QUALITY MANAGEMENT AND PERFORMANCE: A REVIEW

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Abstract- In present scenario of globalization and economic slowdown, survival of organizations has become a challenging task for the management. Customers expect high product quality along with low cost, timely deliver and best service. In such a situation, total quality management in the organization is very relevant. This paper has tried to explore different issues affecting implementation of TQM, effect of TQM on performance and circumstances under which TQM fails. One hundred twenty research papers, mainly from referred international journals are reviewed to identify thrust areas of research. On the basis of review, gaps are identified and research agenda is proposed. This paper has identified certain gaps from literature on issues related with TQM such as development of framework for evaluating effectiveness of TQM, prioritization of critical success factors, comparative study of TQM and effect of TQM on performance of organizations from supply chain perspective etc on which further study can be conducted.

Keywords- Quality, TQM, Performance
Quality Management and Performance: A Review

1. INTRODUCTION

Today, the wave of global competition has invaded every part of the world and business areas (Koberg et al., 2003). The main impact of global competition is the ever-increasing enhancement of customer expectations. Since customer expectations are never ending, the gaps between “what customers want” and “what is being delivered” do ever exist. It is a well-established fact that attaining higher and higher degrees of quality in totality paves the way for facing global competition (Goh and Ridgway, 1994). Quality is the main driver for improving the competitiveness of organizations in globalised market (Singh, 2008). A high degree of quality means achieving, enhancing and sustaining competitiveness is dependent on delivering superior quality products/services to customer (Lai et al., 2002; Reed et al., 1999). Arumugam et al. (2009) have observed that companies experience dramatic changes in business environment characterized by increasing consumer consciousness of quality, rapid technology transfer, globalization and low cost competition. In response to these challenges, many companies have joined the quality movement and implemented various quality improvement initiatives as a means to enhance competitiveness (Singh et al., 2007). Quality has emerged as a strategic competitive tool for organizational success (Yong and Wilkinson, 2002; Hansen, 2001). In today’s business environment, organizations cannot afford to ignore the strategic implications of quality for its competitive position. Many organizations, have pursued some type of quality philosophy and initiative, for example, Total Quality Management (TQM), Just-In-Time (JIT), the Shing Prize, Deming Prize and ISO 9000 (Magad and Curry, 2003). In global competition a company needs to apply quality methodologies in the form of strategic quality management; quality systems; quality assurance; quality control, etc (Sharma and Kodali, 2008).

Quality is customer satisfaction through product or by service. Quality can also be defined as “the degree to which the product in use will meet the expectations of the customer” or simply defined as “conformance to requirements”. Quality is an important factor in the value-adding process involved in the production and delivery of products along the supply chain. Supply chain management (SCM) and total quality management (TQM) are two of the important tools that manufacturing companies use to achieve competitive advantage. Some of the important capabilities that these companies seek to acquire through the use of these tools to be able to compete effectively include quality, efficiency, and innovation (Daghfous, 2004). The production of defect-free components and parts that meet the requirements of customers along the supply chain is critical for the quality of the final products (Sila et al., 2006). Shrivastava (1995) pointed that competitive advantage can be achieved by harnessing existing capabilities in areas such as quality management.

Mostly in all TQM definitions reference is made to its “soft” and “hard” side (Vouzas and Psyhogios, 2007). The “soft” side is associated with management concepts and principles such as leadership, strategic quality planning, employee empowerment and culture, supplier management, customer focus, process management, continuous improvement, information and analysis and knowledge and education while the “hard” side refers to quality improvement tools and techniques (Vouzas and Psyhogios, 2007; Thiagaragan et al., 2001). These tools and techniques include flow charts, relations diagram, scatter diagram, control charts, pareto analysis,
design process, statistical process control, quality function deployment, and other production and quality improvement techniques. The “soft” TQM elements are long-term issues and therefore must be emphasized and addressed accordingly in an organization’s TQM implementation plan. The effective manipulation of the “soft” elements must be supported by the “hard” elements of TQM (Zairi and Thiagarajan, 1997). Lagrosen and Lagrosen (2005) studied the effects of “soft” TQM elements, quality management models and tools on performance. Fotopoulos and Psomas (2009) have observed that quality improvement and the consolidation of the company’s market position are influenced mainly by adopting “soft” TQM elements and secondarily “hard” TQM. Douglas et al. (1999) also suggested that effective use of soft TQM practices (e.g. executive commitment, employee empowerment, customer focus) can bring quality improvement. Motwani et al. (1994) suggested the opposite, i.e. that quality success could be achieved by increasing use of hard TQM (e.g. process control and supplier quality management). This paper is organized as follows. Section 2 discusses about total quality management and various factors on which its implementation depends, section 3 discusses TQM issues in SMEs, Section 4 discusses effect of TQM on organizations performance, Section 5 discusses TQM failures cases. It is followed by summary and gaps and finally concluding remarks.

