

Full Length Research Paper

The role of quality management for effective implementation of customer satisfaction, customer consultation and self-assessment, within service quality schemes: A review

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Quality management is mainly examined in a business and services context. Therefore, the determining parameters of defining quality schemes are the business and services provision, the customer satisfaction, the effective assessing of information, as well as the successful monitoring of all participating managerial systems within the business environment. In the present study, references of Quality Management interest, that have been published within the last two decades (1990 to 2010) are collected, grouped and presented in accordance to their relationship with the customer satisfaction, customer consultation, and self-assessment contexts. The dominating value of complaints procedures investigation, organizations state-of-health, and proposing modifications to existing systems that could improve service quality schemes are also addressed.

Key words: Customer consultation, customer satisfaction, quality management, review, service quality.

INTRODUCTION

Quality management and customer satisfaction

Quality, in terms of business and services provision, is a highly influential parameter, since it involves the aim of customers' satisfaction in a wide spectrum of businesses orientation. In the relevant literature (Lingaraj and Khamalah, 2004) managerial perceptions regarding total quality management practices in small well-established service organisations in USA were surveyed. The main examined parameters included the Total Quality Management (TQM) deployment, tools used, successes, failures, benefits, and problems consideration. Therefore although the majority of the businesses aspire towards TQM, only a minority had actually implemented a formal TQM programme. Besides, an even smaller proportion engages in quality-enhancing activities and rewards employees for successful quality performance. It is worth noting that the innovativeness of these studies also reveals that quality management could be affecting, by the following parameters: a) business position within a time framework. Particularly, earlier studies on quality

deployment in other sectors and the strategic implications should be also considered, b) Moreover, the technological advancements and the extreme liquefied economic situations should also affect the Quality management prosperities in a contemporary business environment.

Indicatively, in the logistics service, Kersten and Koch (2010) logistics service quality is measured by the three dimensions of; service potential, process and outcome, in the light of relationships formation between logistics service quality, quality management and business success. The study outcomes state that logistics service providers should devote more attention to quality management than they currently do. Besides enhancing quality, they should focus their efforts on service potential and the service process. Since research into logistics services has so far been mostly descriptive, this study is focusing on validating empirically, a measure of logistics service quality and relating it to other phenomena. Moreover

further studies other than in the country of experimentation are needed to generalise the out coming results.

Another context of quality management in a business and services sector is fundamental in the tourism services. Indeed, Koc (2006) explored the influence of an all-inclusive pricing system on total quality management and business excellence in the Turkish tourism market, from both employee and customer satisfaction perspectives, within the framework of the specific business models. The study establishes that, if not wisely administered, the adoption of an all-inclusive pricing system may lead to a decline in employee satisfaction, customer perception of overall service quality, and conclusively, in customer satisfaction. It is also apparent that modified studies should also concentrate on the traits of winter holidays notable destinations.

Customer satisfaction prosperities and its role in the quality management framework are early examined in the relevant literature (Agus et al., 2000; Eklöf and Westlund, 1998; Tishman, 1992; Jones, 1986). Therefore, the rest of the present analysis is devoted to the interaction between the notions of quality management and customer satisfaction. Since the available references are abundant, in order to maximize the usefulness of the presenting studies and their outcomes, the relevant studies of the last two decades are gathered and positioned in Table 1, while their presentation is from the latest to the earliest.

Quality management and commercial operations

Quality management schemes, in the viewpoint of their applicability to commercial operations, are characterized by three main parameters as further discussed.

Firstly, there are relevant studies that are dating, since the devotion to quality management is expanded beyond the last two decades (Elsahragty, 1974). Moreover, quality management could be proved influential to a variety of any contemporary social and commercial activity, especially regarding those social governmental priorities that are apparent in the developed and Western societies. It is worth noting that two potential applications of quality schemes to contemporary commercial operations are the medical health care (Landon and Epstein, 1999) and the power plant operation (Gaus, 2001) sectors. Even though these studies were publicized one decade ago, both of them are notable examples of successful involvement of quality in contemporary necessary commercial activities. These two studies are presented in details at the end of the present work.

Additionally, it is also profoundly important to concentrate our interest to both the communication and the record keeping aspects to successful quality schemes' implementation. These aspects are very important to any

quality scheme because they both formulate the formal or informal character of the communication among the involved members and provide an essential amount of written documentaries that are periodical and, effectively revise each business goals and priorities within a rapidly changing economic environment.

