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# Strategic Quality Management – An Annotated Review

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***Abstract:*** **- Quality has always been of paramount importance. However, it took centre stage in the decade of 1980s when companies like Xerox performed spectacularly well by engaging in strategic quality management. The concept of quality management has taken up many forms beginning from quality by inspection , to quality control , to quality assurance , total quality management or strategic quality management (Tummala & Tang, 1996). The previous review papers on the evolution of quality management have focussed mainly on the key elements, concepts or types of studies conducted in relation to quality assurance and total quality management. The present study is concerned with review of literature related to concept of strategic quality management. The main focus is identify the type of studies conducted in the field of strategic quality management.**
**Key words: Strategic Quality Management, Annotated Review**

## 1. INTRODUCTION

Quality has always been paramount in various aspects of the business.However, it took center-stage in the decade of 1980s when companies like Xerox performed spectacularly well by engaging strategic quality management to the extent that was undreamed off by the American companies(Godfrey, 1990).The American companies realized the importance of quality when Japanese companies played with new rules and gave them tough competition.Thekey to success is not in following the traditional view of quality but the philosophy of "Quality First" and effective management of quality within an organization (Ishikawa, 1985;Casalou, 1991).

The decade of the 1980s was a crucial period in the evolution of quality. Companies gave various names to their quality endeavors like total quality control, total quality management, companywide quality control, and total quality improvement to signify a new approach to quality management. With so much emphasis being given to quality and launch of so many quality initiatives the decade of the1980s can be called a decade of strategic quality management (Godfrey, 1990).

The teachings and quality concepts are given by various quality gurus like Deming,Juran, Ishikawa received the much-awaited attention and all those ideas of approaching quality was collectively known as Total quality management(TQM) (Aravindan, Devadasan, & Selladurai, 1996).The term total quality management is used to describe programs to improve quality and productivity. The evolution of quality management as mapped by Garvin in his book Managing Quality (1988) indicate that development of TQM was preceded by three movements of quality improvement involving inspection, statistical quality control (SQC) and quality assurance. In the inspection stage, the focus was on conforming to the specifications for meeting standardization requirements of assembly line production. The SQC was concerned about reducing the variations from per specified standards through the use of

statistical techniques. The third approach of quality assurance was focused on four elements- quantifying the cost of quality, total quality control, reliability engineering and zero defects. Quality improvement programmes have costs and benefits. Most of the organizations ignore the fact that significant resources are spent on training the workers and reorganizing for quality (Lederer & Rhee, 1995).

The strategic role of quality as source of competitive advantage is emphasised by many in the literature of quality and quality management (Garvin, 1984;Godfrey, 1990;Godfrey, 1995;Powell, 1995).A strategy based definition of quality suggests that various factors in the environment of a firm relevant to quality like actions of other firms, technological changes, customer needs and preferences , governmental and social influences has very significant impact on the firm. For example the government sponsored quality awards have raised awareness about complexity and significance of quality issues. Also, clearly defined mission and leadership are important for strategy development. The strategic perspective to quality suggests that firms must seek to beneficial change to cope with changing environments. Quality is a strategic level concept. A quality focused firm adopts the role of a quality coordinator between itself and other partners in the larger system (suppliers and customers). Thus Pruett & Thomas (1996) quoted a strategic construct of quality given by Deming (1986) as below:

" The strategic management of quality means that a

firm ,using quality, cooperation and long-term viability as inter-related guiding themes , works to inform, educate and motivate itself , and those with which it interacts , in order to continually improve and strengthen the human and process inputs , interactions , dependencies, relations, and outputs which constitute the firm and the system to which it belongs. In other words, quality is continuing pursuit of system optimization".(Pruett & Thomas, 1996)

However, the formal definition of strategic total quality management was given by Madu&Kuei (1993) in their study that viewed total quality management from the perspective of overall firm performance.The literature also states that the terms "total quality management" and "strategic quality management" can be used interchangeably as long as they treat quality from strategic perspective (Tummala & Tang, 1996).

The present study reviews the previous literature on evolution of the concept of strategic quality management and to determine the trend in studies related to this particular concept.

2.0 Review of Literature: Strategic Quality Management

The concept of quality has been subject of debate since the time of Greek philosophers like Socrates, Plato, Aristotle, and many others who looked upon quality as excellence. Nevertheless, a systematic inquiry into the subject was initiated due to its ever-increasing importance in business and commerce (Prisig, 1974). Scholars from varied disciplines have defined it in different ways, different perspectives depending on the need of their area of research.Quality is defined as achieving or reaching for highest standard with the investment of best skill and effort to produce the most excellent and most admirable result possible as against being satisfied with the sloppy or fraudulent (Tuchman, 1980).