2. TOTAL QUALITY MANAGEMENT

In an increasingly competitive market-place businesses with a strong continuous improvement culture and external focus are more likely to survive and prosper. Attaining a high level of customer satisfaction usually requires more than providing a high-quality product (Hendricks & Singhal, 1997). Total Quality Management (TQM) is considered an important catalyst in this context. It emerged as a generic title for the process of quality improvement. Lagrosen (2001) observed that TQM has become well established system for improving both the performance of corporations and satisfaction of customers. According to Yang (2005), TQM is an integrated management philosophy and a set of practices that emphasizes, among other things, continuous improvement, meeting customer’s requirements, reducing rework, long-range thinking, increased employee involvement and team-work, process redesign, competitive benchmarking, team-based problem-solving, constant measurement of results, and closer relationships with suppliers.

The primary focus of total quality management (TQM) is customer satisfaction. According to Ho’s (1999), every one in TQM organization, including the customers and suppliers is involved in continuous improvement for the purpose of meeting customers’ expressed and implied requirements with the full commitment of top management. According to Ehigie and McAndrew (2005), TQM attempts at improving quality of product and processes of organizations. Hellsten and Klefsjo (2002) and Hansson and Klefsjo (2003) also define TQM as a continuously evolving management system, which is consisting of values, methodologies and tools and the aim of which is to increase external and internal customer satisfaction with a reduced amount of resources. TQM is a customer focused management philosophy that aims at the continuous improvement of the processes and management of an organization through statistical control, procedure design, policy deployment and human resource management techniques (Au and Choi, 1999). According to Sharma and Kodali (2008), the concept of TQM provides the approach to realize the manufacturing strategy leading to fulfillment of corporate strategy. The principles and contents of TQM philosophy would increase firm’s commitment to quality and if they are applied correctly enhances the firm’s competitive position. This is because the TQM principles support the business practices of cost reduction, enhanced productivity and improved quality of the products/outputs. It clearly shows that TQM is not a model or a technique, but may best be described as a management philosophy (Dale, 1999; Neergaard,
The methods and techniques used in TQM can be applied throughout any organization. They are equally useful in the manufacturing, public service, health care, education and hospitality industries.

Hellsten and Klefsjo (2002) state that TQM consists of three components. These are core values, techniques and tools. Techniques and tools are supposed to support the core values. According to Flynn et al. (1995), TQM practices could be divided into two independent groups. The first is ‘core quality management practices’, which are expected to contribute to quality performance directly. The second is ‘quality management infrastructure’ practices, which are proposed to support and facilitate the effective use of core quality management practices. Samson and Terziovski (1999) lead to the identification of nine practices that are commonly cited as part of a TQM program. These practices are cross-functional product design, process management, supplier quality management, customer involvement, information and feedback, committed leadership, strategic planning, cross-functional training, and employee involvement. Some of the important factors affecting implementation of TQM such as leadership/top management support, organization culture, human resource management, customer orientation, information technology, supply chain management, ISO 9000 are discussed in following sections.

2.1 Leadership/Top Management Support
The ISO 9001 standard defines top management as a person or group of people who direct and control an organization at the highest level (ISO, 2000). The main objective is to create an environment where people are fully involved and in which a quality management system can operate effectively and make recommendations to achieve this objective. Top management leadership capabilities not only affect TQM implementation but also improve other organizational activities. It is essential for management to commit to their leadership and participate actively in the formulation and finalization of strategy (Pun, 2001). Top management has to be sincere and candid about why a practice like TQM is needed and must earn the respect and trust of the employees before and during the implementation process. Top management support to quality management is an absolute precedence for preparing organizational culture before TQM practices can be implemented (Antony et al., 2002). Top management can facilitate the unity of purpose as well as change process management and learning processes (Ahire et al., 1996; Hamlin et al., 1997). According to Lewis et al. (2005), top management support or commitment can be divided into four factors for effective implementation of TQM. These factors are strategy finalization, resource based strategy, environmental focus and quality culture. Top management could use resource based strategy to create a “sustained” competitive advantage if their resources (or capabilities) are valuable, rare among competitors, imperfectly imitable and not easily substitutable (Barney, 1991). Through a quality culture, employees can interactively create and preserve a social order within the company. It provides the company with some measure of control over the business processes (Pun, 2001). Raghunathan et al. (1997) noticed that leaders play an important role in how TQM practices are projected in a consistent manner where it affects organizational performance and profitability. In a TQM framework, leadership and top management support element can be positioned at the soft side.

