in strengthening creativity in higher education, the very goal of a European knowledge society would be at stake. Purely mechanistic approaches geared towards reaching predefined targets will certainly not allow European higher education institutions to contribute adequately towards this ambitious objective.

**Index terms-** Quality assurance, quality management, management system, quality enhancement

## INTRODUCTION

Today we are living in a knowledge world where intellectual capital plays a very important role. Educational Institutions being the home of intellectual capital can play a vital role in knowledge sharing and disseminating. Equally important is the role of Information and Communication technology in enhancing Knowledge sharing. We have moved from scarcity of information to its abundance due to information and communication technology, internet, television etc. The role of higher education in stimulating national economic growth and the value of international students to national economies exacerbates the need to ensure quality within Higher Education. These forces demand that quality assurance processes are both rigorous and transparent, and that quality enhancement initiatives are firmly embedded in any quality management programme. Despite the relevance of these forces to hospitality, leisure, sport and tourism HE, there has been limited research conducted specifically on quality management within these fields of study. The need of a steady education quality enhancement is established by the contemporary socioeconomic conditions, scientific achievements, regulatory requirements, as well as by the needs of educational institutions and their customers. The adequacy of national quality regimes that have emphasized scrutiny of an institution's quality assurance to a greater extent than of its educational processes or outcomes of the kind

emphasized in some of the recent high profile surveys and studies. Knowledge enables one to understand what one learns in relation to what one already knows. It can be organized into intellectually tight compartments that can be conveniently taught as courses in a conventional curriculum. Universities should not be overly concerned about 'coping with' the rapidly exploding empirical knowledge of particular systems. Individual industries are better equipped to cope with this explosion and can and should 'train' their employees to deal with this aspect of education. It has become customary for industry to try to 'save' this cost by outsourcing this job to universities. The importance of acquiring the 'latest' tools and incorporating training in the use of such tools is of practical importance. At the same time it should be recognized that such training is not as important a component of university education from a conceptual or pedagogic point of view as the software vendors or the user industries seem to believe. Know-how is the ability to put knowledge to work. It requires the purposeful organization of knowledge from many different areas of learning. Know-how is taught through design courses, project work, industrial training and other opportunities for individual initiative and creativity.

Education neither begins nor stops at the University. Higher education is concerned with the refinement of the mind, with living gracefully with

partial knowledge. It is concerned with survival skills of two kinds as described in the next section. Finally it is about teaching a student how to open a tap not about filling a bucket! The primary purpose is not to train the student to be fit for employment in any specific industry. The university emphasizes unity in knowledge while the industry thrives on differences. So while being sensitive to the needs of the industry the university concentrates on wholeness of knowledge and even while pursuing narrow specializations in research, driving force continues to be intellectual curiosity than market goals.

A good professional development program is job embedded and tied to learning goals: It provides activities in the context of practice. The best integration training for teachers does not simply show them how to add technology to their they are doing. "It helps them learn how to select digital content based on the needs and learning styles of their students, and infuse it into the curriculum rather than making it an end in it," notes Fatemi. "Using technology effectively also requires having a wide repertoire of teaching approaches."

New technologies are also affecting other areas of campus administration. Social-networking tools are helping to build connections with alumni and support career service activities. E-marketing campaigns expand the reach and success of recruiting and fundraising efforts, and drive down the cost of direct-mail campaigns. And automated, self-service programs reduce administrative requirements, streamline course registration and enhance academic life. "Technology allows students to become much more engaged in constructing their own knowledge, and cognitive studies show that ability is key to learning success," says New York City-based Queens College vice-president of institutional advancement, Susan Henderson.

## **VISION:**

In the decades ahead, higher education will play a central role in making a country recognised for innovation, competitive enterprise and continuing academic excellence, and an attractive place to live and work with a high quality of life, cultural vibrancy and inclusive social structures. Higher education

institutions will have a strong engagement with individual students, communities, society and enterprise, will give students a sense of place and identity, and will equip them with the skills to play a strong part on the world stage. It will also be the engine for new ideas through research, and many of these ideas will translate into the sustaining Innovative enterprises of the future.