Even though it is hardly distinguishable to extract the vast amount of references that are devoting solely to quality management regarding to commercial operations, the rest of the present study shows a group of references that are representative of this area of analysis. Particularly, quality schemes have been proposed from the analysis of metropolitan (urban) water resource systems (Elsahragty, 1974) to the software application of construction and operation (Ivlev and Popova, 2004). It is obvious that both these phenomenal opposed commercial activities are proved equally appropriate fields of quality managerial application.

Landon and Epstein (1999) evaluated the quality management practices in Medicaid managed care, in the framework of a national survey of Medicaid and commercial health plans participating in the Medicaid program. The arising problem of Medicaid managed care is that the rapid expansion of Medicaid beneficiaries is questionable about their capacity and willingness to provide high-quality care. Moreover, national legislation regulations are also interfering parameter to facilitate market entry of Medicaid health plans of their enrolment from the Medicaid population.

The study aims at characterizing and comparing the organizational characteristics and programs related to quality of care of commercial and Medicaid health plans that participate in the Medicaid program. The experimental method included a cross-sectional annual survey, including 11 states and the district of Columbia. The study measured the health plan reports of structural characteristics, services offered, performance measurement and feedback, disease management programs, information systems capabilities, and provider network composition and relationships.

The study outcomes revealed that Medicaid plans, tended to be smaller and newer than commercial plans that also served the Medicaid population and had more enabling programs targeting the special needs of the Medicaid population, such as inadequate transportation and illiteracy. Overall, the majority of Medicaid plans and a half of commercial plans had enabling programs targeted at 6 or more of the 8 special needs of authors' specifications. While commercial plans had a higher proportion of board-certified primary care, physicians authors' found no major differences between Medicaid plans and commercial plans regarding parameters such as collection and dissemination of performance measures, designation of specific areas for quality improvement, or use of disease management programs targeted at conditions prevalent in the Medicaid population. Additionally, both commercial and Medicaid

Table 1. Quality management and customer satisfaction interrelation.

Reference item no.	Reference (reference section no.)	Area of application	Scope – method – results
1	Jiang et al., 2010 (27)	Supply chain management	Key enabling technologies included collaborative quality design based on collaborative supported computer work (CSCW), dynamic process quality control, quality evaluation, oriented to product lifecycle. The prototype system of the quality management system for supply chain based-customer satisfaction was developed, which was introduced to demonstrate The rationality and validity of the quality management method, as an example of some Heavy Machinery, provided an effective method with enterprise implementing supply chain management.
2	Lenka et al., 2010 (38)	Manufacturing-oriented services	A critical assessment of literature and a comparison of various quality management models divulge the variables that are proposed to influence service quality and customer satisfaction in manufacturing-oriented services. These variables are categorized as 'soft' and 'hard' aspects of quality management, according to specific criteria. It is rationalized that the adoption of soft and hard aspects of quality management is essential to achieve service quality and customer satisfaction.
3	Ch et al., 2009 (10)	Knowledge Management characteristics that are integrated in Quality Management	Nowadays, a progressive enterprise should strive to adapt itself successfully to new management skills, principles, abilities and higher levels of competency. Also customer demands and their levels of satisfaction are determined by new factors. The proposal of a model of knowledge management approaches for supporting quality management to achieve higher customer satisfaction is made. It has been revealed that Knowledge Management brings and sustains advantages to fulfil customer demands by creating and supporting beneficial features through launching of appropriate knowledge management processes.
4	Chen et al., 2009 (12)	Quality management application in the internet tax filing system for individual income tax	The examined three quality constructs are: a) information quality, b) system quality and c) service quality. These parameters can be further decomposed into seven proposed sub-constructs. The technique of structural equation modelling is employed for structure confirmation. The outcomes of the study also showed that the order factors of the above three quality constructs are: (1) accuracy and relevancy, (2) interaction, navigation, and ease of use, and (3) reliability and responsiveness, respectively. The above determining results, along with involved managerial implications, can be further used for studies concerning the Information Systems (IS) user satisfaction and success.

Table 1. Contd.

