CSCanada
International Business and Management
Vol. 4, No. 1, 2012, pp. 1-17
DOI:10.3968/j.ibm.1923842820120401.1115

ISSN 1923-841X[Print]
ISSN 1923-8428[Online]
www.cscanada.net
www.cscanada.org

Total Relationship Management (TRM) and 5 Qs Model as New Management Techniques: A Comparative Study for a Knowledge-Intensive Sector

Mosad Zineldin[1,*]; Hatice Camgoz Akdag[2], Mohamed Belal[3]

[1]Professor, School of Business and Economics, Linnaeus University – Sweden, SE-351 95, Växjö –Sweden
[2]Assistant Professor, Kadir Has University, Istanbul- Turkey
Email: haticeakdag2002@yahoo.com
[3]Assistant Professor, Alexandria University, Faculty of Commerce – Damanhour – branch, Egypt
Email:Dr.belal_business@yahoo.com
[*]Corresponding Author.
Address: School of Business and Economics, Linnaeus University – Sweden, SE-351 95, Växjö –Sweden
Email: mosad.Zineldin@lnu.se

Supported by a part of a wider project funding EU Commission/Tempus to improve and develop the quality of higher education sector in different countries. The authors would like to thank EU Commission/Tempus for its technical and financial contribution. It should be noted that these are not EU views but the authors.

Received 25 October 2011; Accepted 22 December 2011

Abstract

Purpose – The aim of this research is to develop a new conceptual quality assessment model including behavioural dimensions of student- professor relationships and student satisfaction for knowledge-intensive sector.

Design/methodology/approach – This study provides an empirical base to understand the complex and multidimensional nature of the quality of higher education and student satisfaction.

Findings – We argue in this study that the TRM in higher education is a cumulative construct, summing various facets and variables which impacting students satisfaction, such as technical, functional, infrastructure, interaction culture and atmosphere variables.

There are differences between Egypt and Turkey in Priority of the ten most important factors of effect satisfaction of higher education students.

Research limitations/implications – The initial results are encouraging as they lay the groundwork for future studies.

Practical implications – The research provides a platform for ongoing investigation of university-citizen relationship while improving and assuring outcomes for those involved in the process. It appears that the 5Qs instrument can have a useful diagnostic role to play in assessing and monitoring educational service quality, enabling staff to identify where improvements are needed from the students' perspective.

Originality/value – In this research we describe a study involving a new instrument, i.e. the 5Qs model and a new method. The result can be used by the university to reengineer and redesign creatively their quality management processes and the future direction of their more effective higher education quality strategies.

Key words: TRM; 5 quality model; Citizen; Students; Higher education; University; Management

Mosad Zineldin, Hatice Camgoz Akdag, Mohamed Belal (2012). Total Relationship Management (TRM) and 5Qs Model as New Management Techniques: A Comparative Study for a Knowledge-Intensive Sector. *International Business and Management, 4*(1),1-17. Available from: URL: http://www.cscanada.net/index.php/ibm/article/view/j.ibm.1923842820120401.1115
DOI: http://dx.doi.org/10.3968/j.ibm.1923842820120401.1115

INTRODUCTION

There is no doubt about the global impact of the quality movement. In the development of most sectors (e.g. education, health-care, trade, services, manufacturing, etc), worldwide economic integration and the growth of the global market, quality becomes one of the main factors of organizational competition and success.

Most academic studies of the services sector have looked only at the link between services' quality and satisfaction (e.g. Kelly and Davis, 1994; Parasuraman, Zeithaml, and Berry, 1994, Bettencourt, 1997, Zineldin, 2000; Cruickshank, 2003). Few studies have been conducted to investigate the link between the technical

and functional quality dimensions and the level of student satisfaction in the knowledge-intensive sector. But none of the identified studies has examined how atmosphere, interaction and infrastructure might impact overall student quality perception and satisfaction. The importance of such factors is presented and explained later in this paper.

Universities worldwide are competing for students, both nationally and internationally. In order to recruit and retain students, they should aim at enhancing student satisfaction, reducing student dissatisfaction. This can only be achieved if all the services that contribute to "academic life" are delivered with a suitable standard. The students are the sole judges of whether or not this has been achieved. Hence, student satisfaction surveys should be undertaken on a regular basis and a university's service offering adapted accordingly (Douglas et al, 2006).

"Quality should be embedded in the culture of organisations..." (Hofstede, 1982). Thus, great attention needs to be given to developing a culture within which quality is embedded. Total quality management is the culture of an organization committed to customer satisfaction through continuous improvement (Bayraktar et al, 2008). This culture varies from one country to another and between different industries, but has certain essential principles, which can be implemented to secure greater market share, increased profits and reduced costs (Kanji et al., 2000).

Lomas (2004) states that "*senior managers and other change agents face major challenges but, by achieving the goal of embedding quality, students would receive greatly improved higher education and, as a consequence, their country's economy and society would also prosper"*.

While TQM has been used in the manufacturing area for a long time, service applications of TQM are relatively new (Bayraktar et al, 2008). Implication of TQM principles is also applicable to higher education (Owlia & Aspinwall, 1997). As a standalone process, TQM has the potential of improving quality in educational institutions and achieves continuous improvement (Kanji et al., 1999).

As higher education institutions are recognizing that higher education is not only a service industry, but also a place where intensive knowledge is 'made', preserved; a critical thinking place reflecting on society, etc. Involving students in course design, development and evaluation provides instructors with great understanding and direct insight into relevant issues of student learning and intensive knowledge management (Gapp and Fisher, 2006).

In the 1980s weaknesses in the accreditation and inspection process, the persistence of poor quality, and the emergence of new management techniques in education and other industries, together with rising costs, led education professionals to begin reassessing accreditation and standards-based quality assurance (Morgan and Murgatroyd, 1994; Roberts and Schyve, 1990). Higher education institutions began testing the industrial philosophies of Continuous Quality Improvement (CQI) and Total Quality Management (TQM) (Blumenfeld, 1993, Koeck, 1997). At the same time, the accreditation system expanded its focus from inspections to promoting quality improvement (Roberts and Schyve, 1990). Zineldin (2000, 2000b, 2004) argues that Total Relationship Management (TRM) highlights the role of quality and customers/ students service, the impact of the external environment on rules and performance, on relationships and networks, on communications and interactions with different actors of different departments/functions.

Vazanna et al., (2000) identify three main areas to implement TQM in higher education, which are curriculum, non-academic functions and academic administration. Measurement is also an important issue for TQM applications (Bayraktar et al, 2008). In higher education errors are difficult to measure for variety of reasons such as inadequate reporting with varied definitions and further complications arise with most of the errors not being the result of a single act but a chain of events, which also mention by Trucsco et al (2007). In addition to this difficulty of measuring errors, there are problems of structure, personalities, students, academic staff, university staff, and management. All this creates a complex situation in which we assess higher education with the main idea of analysing how well students are satisfied, what is valued by students, how the students perceive the quality of education, and how these can be improved. (Zineldin et al., 2009).

In this study we argue that student satisfaction is a cumulative construct, summing up the satisfaction with various facets of the university, such as technical, functional, infrastructure, interaction and atmosphere variables or items. There are situations were the student is forced to be enrolled at a specific university with a specific academic staff, even though she/he is not satisfied.

This paper seeks to provide some concrete criteria and proposals to improve the objectives and quality of the education systems. This research attempts to contribute to the previous academic studies and intensive knowledge in quality management in Higher education sector by developing a new conceptual quality assessment tool/ model including behavioural dimensions of student professor/teacher relationships and student satisfaction.