Higher education will support these changes through innovative approaches to research-led teaching and learning, programme design, student assessment and a quality assurance system – all of which will reflect a new emphasis on nurturing creative and innovative minds. Higher education will have a strong international presence, will be attractive to overseas students and will engage in high-quality research that will have a vital impact on regional, national and global needs.

## **Measuring and managing quality in HE :**

Managing quality in HE has proved to be a challenging task. The literature suggests that there are two main reasons for this. First, 'quality' has different meanings for different stakeholders. Within HE there are both internal and external stakeholders who are likely to have disparate or even contradictory definitions of quality. Cheng and Tam (1997:23) suggest therefore that 'education quality is a rather vague and controversial concept'. Similarly, Pounder (1999:156) argues that quality is a 'notoriously ambiguous term' given that it has different meanings to different stakeholders. As a result of the difficulty in defining quality, its measurement and management has unsurprisingly proved to be contentious.

Traditionally, external stakeholders have been concerned with quality assurance procedures. Quality assurance refers to the 'planned and systematic actions [deemed] necessary to provide adequate confidence that a product or service will satisfy given requirements for quality' (Borahan and Ziarati, 2002:914). At an international level, HE has expanded substantially over recent decades and has moved up government agendas as a result of a number of factors. These include drivers to increase the knowledge and skills-based economies, participation in HE and social cohesion (OECD, 2006). The focus on quality for external stakeholders is driven by these agendas and focuses predominantly on the measurement of procedures and the extent to which they result in appropriate levels of quality (Jackson, 1996). This requires HEIs to demonstrate responsible actions in

their professional practices and accountability in the results they achieve with the resources used (Jackson, 1998:46). Elton (1992) refers to these as the quality 'As' – accountability, audit and assessment – and suggests that they are concerned with the control of quality and the people who control quality. Particular mechanisms for assurance, such as accreditation and quality audits, are usually imposed by government and other external bodies (McKay and Kember, 1999). Harvey (2005:264) suggests that accountability underpins these processes but under the banner of 'efficiency and effectiveness'. Many countries have national organisations with responsibility for the management of quality within HEIs. For example, within the UK, the role of the Quality Assurance Agency (QAA) is to inspect, audit and report on the quality procedures within institutions ([www.qaa.ac.uk](http://www.qaa.ac.uk)). Similarly, the Australian Universities Quality Agency (AUQA) has been established to monitor, audit and report on quality assurance in HE ([www.auqa.edu.au](http://www.auqa.edu.au)). These are external stakeholders whose role is predominantly concerned with the measurement and evaluation of institutional quality assurance procedures. Such bodies are concerned broadly with the effectiveness and reliability of the quality assurance systems and processes adopted by institutions in managing quality and academic standards, rather than with identifying changes in practice that might lead to enhancement. In the UK the QAA reports that, while enhancement has always been present in national audit methods, it has not been a prominent aspect of its audit procedure. Furthermore, it notes that there is considerable diversity in what 'enhancement' means within an HE context. A HEFCE consultation (HEFCE 2005/35) identified the need to consider enhancement processes in addition to those of assurance within external quality audit processes. The QAA subsequently defined enhancement as 'the process of taking deliberate steps at institutional level to improve the quality of learning opportunities' (QAA, 2006:16). Nonetheless, it states that the focus of audit 'must remain on the effectiveness of the institution's own processes for exploring such matters, putting them into operation and evaluating them', (18) rather than the enhancement of achieved outcomes. Harvey (2005:272) advises that current audit processes focus on compliance and thus fail 'to serve an improvement function at the student-lecturer interface'.

In addition, Avdjieva and Wilson (2002) suggest that HEIs are now also required to become learning organisations, where internal stakeholders also interpret and assess the quality of HE provision.

The emphasis for internal stakeholders is not only on quality assurance, but also on quality enhancement which aims for an overall increase in the actual quality of teaching and learning, often through more innovative practices (McKay and Kember, 1999). Elton (1992) suggests that quality enhancement focuses on quality 'Es': empowerment, enthusiasm, expertise and excellence. Quality enhancement initiatives tend to be less clearly defined and are often more diverse than quality assurance initiatives (McKay and Kember, 1999). In HE, mechanisms adopted by internal stakeholders are likely to include self-evaluation practices and student feedback. As students are viewed as an integral part of the learning process (Wiklund *et al.*, 2003), this type of evaluation tends to be more formative in nature and therefore more likely to lead to continual quality improvement efforts. Furthermore, the involvement of internal stakeholders often results in a culture of quality management being embedded within programs.