Godefrey (1990) studied the reasons behind the failure of several companies, unlike those who won quality awards, in reaping the desired benefits from the total quality management programmes despite following all the steps. The study stated that most of these companies lacked a clear plan of action or quality strategy.

Total quality management (TQM) tends to push every firm towards specific common strategic objectives as it reshapes the business practices.

The role of senior executives in TQM oriented companies shift from formulating unique strategies, setting numerical goals and monitoring performance to facilitate changes that make quality everybody's business (Schonberge, 1992).

Madu & Kuei (1993) introduced the concept of strategic total quality management as an extension of total quality management (STQM) and is defined as" a quality management philosophy that views quality from the overall performance of a firm. It defines quality as being driven by customer and environmental needs and looks to identify critical factors that will determine the survivability and competitiveness of a firm in the near future". This approach to quality is more holistic and views quality to be customer and environment driven. It lays emphasis on the corporate social responsibility aspect of the quality management compared to total quality management and total quality assurance .

Recardo (1994) conducted research on importance of strategic aspect of quality viz-a-viz tactical aspects and prescribed the steps to implement SQM. It proposes reactive approach to quality focusing only on operational improvements leads only to incremental results. It also suggests that strategic quality management is a new approach to quality in which the decision making process is modified to take in to account the strategic issues affecting the organization. The organizations using this type of approach typically encounter less resistance, experience greater stakeholder ownership, take less time to implement and incur reduced productivity fluctuations .

Godfrey (1995) published an article identifying the emerging trends in total quality management. The key trends identified in the study are adoption of tools and techniques of total quality management by a variety of organizations followed by formation of partnership with suppliers, even competitors.

There is an increased focus on education and training of managers as well as orkers in quality tools and techniques, shift from product desgn to process design , use of benchmarking and delighting the customer. The key trend that is observes in strategic quality management,which involves stating clear vision and goals translated into individual objectives. Strategic quality planning is being used as a management tool to be implemented carefully. The companies that have successfully implemented strategic quality planning have reported many breakthroughs .

Aravindan, Devadasan, & Selladurai (1996) conducted a study to bridge the gap between theory and practice of total quality management and develop a focused model for Strategic Quality Model. The data was collected through personal interviews with manufacturers and personnel involved in quality improvement programmes from various parts of world including Asia, Europe, USA, and Asia-Pacific region. The systematic, structured, and focused quality management strategies needed for effective total quality management are collectively referred to as strategic quality management. The author carried out a survey among manufacturers from various countries like USA, Europe, and Asia and Asia-Pacific region to assess the awareness about TQM and foundation status. He proposed a model for

strategic quality management based on the single manufacturer model given by Juran. The study concluded that although implementation of SQM is a time consuming process but it is significant in this tough competitive era when manufacturers are looking for ways to inculcate quality in all spheres of manufacturing (Aravindan, Devadasan, & Selladurai, 1996).

Madu, Aheto, Kuei, &Winokur (1996) studied the problems of traditional accounting principles and their influence on adoption of TQM.

The authors suggested that the traditional accounting systems influence the adoption of TQM systems. It is important to adopt such systems that support TQM implementation. This paper demonstrates the use of linear programming for resource allocation. The systematic and holistic procedure developed by the authors views the environment of a company as dynamic and ever changing and takes into account the fact that organizational decision making often involves human inputs and is done as a reaction to competitors' actions.

Johannsen (1996) conducted research on strategic issues in quality management in library and information services to examine the relationship between total quality management and strategic management. The author has also emphasized that it is important to recognize the strategic importance of quality and question the traditional reactive approach to quality control. It is important to take inputs from quality plans and planning processes while developing overall strategic quality plans. The study concluded that strategic and quality management should be integrated .

Vinzant&Vinzant (1996) investigated the relationship between total quality management and strategic management using the existing research in order to identify the similarities and differences between the two. A comparison of strategic management and total quality management found some similarities and differences between the two approaches. However, despite certain differences the two approaches were found to be complementary. The two approaches complement each other in the sense that strategic planning process can be used to inform quality improvement efforts by highlighting those areas that are critical for the organization mission and long-term health. Planning and allocation of resources are important in strategic management and total quality management can leverage from this connection. A certain degree of autonomy promotes TQM and SM .

Tummala & Tang (1996) presented a theoretical review of literature on strategic quality management and presented a definition and framework for strategic quality management and made a comparison of Malcolm Balridge National Quality Award (MBNQA) , EFQM and ISO 9000 quality system. According to the study "strategic quality management is defined as a comprehensive and strategic framework linking profitability, business objectives, and competitiveness to quality improvement efforts with the aim of harnessing the human, material and information resources organization-wide in continuously improving products or services that will allow the delivery of customer satisfaction." The key dimensions or core concepts or constructs of strategic quality management that should be taken in to account while developing strategic as well as operational strategies are: customer focus;leadership; continuous improvement; strategic quality planning; design quality, speed and prevention; people participation and partnership; and fact-based management.Three core values that must be achieved through these concepts- customer focus, operational performance , financial performance. The authors have also developed an implementation framework using the seven core concepts to achieve core values and concluded that a quality system based on ISO 9001 can provide the basis for SQM.