1. QUALITY IN HIGHER EDUCATION

The definition of quality presented in ISO 8402 and ISO 9000 series standards is the most widespread and used in quality management theory and practice. It is a complex process to construct and design an educational and training course or study program. The attempt to define specific course and program learning objectives and outcomes, and

then assess them, has led to the recent revival of Bloom's Mechanistic Taxonomy of Educational Objectives (Yorke, 2002). Bloom's Taxonomy provides a terminology for describing the level of intensive knowledge the course will give the student. The design and construction of clear learning objectives and outcomes means that measurement of the success in achieving them is facilitated and simplified (Rowley, 1996; Quality Assurance Agency for Higher Education, 2000a; Rust 2002). Part of the positive impact of implementation of educational quality models in schools is to conduct self-evaluation, which encourages a culture of continuous improvement (Zink and Schmidt, 1998).

Therefore quality assurance and quality enhancement should be involved, integrated and linked to the learning objectives, outcomes, teaching methods and student assessment. This process is called "constructive alignment" (Biggs, 2003), adapted and disseminated by the Quality Assurance Agency (QAA) (Quality Assurance Agency for Higher Education, 2000b). Students, their families, employers and the government want the assurance that students will get "good quality" education. Students are important stakeholders in the quality monitoring and assessment processes and it is important to obtain their views (Harvey, 1997). A university has to help individuals taking charge of their own learning, to develop more individualised learning approaches and cater to individual needs at various stages of life and career (European training foundation, 1997).

In order to have a quality assessment tool to measure the quality of education in higher education institutions the approach "total relationship management" should also be viewed. The reason for this is that in education industry student- academic staff and student –university staff relationship cannot be neglected when student satisfaction is the case.

2. TRM (TOTAL RELATIONSHIP MANAGEMENT) IN HIGHER EDUCATION

One of the purposes of this article is to present TRM approach in order to be able to develop a new 'comprehensive' quality assessment tool to function as blueprint able to identify the strengths, weaknesses and possibilities of quality improvement in Higher education sector.

There have been a number of limitations identified in the implementation of TQM in higher education. The application of TQM is more appropriate to the service rather than the education functions of a university, because there is a significantly fewer number of quality indicators in industry than the numerous and complex indicators in higher education which are more difficult to assess (Roffe, 1998; Srikanthan and Dalrymple, 2003; Birnbaum, 2000). Becket and Brookes (2006) recommended a comprehensive quality evaluation model in higher education in order to ensure that the various meanings and perceptions of quality are being adequately assessed. However, such models are not yet complete.

Psychology is the understanding of people, their motivation, and their social interactions as they work within confines of their environment (Siadat et al., 2008). Deming (1986) states that people are the organisation's most precious resource and that they have an innate need for positive relationship with others, a need to learn, and a need to belong. Once again Deming states the importance of relationship within any organization or industry.

A Total Relationship Management (TRM) approach and philosophy was created and developed by Zineldin (2000, 2000a, 2004, 2006b). TRM is viewed as a strategy and a philosophy. It is ´total´, because it considers and coordinates 'all' activities- including internal and external relationships, networks, interactions and co-operation as well as all activities involved in getting, keeping, enhancing and satisfying customers throughout quality. It is a strategy because it emphasizes maintaining high products/services, internal and external relationships quality, and trying to keep customers in the long run.

Gupta *et al*, (2005) refer to TRM by stating that:

"Zineldin (2000) indicates that present day managers should ensure that every employee in all parts of the organization places top priority on continuous improvement of customer (students)-driven quality. Under Zineldin´s paradigm of total relationship management (TRM), the firm focuses on all integrated activities within the organization, including internal and external relationships with employees, other stakeholders and collaborators. The main philosophy behind this holistic approach to company relationships is to facilitate, create, develop, enhance, and continuously improve appropriate and advantageous internal and external relationships… The main goal is to deliver services with an adequate level of functional and technical quality, adequate price, and fast response times, while allowing the firm to realize targeted short and long term profits, growth, and competitive advantage". It is therefore incumbent upon the leadership of the organization to inspire employees and hold them accountable for utilizing TRM as a tool to achieve a genuine total quality services (TQS) environment.

Continuous quality improvement (CQI), TQM and TRM are based on the work of pioneers in industrial management and marketing such as Deming, Juran, Fiegenbaum, Ishikawa and Zineldin. They helped transform industrial and services sectors by applying management tools and methods to management of production processes, by making client satisfaction the focus of all operations, and by empowering employees through teamwork and shared decision-making. The total relationship management is a philosophy that emphasises the communication of the organisation's/ university's

overall thinking, as well as specific messages about its education, research and community services or corporate identity.

The main philosophy behind this totality approach of relationships is to facilitate, create, develop, enhance and continuously improve appropriate internal and external relationship with customers, employees and collaborates (Zineldin, 1999).

The only solution for an organization is to reach the ultimate competitive edge and advantage is to adopt the philosophy of a total strategic relationship management, which emphasizes seven dimensions (Zineldin, 1999). The following seven dimensions are adapted to higher education industry:

(1) Macro analysis. Creating and managing a systematic external marketing audit system that includes the microenvironment forces. This improves the universities' ability to predict the future of the market.

(2) Competitive analysis. Creating and managing a systematic marketing audit system that includes the market and the competition with a view to identifying key strategic issues, problems and opportunities. A systematic market audit and research will improve strategic business planning as a result of earlier identification and assessment of future market trends and opportunities.

(3) Internal relationships and networks. Creating and managing internal marketing, networks and planning discipline within all parts and functions of the universities. The acceptance of a planning discipline will be based on defined objectives to which all departments and functions must gear their activities and integrate their programs. It is important to continuously improve the internal relationships, for they directly influence the quality of the whole work and operations.

(4) Relationships and networks with the sources and innovation. Creating and managing relationships with subcontractors (parents, students, high schools providing students etc) whoever provide or send the students to study at universities. Creating a quality network with these groups increases the possibility to predict fluctuations in demand levels, reduces operation costs and improves the quality of education by achieving an efficient scale as a result of a deepening of the relationship with those subcontractors.

(5) Relationships with other collaborators. Creating and managing relationships with external collaborators (e.g. bankers, unions, politicians, academic staff) who contribute to the university's, improvement, success and long-term growth.

(6) Relationships and networks with the source of inspiration. Creating and managing relationships with business and organizations that will higher your graduates. It is equally important to create and care for professional relationships with them, for they directly or indirectly influences the quality of the university's image, work and activities. They are valuable information source regarding the needs, wishes and attitudes, which are the basis for total improvement.

(7) Relationships with students/citizens. Creating and managing fair relationships with students/citizens through the continuous improvement of the functional and technical service/education quality, the 4Ps etc. This puts the students/citizens alike, at the centre of the university's activities and planning.

The most important goal is to make sure that the student/citizen and collaborator gets exactly what quality they are expected to get, in an efficient and profitable way. In short the student/citizen satisfaction and the quality improvement should always be the centre of a company's focus. Creating student/citizen satisfaction is the most important concept in a definition of TRM.

3. A STUDENT IS A CITIZEN, NOT A CUSTOMER

This notion oft students as customers has caused a misinterpretation of the relationship between universities and students. While universities consider themselves as a service supplier of intensive knowledge and the students as customers of intensive knowledge, some authors argue that considering students as customers of a university is an inappropriate understanding which can cause misinterpretation of the university-student relationship (Driscoll and Wicks, 1998; Shupe, 1999; Lust, 1998; Svensson and Wood, 2007). They consider students as citizens of the university community, which means they are a part of the system. Without a citizen a community cannot survive. This is same for universities. Given the distinguishing features of the higher education, educational values should, ideally, be based on the long-term interests of students, society and institutional missions, goals and commitments. (Douglas *et al*, 2006). Driscoll and Wicks, (1998) state that the need for a quality education is not obviously clear in the minds of all students, thus a customer orientation is not ensuring high quality programs.

