

SHAPING THE FUTURE THROUGH TOTAL QUALITY MANAGEMENT

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Abstract

Quality has become the everyday vocabulary of our time. Most of the times people talk of quality time, quality life, quality road, quality service, quality sleep, etc. In business, education or any other service rendering entities, the issue of quality has become the top priority agenda item of discussion in order to be competitive in the global market order to shape the future through TQM. Many quality assurance agencies have put in place to make sure that service giving organization provide a quality service. However, it is becoming so difficult to maintain quality. Many are compromising quantity for quality. How can we maintain good quality management systems in order to meet the need of competitive global challenges ? The business dictionary defines Total Quality Management (TQM) as "a holistic approach to long-term success that views continuous improvement in all aspects of an organization as a process and not as a short-term goal." Over the past decades the awareness level of TQM has increased significantly. Different quality management entities prescribe TQM to increase efficiency and quality of their practices. TQM is one way of shaping the future through innovative approaches to the future challenges

Thus this paper endeavors to look at what past research says about the major factors influencing TQM in an organization. In addition, the paper presents the model for the empirical study of TQM using these factors as independent variables and the total quality management as the dependent variable. The researcher suggests for the future research that the qualitative research method might be used in addressing the research questions that might arise from this model. The researcher believes that qualitative approach to the study of TQM provides an empirical data and will help to identify the most influential factors that contribute to the disparities of the total quality management practices in organizations.

Keywords: TQM, assurance

INTRODUCTION

In order to capture their competitive advantage, attaining the highest level of quality management is vital for every organization. Many organizations put quality management as their priority aim and goal in order to attract, satisfy, and retain their customers. Many quality standards and systems are coming up from day today to ensure that organizations provide the maximum quality services that customers need from them. To give assurance, and raise confidence of the customers, quality assurance agencies are competing in various levels, both nationally and internationally. According to Case, Sirkantia, and Parameshwar (1998), the concept of TQM has attracted the attention of both scholars and practitioners to achieve competitive advantage in local and global market. The quality of products or services is determined by customers' satisfaction (Kalra & Pant, 2013). This implies that customers are the major determinants or factors which create competitive advantage in organizations. Thus,

customer satisfaction is the nucleus of total quality management. The phrase total quality management is a derivative of the incorporated effort of each employee in an organization being united in mission and achieves the organizational goal. According to Demirbag et al. (2006) total quality management is an instrument that can improve quality and a holistic approach in continuous improvement in all levels of an organization or business entity.

Thus, this paper comprises of the major factors that influence the total quality management concept. These factors include: Collaborative leadership, employee motivation and commitment, unity of purpose, customer-centered service, continuous improvements, organizational culture, supplier quality management, process management. Each of these will be discussed in detail and lastly, the conceptual framework model will be presented using these variables.

Total Quality Management

There are various definitions of TQM, all focusing to the same objective. Different scholars have given similar definitions using different terminologies to the meaning of total quality management. Gandlach (2013) stated that Total Quality Management (TQM) is methodologies of quality control. These methodologies include continuous improvement, the involvement of all employees, customer focus principles, and the integration of quality management into the structure of the organization. A broader definition was given by Kumar et al. (2009), Total Quality Management (TQM), as a comprehensive process to improving quality, productivity, and competitiveness in the international marketplace. According to Case, Sirkantia, and Parameshwar (1998), TQM is a management style that tries to create a culture of quality throughout every fragment of an organization. TQM can be achieved through empowerment quality assurance practices and teamwork. According to Yang (2005), total quality management has positive impact on facilitating problem solving and decision-making process in the organizations. Moreover, Yang has also explained further whereby total quality management is a general section of management which specially deals with competitive advantage, quality improvement and customer requirements. More particularly, TQM has an important role in continuous improvement of organization (Kumar et al., 2009).

Gandlach (2013) explains that TQM requires everyone in the company to be completely involved and it covers all company activities, it requires that the standards are set by customers, and that all practices conform to those requirements and it requires that quality is monitored and controlled for optimum results.

Furthermore, Rad (2006) argued that TQM cannot only help organization to increase customer satisfaction but also help firms to form an effective organizational quality culture. Moreover, many scholars are concerned with the emphasis of continuous improvement in an organization and have a general agreement that TQM is a way to manage an organization for developing its overall effectiveness to compete internationally.