The second reason why quality is difficult to manage in HE is due to the complicated nature of the educational product. Education has been viewed as a system or 'a network of interdependent components that work together to try to accomplish the aim of the system' (Deming, 1993:98). The system consists of inputs, transformation processes and outputs. Sahney *et al.* (2004) advise that in education there are human, physical and financial resource inputs that undergo processes including teaching, learning, research, administration and knowledge transformation. The quality of teaching and learning therefore becomes central in a systems perspective. Ramsden (1992) advises that high quality teaching is fundamentally about high quality learning, which is context-related, uncertain and continuously improvable. Martens and Prosser (1998) add that high quality learning must focus on the development of meaning as characterised by deep learning approaches, rather than on reproduction. However, Yorke (1999) cautions that high quality teaching does not always result in high quality learning or vice versa.

The outputs of the education system can be tangible, intangible or value addition through, for example, examination results, employment, earnings and satisfaction. Harvey (1995) argues, however, that there is no discernible end product of HE as the transformative process continues to make an impact after the completion of HE. Hewitt and Clayton (1999:852) suggest that if the desired output of HE is viewed as 'increased capabilities and knowledge as embodied within the transformed student, including

an enhanced capability for further learning' then the system model is appropriate provided there is recognition of the role of the student within all three system components.

### Access and Equity:

Today the world economy is experiencing an unprecedented change. New developments in science and technology, media revaluation and internationalization of education and the ever expanding competitive environment are revolutionizing the education scene. A paradigm shift has been noticed in higher education now a days, from 'national education' to 'global education', from 'one time education for a few' to 'lifelong education for all', from 'teacher- centric education' to 'learner centric education'. These changes make new demands and pose fresh challenges to the established education systems and practices in the country. Because of interdependence and integration of world economy in recent years, the Indian higher education system has a new role and a challenge to provide to the nation and the world at large, skilled human power at all levels, having breadth of knowledge and confidence to effectively confront the social and economic realities. It is worth noting that while India has the second largest system of higher education, next only to USA, the total number of students hardly represent 6 percent of the relevant age group, i.e., 18 - 23, which is much below the average of developed countries, which is about 47%. Thus, access, equity, accountability and quality should form the four guiding principles, while planning for higher education development in India in the twenty-first century.

It is true that enhancing social access to higher education is still important in the country. But, the major challenge before the Indian higher education system is to bring equity in quality of education across the length and breadth of the country. This is more close to the heart of students in rural, semi urban and urban areas, because they also wish to be able to participate in the new economic revolution. Several social, economic and political reasons seem to act as constraints to access and equity in higher education in India. Poverty leads to high drop- out rates even at primary, middle and secondary school levels. Lower status of women, lack of easy access, lack of implementation of existing programmes, inadequate utilization of resources, absence of political will and inadequacies in coordinated actions across all equity fronts within institutions seem to be the other reason. Financial constrains also often form a

significant factor in advancing equity. These and related issues in *Equity and Access of Higher Education* formed the subject matter of this Seminar, whose major recommendations are as follows:

- Strategies for higher education should be set within an educational chain extending from early childhood to post- graduate education to career advancement. Improving the interrelationship of all stages and levels of education should be a long - term policy goal.
- Rural, urban and gender disparities must be kept in mind by policy makers in planning and implementing the higher education system.
- While quantity is important, say achieving, double digit percentage for higher education, quality is paramount. Higher education should continue to be subsidized by the Government in an adequate manner. For improving the quality in education the role of public sector should be enhanced.
- While the Western models of higher education should be suitably adopted, the education planners/implementers and the institutions should devise and develop indigenous ones.
- A liberal milieu in the Indian Universities must be reconstructed. Diversity of opinion and critique of society and its processes need to be encouraged.
- The appointment of bureaucrats, police officers/generals as Vice Chancellors and Registrars must be avoided as far as possible.
- Policies of higher education should be designed to strengthen indigenous research agenda.
- One reform that is urgently needed is the right to information in the institutions of higher learning. Transparency in the functioning at all levels is required so that those committing wrong are deterred.
- It is recommended that the method of selection of Vice Chancellors must be changed urgently, to make them accountable to the academic community and not to the political or bureaucratic bosses.
- Policies of our country based on simplicity and sharing of facilities within and across institutions must be established and encouraged.
- The WTO pushing the trade in services will have far reaching consequences in India, particularly for the remote areas and poorer