2.2 Organizational Culture
Organizational culture is a pattern of values, beliefs, and assumptions shared by members in an organization, which are perceived by the organization as the valid, correct way to perceive and solve problems (Sigler and Pearson, 2000). In the quality management, the values and beliefs
underlying an organization’s culture are able to shape its philosophy and policies of managing business, which in turn influence the development of the organization’s quality management practices (Waldman, 1993). TQM is a management approach in which the application of practices such as teamwork, internal customer relationship and supplier partnership are tools for cultural transformation and involves a major cultural change in the organization. TQM is a complete change in an organization’s culture and the way people behave at work. On the other hand, organizational culture appears to be a crucial factor in understanding the ability of any organization to perform and compete. In organization, managers are contending with rapid changes in technology, shorter product life-cycles, new markets, and a demand for higher quality products (Chowdhury and Menon, 1995). Managers for changing organizational culture have to change their management style, from an authoritative to a participative management style to achieve continuous improvement through their employees. To achieve success in TQM, senior managers need to ensure that all facets of the organization, the organizational structure, management style, training, communications, compensation and promotion systems, and systems, procedures, and processes reflect TQM values and principles (Rad, 2006). Companies trying to gain a competitive edge in this marketplace have realized the importance of raising the quality of goods and services, and have implemented programs such as TQM (Total Quality Management). Total quality management focuses on a continuous improvement process with an emphasis on people and their involvement and receptivity to continuous change. Thus, TQM is an integrated effort for gaining competitive advantage by continuously improving every fact of an organization’s activities (Mohamed and YuanJian, 2008).

TQM practices are significantly influenced by the organization culture and each dimension of organization culture is related to TQM in different fashions. For instance, power distance influences all the TQM elements, but masculinity has positive impact on business performance of TQM practice only (Jung et al., 2008). TQM requires an organization culture where all individuals are concerned with quality; want to produce quality products, and where they can freely question practices that do not produce quality. The study of TQM from a cultural perspective pursues the understanding of the cultural dimensions of TQM discipline. The focus is on understanding the role of organizational culture in the TQM implementation process. TQM emphasizes the importance of corporate culture and uncovering current underlying cultural assumptions as primary condition for successful TQM implementation (Mohamed and YuanJian, 2008).

Hofstede (1980) identified four factors on which culture of different countries differ. The four factors are collectivism-individualism, power distance, uncertainty avoidance and masculinity femininity. Kanungo and Mendonca (1996) have added an additional factor i.e. associative thinking-abstractive thinking to these factors for defining the culture of developing countries like India. Lagrosen (2002) studied in European survey that two dimensions of culture – power distance and uncertainty avoidance affect the approach taken for implementation of TQM. Empowerment and participative management are important for TQM implementation in Indian organizations (Wali et al. 2003). According to Kumar and Sankaran (2007), collectivism and hierarchy are two important factors for effective implementation of TQM concept in Indian culture.

2.3 Human Resource Management (HRM)

HRM practices include training and education, incentive compensation and employee development. HRM can reinforce human relationships and group consciousness, raise employee competence and achieve culture change; therefore it acts as the catalyst for the implementation of
TQM (Oakland and Oakland, 1998; Palo and Padhi, 2005). Hoogervorst et al. (2005) observed that quality of human resource plays an important role in the implementation of TQM. Yang (2006) found that HRM practices have a significantly positive effect on the implementation of TQM. Jung et al. (2009) have observed that human resource-based TQM elements have stronger influence on continuous improvement of performance than technology-based TQM elements. Implementing HRM practices can also have a significant effect on employee and customer satisfaction. It also positively affects employees’ quality awareness and corporate image.