Mission, Vision and Strategy for Quality Planning

Mission of an organization refers to reason for existence and purpose. It is all about the issue of survival. Various organizations have their own respective mission statements that distinguish them from others. All the strategies and operation are under the umbrella of mission statement. On the other hand, a vision statement outlines where an organization wants to be. Vision

communicates both the purpose and values of an organization. However, strategy deals with different ways of achieving those mission and vision purposes and goals to achieve the desired level of quality. The managers face both external and organizational issues which need to be aligned with the organizational mission and goal. They have to make strategic options to analyze quality strategy process.

Juran and Gryna (1993) defined strategic Quality Planning as a structured process for establishing long-range quality goals, at the highest levels of the organization, and defining the means to be used to reach those goals. Similarly, Krumwiede and Charles (2006) emphasized that the strategic aspects of quality are recognized and embraced by top management in the strategic planning process.

In additions to that (Sila & Ebrahimpour, 2005) consulted to state, translating vision into strategy, goals and policy, strategy development, and strategy into reality. This means the vision for the quality of products and can be transferred into action. The grand theme of the strategic quality planning under TQM stresses that long-term organizational sustainability and a competitive environment are key strategic issues that need to be integral parts of an organization's overall planning. In order to make such analysis, managers have to make environmental assessment such as economic issues, governmental and regulatory issues, technological issues, competitions, external threats and opportunities. The internal issues which need to be assessed are mission statement, financial and non-financial objectives, operational needs, internal strengths and weaknesses (Foster, 2010).

In the Malcolm Baldrige model, it has been stated that there is a positive link between strategic planning for quality and quality information and analysis (Wilson & Collier, 2000). On the same line, Foster (2010) also argues that strategic quality planning is a function of time, leadership, quality costs, generic strategies, order winners, and quality as core competency which are the key factors in developing a strategic planning for quality. The strategic planning process contains quality concerns at every step of the process. The strategic planning for quality was Japanese contribution as *Hoshin* which implies to plan, a course, or a policy as foster stated. Strategic planning for quality undergoes several stages namely: Mission, vision, values, and current strategies, market assessment, setting goals by assessing future markets, developing broad goals and plans by product line, review and monitor implantation of strategic plan on the overall total quality management.

Collaborative Leadership for Quality

One of the criteria for securing quality is leadership. The dominant role of 'top management support' is cited by most researchers. Collaborative leadership is a key strategic variable for quality management. Strong commitment from the top management is vital in quality management and leading to higher quality achievement. A collaborative leader empowers, motivates, organizes, plans, controls, communicates, teaches, advises and delegates (Foster, 2010). A leader or senior management acts as a driver and team player of TQM implementation, establishing values, goals, and systems to satisfy customers' needs and expectations and improve organizational performance (Das, Paul, & Swierczek, 2008). The ability of top management to establish a practice, and lead a long-term vision for the firm, driven by changing customer requirements is a powerfully crucial matter. Foster (2010) argued that in order to move

employees in the right direction to achieve TQM, leadership may use its different sources of power (expertise power, reward power, coercive power, referent power, legitimate power and influence power) by using various leadership dimensions such as knowledge, communication, planning and vision. Therefore there is very strong evidence that a collaborative leadership factor is relevant in a quality management such as top management accepts quality responsibility; evaluated on quality; participate in quality improvement efforts; makes strategies and goals for quality; alignment of information systems strategy with business strategy; considering market demands and consumer needs; and organizational performance and profitability (Saraph et al., 1989).

Collaborative leadership is important in influencing groups of people and mobilizing resources. Effective collaborative leadership promotes the strategic direction of the company to achieve customer satisfaction and business results by enhancing the total quality management in the organization.

Collegial Support

According to Gentzler (2005), Hoy and Hoy (2006), and Sergiovanni (1990), collegial support refers to the work linked support that group members provide to each other by sharing common concerns, information experiences, and knowledge at workplace. Evans (2003) suggested that collegial support is an interpersonal relation, and includes “features such as the degree and quality of teamwork, cooperative ways of working, consultation, and interdependence and support among colleagues” (p. 145).

Furthermore Joiner (2005) suggests that collegial support is a key element to become successful in business. It creates a good working team and is also a key element of TQM. With the collegial support, the business will receive quicker and better solutions to problems. Collegial support also provides more permanent improvements in processes and operations. In collegial support, people feel more comfortable bringing up problems that may occur, and can get help from other workers to find a solution and put into place.