sections of the Society. Therefore, the World Bank, WTO and GATT policies on higher education need serious consideration, National interests must be safe guarded. And, the opportunities for the deprived and under privileged people and regions must be ensured.

- There have been significant changes recently in the policies on financing of Universities in India affecting the pattern of financing and expenditure in the Universities. Given the increasing importance of higher education, it is important that the State continues to take major responsibility of financing the Universities. All other sources of income, including fees should be viewed only as peripheral. It is to be noted that reliance on students' fees has its own limitation.
- Increasing reliance on the generation of internal revenues through consultancy and interaction with industry may produce imbalances in the Universities across various disciplines of study. So, efforts for the mobilization of resources have to be made extremely cautiously. Keeping in view our concerns of equity, efficiency and excellence in University education. Hence, the best method of financing of the Universities may still be by the State.
- Universities have to attempt seriously to improve the pattern of allocation of resources between various activities and items of expenditure. Core academic activities should obviously receive top priority.
- At the Universities, students' welfare, particularly scholarships, stipends etc., should be given due importance. Expenditure on administration and other miscellaneous activities needs to be rationalized.
- New models for higher education including the following aspects need to be created and adopted in the country:
  - (a) Extended traditional Universities
  - (b) Technology based Universities, and
  - (c) Corporate Universities.

### Research objectives:

It is evident from the foregoing discussion that the attributes of service quality vary indifferent service settings. The attributes diverge among stakeholders even in a particular service setting. The education sector exhibits a multiple-stakeholder situation in

which stake holders perceives different points of view with regard to quality of education.

Therefore, it is very difficult for the administrators of a TES to meet the service requirement of all the stakeholders. Hence, there is a need for deciding the minimum number of common service items that suit key stakeholders so that the administrators can focus on these items for improving the quality of education. To address these issues, the following objectives can be drawn up for this study:

- To develop an instrument for measuring service quality in the technical education sector
- To determine the minimum number of common items of service quality capable of addressing the concerns of key stakeholders
- To test the adequacy of neural networks for modelling the customer evaluation of service quality in education. Most institutions have little authority in the areas of faculty appointments, student admissions, structure and contents of programs, evaluation methodology and financial management. Absence of autonomy in academic decisions has inhibited innovations.

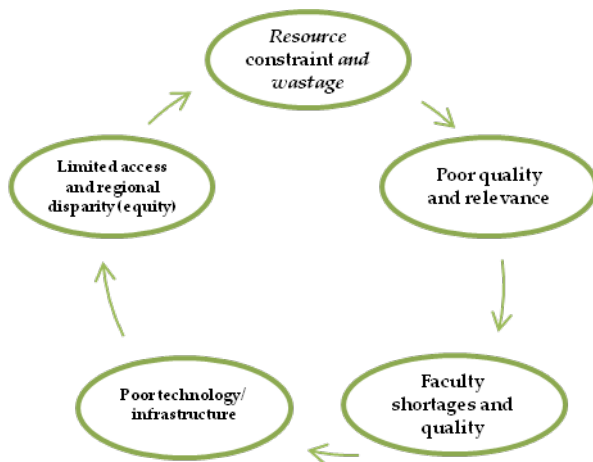
### Resource constraint and wastage:

In publicly funded institutions, government financing covers not much more than staff salaries, themselves too low to attract the best and brightest to academic careers. Cost recovery from students forms a small fraction of expenditure. The existing controls and regulations, in most cases, do not provide positive incentives to institutions to mobilize other financial resources. Inadequate funding coexists with several inefficiencies in resource utilization: excess capacity in many courses combined with heavy unmet demand for newer courses; significant failure rates; average time taken for completing a course being longer than the expected duration of the course; and underutilization of libraries and laboratories. There is very limited cooperation and sharing of physical and human resources amongst institutions and even less with industry or public research and development laboratories.