TQM focuses not only on the quality of product, but also on the quality of employees. TQM implementations depend heavily on changes in employees’ attitudes and activities. The employees who are affected most directly are those who are the agents of change in implementing TQM or other programs for continuous quality improvement (Karia and Asaari, 2006). Butler (1996) found that companies that used TQM practices achieved improvements in employee satisfaction, attendance, turnover, safety, and health. When fully implemented, TQM brings benefits to organization in terms of quality, productivity, and employee development (Lawler et al., 1995) through improved teamwork, creativity, innovation, training, communication, trust, and decision making. Employee training is a very important tool for promoting and developing skills related to an organization’s beliefs and values to change to a culture that places high value on quality (Rad, 2006). Karia and Assari (2006) studied that there are four factors which helps in employee involvement for implementation of TQM. These factors are job satisfaction, job involvement, career satisfaction and organizational commitment. TQM is based on the assumption that the employees who are closest to the daily operating procedures are in the best position to understand and improve the quality of those procedures. It aims to create an environment in which positive relationships exist between managers and employees and in which people feel motivated to do their best (Karia and Assari, 2006).

2.4 Customer Orientation

Customer focus is one of the most accepted precepts of TQM, observed and discussed by the majority of quality gurus and TQM researchers. Customer orientation and meeting customer requirements is one of the basic principles underlying TQM as a generic approach to the management of organizations, and is frequently mentioned in the work of all quality management gurus. Customer orientation provides a common goal for all organizational activities and members, and incorporates both quality of design and conformance to quality specifications (Hill and Wilkinson, 1995). According to Williams et al. (2001), leading organizations transform themselves from internally focused TQM to a customer-focused business structure. Dale et al. (2001) provided a baseline for the advancement of TQM theory in which customer focus as well as management by fact, process orientation, and teamwork are considered the most important factors. The basic principle of TQM is to achieve customer satisfaction and continuous improvement. The key to successful implementation therefore begins with the identification of key customer satisfaction variables (CSVs), such as price, performance, reliability, service, durability, appearance and added features (Soltani et al., 2004).

2.5 Information Technology (IT)

Information technology takes care of mundane and routine tasks like data input, computation, measurement and output. Users can concentrate their effort on fulfilling the more important objective of quality improvement by IT applications (Ang et al., 2000). Phusavat et al. (2007) asserted that the increasing competition has given the greater role of information technology in which the customers are able to convey higher demands such as lower cost, higher quality,
reliability and with better market delivery. Information technology works as an enabler of the structural adjustments of the organization to TQM changes. Information systems have become an integral part of most organizations (Au and Choi, 1999). Other tools/concepts likely to be implemented are group decision making, process analysis, benchmarking, statistical process control and concurrent engineering (Siddiqui and Rahman, 2007). According to Mjema et al. (2005), information technology and information systems generated quality tools such as pareto charts, histograms, statistical process control and flow charts helped to control work process in production and to deliver consistent product quality. According to Bandyopadhyay (2003), information technology helps to manufacturers striving to achieve ISO 9000/QS-9000 registration which involves gathering, analyzing and documenting enormous amount of quality-related information. Han et al. (2009) have also observed that integrated IT and integrated logistics management improved the quality management practices of the pork processors.

2.6 Supply Chain Management (SCM)

SCM has been associated with modern materials management, advanced information technologies, rapid and responsive logistics service, effective supplier management, and increasingly with customer relationship management (Fawcett and Magnan, 2002). It should be noted that for maintaining good supplier relations, teamwork among supply chain partners is a cornerstone of TQM. TQM is a management philosophy that encourages cost reduction, the creation of high quality goods and services, customer satisfaction, employee empowerment, and the measurement of results. TQM can enhance communications along the supply chain through enhancement of quality in ERP, partnership development, and CRM (Madu and Madu, 2003). According to Lee and Kincade (2003), there are six major dimensions of supply chain management. These are partnership, information technology, operational flexibility, performance measurement, management commitment and demand characterization. TQM enablers such as training and education, cross-functional teams, communication, teamwork, empowerment, job satisfaction and technological support can impact any one or all of the six major dimensions of SCM. In integrated business processes of SCM, TQM enablers could play a major role in promoting effective integration of suppliers and customers along the value chain. Therefore, effective implementation of TQM major factors such as training and education, employee empowerment, top management support/leadership, organizational structure, performance measures and technology are required for success of supply chain management.