Calingo (1996) proposed a five stage model for evolution of strategic quality management. The author proposes on the basis of literature that the key components of TQM like customer focus, leadership commitment, employee participation , fact-based management etc. can support organization in achieving competitive advantage by leveraging asymmetries associated with competitive scope , organizational base and information resources.

Thestudy proposed that strategy-quality integration has two process dimension and substantive dimension. According to the author, organizations pass through different stages of strategy-quality integration. Each stage is characterized by unique quality management practices and strategic management processes.The authors have proposed a model for the evolution of strategic quality management which shows that integration of strategic management and total quality management takes place in five predictable stages. These stages follow a natural sequence beginning with annual budgeting, long-range planning , strategic quality planning , management-by-policy and strategic quality management.

Pruett & Thomas (1996) proposed that the variety of perspectives on quality reflect that there is an integrative and systematic way to manage quality. A quality-focused firm adopts the role of a quality coordinator between itself and other partners in the larger system (suppliers and customers)..

Chapman, Murray, & Mellor (1997) studied the link between strategic quality management and business performance. The data was collected from the large Australian companies as they are reported to pay more intention to strategy-quality integration.

Srinidhi (1998) developed a holistic approach to quality

management linking each step of strategic planning to strategic quality management (SQM) as well as an integrating model for SQM is also proposed using a theoretical framework based on case studies of quality oriented companies. Strategic quality management is the integration of principles of quality management into all the steps of strategic planning identified as defining vision, change management process, and deployment of chosen strategy.

It is important that the strategic quality management should focus on building correspondence between firm offerings and customer expectations. The framework proposed to achieve this congruence is called congruence management business architecture (CMBA). This framework continuously monitors incongruence that arises between various management methodologies used to implement SQM.The CMBA framework is developed to promote externally oriented strategic management style and for identifying and removing conflicting and dysfunctional behaviour within the organization resulting from management methodologies used to implement SQM. The different management methodologies like balanced score card, quality councils etc. can be synchronised towards common goals using congruence management business architecture.

Leonard & Mcadam (2002) critically evaluated the development of total quality management and corporate strategy in an attempt to understand and encourage research in to the relationship between these two fields of strategy by developing the concept of strategic quality management after reviewing the literature on both. The primary objective of this paper is not to explore the relationship to full extent but to highlight the current direction and recommendations for research needed to advance the understanding the relationship of total quality management and corporate strategy.

Bossink (2002) conducted research on the supportive function of strategic quality management tools in the management of innovation processes using a case study approach in Dutch construction industry. The study used three concepts of strategic quality management, namely, the strategic function of quality, integration of quality in the strategy of the organization and an orientation towards processes and teamwork.

It concluded that tools of strategic quality management are useful in creating conditions in the organization supporting creation of innovation, supervision and initiation on innovation processes and production of innovation content along with implementation of innovations to primary processes.

Leonard &McAdam (2002) conducted an inducted grounded theory study in to the strategic impact of total quality management to place it in context with corporate strategy. An attempt is made to inductively understand the relationship between total quality management and strategy. The author used semi-structured interview to gather understanding about TQM practices from quality managers of 19 UK-based manufacturing organizations. The analyses of interviews indicate that organizations do not consider total quality management as key strategic driver. In most of the companies, the role of TQM is operationally focused used purely as a production issue. A lack of consistency is observed in the terminology used and lack of evidence that TQM is the key driver in strategic decision-making process. The author proposes that organizations are failing to use the potential of TQM to be a strategic driver. However, TQM plays an important role in strategy implementation but not in formulation.

Combe&Botschen (2004) reviewed various strategy paradigms used to manage quality along with advantages and disadvantages of each paradigm. A case-study is used to demonstrate the need for an integrative multi-paradigm approach for quality management as single paradigm may be ineffective.

Imler (2006) studied the important roles that are required to establish ,maintain and continuously improve a strategically viable quality management system. Out of many skills and responsibilites the most important or the main skills and roles are for the people in executive management ,functional management ,management representative and quality assurance and/or quality control functions. These are the functions that require internal core competencies to establish and maintain a strategic quality system. Most of the world class organziations have chemists ,engineers , statisticians in their QA staff having technical knowledge and skills aling with the ability to apply a wide range of tools in a variety of situations.