### Poor quality and relevance (weak quality assurance mechanisms):

While the IITs and a few other first-tier institutions offer world-class education and training in engineering and technology incorporating the "best practices", a large number of institutions offer rather outdated programs (prescribed by their affiliating university/Board) with inflexible structures and

content. Within each category of public, private aided and private unaided institutions, there is wide variation in quality.



### Effects of Poor Management System:

Quality assurance mechanisms are weak and programs in less than 15% of institutions are accredited through the National Accreditation Board, established in 1996. Information technology is not used significantly for teaching. No more than 6% of institutions have any research activity worthy of note. Institutions are essentially unconnected to the industries and sectors where their graduates find employment.

### Faculty shortages and quality:

Many institutions offering professional courses are unable to attract and retain qualified and trained faculty due to non competitive pay packages, lengthy recruitment procedures, and working environments that are professionally and technically underdeveloped and intellectually unstimulating. Postgraduate seats remain unfilled. Approximately one-quarter of teaching positions are vacant. Faculty shortages are more acute in IT-related disciplines as industrial compensation and benefits are much higher. Only half of the faculty members in professional institutions have a postgraduate degree and very few, a doctorate degree.

### Poor technology/infrastructure support:

In many institutions, physical facilities are largely outmoded. Probably no more than 20% of the institutions - both public and private - have the barest minimum of laboratory facilities necessary to meet the current demands. Communication lines to most institutions are also extremely limited and of poor

quality for computer or library linkages. Libraries are unable to subscribe to current literature.

### Limited access and regional disparity (equity):

The total enrolment in higher education accounts for less than 12% of the age-cohort. Of these about 12% (i.e., 1.4% of the age-cohort) are enrolled in engineering education. Some sections of the society (rural women, scheduled caste/tribes, and the physically challenged) are poorly represented amongst the beneficiaries. The potential of the S&T education system is also not being exploited fully to reach out and help people engaged in informal sectors of the economy. In addition, there are large regional imbalances in the availability of educational facilities, especially for professional courses. The private unaided sector has made a major contribution in expanding access to technical/engineering education.

The expansion of the private sector has been governed by state government policies. To meet a very large student demand for professional training, a few states have encouraged private engineering colleges and polytechnics to be established in large numbers. This fact accounts for much of the regional imbalance in the availability of student places. Government institutions are established in a much more regionally balanced manner both nationally and in each state. To remedy the weaknesses, a consensus in India is developing around a *major systemic reform strategy*.

As outlined in the sector report, the strategy involves the following logically sequential interdependent elements (the first is a precondition for improvements in the second, and so on down the list):

- ❖ empowerment (with full accountability) of institutions;
- ❖ optimal utilization of resources;
- ❖ mobilization of additional financial resources;
- ❖ establishing effective quality assurance mechanisms;
- ❖ networking of institutions to enhance capacity, improve quality and promote excellence; and
- ❖ establishing better and closer linkages with industry and community;
- ❖ increasing access and reducing regional imbalances.

### Promotion of Academic Excellence:

Though the Program seeks achievement of academic excellence in the entire technical education

sub-sector, strategically it will support well-performing and competitively selected institutions (about 20 lead institutions and 60-80 networked institutions, in the *First Phase*) to achieve their self-delineated vision of excellence.

The approach to achievement of excellence would, among others, include granting of very significant autonomy to the institutions by the respective governments (GOI or state government); exercising of autonomy by institutions with accountability and improved internal efficiencies; enhancing faculty and staff competence, including institutional management and administration; recruiting and retaining competent faculty; increasing and utilizing capacity for post graduate education; establishing teaching and research programs in cutting-edge technology areas; increasing interaction with industry, enhancing sponsored research, consultancy and other revenue generating activities; and instituting academic reforms including program flexibility.