5	Teodorescu et al., 2009 (51)	Quality management approach at tourist's services level	The tourism management is approached gradually, in four steps: quality control, quality insurance, total quality control and total quality management. According to each step of knowledge there are developed the instruments, techniques and work methods, thus amplifying the opportunities to detail this kind of approaches to operational level of tourism management.
6	Mehra and Ranganathan, 2008 (42)	Total Quality Management (TQM) examination along with customer satisfaction across diverse industrial and cultural settings	The interaction between TQM and customer satisfaction was quantified, summarized, and tested for moderators to clarify TQM impact. The study broadens the scope of TQM applicability across varied industrial and cultural settings to achieve higher customer focus, increased customer satisfaction, and stresses the need for more meta-analytic studies on the subject.
7	Sharma and Gadenne, 2008 (48)	Empirical investigation of the relationship between quality management practices in customer satisfaction by using a factor analysis with varimax rotation. The measures of organisational performance were implemented using Multivariate Analysis of Variance	Quality management factors such as top management philosophy, measurement and open organisation have significant associations with business competitive position and its overall performance. Besides, marketing process improvement and employee training have significant associations with customer satisfaction.
8	Xiong et al., 2008 (54)	Outsourcing software quality management using Quality Function Deployment (QFD)	QFD is applied to outsourcing software development on the basis of analyzing the issues of offshore outsourcing software development and the existing methods of software quality assurance (SQA). Furthermore, the study proposes the customer satisfaction-oriented model (OSQMM) by focusing on analyzing and translating the "Voice of Customers". The model usefulness is proved to be effective through a case study on the development of an accounting information system.
9	Hemsworth et al., 2007 (20)	The empirical examination of existing relationships existing among Information Systems (IS) practices in purchasing and Internal Customer Satisfaction (ICS), within a quality management practice framework	Even the implementation of Information Systems (IS) can support organisations to improve external customer satisfaction levels; its potential for internal customers remains under examined. Therefore, by stating that IS and ICS relationship is affected by many predictable management initiatives, the results obtained support the proposed model and indicate that quality management practices in purchasing and related IS practices have a positive impact on ICS.

Table 1. Contd.

10	Jiang et al., 2007 (26)	Development of the quality management prototype system of individualized customization, based on customer satisfaction	The most critical problem of maintaining stable product quality and meet the customer individualized requirements constantly, quality management system model of customization based customer satisfaction, is addressing. The key modelling functions of collaborative quality design, production process quality management, application and service quality management, are analyzed.
11	Beholz and Konertz, 2006 (7)	Examination of customer satisfaction with a quality management system in the medical sector, according to DIN EN ISO 9001:2000	The influence of repeated evaluation of the referring physicians' satisfaction conducted in the course of time intervention on structures and processes in the scope of the quality management system was examined. Customers' satisfaction could be further increased by targeted interventions, including the field of documentation, leading to a measurable increase in satisfaction with postoperative communication. Moreover, repeated annual evaluation of the satisfaction of referring physicians is considered a valuable tool in the process of continuous quality improvement.
12	Koc, 2006 (31)	The framework of modelling for all-inclusive pricing system on Total Quality Management and Business Excellence in the tourism market	The study is based on key informant interviews as well as surveys of agents involved in the tourism services. The study establishes that, if not wisely administered, the adoption of an all-inclusive pricing system may lead to a decline in employee satisfaction, customer perception of overall service quality, and finally, in customer satisfaction.
13	Beholz and Konertz, 2005 (6)	Examination of cost-effectiveness and customer satisfaction improvements by applying a quality management system (QMS) in the medical sector, according to EN ISO 9001:2000	To control costs for medical goods and laboratory investigations of a cardiac surgery departments, an internal control system for the allocation of resources was implemented. Laboratory costs and medical goods per open heart procedure were investigated in the years 2000 to 2003. Customer satisfaction is examined through repeated questionnaire-based evaluations. The study outcomes revealed that costs of medical goods could be reduced while customer satisfaction could be increased efficiently, regarding to accessibility and postoperative communication. By the introduction of a process based QMS, efficient control of the costs of medical goods and laboratory investigations could be achieved. Repetitive annual evaluation of satisfaction of advising physicians has proven to be a valuable tool in the process of continuous improvement.

Table 1. Cont'd.