Collegial support provides a venue for trust among colleagues. Trust is a by-product of integrity and ethical conduct. TQM cannot be built without trust among employees. Collegial support and trust foster full participation of all members in the organization. It opens a way for employee empowerment that fosters pride, ownership, and commitment. It promotes individual risk-taking capability for continuous improvement and helps to ensure that measurements focus on improvement of process and are not used to contend people. Collegial support enhances trust, which is essential to ensure customer satisfaction. So, collegial support builds the cooperative environment essential for TQM (Padhi, 2010). Collegial support fosters better relationships between employees and with their managers, as employees that are given more independence tend to form better working relationships (Joiner, 2005).

Unity of Purpose

Unity of purpose refers to the degree to which employees collectively focus towards common visions and objectives of the organization (Gruenert & Valentine, 1998). The vision of the organization should mirror the hope, benefit, needs, values, and dreams of all stakeholders and employees realize, support, and execute their duties in harmony with the visions of the

organization (Sergiovanni, 1990). Sergiovanni further noted that unity of purpose provides the organization with sense of direction and it is a key to success TQM. Harisson and Dymoke (2006) suggested that unity of purpose can be illustrated by organization's approach to collaborative working condition and its stipulation of prospects for combined planning and performance.

Employee Empowerment and Commitment

The workers are usually more competent than the managers to improve the system. The human capital is a very crucial asset of any company without which nothing can be done. It is the human capital that can manipulate every change and innovates the new ways of doing things for quality products or services. All employees participate in working toward common goals. Total employee commitment can only be obtained after fear has been driven from the workplace, when empowerment has occurred, and management has provided the proper environment (Gupta, McDaniel, & Herath, 2005; Fallah, Wei. & Rad, 2013). Thus, a significant part of the TQM philosophy is to empower all employees to recognize quality problems and correct them. TQM offers incentives for employees to identify quality problems. Employees are then rewarded for uncovering quality problems. An important factor to achieve goals in firms is workforce management, workforce management is emphasized on recognize employee performance on quality; encourage team working; provide training; involve employees in quality decisions (Saraph et al., 1989).

The human resource empowerment which includes employee training and employee relation was positively related to quality improvement. A TQM program will be successfully implemented depends on the collaboration and coordination among a firm's workforce (Ho et al., 1999; Gupta, McDaniel, & Herath, 2005). Employees are empowered when there is a goal which is clear and challenging and reachable, there are means to reach the goal, there is a sense of responsibility for the outcome, there is information about the corporate goals, participation in decisions, competitive remuneration scale, job security, and interesting work environment (Joiner, 2005, Gupta, McDaniel, & Herath, 2005). Joiner (2005) further states that employee empowerment in the organization has the benefits of improved morale, increased productivity team cohesion, and innovation.

Inspection, Quality Control, and Quality Assurance

Inspection is the process of measuring the characteristics of a product and compare them with its specifications. The goal of inspection is to see the fitness of standards with a feedback loop to the product loop. After inspecting, it is important to remove any substandard areas and control the product quality in order to ensure quality. Quality assurance is a process or set of (implemented) predefined and systematic activities necessary to give confidence in the process quality. The process of inspection, quality control, and quality assurance can be referred to as quality management system

A fundamental part of TQM is a focus on process thinking. A process is a series of steps that take inputs from suppliers (internal or external) and transforms them into outputs that are delivered to customers (again, either internal or external). The steps required to carry out the

process are defined, and performance measures are continuously monitored in order to detect unexpected variation.

A term process refers to combinations of machines, methods, materials, tools, and people employed in production. In order for production to occur, the supply of inputs goes into the process in order to yield the desired outcome. I believe the supplier management loses its meaning if the next stage which is the process stage is mismanaged. Thus, the process management section is equally as important as supply relationship management loop. Anderson and others (1995) have argued that the effectiveness of process management implementation has been cited as one of the major dimensions of integrated quality efforts. The TQM works as overall quality of products can be enhanced by improving the quality of the processes directly or indirectly related to their creation (Das, Paul, & Swierczek, 2008).

Gupta, McDaniel, and Herath (2005); Fallah and Wei (2013) noted that the maintenance of process capability to meet production requirements is the important matter in process control and improvement. Deming confirmed also that improving product quality should not be dependent on mass inspection. Quality comes not from inspection, but from improvement of the production process (Deming, 1986; Gupta, McDaniel, & Herath, 2005). The inspection of the output has nothing to do with quality, rather the process inspections matters a lot.