The contention contained within this paper is that the customer metaphor is inappropriate to describe students' relationships to universities. Student-university relationships are more state like than customer like. The definition and the characteristics of a customer are different from those of a citizen, where students are not customers but citizens. A "citizen" should have its relationship with the state where she/he lives in and participate. There are mutual and reciprocal rights and responsibilities of both the state and the citizen (Barbalet, 1988; Carter, 2001; Beland, 2005).

If one scrutinizes the student-university relationship, it resembles more the characteristics of the citizen-authority relationship than a customer-supplier relationship. In

other words, the student-university relationship and the citizen-authority relationship are not necessarily identical in every aspect, but they are more similar to each other than the similarity to the customer-supplier relationship (Svensson and Wood, 2007).

Students are citizens of the state, not customers. A supplier/seller of any other goods or services, on the other hand, has voluntary commercial rights to offer the marketplace a good or a service. A citizen of a state is entitled to attend and participate in higher education, if she/he fulfils specific or general requirements. A public or a private university exercises its authority and implements its roles to pass or fail students after examinations. Obliviously, there are differences in terms of the rights and the obligations involved in customer-supplier relationships and student-university relationships.

TRM emphasizes the holistic view of the student - university relationship and interaction; multiplicity and integration of different functions inside and outside a university. At a university the TRM can be seen as a multidisciplinary approach focusing on the interaction and integration between all university staff and student categories. This requires participation of everyone in the university in the development of shared mission, vision, plans and in the quest for continuous improvement.

4. OVERALL SATISFACTION AND STUDENT-ORIENTED HIGHER EDUCATION SYSTEM

Satisfaction theory has argued that student satisfaction is an attitude, which should be measured by the totalling of the subjective assessments of multidimensional attributes associated with the care experience (Linder-Pelz, 1982). According to the psychological theories, students' evaluations of different situations are moderated by personal feelings of equity in the exchange, disconfirmation between desires and outcomes, individual preferences, and social comparisons (Klein, 1997). In addition to personal feelings, human behaviour is also an important issue where Foley(2004) stated that modern human behaviour is more problematic because of the heavy overlay on culture.

The Student Satisfaction approach is clearly the market leader and has been emulated and adapted by a number of higher and further education institutions both in Britain and overseas (including New Zealand, Sweden, Australia, South Africa and Poland).

Satisfaction is viewed as a state. Oliver (1989) proposes a framework that visualizes satisfaction as a state of fulfilment related to two dimensions: reinforcement and arousal. "Satisfaction-as-contentment" describes low arousal satisfaction. On the other hand, high arousal satisfaction is defined as "satisfaction-as-surprise", which can be both positive (delight) or negative (shock). "Satisfaction-as-pleasure" appears when positive reinforcement occurs. It can also be defined as students' cognitive and affective evaluation based on the personal experience across all service episodes within the relationship. According to TRM approach, student preferences should guide every aspect of education and research delivery, from lecture hours to counselling pedagogical techniques to final graduation.

Until now all policies and plans are implemented to increase the technical and functional quality of higher education institutions. However the importance of atmosphere, infrastructure and interaction has never been included in these policies and plans. The following model is defining and including these attributes in an appropriate manner, which is applicable in service industry, mainly in healthcare and education.

5. A 5QS MODEL

Service quality is commonly attributed with two dimensions: technical quality and functional quality (Grönroos, 2000). Technical quality refers to the quality of the service product, i.e. what a customer buys and whether the service fulfils its technical specifications and standards, while functional quality describes the way in which the service product is delivered and how is the relationship between the company and its customers. SERVQUAL is a widely used model developed by Parasuraman *et al* 1985 and Berry et al., 1992 to measure different quality dimensions.

Some authors favour the application of SERVQUAL in academia (Vazzana and Winter, 1997; Hughey, 1997). Others insist that the application of these models in higher education processes is questionable (Jaugh and Orwig, 1997; Keller, 1992). Although these efforts have been positive in the sense that student perspectives are receiving greater attention, a range of quality shortcomings have been identified. The survey methodology has been criticized, among other things for deficient validity and reliability, and a weak orientation towards change (Jaugh and Orwig, 1997; Keller, 1992; Barnard, 1999).

Zineldin (2006a) expanded technical-functional quality and SERVQUAL models into a framework of five quality dimensions (5Qs). Some authors compared SERVQUAL and the 5 Qs model in order to find the differences and similarities between them. They found that both models are focused on the importance of providing quality products and services. The difference is that the SERVQUAL is more focused on measuring service reliability, whereas, the 5Qs is more comprehensive and introduces additional attributes such infrastructure, atmosphere and interaction (Zamora and Escoriza, 2007).

Therefore, perceived quality of interaction and communication reflects a students' level of overall satisfaction. The culture in a specific environment where they co-operate and operate influences the interaction process between the provider and receiver of an

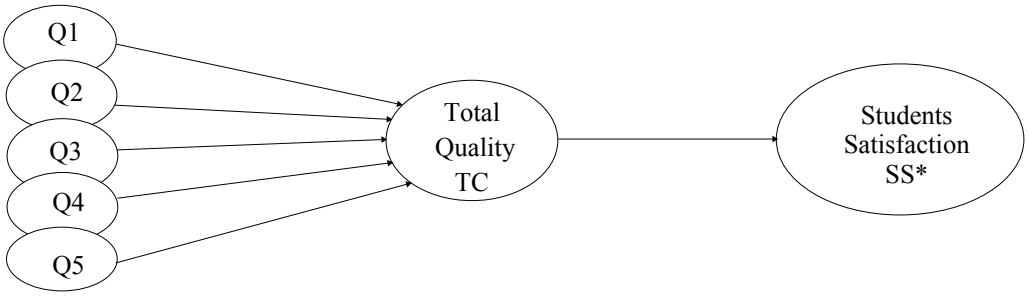
educationally service. This is applicable in a university, faculty or department atmosphere where the student, teacher, dean, rector or any administrator is operating. In turn, the atmosphere is influenced by the characteristics of the partners involved and the nature of the interaction itself. The atmosphere can affect the perceived service quality by improving it or by making it worse.

The 5Qs model is more comprehensive and incorporates essential and multidimensional attributes which are missing in SERVQUAL model. Such attributes are the infrastructure, atmosphere and the interaction between the student and the educational (providers) staff. A comprehensive model should also include a component on goals, with questions directed at what student satisfaction should ultimately lead to, e.g. increased trust, increased likelihood for positive recommendations, etc.

The 5Qs model is an instrument that assures a reasonable level of relevance, validity and reliability, while being explicitly change oriented. The interaction process between the provider and receiver of a service is influenced by the atmosphere in a specific environment where they co-operate and operate (Ford et al, 1998; Zineldin, 2000, 2004; Robicheaux and El-Ansary, 1975). This is applicable in a university where the student, academic staff, university staff and other staff are operating in turn (Zineldin, 2006a). The atmosphere of a university can affect the perceived service quality by improving it or by making it worse, which will also affect the quality of education. Service quality in education does not only depend on the quality of academic staff but also includes the staff, assistants, building, classroom, labs, technical apparatus, machines used in education etc. It can be said that education quality and student satisfaction is more detailed than just dividing the quality of service into technical and functional quality.

Most academic studies of the services sector have looked only at the link between services' quality and satisfaction. Few studies have been conducted to investigate the link between the technical and functional quality dimensions and the level of student satisfaction in the higher education sector. But none of the identified studies has examined how atmosphere, interaction and infrastructure might impact overall student quality perception and satisfaction. The importance of such factors is presented and explained in this paper. Zineldin (2000) expanded the technical-functional and SERVQUAL quality models into a framework of five quality dimensions (5Qs).

In this study we modeled the student satisfaction as a function of the five higher-order quality dimensions (5Qs) based on TRM philosophy. The 5Qs model incorporates 47 independent variables (shown in appendix 1), which were derived from the education, service quality and satisfaction literature. The number of the variables is not constant because it depends on the situation of the Higher Education Institution. Figure 1 illustrates the 5Qs model and it constructs where the Total quality (TQ) of the education is function of the independent variables Q1-Q5.