14	Nan et al., 2005 (43)	Total quality management, management system of health-safety-environment (HSE), and total customer satisfaction, being the best criteria of modern Chinese petroleum enterprises	The combination of the three aspects together was proposed, thus providing the new thought to enhance and improve the operation and management level of Chinese petroleum enterprises, increasing their economic and social benefits, and strengthening their integral power of international competition.
15	Jin, 2005 (28)	The impact of service quality system in the hotel service industry	The study states that the following five factors of: reliability, assurance, tangibles, empathy and responsiveness, were identified of affecting both service system and service performances. The outcomes showed direct relationships between service inputs (including assurance, empathy, and responsiveness) and service system. Furthermore, the service system has strong, positive, and direct relationship with customer satisfaction; the later being highly depending on reuse.
16	Kühne et al., 2002 (33)	Customer (patient) satisfaction analysis of an internal service unit in a hospital pharmacy	About 3500 co-workers of the entire hospital setup were included in the written inquiry of a questionnaire presentation. Data analysis was differentiated according to professional groups and service categories, eventually enabling on-target planning and implementation of improvements. A very positive rating was accorded to highly personalized features such as readiness to help and friendliness. Both physicians and customers' satisfaction could be rating and improved by the appropriate quality of service. Hence, such rating should be an integral part of a quality management system. In respect of general satisfaction rating there were significant differences between the professional groups. Essential criterion for rating the pharmacy's advisory activity was that quality goes before quantity.
17	Herrmann et al., 2000 (22)	A case study, based on market-driven product and service design, is used to bridge the gap between a firm's internal quality improvements and external measures of customer needs and satisfaction	This study offers a framework to integrate the following two domains: a) a firm's internal quality improvements, and b) external measures of customer needs and satisfaction. Both areas have recognized the need to broaden their focus and mutually bridge the gap between them. A case study is presented to demonstrate the usefulness of an integrated approach.

Table 1. Contd.

18	Lüthy et al., 2000 (41)	Total Quality Management (TQM) and the Business Excellence Model of the European Foundation of Quality Management (EFQM) involvement in customer (patient children) satisfaction of a paediatrician children's hospital in Berlin	Specialists and family physician as external customers influence the patient's choice of a hospital. The present study aims at evaluating the satisfaction of admitting physicians of a children's hospital with the help of a questionnaire. The results depicted children needs and their level of satisfaction regarding service, information, cooperation and communication within the hospital.
19	Andrzejewski and Laguna, 1997 (3)	A survey conduct of health care providers to determine the quality of service provided by the staff of a regulatory agency	The authors surveyed health care providers using a customer satisfaction questionnaire developed in collaboration with a group of providers and a research consultant. Questionnaire structure fell into six quality domains: proficiency, judgment, responsiveness, communication, accommodation, and relevance. The three highest and the three lowest levels of customer satisfaction were determined. Responses to the survey identified a number of specific areas of concern; these findings are being incorporated into the continuous quality improvement program of the office.

Medicaid plans reported no high success in improving quality of care. Furthermore, the study states that, while Medicaid plans resemble commercial plans serving the Medicaid population in many aspects of quality management, they are more likely to target programs directed to the specific needs of the Medicaid population.

Finally, Gaus (2001) examined quality management systems and their importance for power plant operation. Specifically, planning, control and decision making and work processes in power plant inspections are determining parameters for the operation of cost-intensive and high-technology power plants maintenance. A quality management system offers a multitude of instruments to the plant management, comparable with a tool box with many tools, in order to help towards the aim of a "qualified service provider". Nevertheless, the drawback of the presented tools is that they are wrongly implemented in many

companies and thus, do not yield the expected usefulness. However, the successful acquaintance with the advantages of a quality management system consist this administrative scheme an essential, inseparable compound of the corresponding commercial operation.

Quality management and customer consultation

The present study refers to the quality benefits and assessment to the customer, in the viewpoint of the applicable appropriate administrative tools of quality schemes implementation. In the relevant literature, the exploration of various quality-based studies could be mainly determined by the central role that customers play in their materialization. Particularly, the main field of research application

investigates the customer consultation, applying in environmental-based regulations and European Legislative Acts, as well as in the medical/clinic/health care sector (Englesbe, 2009). Further analysis categorizes the main references of quality management gathering, in respect to customer (Table 2) and customer consultation (Table 3), respectively. The relevant studies of the last two decades are gathered and presented from the latest to the earliest.

Quality management and self-assessment

Quality management principles are also dominant to the improvement of organizations' performance. In the relevant literature, a proposed powerful tool for quality management implementation is self-assessment (Koshchij, 2002; Aly, 1997). The spectrum of self assessment application in a

Table 2. Quality management and customers' interrelation.