When we evaluate the effectiveness of the process, Malcom Baldrige National Quality Award criteria classify the process management category in the central requirements for identification and management of core competencies to achieve efficient and effective process management (Foster, 2010; Gupta, McDaniel, & Herath, 2005). According to Baldrige model and other excellence Models, the process management is defined as how the organization designs, manages and improves its processes in order to support its policy and strategy and fully satisfy, and generate increasing value for, its customers and other stakeholders.

Societal Networking

Competitive organizations do not operate in isolation. They scan their environment to evaluate themselves, and see how they are operating, and also to promote their products or services. They need to be aware of their performance and create awareness in their customers. The TQM mentality assumes that your company positively interacts with the "society" in which it operates. National promotional organization, training, knowledge dissemination, societal promotional activities, national standard certification, development of new method

Customer Satisfaction

Quality is defined as meeting or exceeding customer expectations. Therefore, the primary aim of TQM is to first identify and then meet customer needs. The most crucial nature of TQM is the company's focus on its customers and satisfies their needs. Important questions that an organization needs to ask in meeting the needs of the customers include: Who are my customers? What are their needs? What is my product or service? What are my customers' measures or expectations? What is my process for meeting their needs? Does my product or service meet these needs? What actions are needed to improve my process? (Gupta, McDaniel, & Herath, 2005).

School of Business and Economics, Lynchburg College, Lynchburg But, determining what the customer wants, as preferences is not an easy task because customer needs can change somewhat rapidly from time to time. Also, customer expectations often differ from one customer to another. Quality means differentiating the needs and expectations of things for different people. In order to remain competent and customer-centered, organizations applying the principles of TQM need to continually gather information through market surveys, focus groups, observations, and customer interviews (Foster, 2010; Case, Sirkantia & Parameshwar, 1998.).

Several studies have reported that there is a strong link between the delivery of high quality goods and services and profitability through customer satisfaction (Sila & Ebrahimpour, 2005). Anderson defined Customer satisfaction as the degree to which a firm's customers continually perceives that their needs are being met by the firm's products and services (Anderson et al., 1994; Case, Sirkantia, & Parameshwar, 1998.). On the other hand, an organization must identify Customer relationship to measure customer needs and expectations; involve customers in quality improvement; determine customer satisfaction (Foster, 2010; Case, Sirkantia, & Parameshwar, 1998).

Besides from those mentioned above, many scholars addressed about the importance of customer satisfaction. Customer satisfaction is one of the Deming's propositions. Consumer is the most important part of the production line; quality should be aimed at the needs of the consumer, present and future (Deming, 1986; Gupta, McDaniel, & Herath, 2005). Furthermore, Flynn and others (1994) noted that the customer should be closely involved in the product design and development process, with input at every stage of the process; so that there is less likelihood of quality problems once full production begins.

In the production flow chart, it has been indicated that inputs are converted into the process and these are transformed into the final output where customers provide feedback information to the organization. The availability of customer complaint information to managers and the degree of the use of customer feedback to improve product quality reveal the level of customer focus in an organization. As customer expectations are dynamic an organization needs to survey customer expectations regularly and modify its operations accordingly (Das, Paul, & Swierczek, 2008). This process of working with customers has to be continuous process in order to maintain the positive customer relationships.

Uninterrupted Improvement

Traditional systems operated on the assumption that once a company achieved a certain level of quality, it was successful and needed no further improvements. However, an aspect of TQM is its implementation of uninterrupted or continuous improvement. The culture of continuous improvement can only be achieved through the teamwork of top management. The literature asserts that the American manufacturing firm has passed through quality products because of the committed teamwork of the top management. Foster (2010), Case, Sirkantia, and Parameshwar (nd), argue that the American company has pursued several strategies to achieve high energy, customer focused workforce. These strategies include: a strong family orientation, an effective communication system and an innovative reward and recognition programs.

It has been addressed also that the management is participative with a focus on coaching and high degree of autonomy for workers. Continuous quality improvement is a philosophy that encourages all team members to continuously ask “How are we doing?” and “Can we do it better?” (Edwards, 2008; Gupta, McDaniel, & Herath, 2005). More specifically, can we do it more efficiently? Can we be more effective? Can we do it faster? Can we do it in a more timely way? Continuous improvement begins with the culture of improvement for the quality of products and services.