* The overall hypothesis is that satisfied students are necessary to accomplish the goals of higher educational institutions and the future of a society.

Figure 1
Zineldin´s 5Qs: A Multidimensional TRM Based Model of Higher Education Attributes and Students Satisfaction (HS)

Q1 Quality of the object (education or research itself) –Technical "what Quality".

It related to the basic core of the education and its main objectives procedures, courses or programs carried out and it focuses on the technical aspects. It measures the education itself; the main reason of why students are studying at a university. The university has the objective to fulfil the student and the society expectations, therefore it is important to domain the "good education in form of study programs, courses and degrees impacting students' life and future. From the psychological point of view, fulfilling the core education objective is one of the most important factors impacting the level of satisfaction.

Q2 Quality of the process (Caring) - functional "how quality". How to deliver the object (lectures, seminars, individuality, flexibility, creativity, field work, exam forms, etc), and how students perceive their education. It measures how well educational activities are being imple-

mented. Process indicators should receive more attention in the education. Professors, deans, university leader and other personal can use process indicators to monitor activity at their facilities and to guide day-to-day decision-making. Students' attitudes are also included. This factor includes the efficiency and empathy during the education process, how the personnel monitor the student complaints, the grade of courtesy that the education services reflects to the student in order to transmit confidence and trust, the willingness to provide the education expected and the personal attention. The methodology and communication between different parts of a course or a study program, which involve different teachers, are also included.

The level of satisfaction or dissatisfaction can be the result of the quality of the process, i.e. how the teaching and learning is delivered via for example PowerPoint presentation slides, supplementary handout materials, online methodologies, and the recommended textbooks or availability of e-books.

Q3 Quality of the infrastructure, tangible and intangible (competence, financial, technical and human recourses, self assessments, course evaluations, etc). Infrastructure of an educational organisation is the most important factor impacting the care of the citizens and hence their overall satisfaction. It is related to the competence, skills, attitudes, motivations experience, know-how, technology, internal relationships and reassures, activities, and how these activities are managed, co-operated and co-ordinated. These indicators should be considered very critical and important because the lack of any of these factors explains poor education quality. Price et al. (2003) found also that University's physical facilities influence students' satisfaction, i.e. Q3. Internal resources dimension is one of the essential tasks for a higher education institution to develop and integrate various elements of a university's capabilities into a comprehensive education strategy. Technology, for example, can measure the manner in which the university processes the citizens´ information through the communication networks such the efficiency of student portals, etc.

Q4 Quality of the interaction and communication (among staff, between staff and leaders, between staff and citizens, citizens involvement, etc) measures the quality of information exchange (tutoring, lectures, individual meetings and supervision, feedback of the questions and exams, time and accuracy of the check up and exams result and even social exchange). Communication dimension evaluates the exchange process performed by the university in different aspects. This dimension measures how the university coordinate its services processes to provide high quality education and research. Information exchange of the technical information about the service specifications (study course or program; research activities, profiles, etc.). Social exchange should also be included. It evaluates the observable behaviour provided by the university staff and other personnel while they monitor and negotiate the terms of the education. Satisfaction is influenced upon the receiving of adequate explanation and instructions before, during and after the classes and exams. Lecturer ability to inspire and stimulate the critical thinking should be one of the most critical issues. The fact the most academic staff is overloaded can lead to the lack of extra time for the communication or interaction outside the lecture rooms. That is one of the most challenges the higher education sector faces.

Q5 Quality of the atmosphere (quality culture, common interest, common goal, participation of the staff reg. decision making, responsibilities, trust, commitment, authorities, structure of the organization, etc. the relationship and interaction process between the parties are influenced by the quality of the atmosphere in a specific environment where they cooperate and operate. The atmosphere indicators should be considered very critical and important because of the belief that the lack of frankly and friendly atmosphere explains poor quality of care in developing countries. Student working load should also be included in the Q5 dimensions. Normal working load is 35-40 hours per week. This factor can have social influence. Students should also assess and evaluate their own performance. They can evaluate their own performance very high, even higher than their academic staff. From the psychological point of view people often try to avoid the feeling of guilt if something goes wrong. To protect or defense one self, people can try to over estimate their own capabilities and abilities. In this case students can have tendency to blame their teachers rather blaming themselves. That is one of the major dilemma of the objectivity of student assessments.

Devising good indicators of quality is difficult. Indicators must provide reliable, objective, and relevant information about important issues; they must be sensitive to changes in performance; and they must be easy to calculate with available data. Of course, the indicators may be influenced by external factors such as the social and economic characteristics of the student environment. By linking infrastructure, interaction and atmosphere indicators to the quality of object and processes; researchers and university leaders and faculty members can document which changes in services improve the overall satisfaction of the students, hence the ultimate outcomes.

6. THE DEVELOPED SURVEY/ QUESTIONNAIRE

6.1 Instrument Design

When considering the quality of in higher education, one needs to resist the temptation of seeking simplistic and single dimensional classifications, rankings and explana-

tions. The notion of quality is not a simple one; rather it is problematic, contested and multidimensional and requires examination at institutional, departmental and individual levels (Elton, 1998).

From the literature review discussed previously, a draft questionnaire was constructed and tested on some students, teachers and other researchers in Turkey. Respondents were encouraged to identify unclear items, comment on the importance of the research issues, if the respondents could/would complete the questionnaire in the absence of a researcher, and suggest changes. No major problems were presented, and after making the required modifications, the final draft of the questionnaire was developed. The participation of faculty, students and other researchers in the construction of questionnaires helped ensure that the instruments solicit information that is appropriate to internal and external quality assurance. Therefore, we can be relatively confident that most of student will understand the questions. This test survey was not done to be analyzed but was done to make sure that there will be no bias existing in the real survey.

Generally, students should be surveyed on the extent to which they believe they have met the stated learning outcomes for specific study course or program, its design, organisation and content, teaching methods employed, learning resources provided and the appropriateness of the assessment tasks and weighting of assessment components. All constructs can be measured through multiple-item scales and a different 5– point Likert-type response format: very good (weight 5) to very poor (weight 1) poor; Very high contribution (weight 5), very low contribution (weight 1).

Finally, it should be noted that the main goal of this study is not to evaluate the performance of the staff or to analyse the student assessment or satisfaction, rather to test the new 5Qs assessment instrument.

6.2 Methodology

As the empirical research setting, this study concerns people who are students, teachers and other researchers in HEIs The final draft questionnaire contains a total of 45 items (attributes) of newly developed five quality dimensions (5Qs) which were identified to be the most relevant attributes for HEIs in Turkey and Egypt for that time. The questionnaires were translated to Turkish language to help better understanding of the questions and to increase the respondent rate and quality of data. So it is better to translate the questionnaire into the native language. Frequency analysis, factor analysis and reliability analysis is used for the analyzing the data collected. Frequency analysis is a descriptive analysis showing how respondents perceive each attribute related to quality of education. Factor analysis; is a method of transforming the original variables into new, non-correlated variables, called factors (Malhotra, 2007). This is used to identify key points emerging from the questionnaire; the reliability analysis tests the validity of these key points. Factor analysis will figure out the major points were HEIs need to improve and how students perceive quality in private HEIs.

The result of the test is as follows.

6.3 Turkey

The questionnaire was distributed to people who are students in HEIs in Istanbul Turkey. The reason for choosing Istanbul is because of it being the largest city with its highest population who has its highest number of universities (23 out of 93 state universities and 16 out of 38 private held universities) among Turkey and other European cities.