Temur, Kaya, Öktem, & Gözlü (2009) investigated the principles having the highest impact on determining the strategic quality implementation perceptions of managers using data collected on attitudes of managers at 80 large-scale firms in Turkey for SQM principles. The main objective is to understand the practices that increase the effectiveness of an organization maximum. The field study is used to collect data through a structured questionnaire sent by mail. Five-point Likert scale is used as rating scale. The firms practicing SQM consider the principles of process improvement, competitive assessment, strategic integration as more significant and customer satisfaction is considered important by all firms irrespective of SQM implementation. According to the study, the firms at different levels of performance should focus on different practices.

The high performance firms gain maximum benefits from practices focussing on customer based training for new employees, highlighting quality and teamwork studies for top management, extensive participation at meetings from highest level to lowest level of organization, world class benchmarking, sharing strategic plans with other partners in the supply chain, increasing permanent customers by maintaining after sales service, and using competitor comparison and customer satisfaction measures during plan development phases. The low performer firms focus on fundamental practices like teamwork in

departments and cross functions, trainings on customer relationships, problem solving approaches etc. the study found that high performing Turkish firms tend to behave like low performers ignoring the importance of improved practices.

Rahimić & Uštović (2011) conducted a research in Bosnia and Herzegovina about possibilities of using quality in the differentiation process and proposed a customer oriented sales model. The study measured the importance ratio among all the four elements of market mix with emphasis on ratio between price and quality. The main objective of this paper is to acknowledge the level of awareness and acceptance of quality issue like differentiation tool companies can use on the market. The data was collected from 44 B2B companies (composed of 20 international and 24 domestic companies) in six cities, Banja Luka, Lukavac, Mostar, Prijedor, Sarajevo and Tuzla, using a structured questionnaire. The results of Chi-square test used to compare two groups indicate that quality has an important role in strategic orientation of company as possible basis for differentiation to achieve sustainable competitive advantage. The international companies pay more attention to quality whereas domestic companies follow cost leadership strategy. It concludes that investments in quality based on seeking opportunities to create and develop benefit for customers, is good starting point for Customer-Oriented Sales Model incorporation. This model can help companies' to increase loyalty level and customer satisfaction. Though restructuring may increase costs.

Mosadeghrad (2012) developed a context-specific model of quality management for healthcare organization with the aim of achieving excellence through use of quality management. The author used Delphi Method comprising of four rounds of data collection to specify the core components of a quality management system. The Mann-Whitney and Kruskall-Wallis tests were used to determine if there was a difference in ranking of items between respondents.

The Wilcoxon test was used to determine the differences between the experts' ratings for rounds three and four. The top five critical success factors or quality enablers in healthcare are training, employee involvement, management support, leadership, and customer focus. These are "soft aspects" of quality management and are given more weightage over hard aspects. The quality management success factors generated by the panellists were classified into ten categories: leadership and management, strategic quality planning, total continuous learning, corporate quality culture, employee management, customer management, knowledge management, resource management, supplier management and process management. Based on these factors, the study proposes a quality management model called strategic collaborative quality management (SCQM). The concept of SCQM integrates the principle of quality management into all the three steps of strategic management. The quality is included in the mission, vision, and goals, strategy formulation and in the deployment and evaluation of action plans. The use of strategic quality planning helps in investigating internal and external environments allowing them to set clear priorities establish long-term strategic goals and allocate resources accordingly. The continuous quality improvement principles are also integrated into strategies action plans of the enterprise.

Paraschivescu (2014) described the contribution of the most important quality gurus Deming, Juran, Crosby, Feigenbaum, Ishikawa, and Garvin on the development of Strategic Quality Management (SQM).The concept of strategic quality management is based on the strategy of quality of organization, planning, empowerment, and broad commitment to customer satisfaction.

This concept is built around collaborative, creative, and strategic quality. In author's view, the quality should be judged from its strategic role in achieving performance objectives of an organization Thestudy concludes ultimate objective of strategic quality management is customer satisfaction. It also states that priority resources for achieving objectives of strategic quality management are people.

## 3. CONCLUSION

The review of literature on strategic quality management suggests that an integration of strategic management and principles of total quality management is essential in order to leverage quality as source of competitive advantage. As evident from the review of various definitions of strategic quality management given in literature, the focus is on strategically managing quality with the objective to improve overall firm performance and customer satisfaction. Most of the studies carried out in this area focus on development of conceptual models of strategic quality management defining various stages of its evolution and its key components. It is

also observed that a limited amount of empirical research is done in this field. Strategic quality management integrates total quality management into all the stages of strategic planning such that quality is integrated into vision, mission , short-term as well as long-term strategic goals, in deployment and evaluation of strategic plans.

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