The implementations of continuous quality improvement procedures basically fall, under managers’ responsibility. First, managers must plan by evaluating the current company process and document any changes that need to occur. Secondly, the “do” step follows after which the analysis of the findings would be done by collecting the data from the previous step. Lastly, the company “acts” upon the findings, communicating with the other members of the organization and implementing any procedures deemed most effective. Though this is the final step in the cycle, the company begins the process again with the first step of planning (Foster, 2010; Case, Sirkantia, & Parameshwar, nd.). Another way company implements continuous quality improvement is by studying and observing business practices of other companies considered “best in class” or benchmarking. The ability to learn and study how other businesses or organizations establish procedures and set and implement goals is an important part of continuous improvement under the TQM model (Gupta, McDaniel, & Herath, 2005).

TQM AND QUALITY CULTURE

Relationship is the foundation of any culture; the way members discuss and share ideas, trust and forgive each other, celebrate their success, and strive to overcome their failures with each other (Brown, 2004). The quality culture can have positive influence on TQM implementation. In additions to that, Kanapathy (2008) claimed that top management commitment or leadership is the most important factor in implementing TQM in order to develop quality culture in an organization. Hansson and Klefsjo (2003) identified the components of total quality management which consists of leadership, customer focus, supplier management, service design, human resource and some other components. These all components combined to form TQM. However, TQM can be successfully implemented through culture of quality (Zadry, 2005; Gupta, McDaniel, & Herath, 2005).

However, many researchers expressed that leadership not only applied as a supporting factor for quality culture but also was very effective in improving performance of such organization. Hence, it can be stated that quality culture has positive impact on performance improvement. Lai (2003) conducted a study about TQM implementation in manufacturing industries in the culture of Spain. He stressed that education and training as one of the TQM dimensions can be efficient in changing and developing quality culture during TQM implementation.

However, quality culture does not change in a short time because of changing this factor; the company needs a long-term process. The quality culture lays fertile ground for the continuity of the total quality management.

The conceptual Framework Model for TQM

The following is the self-designed conceptual framework model for total quality management from Literature Review.