It was very interesting to see that the first and most important factor for students in Turkey is quality of atmosphere when the higher education institutions are the concern. It is clear that fifteen out of forty seven attributes related with quality of education and student satisfaction was not more than average. Only 3 out of 45 attributes had a tendency towards negative, which thirty-six out of 45 was positively answered. This indicates that student satisfaction is more towards positive than negative in higher education institutions of Istanbul, which is the most developed city and also has the highest population of universities when compared to other cities in Turkey.

When each topic of 5Qs model was analyzed it is seen that quality of interaction and quality of atmosphere II is perceived as neither negative nor positive as their percentages were close to each other, and the perception of quality of atmosphere, quality of infrastructure, quality of object, quality of process and quality of infrastructure is seen to be highly positive. When the results of frequency analysis and factor analysis are combined it comes to the point that the reason of having quality of atmosphere, quality of infrastructure, and quality of object the first three most important factors is because these are the highest perception criteria for quality in education when Turkey is the case nowadays. As mentioned above there were only three components with a tendency towards negative ranking. These were object 4-university concern for your particular needs; object 5- performance of services when they were supposed to be performed; and infrastructure 13- availability of student parking.

Table 1 shows most critical components where students perceive as good quality which then results with high student satisfaction in Turkey.

Table 1
Most Critical Components to Student Satisfaction and Quality in HEIs in Turkey

Rank	Dimensions of 5Qs	Attribute	Critical Percentages
1	Quality of infrastructure	Lecturer's ability to stimulate critical thinking	67.4% good and very good 14.6 bad and very bad 17.4% average
2	Quality of infrastructure	The lectures covers an appropriate amount of contents	61% good and very good 21% bad and very bad 17.99% average
3	Quality of infrastructure	The lecturer's ability to inspire me for the subject was	60.8% good and very good 11.1% bad and very bad 27.8% average
4	Quality of atmosphere	Politeness of the professors	58.6% good and very good 14.7% bad and very bad 26.7% average
5	Quality of infrastructure	The lecturer's commitment	56.4% good and very good 13.7% bad and very bad 29.7% average
6	Quality of atmosphere	Responsiveness of the professors to your needs and questions	56.3 good and very good 14.1% bad and very bad 29.3% average
7	Quality of infrastructure	The lecturer's ability to teach in line with the learning objectives	55.9% good and very good 18.3% bad and very bad 25.8% average
8	Quality of infrastructure	Physical appearance of classrooms	55.8% good and very good 18.8% bad and very bad 25.2% average
9	Quality of atmosphere	Politeness of the assistants	55.2% good and very good 17.2% bad and very bad 27.3% average
10	Quality of object	sense of security from physical harm the students felt in the university campus.	54.3% good and very good 18.7% bad and very bad 26.7% average

This study depend on ANOVA analyses to determine the significance of differences among students responses(good and very good – average – bad and very bad) as shown in table 2 a,b,c:

Table 2a
Critical Percentage of the Most Important Dimensions of 5Qs

Rank of dimension	Critical percentage		
	good and very good	average	bad and very bad
1	67.4%	14.6%	17.4%
2	61%	21%	17.99%
3	60.8%	11.1%	27.8%
4	58.6%	14.7%	26.7%
5	56.4%	13.7%	29.7%
6	56.3%	14.1%	29.3%
7	55.9%	18.3%	25.8%
8	55.8%	18.8%	25.2%
9	55.2%	17.2%	27.3%
10	54.3%	18.7%	26.7%

Table 2b
Descriptives

Score	Mean	Std.Deviation	Std.Error	95% Confidence lnterval for Mean		Minimum	Maximum
				Lower Bound	Upper Bound		
1.00	.5820	4.211E-02	1.332E-02	.5519	.6121	.51	.68
2.00	.1630	3.020E-02	9.551E-03	.1414	.1846	.11	.21
3.00	.2550	4.528E-02	1.432E-02	.2226	.2874	.17	.30
Total	.3333	.1868	3.411E-02	.2636	.4031	.11	.68

Table 2c
ANOVA

SCORE1

	Sum of Squares	Mean Square	F	Sig
Between Groups	.970	.485	307.202	.000
Within Groups	4.262E-02	1.579E-03		
Total	1.012			

The result of ANOVA analyses indicate that there are significant differences among the three levels of students responses (good and very good – average – bad and very bad)

According this results , The most important component perceived as quality is Lecturer's ability to stimulate critical thinking and secondly The lectures covers an appropriate amount of contents. The third critical component is the professor's ability to inspire me for the subject was, which is very interesting as the traditional perception of quality in education had this factor as the most important concern. Fourth component is politeness of professors. Fifth most important component is The lecturer's commitment. This was the second interesting result as it stresses on the importance of the behavioral variables such as politeness and commitment of professors when quality is the concern. Sixth critical component is responsiveness of the professors to students' needs and questions which means that the students now need, expect and want responses to their questions immediately and this is one of their criteria for perceiving quality in education. Seventh critical component the The lecturer's ability to teach in line with the learning objectives and eighth critical factor is physical appearance of classrooms. Ninth component is the politeness of assistants and the tenth and last critical component is the sense of security from physical harm the students felt in the university campus.

6.4 Egypt

The questionnaire was distributed to people who are students in HEIs in Egypt. The sample was 3 out of 17 state universities (Alexandria, Tanta and El-Mansora) and one private held university (Arab academy for sciences & technology).

6.5 Higher Education in Egypt

Egypt has a system of education very high proliferation. About 30 per cent of all Egyptians in the relevant age group go to university. However, no more than half of graduates. And as noted by the Economist newspaper, the education standards at public universities in Egypt in the development of immemorial ,The Ministry of Higher Education oversees higher education. There are a number of universities to accommodate students in a variety of areas. In the current education system there are 17 public universities and 51 non-university institutes, 16 private universities, institutes and 89 high. Of the 51 institutes, non-university technical institutes, 47 were medium extends the study for two years, and 4 technical institutes Graduate extend the study to 4-5 years

In 1990, legislation was passed allowing more autonomy for universities 17, however, is still the education infrastructure and equipment required and the necessary human resources is in place to meet the growing needs of students. And increased enrollment in higher education largely of 659 thousand students in 1999 to 2.5 million students in 2007 while the gross enrollment rate in the age group 18-23 years from 20 to 28 per cent. But has not seen spending on improving the higher education system similar increase with respect to the introduction of programs and new technologies. It is noted that of the figure of 77 per cent of science students enrolled in universities, joining the 98 per cent of them public institutions free of charge. Among the figure of 98 per cent, 48 per cent of university students from the highest income quintile. The reason for this is mainly to general secondary examinations, which are highly competitive, where the student can more resources to pay expenses of private lessons that help him to get the highest total in the standardized tests that are at the level of the Republic, and then accepted in the colleges of the summit in Egypt. Thus, this competitive process to choose compliance options under the student's grades obtained also restrict the results of the student, and then forced the student to choose courses and occupations does not want it much.

And controls in the system of higher education in Egypt do not have a centralized system of control of its

institutions to take decisions on curriculum, program development, and development of staff and faculty members. In order to improve this system is already obsolete, as well as the curriculum and teaching methods stringent and outdated, the government created the National Authority to ensure the quality of education and accreditation as an independent entity. This body seeks to introduce international best practices, and promote quality, and providing more autonomy to universities and technical institutes. Was the establishment of two bodies-governmental organizations to promote research, development, and innovation through increased funding and technical assistance. In 2007, the average total R & D and innovation 0.24 per cent of GDP, but is expected to increase funding for research and development and innovation to reach 0.5 per cent of GDP in 2012, which is considered high standards of low-and middle-income.

The Ministry of Education recently proposed a master plan for the development of higher education until 2022, a second phase of reforms that began in 1995, the plan aims to strengthen the reform process in the higher education sector through the dissemination of good practices. The World Bank was one of the few donors with the development and cooperation in the economic field, which involved an in-depth development of the higher education sector. There are public and private institutions in higher education in Egypt.Free higher education in Egypt, Egyptian students pay registration fees only. The private education is much more expensive. Include major universities: University of Cairo (230 thousand students), and the University of Alexandria, Ain Shams University, the University of Al-Azhar-old a thousand years (350 thousand students), while the American University in Cairo, the Arab Academy for Science, Technology and Maritime Transport and the French University in Cairo are from universities leading private.