### **Networking of Institutions for Quality Enhancement and Resource Sharing:**

This would be achieved primarily through formal networks that would be established among lead institutions and 3-4 neighbouring academic institutions (network institutions). The network activities would, among others, include sharing of teaching, learning, physical and human resources; faculty and staff competence enhancement; improvement of academic processes; and joint publications, researches and consultancies.

In addition, participating institutions would be encouraged to develop/strengthen linkages with public and private research and development laboratories and organizations, as well as leading national and international academic institutions, and industries.

### **Enhancing Quality and Reach of Services to Community and Economy:**

All lead institutions and network institutions will participate in this sub-component with the involvement of faculty and students. Technical and advisory services provided to the local community and economy (especially informal sectors) would be demand-based. The institutions satisfying the eligibility criteria would be short-listed as potential lead and networked institutions. Detailed proposals submitted by clusters of institutions would be selected on the basis of a national competition among eligible institutions.

This component would support the:

(a) development of a modern management style through training of policy planners, managers and administrators from the central and participating State governments, and their bodies concerned with the management of technical/engineering education,

(b) Management of policy research studies at the State and national levels,

(c) Management of performance, quality and efficiency audits of institutions by States, and

(d) Establishment of structures and facilities for Program management at the central and State levels.

Further, the government would improve from its own resources the management capacity by establishing an Educational Management Information System (EMIS), strengthening several resource institutions, and supporting the National Board of Accreditation (NBA). The institutions in the Program will offer their full co-operation to the EMIS for collection of data, their validation and for undertaking required research studies.

### **Experimental Results:**

Implementation of the algorithm proposed evaluation data on faculty stock database Appendix A, using statistical analysis of these data. Where take a sample from the faculties of the University of Anbar, and had the statistical analysis. In this paper, evaluated three colleges scientific and humanitarian three faculties of the University of Anbar, then compare the scientific colleges with colleges of humanity to find the most homogeneous colleges using the function coefficient of variation (COV). In the Table 1 notes the number of evaluations of faculty members in

Accordance with QA standards adopted for each teaching: the scientific performance, efficiency of teaching, educational performance, personal conduct, relationship management, the evaluation found using the law of the final percentage depending on the rates set for each axis. And then find a final evaluation for each college, depending on the final grade for the assessment found that of the total assessment of five aspects. After evaluating all the college and found the difference between science faculties and colleges to find out any humanitarian colleges more homogeneous.

The following Table 2 and Table 3 shows the Coefficient Of Variation (COV) between the two sections of scientific and humanitarian also applied for each axis then applied to the value resulting from the final Total University the axes.

colleges	Scientific Perf.	Eff.teaching	Edu. performance	Personal behavior	Relation management	Final evaluation
Computer Science	72.653	81.142	79.523	83.33	79.047	78.238
Veterinary Medicine	55.33	82.533	92.33	93.33	91.33	77.033
Law	77.77	88.88	90.55	89.722	88.88	85.33
Physical Education	66.36	81.63	81.818	95	86.3636	79.4545
Management & economic	73.571	83.5	70	84.687	88.75	79.4375
	69.43	91.4	87	99	95.5	85.2

**Table 1: Evolution Ratios**

Scientific	COV
performance of scientific	32.812
efficiency of teaching	12.115
Educational performance	15.298
Personal behaviour	10.421
Relationship management	15.937
Final evaluation	10.665

Human	COV
performance of scientific	15.670
efficiency of teaching	11.518
Educational performance	14.174
Personal behavior	12.705
Relationship management	11.281
Final evaluation	8.310