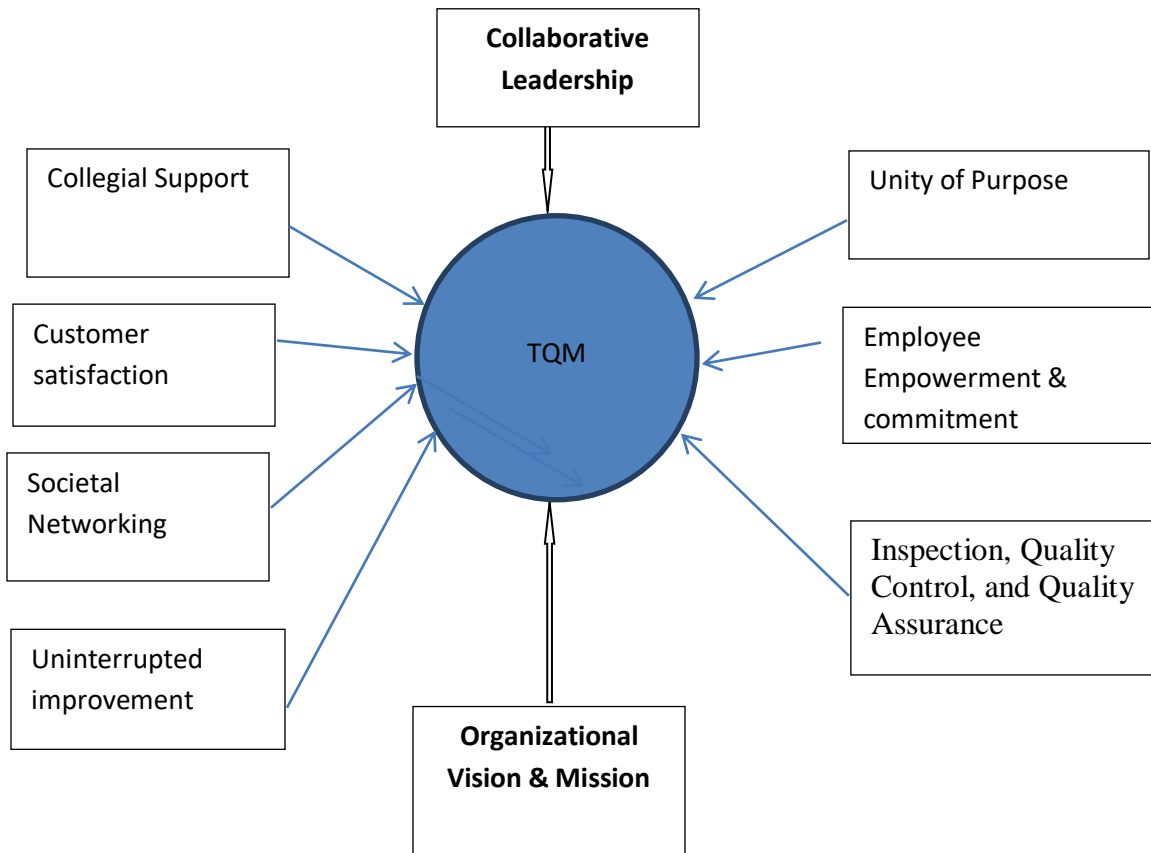


Fig.1. Theoretical Framework of TQM Model

This model represents the major factors that contribute to the total quality management. The total quality management is an outcome of these factors in the model. In the model, as indicated by a thick arrow, collaborative leadership and the organizational mission and vision impact is believed to influence almost every factor towards the quality achievements (Hayes, 2010). The collaborative leadership has a significant contribution to a total quality management by creating and designing achievable vision and mission through workable strategy. Then they share it with the workforce through unity of purpose, and collegial support approach. Once the employees feel the ownership of the undertakings, they feel empowered and commitment, then attract customers since customer focus is a key to quality management. The satisfied customers can be the channel for other newcomers to the company. As they strive to achieve the organizational vision and mission, an interrupted continuous improvement will result (Hayes, 2010; Gupta, McDaniel, & Herath, 2005). An interrupted or continuous improvement is the heart of TQM.

All these processes are managed and controlled by collaborative leadership component on top guided by organizational vision and mission. It is the ability of the leadership that establishes practices and processes that lead to a long term vision which highly impacts the total quality management(Juran & Gryna(1993).Then, all the rest of factors surrounding the model (employees' empowerment and commitment, customer satisfaction, unity of purpose, collegial support, and uninterrupted or continuous improvement as well as inspection, quality control, and quality assurance, influence total quality (Mojtahedzadeh & Arumugam, 2005; Gupta, McDaniel, & Herath, 2005). Each of these mentioned factors influence the total quality at varying levels of degrees because each has different force of exertion on the overall quality.

Conclusion

The aim of this paper was to identify the factors that contribute to Total Quality Management in any organizations. Nine major factor were thoroughly discussed as to how they contribute to TQM. The main purpose of this paper was to create awareness in managers to pay a serious attention on the relationship among each factors discussed earlier in relations to TQM. The collaborative leadership factors on the top of the model is a powerful driver of all the factors in manipulating and influencing all the rest of the factors in the model and contribute to the TQM and create a quality culture in the organizations. This researcher believes that the future researchers may employ an empirical research from this conceptual model in order to identify which of those variables has a higher influence on the quality whereby the managers might give due attentions to those very significant ones on the model. It is also hoped that the important facts are addressed in this paper that the managers and the researchers might evaluate and apply on their respective works.

REFERENCES

- Business Dictionary.com <http://www.businessdictionary.com/definition/total-quality-management-TQM.html#ixzz3FUNr5F1n>
- Case, S.S., Sirkantia, O.& Parameshwar, S. (1998). *Factors influencing TQM implementation in knowledge work environments: An integrative framework*. Retrieved October 20, 2014 from <http://weatherhead.case.edu/departments/organizational-behavior/workingPapers/WP%2098-5.pdf>
- Das, A., Paul, H. & Swierczek, F. W. (2008). Developing and validating total quality management (TQM) constructs in the context of Thailand's manufacturing industry. *Benchmarking: An International Journal* 15 (1), pp 52-72, DOI 10.1108/1463577081085434
- Deming, W.E. (1986). *Out of the Crisis*. MIT Press: Cambridge, MA.
- Edwards, P. J, Huang, D. T., Metcalfe, L.N. & Sainfort, F.(2008).Maximizing your investment in EHR: Utilizing EHRs to inform continuous quality improvement. *Journal of Healthcare Information Management*, 22(1), 32-37.