Table 3
Most Critical Components Where Students Perceive as Good Quality Which then with High Student Satisfaction in Egypt

Rank	Dimensions of 5Qs	Attribute	Critical Percentages
1	Quality of Infrastructure	The lecturer's commitment	72% good and very good 18% bad and very bad 10% average
2	Quality of infrastructure	The lecturer's ability to inspire me for the subject was	65% good and very good 15% bad and very bad 20% average
3	Quality of infrastructure	The lectures covers an appropriate amount of contents	62% good and very good 24% bad and very bad 14% average
4	Quality of Infrastructure	The lecturer's ability to teach in line with the learning objectives	58% good and very good 30% bad and very bad 12% average
5	Quality of Atmosphere	Responsiveness of the professors to your needs and questions	54% good and very good 22% bad and very bad 24% average
6	Quality of infrastructure	Lecturer's ability to stimulate critical thinking	51% good and very good 29% bad and very bad 20% average
7	Quality of Infrastructure	Physical appearance of classrooms	48% good and very good 27% bad and very bad 25% average
8	Quality of atmosphere	Politeness of the professors	44% good and very good 26% bad and very bad 30% average
9	Quality of object	sense of security from physical harm the students felt in the university campus.	40% good and very good 32% bad and very bad 30% average
10	Quality of atmosphere	Politeness of the assistants	38% good and very good 32% bad and very bad 32% average

This study depend on ANOVA analyses to determine the significance of differences among the types of students response (good and very good – average – bad and very bad) as shown in the following table4 a,b,c

Table 4a

Rank of dimension	Critical percentage		
	Good and very good	Average	Bad and very bad
1	72%	18%	10%
2	65%	15%	20%
3	62%	24%	14%
4	58%	30%	12%
5	54%	22%	24%
6	51%	29%	20%
7	48%	27%	25%
8	44%	26%	30%
9	40%	30%	30%
10	38%	32%	30%

Table 4b
Descriptives

Score	Mean	Std.Deviation	Std.Error	95% Confidence lnterval for Mean		Minimum	Maximum
				Lower Bound	Upper Bound		
1.00	.5320	.113	3.521E-02	.4524	.6116	.38	.72
2.00	.2530	5.559E-02	1.758E-02	.2132	.2928	.15	.32
3.00	.2150	7.50E-02	2.400E-02	.1607	.2693	.10	.30
Total	.3333	.1651	3.014E-02	.2117	.3950	.10	.72

Table 4c
ANOVA

SCORE	Sum of Squares	Mean Square	F	Sig
Between Groups	1.569	.314	72.469	.000
Within Groups	.234	4.330E-03		
Total	1.803			

The result of ANOVA analyses indicate that this is significance differences among the three level of response (good and very good – average – bad and very bad)

According this results , The most important component perceived as quality is The lecturer's commitment and secondly The lecturer's ability to inspire me for the subject was. The third critical component is The lectures covers an appropriate amount of contents .Fourth component is The lecturer's ability to teach in line with the learning objectives. Fifth most important component is Responsiveness of the professors to your needs and questions. This was the second interesting result as it stresses on the importance of the behavioral variables such as politeness and commitment of professors when quality is the concern. Sixth critical component is Lecturer's ability to stimulate critical thinking which means that the students now need, expect and want responses to their questions immediately and this is one of their criteria for perceiving quality in education. Seventh critical component the Physical appearance of classrooms and eighth critical factor is Politeness of the professors. Ninth component is the sense of security from physical harm the students felt in the university campus and the tenth and last critical component is the politeness of assistants.

A model of strategy to improve students' satisfaction in HEIs in Turkey and Egypt is to influence on admissions such as quality of atmosphere (Q5) and quality of infrastructure (Q3), which these are the first two most important factors where they are also compatible with the results of frequency analysis critical components.

The results were very interesting as supporting the importance of total relationship management, student being a citizen not a customer and 5Qs model mentioned in this paper. The results were showing the importance and how the relationship of student-academic staff, student-university staff relationship is affecting the satisfaction of student. The result of this model has helped the HEIs to set their strategies according to students expectations and needs not only what universities want and expect.

7. DISCUSSION AND CONCLUSIONS

This student give a support to the comparative finding Turkey and Egypt concerning the ranking the most important component perceived as quality throw ANOVA analyses to determine to the significance of differences between Turkey and Egypt as shown in table 5a,b.

Table 5a
Descriptives

Score	Mean	Std.Deviation	Std.Error	95% Confidence lnterval for Mean		Minimum	Maximum
				Lower Bound	Upper Bound		
1.00	.5320	.113	3.521E-02	.4524	.6116	.38	.72
2.00	.2530	5.559E-02	1.758E-02	.2132	.2928	.15	.32
3.00	.2150	7.50E-02	2.400E-02	.1607	.2693	.10	.30
4.00	.5320	.1113	3.521E-02	.4524	.6116	.38	.72
5.00	.2530	5.559E-02	1.758E-02	.2132	.2928	.15	.32
6.00	.2150	7.559E-02	2.400E-02	.1607	.2693	.10	.30
Total	.3333	.1748	2.257E-02	.2882	.3785	.10	.72

Table 5b
ANOVA

SCORE	Sum of Squares	Mean Square	F	Sig
Between Groups	1.569	.314	72.469	.000
Within Groups	.234	4.330E-03		
Total	1.803			

The result indicate that there are significance differences between Turkey and Egypt in relative ranks of the most important component perceived as quality.

Although, students spend few years of their life at the higher education institution, that is not enough for them to get a good education leading to the stress and living in a less good quality atmosphere. We are all asked to think in terms of life-long learning, and quite some higher education institutions already have a majority of mature students in addition to online learning etc. Therefore interaction and good atmosphere are also important factors for the wellbeing of the students. There is risks that higher education institutions focus more or only on the quality of education itself (technical) and how (functional) to deliver it, but relatively ignoring the impact of the other 3 Qs, i.e. quality of infrastructure, quality of interaction and quality of atmosphere.

This study provided a theoretical and conceptual base to understand that student satisfaction with higher educational institutions is different from other industries. Douglas *et al* , 2006; Schneider and Bowen, 1995; Banwet and Datta, 2003, found that the most important aspects of a university offerings were associated with the core service, i.e. the lecture, including the attainment of intensive knowledge, class notes and materials and classroom delivery. The core quality and processes of online and distance learning as well as the staff competences are also crucial aspects; i.e. the quality of object, Q1 and quality of process, Q2.

These 5 Qs can have implications for university management responsible for resource allocations to various areas of the university services atmosphere and infrastructure. It is also the responsibility of university management to provide the resources necessary to meet any desired standards of the 5 Qs. Lack of availability of academic staff may give cause for concern and leads to students' dissatisfaction.

TRM argues that the improvement of the quality and citizens satisfaction requires good atmosphere, infrastructure and relationships. Longo (1994) describes such relationships as having "mutually dependent relationships" in working together to develop guidelines and measurement standards.

8. COMPARATIVE ANALYSIS BETWEEN TURKEY & EGYPT: RESULTS ANALYSES

According to results of Turkey, The most important component perceived as quality: Lecturer's ability to stimulate critical thinking , this factor comes the sixth critical factor in Egypt , may be, that is due to government gives more relative importance for developing innovation and creativity skills of the students in higher education as one of the basic requirements for quality assurance.