Reference item no.	Reference (Reference section no.)	Area of application	Scope – method – results
1	Jiang et al., 2010 (27)	Quality management system for supply chain-based customer satisfaction (chain management)	Quality management is investigated with its involvement internal and external practices within a firm; especially towards supply chain based-customer satisfaction and the corresponding functional modules and framework. Technologies studies included collaborative quality design – based on Collaborative-Supported-Computer-Work (CSCW) – dynamic process quality control, and quality evaluation oriented to product lifecycle. It provided an effective method with enterprise implementing supply chain management.
2	Li, 2010 (39)	Quality management system based on customer value	The relationship between customer value and quality management system by introducing the concept of customer value management into the field of quality management, is examined. The study states that customer value consist an innovative goal of quality management system, while quality management system is the guarantee for customer value.
3	Jiang et al., 2007 (26)	Quality management system oriented to individualized customization-based customer satisfaction	The study examines the critical process of both maintaining stable product quality and meeting the customer individualized requirements constantly. The experimental methodology focuses on the establishment of quality management system model of customization based customer satisfaction. The quality management prototype system of individualized customization based customer satisfaction is developed, and verified rationality and validity.
4	Beholz and Konertz, 2006 (7)	Customer satisfaction with a quality management system in the clinical sector	The quality certification DIN EN ISO 9001:2000 is applied in a university cardiac surgery unit. The influence of repeated evaluation of the referring physicians' satisfaction conducted in the course of three consecutive years on structures and processes in the scope of the quality management system was examined. Customers' satisfaction could be increased by targeted, annual-based interventions.
5	Beholz and Konertz, 2005 (6)	Quality management system (QMS) according to EN ISO 9001:2000 certification, in medical health department	The beneficial effectiveness of the quality management system (QMS) according to EN ISO 9001:2000 has examined for cardiac surgery departments in the viewpoint of cost-effectiveness and customer satisfaction. The main dominating parameters of costs and customer satisfaction are thoroughly presented and evaluated with the support of relevant questionnaires. Annual repetitive evaluation of satisfaction of advising physicians has proven to be credible tool in the process of continuous improvement.

Table 2. Cont'd.

6	Kühne et al., 2002 (33)	Assessment of patient satisfaction in respect of the quality of service rendered by a hospital pharmacy	About 3,500 co-workers of an entire hospital complex were included in a written inquiry regarding the quality of clinical service in patients' satisfaction. The questionnaire was divided into three essential headings in accordance with the systematized organization of pharmaceutical trade spheres. Data analysis was differentiated according to professional groups and service categories. The ratings of the outcomes revealed that satisfaction improvement of physicians requires particularly strenuous efforts, thus rating should be an integral part of a quality management system.
7	Jack, 1994 (25)	Software product development in the viewpoint of customer involvement in the application of quality management systems	Effective software product development aims to guarantee customer satisfaction, organizations by implementing an active customer involvement in the development process. The proposed mechanisms should be built into the supplier's quality management systems (QMS). Therefore, the necessity of a customer to give specific, visible role at certain points in a product development is also pointed out.
8	Sentell, 1989 (47)	Quality management system formation by changing customer requirements	In the present study, the management system implementation could be achieved whenever it unleashes everyone in the organization to respond to opportunities; motivating people to make decisions that impact positively on both external and internal customers.

Table 3. Quality management and customer consultation interrelation.

Reference item no.	Reference (Reference section no.)	Area of application	Scope – method – results
1	Dorfman et al., 2010 (14)	Quality management application in environmental management issues.	National (UK) law environmental regulations describe air quality in their area of jurisdiction and determination of locations where concentrations of defined pollutants exceed. In the present study, the ongoing review and assessment process is undertaken in a large-scaled science consultation initiative undertaken in the UK, by combining a questionnaire-based survey with in depth case studies. Determining parameters for effective local community participation in such processes include a well-informed and adequately resourced local community, besides an explicit connection between participatory and decision-making processes.

Table 3. Contd.