- Evans, L. (2003). Leadership role: Morale, job satisfaction and motivation. In L. Kydd, L. Anderson, & W. Newton (Eds.), *Leading people and teams in education* (pp. 136-150). London: Paul Chapman.
- Fallah Z. E., Wei C.C. Rad, R. H. (2013). Quality paper TQM practices and employees' role stressors. *International Journal of Quality & Reliability Management* 31 (2), pp. 166-183.
- Flynn, B. B., Schroeder, R.G., & Sakakibara, S. (1994). A framework for quality management research and an associated measurement instrument. *Journal of Operations Management*, 11(4), 339- 366.
- Foster, S. T. (2010). *Managing quality: Integrating the supply chain*. New York: NY, Pearson Press.
- Gentzler, Y. (2005). *A new teacher's guide to best practices*. Thousand Oaks, CA: Corwin Press.
- Grant, E. L., & Leavenworth, R. S. (1998). *Statistical quality control*. New York, NY: McGraw-Hill.
- Gundlach, M. (2013). *Explaining Total Quality Management*. Retrieved Oct. 11, 2014 from <http://www.brighthubpm.com/monitoring-projects/47485-explaining-total-quality-management-tqm/>
- Gupta, A., Mcdaniel, J.C., & Herath, K. S. (2005). *Quality management in service firms: sustaining structures of total quality service*. Retrieved October 20, 2014 from www.emeraldinsight.com/0960-4529.htm
- Gruenert, S., & Valentine, J. (1998). *Development of a school culture survey* Unpublished doctoral dissertation, University of Missouri. Retrieved November 1, 2014, from Dissertations and Theses: A&I Database. (Publication No. AAT 9901237).
- Hayes, J. (2010). *The Theory and Practice of change Management*. Newyork, NY: Palgrave Mcmillian.
- Hoy, A. W., & Hoy, W. K. (2006). *Instructional leadership: A research based guide to learning in schools* (2nd ed.). Boston: Allyn & Bacon.
- Joiner, T. (2005). *Total quality management and performance: The role of organization support and co-worker support*. Retrieved October 20, 2014 from <http://www.gepeq.dep.ufscar.br/arquivos/Artigo%20TQM%20e%20Performance%20-%20IJQRM%20v24%20n6%202007.pdf>
- Juran, J. M, & Gryna, F. M. (1993). *Quality Planning and Analysis* (3rd ed.). New York, NY: McGraw-Hill Book Company.

- Juran, J.M. (1988). *On planning for quality*. London, UK: Collier Macmillan.
- Kaynak, H. (2003). The relationship between total quality management practices and their effects on firm performance. *Journal of Operations Management*, 21(4), 405–435.
- Kumar, V., Choisine, F., Grosbois, D., & Kumar, U. (2009). Impact of TQM on company's performance. *International Journal of Quality & Reliability Management*, 26(1), 23-37.
- Lai, C. M. (2003). *An investigation into the relationship between total quality management practice and performance in a Taiwan public hospital*. (Unpublished PhD Dissertation).
- National Institute of Standards and Technology. (2010). The 2009-2010 criteria for performance excellence (MBNQA). Retrieved October 20, 2014 from www.nist.gov/baldrige/publications/criteria.cfm.
- Kalra, N. & Pant A. (2013). Critical Success Factors of Total Quality Management in the Indian Automotive Industry (NCR). *International Journal of Economy, Management and Social Sciences*, 2(8) pp. 620-625.
- Saizarbitoria, I. H. (2005). How quality management models influence company results – conclusions of an empirical study based on the Delphi method. *Total Quality Management & Business Excellence*, 17(6), 775-794.
- Saraph, J. V., Benson, P. G., & Schroeder, R. G. (1989). An instrument for measuring the critical factors of quality management. *Decision Sciences*, 20, 810-829. Retrieved October 20, 2014 from <http://dx.doi.org/10.1111/j.1540-5915.1989.tb01421.x>
- Sergiovanni, T. J. (1990). *Value-added leadership: How to get extraordinary performance in schools*. San Diego, CA: Harcourt Brace Jovanovich
- Sila, I., & Ebrahimpour, M. (2005). Critical linkages among TQM factors and business results. *International Journal of Operations and Production Management*, 25(11), 1123-1155.
- Wilson, D. D., & Collier, D. A. (2000). An empirical investigation of the Malcolm Baldrige national quality award causal model. *Decision Science*, 31(2), 361- 390. Retrieved October 20, 2014 from <http://dx.doi.org/10.1111/j.1540-5915.2000.tb01627.x>