Secondly factor in turkey is The lecturers covers an appropriate amount of contents, this factor comes the third critical factor in Egypt. The third critical component in turkey is the professor's ability to inspire me for the subject was, this factor comes the secondly critical factor in Egypt. That may be due to the convergence of ordinal in the relative importance of these elements to

being one of the basic pillars of which there is agreement from the scientific and practical terms as one of the basic requirements and infrastructure for quality.

Fourth component in Turkey is politeness of professors, this factor comes the eighth critical factor in Egypt. This may be due to differences in compliance with the Charter of the adult professional governs recognize the relationship between the student and lecturer ,in addition which may be due to the lack of communication skills and interaction abilities between the two countries lecturers and students.

Fifth most important component in turkey is The lecturer's commitment, this factor comes the first critical factor in Egypt. This may be due to the fact that the elements of commitment to the records of Egypt are available to a lesser extent compared to records of Turkey. The researchers expect that lecturer distribute his time on a larger number of tasks and roles, whish lead to low level of actual commitment, this create represents the commitment needed is saturated with Egyptian student wants to find them in the records.

Sixth critical component in turkey is responsiveness of the professors to students' needs and questions, this factor comes the fifth critical factor in Egypt. This may be due to that this element has the same relative importance to students of higher education in Turkey and Egypt as a backbone for understanding, analysis and self-learning atmosphere help to achieve the quality of learning.

Seventh critical component in turkey the lecturer's ability to teach in line with the learning objectives, it comes the fourth factor in Egypt. That may be due to the differences in the degree of flexibility in the selection of content and style of learning between the record in both Egypt and Turkey, where the records Turkish more flexibility where they can use multiple educational goals approaches.

Eighth critical factor in turkey is physical appearance of classrooms, it comes the seventh factor in Egypt. This result needs to retest because we expected that there is a difference between Egypt and Turkey in the relative ranks in this factor.

Ninth component in turkey is the politeness of assistants this factor comes the tenth critical factor in Egypt. The tenth critical component in turkey is the sense of security from physical harm the students felt in the university campus, it comes the ninth factors in Egypt. This can be explained that the relative importance of these elements for the both is less than the other most important factor, we expect that may be due to the students satisfy them according to sources outset the higher education system .

9. IMPLICATIONS

It appears that the 5Qs instrument can have a useful diagnostic role to play in assessing and monitoring educational quality, enabling the staff identify where improvements are needed from the students' perspective. Universities and their different staff categories require more active involvement and co-operation of their students in the creation of the service product (education) than many other services. An examination of the components of the 5Qs dimensions reveals that factors such as intensive knowledge, inspiration, motivation, critical thinking and stimulation would be deemed most important in an educational environment.

In describing the TRM and the 5Qs implementation at a university, the university decision makers will know that "quality is what their citizens tell them, not what the university say it is. As starting point, the TRM strategy should be implemented to inspire the entire employees at the university, faculty and department to understand its main philosophy and tools.

A discussion of ideas for ways to improve quality should be followed by a presentation of the findings. Such work should be periodically re-administered in the future in order to track performance and to determine whether changes made have been successful in improving service quality. The higher education institution and its managers (rector, dean, chairs, senior researchers, etc) should find out more efficiency ways and methods to measure the performance of the professor/teachers and citizens as well as the costs effective education system.

Given the importance of quality management to higher education, this paper set out to critically evaluate current quality management practices. In order to undertake a comprehensive evaluation an audit tool encompassing 5 key quality management dimensions has been developed.

REFERENCES

Banwet, D.K., Datta, B. (2003). A Study of the Effect of Perceived Lecture Quality on Post-Lecture Intentions. *Work Study*, *52*(5), 234-243

Barbalet, J.M. (1988). *Citizenship*. Minneapolis, MN: University of Minnesota Press.

Bayraktar, E., Tatoglu, E., & Zaim, S. (2008). An Instrument for Measuring Theoretical Factors of TQM in Turkish Higher Education. *Total Quality Management and Business Excellence,19*(6), 551-577.

Becket, N., and Brookes, M. (2006). Evaluating Quality Management in University Departments. *Quality Assurance in Education*, *14*(2), 123-142

Beland, D. (2005). Insecurity, Citizenship and Globalization: The Multiple Faces of State Protection.

Sociological Theory, *23*(1), 25-41.

Berry, L.L., Zeithaml, V.A., Parasuraman, A. (1994). Five Imperatives for Improving Service Quality. In Lovelock, Ch.H, Managing Services, Marketing Operations and Human Resources (224-235). New Jersey: Prentice Hall.

Bettencourt, L. (1997). Customer Voluntary Performance, Customer as Partners in Service Delivery. *Journal of Retailing*, *37*, 383-406.

Biggs, J. (2003). *Teaching for Quality Learning at University* (2nd ed.). SRHE/Open University Press.

Birnbaum, R. (2000). The Life Cycle of Academic Management Fads. *Journal of Higher Education, 7*(1), 1-16.

Blumenfeld, S.N. (1993). Quality Assurance in Transition. *Papua New Guinea Medical Journal*, 36(2), 81-89. Bloom, *Domain*. Longman, London

Carter, A. (2001). *The Political Theory of Global Citizenship*. London: Routledge

Cruickshank, M. (2003). Total Quality Management in the Higher Education Sector: A Literature Review from an International and Australian Perspective. *TQM & Business Excellence*, *14*(10), 1159-1167.

Deming, W.E. (1986). *Out of Crisis*. Cambridge, MA: MIT Press.

Driscoll, C., Wicks, D. (1998). The Customer-Driven Approach in Business Education: A Possible Danger? *Journal of Education for Business*, *74*(1), 58-61.

Douglas, J., Douglas, A., and Barnes, B. (2006). Measuring Student Satisfaction at a UK University. *Quality Assurance in Education, 14*(3), 251-267

Edmunds, M., Strachand, D. and Vriesendorp, S (1987). *Client-Responsive Family Planning: A Handbook for Providers.* Watertown, Massachusetts, Pathfinder Fund.

Elton, L. (1998). Dimensions of Excellence in University Teaching. *International Journal for Academic Development*, *3*(1), 3-11

Foley, R., Lewin, R. (2004). *Principles of Human Evolution* (2nd edition). Blackwell Publishing. pp.45.

Ford, D., Gadde, L.E., Hakkansson, H., Lundgren, A., Snehota, I., Turnbull, P., Wilson, D. (1998). *Managing Business Relationships*. Chichester: John Wiley&Sons.

Gapp, R., and Fisher, R. (2006). Achieving Excellence Through Innovative Approaches to Student Involvement in Course Evaluation Within the Tertiary Education Sector. *Quality Assurance in Education*, *14*(2), 156-166

Grönroos, C. (2000). *Service Management and Marketing- A Customer Relationship Management Approach*. Wiley

Gupta, Atul, McDaniel, Jason C., Herath S. Kanthi (2005). Quality Management in Service Firms: Sustaining Structures of Total Quality Service. *Managing Service Quality*, *15*(4), 389-402

Harvey, L. (1995). Beyond TQM. *Quality in Higher Education*, *1*(2), 123-146.

Harvey, L. et al. (1997). *Student Satisfaction Manual*. Buckingham: Open University Press.

Hofstede, G. (1982). *Culture's Consequences – International Differences in Work-Related Values*. London: Sage Publications.

Hughey, A.W. (1997). What higher education can learn from business and industry? *Industry and Higher Education*, *11*(2), 73-78.

Jaugh, L.R., Orwig, R.A. (1997). A Violation of Assumptions: Why TQM won't Work in the Ivory Tower. *Journal of Quality Management*, *2*(2), 279-291

Kanji, G.K., Malek, A., & Wallace, W. (1999). Acomparative Study of Quality Practices in Higher Education Institutions in the US and Malaysia. *Total Quality Management, 10*(3), 357-371.

Kanji, G.K., Malek, A., & Wallace, W. (2000). Business Excellence through customer satisfaction. *Total Quality Management, 11*(7), 979-998.