2	Leksmono et al., 2010 (36)	Air Quality Management (AQM) interaction between Environmental Health professionals and other stakeholders involved in air quality consultation	According to the Schedule 11 of the Environment Act 1995, this underpins the requirement for consultation on air quality issues. The study represents a large-scaled science policy and communication initiatives within the UK, in the light of ongoing air quality review and assessment process. Experimental results are formulated from a widespread questionnaire survey of English local authorities. Data indicate that the majority of air quality consultation has been carried out with statutory consultees and the public, both formed within information dissemination.
3	Teichmann et al., 2009 (50)	Intraoperative consultation (IOC) is surgical sector, as an preventive instrumental strategy of quality management	IOC comprises an assessment of major steps in the operative procedure by another consultative surgeon requested by the operating surgeon to be present in the operating room during the operation. Results collected and evaluated according to the data on the frequency of the feasibility of IOC or whether it led to decisions influencing the course of the procedure. IOC showed that it can be performed in the majority of cases; being especially successful in a large number of treatment/operative relevant decisions undertaken.
4	Leksmono et al., 2007 (37)	Local Air Quality Management (LAQM) integrated consultation process	National (UK) policies identify a range of statutory and non statutory consultees, including the public whom views are taken into account in the local authority's decisions about LAQM. This paper is supported by a 2 year Economic and Social Research Council funded programme regarding the discharge of air quality duties and responsibilities on behalf of local authorities in England. The experimental tools included a questionnaire survey and case studies presentations. Even though local authorities genuinely attempt to engage with all stakeholders, the proper functionality of current consultation processes could be still questionable. Therefore, a re-think on the form and function of LAQM consultation processes is required, in the viewpoint of revealing its barriers and opportunities.
5	Dorfman et al., 2006 a (15)	Air Quality Management Areas (AQMA) participating in local air quality management (LAQM) consultation process	The study was implemented through a 2-year ESRC research project that had investigated the nature, scope and effectiveness of LAQM consultation approaches. Moreover, 11 in-depth case studies were identified and executed. The authors denote that there are no simple solutions to the consultation dilemma. A series of: substantive challenges in contacting, engaging with, and incorporating the views of their diverse constituencies within the LAQM decision-making process are commonly confronted by local authorities; their assistance in this process included a range of emergent "better practice" parameters.

Table 3. Contd.

6	Dorfman et al., 2006 b (13)	Local Air Quality Management (LAQM)	The study aims at satisfying an enhanced integration of community knowledge in environmental and health decision-making dynamic processes. Both questionnaire survey and case study research undertaken in the implementation of statutory process of local air quality management (LAQM), within local authorities; their latter perceptions and abilities of air quality science may tend to transitively determine the choice of consultation methods used, the communication strategies chosen and the relative integration of stakeholder feedback into the LAQM decision-making process. The development of a preliminary conceptual model aims at unveiling the sequential chains of association that comprise the LAQM risk communication process.
7	Anonymous, 1998 (4)	Issues and discusses the ways forward in relation to Local Air Quality Management consultation	The study response to concerns of the NSCA's Air Quality Management Committee, whose members include representatives from local authorities, business, industry and other non-governmental organisations, at their meeting on 8 July 1998. The paper opens up a discussion and a wider as to what constitutes good practice in relation to consultation for local air quality management.
8	Huyse, 1998 (23)	Quality management within clinical practice of consultation-liaison psychiatry	This paper presents the Norwegian experiences from a European collaborative study of quality management in consultation-liaison psychiatry. A dynamic model was proposed for total quality management and it was based on regular registration and feedback of some clinical data. The reported experiences with this model and obstacles met in everyday work were evaluated in a broader base of consultation-liaison psychiatry.

Table 4. Quality management and self assessment interrelation.

Reference item no.	Reference (Reference section no.)	Area of application	Scope – method – results
1	Chen et al., 2010 (11)	Quality management in different size of enterprises by using a self-assessment approach	A scale for measuring maturity level of quality management activities in an enterprise was used to examine the quality management activities in three different sizes of enterprises: large, middle and small. The results and their possible reasons of the outcomes acknowledged that to establish a reliable quality management system is important to a small size enterprise when it is going to turn out to be a middle or large size of enterprise.

business environment is depicted in Table 4, while references are presenting from the latest to the earliest.

Table 4. Contd.