**Table 3: Scientific for COV**



## CONCLUSION:

This paper identifies that the findings from this review are of relevance to the fields of hospitality, leisure, sport and tourism management. However, as the review has relied upon current research and publications that are outside these fields, there is clearly a need for further research within our subjects. Further research should identify whether, within our fields, there is a tendency to adopt industrial models like other management schools, or whether the approaches to quality management more closely reflect the centrality of the student in line with a student-centred approach to learning. If the latter, there is a need for these practices to be made more widely known across the academic community. These efforts appear to be divided, however, with earlier approaches adapted from industrial models focusing on the quality of administrative and service functions. In contrast, critics of industrial models have undertaken efforts to focus on the quality of the core products of Higher Education, teaching and learning. Given current environmental trends, the priority now must be to achieve greater harmonization between the two approaches in HE quality management practices. The quality movement and quality systems have had many different names or terms of reference in the past few decades, and might look like a short-lived business management trend at first glance. With ever increasing competition and consumer expectations, professionals and business managers cannot ignore quality issues and expect to maintain or improve their competitive position. Quality systems, time and again, have been responsible for substantial increases in the bottom line of businesses in every industry and have given organizations the boost they need to meet overall goals and objectives. Organizations that do not accept that quality improvement is going to be ingrained into every part of their business are not going to be around to see what the future brings. The coefficient of variation in the test found that the performance and efficiency of scientific teaching and educational performance and relationship management more homogeneous in the colleges of humanity, only the personal conduct of scientific faculties more homogeneous.

## References:

- [1] Becket, N., Brookes, M. (2008). "Quality Management Practice in Higher Education – What Quality Are We Actually Enhancing?" *Journal of Hospitality, Leisure, Sport and Tourism Education*, 7(1): 43.
- [2] Charantimath, P. M. (2009). "Total Quality Management", Dorling Kindersley Publishers: 6.
- [3] De Jager, H. J., Nieuwenhuis, F. J. (2005). "Linkages between Total Quality Management and the
- [4] Outcomes based Approach in an Education Environment", *Quality in Higher Education*, 11 (3): 252-254.
- [5] Duderstadt, J. (1999). "The Future of Higher Education- New Roles for the 21st Century University",
- [6] The Issues in Science and Technology Online: 1-6.
- [7] Higher Education in India: Issues, Concerns and New Directions, 2003, Recommendations of UGC
- [8] Golden Jubilee Seminars- 2003 Held At Eleven Universities in India, UGC, New Delhi.
- [9] Hogg, R. V., Hogg, M. C. (1995). "Continuous Quality Improvement in Higher Education", *International Statistical Review*: 36-37.
- [10] Hok-Chun K., Dennis (2002). "Quality Education through a Post Modern Curriculum", *Hong Kong's Teachers Centre Journal*, 1: 57.
- [11] Schwarz, S., & Westerheijden, D. F. (2007). "Accreditation in the framework of evaluation activities: A comparative study in the European Higher Education Area". Dordrecht: Springer 2007.
- [12] Arun S. Patil and Peter J. Gray, "Engineering Education Quality Assurance", CQ
- [13] University Australia, ISBN 978-1-4419- 0554-3, e-ISBN 978-1-4419-0555-0 DOI 10.1007/978-1-4419- 0555-0, Springer Sep (2009).
- [14] Jan Kohoutek, "Implementation of the Standards and Guidelines for Quality Assurance in Higher Education in the Central and East-European Countries – Agenda Ahead", ISBN 92-9069-189-1, UNESCO 2009, Bucharest 2009.
- [15] Rizwan Akram Rana, "Dimensions of Quality Assurance in Higher Education: Challenges for Future", University of Glasgow, 2nd International Conference on Assessing Quality in
- [16] Higher Education, December, 2008.
- [17] Adrie J. Visscher, "Improving Quality Assurance in European Vocational Education and Training", Twente University, ISBN 978-1-4020-9526-9, e-ISBN 978-1-4020-9527-6 DOI 10.1007/978-1-4020-9527-6, Springer Science+ Business Media B.V. 2009.
- [18] Basterfield, D. H., Michna, C. B. & et al. (2008). "Total Quality Management", Pearson Publishers, 3<sup>rd</sup> edition: 13.
- [19] Biolos, Jim. *Six Sigma Meets the Service Economy*. Boston: Harvard Business School Press, 2002.
- [20] Garvin, David, and Artemis March. *A Note on Quality: The Views of Deming, Juran, and Crosby*. Boston: Harvard Business School Press, 1981.
- [21] Reichheld, Fredrick F., and W. Earl Sasser Jr., "Zero Deflections: Quality Comes to Services," *Harvard Business Review* (September–October 1990).
- [22] Wolkins, D. Otis. *Total Quality: A Framework for Leadership*. Management

[23] Leadership Series. New York: Productivity Press, 1995.

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