Keller, G. (1992). Increasing quality on campus: what should colleges do about TQM mania? *Change*, *24*(3), 48-51.

Klein, W.M. (1997). Objective Standards Are Not Enough: Affective, Self-evaluation and Behavioural Responses to Social Comparisons Information. *Journal of Personality and Social Psychology*, *72*, 763-774.

Linder-Pelz, S. (1982). Toward a Theory of Student Satisfaction. *Social Science and Medicine*, *16*(5), 577-582.

Longo, D.R. (1994). The Impact of Outcome Measurements on the Hospital-Professor/teacher Relationship. *Top Health Care Financial*, *20*(4), 63-74.

Lomas, L. (2004). Embedding Quality: The Challenges for Higher Education. *Quality Assurance in Education, 12*(4), 157-165

Lust, P. (1998). Students as Customers: Would You Like Fries with Your Shakespeare? In Osborn, R.E.E. (Eds), *Scholarship, Service, and Integrity: Benchmarks in a Changing Landscape*. ACHE Proceedings (60th, Ft. Worth, TX, 31 October-3 November, 1998), Pennsylvania, p. 54

Malhotra, N.K. (2007). *Marketing Research, an Applied Orientation* (5th Edition). New Jersey: Prentice Hall, pp. 505.

Morgan, C. and Murgatroyd, S. (1994). Total Quality Management in the Public Sector: An International Perspective. Buckingham, England: Open University Press.

Oliver, R.L (1989). A Conceptual Model of Service Quality and Service Satisfaction: Combatable Goals, Different Concepts, Advances. In Swartz, T.A ; Bowen, DA and Brown S.W., *Services Marketing and Management: Research and Practice, 2*, pp.65-85. Greenwich City: JAI.

Owlia, M.S., & Aspinwall, E.M. (1997). TQM in Higher Education- A Review. *International Journal of Quality and Reliability Management*, *14*(5), 13-30.

Parasuraman, A. Zeithaml, V. and Berry, L. (1994). Reassessment of Expectations as a Comparison Standard in Measuring Consumer Perceptions of Service Quality: Implications for Future Research. *Journal of Marketing*, *58*(January), 11-24.

Parasuraman, A., Valarie A. Zeithaml, and Leonard L. Berry (1985). A Conceptual Model of Service Quality and Its Implications for Future Research. *Journal of Marketing, 49*(October), 41-50.

Price, I., Matzdorf, F., Smith, L., Agahi, H. (2003). The Impact of Facilities on Student Choice of University. *Facilities*, *21*(10), 212-222.

Quality Assurance Agency for Higher Education (2000a). *Guidelines for Preparing Programme Specifications*. Quality Assurance Agency for Higher Education, Gloucester.

Quality Assurance Agency for Higher Education (2000b). *Code of Practice for the Assurance of Academic Quality and Standards in Higher Education: Assessment of Students*. Quality Assurance Agency for Higher Education, Gloucester

Roffe, I.M. (1998). Conceptual Problems of Continuous Quality Improvement and Innovation in Higher Education. *Quality Assurance in Education*, *6*(2), 74-82.

Roberts, J.S. and Schyve, P. (1990). From QA to QI: The Views and Roles of the Joint Commission. *The Quality Letter*, May.

Robicheaux, R.A., El-Ansary, A.I. (1975). A General Model for Understanding Channel Member Behavior. *Journal of Retailing*, *52*(12), 13-30.

Rowley, J. (1996). Measuring Quality in Higher Education. *Quality Assurance in Higher Education*, *2*(3), 237-255.

Rust, C. (2002). The Impact of Assessment on Student Learning. *Active Learning in Higher Education, 3*(2), 145-158.

Schneider, B., Bowen, D.E. (1995). *Winning the Service Game*. Boston, MA: Harvard Business School Press.

Shupe, D.A. (1999). Productivity, Quality, and Accountability in Higher Education. *Journal of Continuing Higher Education*, *47*(1), 2-13.

Siadat, S.A., Mokhtaripour, M., & Hoveida, R. (2008). *Quality Congress Middle East 2 Proceedings*, Dubai, ISBN 978-9948-03-638-8.

Srikanthan, G., Dalrymple, J. (2003). Developing Alternative Perspectives for Quality in Higher Education. *International Journal of Education Management*, *17*(3), 126-136

Trusko, B.E., Pexton, C., Harrington, H.J., Gupta, P. (2007). *Improving Healthcare Quality and Cost with Six Sigma*. Prentice Hall: *FT Press*, pp.21-24.

Vazzana, G.S., Winter, J.K. (1997). Can TQM Fill a Gap in Higher Education? *Journal of Education for Business*, *72*(5), 313-316.

Vazzana, G., lfrink, J., & Bachmann, D.P. (2000). A Longitudinal Study of Total Quality Management Processes in Business Colleges. *Journal of Education for Business*, *76*(2), 69-75.

Wisniewski, M. and Wisniewski, H. (2005). Measuring Service Quality in a Hospital Colposcopy Clinic. *International Journal of Health Care Quality Assurance*, *18*(3), 217-228.

Yorke, M. (2002). Subject Benchmarking and the Assessment of Student Leering. *Quality Assurance in Education, 10*(3), 155-171

Zamora, O., and Escoriza, J.A. (2007). *Aspiring Customer Satisfaction*. Växjö University, Sweden

Zineldin, M. (2000). *Total Relationship Management*. Studentlitteratur, Sweden.

Zineldin, M. (2000b). Total Relationship Management (TRM) and Total Quality Management (TQM). *Managerial Auditing Journal*, *15*(1-2).

Zineldin, M. (2004). Co-Opetition: The Organization of the Future. *Marketing Intelligence &Planning, 22*(7), 780-787.

Zineldin, M. (2005). Quality and Customer Relationship Management (CRM). *The TQM Magazine*, *17*(4).

Zineldin, M. (2006a). The Quality of Health Care and Patient Satisfaction: and Exploratory Investigation of the 5Qs Model. *International Journal of Health Care Quality Assurance*, *19*(1), 60-92

Zineldin, M. (2006b). The Royalty of Loyalty: CRM, Quality and Retention. *Journal of Consumer Marketing, 23*(7), 430-437.

Zineldin, M., Camgoz-Akdag, H., & Vasicheva, V. (2009). 5Qs Model, Higher Education and Student Satisfaction: A Case Study in Turkey. *ICQSS 2009 proceedings*, Verona, Italy.

Zink, K.J., Schmidt, A. (1998). Practice & Implementation of Self-Assessment. *International Journal of Quality Science*, 3(2), 147-170.

Appendix 1: Example of the Items in Zineldin 5Qs Assessment Instrument in Higher Education

Course evaluation

Name of the course:

Q 1 Quality of object (that attribute can be seen as the technical quality or the quality of the treatment itself

Learning Objectives

1. My general opinion of the course is good☐☐☐☐☐poor
2. The book supports the achieving of the learning objectives of the course yes☐☐☐☐☐no
3. Sense of security from physical harm the students felt in the university yes☐☐☐☐☐no

Q2 Quality of process

Evaluate to what extent the following activities have contributed to your learning

1. The tutoring sessions high contribution☐☐☐☐☐low contribution
2. The structure of the lectures supported the achieving of the learning yes☐☐☐☐☐no

Q3 Quality of infrastructure

1. I have read the pages in the literature before the lectures yes, always☐☐☐☐☐no, never
2. My commitment to the course has been appreciated by the professor high☐☐☐☐☐low

Q4 Quality of interaction

1. Adequacy of explanation about your performance good☐☐☐☐☐poor
2. Adequacy of instruction before and after a seminar, lecture or exam good☐☐☐☐☐poor

Q5 Quality of atmosphere

1. Accessibility to the computers and other facilities good☐☐☐☐☐poor
2. Accessibility to the study rooms good☐☐☐☐☐poor