2	Lam et al., 2008 (34)	MBNQA-oriented self-assessment quality management system (SQMS), which is based on the seven criteria of Malcolm Baldrige National Quality Award (MBNQA), for construction contractors to benchmark	The study states the dissatisfaction of many construction clients with the quality performance achieved on their projects though many contractors are being certified with ISO9000:1994 certification. A questionnaire survey of Hong Kong construction quality management experts, in which a fuzzy analytical hierarchy process (AHP) was employed to calculate the weights of the seven criteria, was carried out. The allocation of weights in the seven criteria particularly in the input criteria (leadership, strategic planning and customer and market focus) concluded in many differences and the "results" criterion compared with the original weights of MBNQA were observed.
3	Benavent et al., 2005 (8)	An exploratory case study regarding the variables and relationships underlying self-assessment application in quality management	Three Spanish organisations with a broad experience in self-assessment application were analysed regarding their products, processes, and their management. The study utilized a model of self-assessment application, containing variables and relationships among variables. Thus, a holistic or systemic self-assessment model was implemented; where all the considered variables were analytically and explicitly interrelated. The study outcomes could provide a practical guide for managers interested in the use of a continuously monitoring and improving self-assessment technique.
4	Hensen et al., 2005 (21)	Demand proof of quality in hospital health care according to German legislative and health insurance agencies	Since the possible impacts of the quality management system can hardly be foreseen, the decision for or against one or another quality management model appears to be difficult. The positive and negative aspects of a Self-Assessment application in quality management are presented. The proposed Self-Assessment method of the European Foundation for Quality Management (EFQM) provided a valuable and efficient tool to introduce quality management in a hospital environment.
5	Pun, 2002 (45)	The combined integration of Performance Measurement (PM) and Total Quality Management (TQM) philosophies with feasible means of self-assessment	The proposed combined TQM/PM Integration (TPI) presented the key findings from an empirical study in Hong Kong. The essential ingredients and self-assessment criteria for building a TPI model were discussed. Moreover, a results-oriented scoring method to facilitate TPI in public sector and government organizations was also described.
6	Sturkenboom et al., 2001 (49)	A self-assessment framework that has potential in Small and Medium-sized Enterprises SMEs	The study states that many tools and instruments which have been developed to assist in the implementation of the quality principles are too complex for small organizations. Therefore, the adoption of quality management schemes of maturity level by more SMEs was achieved via the concentration to the issues that are of primary importance in SMEs.

Table 4. Contd.

7	Arcelay et al., 1999 (5)	A self-assessment experience of all the health and public service centres, by means of the European Quality Model applying in the Basque Country Government	The study was monitoring by the Basque Foundation for Quality Promotion key-institution. The study revealed that different improvement areas were detected, and various necessary actions were implemented in the centres assessed. Additionally, advantages, troubles and future work lines to extend and improve the use of the administrative model in the health sector were also discussed.
8	Quazi et al., 1998 (46)	The evolving relationship between Total Quality Management (TQM) using data from firms of USA, United Arab Emirates, and India	The study attempts to test the consistency and validity of the results from numerous manufacturing and service firms in Singapore. Moreover, self-assessment tool was applying by quality managers for continuous monitoring of quality-related performance. Conclusively, the study outcomes were co-evaluated in conjunction to relevant reference studies according to their reliability, validity, and self-assessment prosperity; for the measurement of the quality management practices of an organization.
9	Pira, 1997 (44)	Self-assessment approach for implementing TQM in health care customers in hospitals	The successful incorporation of TQM in a hospital prerequisites several phases of implementation methods, including the foremost priority self-assessment. The latter approach was proved suitable for both educating the committee members in the specific of the European Quality Award model and identifying the strengths and areas of improvement in the hospital.
10	Wu et al., 1997 (53)	Self-evaluations of organizations TQM programs, based on the seven categories of the Malcolm Baldrige National Quality Award MBNQA criteria	MBNQA criteria are applied in cooperation with the Excellence in Missouri Foundation, which administers the Missouri Quality Award (MQA). The study also denotes that process of fully assessing TQM efforts is difficult and hiring experts to help with this activity is expensive. Therefore the study adopts a survey instruments construction as an attractive alternative to full-scale assessment. Therefore the study points out how questionnaire results could be used to guide further TQM implementation efforts.
11	Brown and Van Der Wiele, 1996 (9)	Self-assessment framework supporting focus on quality management progress, by using a national postal survey in Australia	The study proposes that self-assessment enable organizations to provide a benchmark for their internal and external progress. It indicated that the knowledge about quality management self-assessment is widespread, since many organizations had initiated formal self-assessment identifiable and distinguishable processes.

Conclusion

The present study aims at revealing the dominating parameters affecting the quality

management, in all the crucial aspects of a business environment. The study reveals all the examined managerial systems throughout the last two decades; within these systems, quality

management is proved affective of the service quality schemes and beneficial proposals are made, in accordance to new systems or modifications to existing systems' prosperity.

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