2.7 ISO 9000

The ISO 9000, set of international standards were created in 1987 with the objective of standardizing quality systems. Generally, organizations are implementing ISO 9000 standards to achieve improved quality and efficiency, improved communication, competitive advantage, an increase in market share, reduced costs and a higher stock price (Najmi and Kehoe, 2001; Zhang, 2000). The ISO 9000 standards are based on concept that certain minimum characteristics of quality management system could be usefully standardized, giving mutual benefit to suppliers and customers, and they focus on process rather than product quality (Van der Wiele et al., 2000; Withers and Ebrahimpour, 1998). ISO 9000 is a management control procedure (Yahya and Goh, 2001), which involves a business documenting process of design, production, distribution to ensure that the quality of the products and services meets the need of customers (Quazi et al., 2002; Pun et al., 1999). The positive or optimistic view is based on the fact that the standards’ implementation helps to improve internal organization and operation, internal and external communication through clearly defined duties and responsibilities, employee’s awareness of
quality issues, quality variations and the related quality costs, and customers’ satisfaction and trust through improved product conformance (Williams, 1997). ISO 9000 certification can be used as the “first” but not the “last” step towards quality improvement. Although the standard’s implementation helps companies to achieve an initial improvement in their quality performance, it cannot guarantee that this improvement continues after certification.

Many research shows that ISO 9000 is different than TQM. According to Laszlo (1996), ISO 9000 and TQM are totally different approaches, where ISO 9000 implementation is associated with line workers, while TQM is more related with top management. Moreover, the focus of ISO 9000 is on proving compliance and gaining certification, while TQM focus on continuous improvement and achieving and maintaining customer satisfaction. Furthermore, Yung (1997), in differentiating between ISO 9000 and TQM, claims that the concept of TQM is broader and deeper than ISO 9000. TQM is identified to be for internal organizational use and tends to go beyond customer satisfaction, while ISO 9000 is only for external assessment needs.

3. TOTAL QUALITY MANAGEMENT IN SME’s

Quality has become the basis of global competition for all firms regardless of location and size. Small firms are very different to large ones in many areas, such as management style, production processes, available capital, purchasing practices, inventory systems, and negotiating power (Ahire and Golhar, 1996; Lee and Oakes, 1995). According to Yusof and Aspinwall (1999), total quality management (TQM) is a philosophy mainly dominated by large companies but the fear of losing contracts prompts SMEs to bring quality into their system.

Today, SMEs are at the center of interest in the quality debate for several reasons. One, according to Wiele and Brown (1998), is that larger organizations will not be able to improve the quality of their products, services and processes, unless their suppliers or the second-tier suppliers also grow to higher level of quality maturity. Amongst these suppliers there are many SMEs. SMEs have their own unique characteristics that differentiate them from larger firms. Yusof and Aspinwall (1999) have divided the characteristics of SMEs into five categories i.e. structure, systems and procedures, culture and behavior, human resources, markets and customers. According to Hartz and Kanzi (1998), SMEs can be characterized as easy to survey and understand, having short lines of communication and flexibility in relation to the implementation of new management philosophies and approach. Lee and Oakes (1995) argue that if top management is convinced of the need for TQM, then it is easier for managers to inspire and motivate others in the organization. Because organizational systems and structures are simple in SMEs, the process of TQM implementation can be made visible more easily. According to Ghobadian and Gallear (1996), visibility of leadership and improvement teams are easier in SMEs. Employees are closer to the products and services and thus feel more responsible for quality, and they will have a better understanding of service and the overall profitability of the organization and also decision-making processes are simple in SMEs as compared to large firms. SMEs can also gain competitive advantage through the quality of their products because they can implement JIT system with low defect rates or higher quality of products. It will also help in reducing product cost through eliminating scrap and rework (Fullerton and McWatters, 2001).

For effective implementation of TQM, SMEs must include strategy finalization which assesses structure and infrastructure, before policies are formulated and deployed (Ghobadian and Gallear, 1997). Some of the TQM elements and programs appear to be more compatible with small manufacturers. Some TQM benefits may be relatively more significant to small firms. Some of the observations of the researchers in this context are given in table 1.
Table 1: Total Quality Management in SMEs

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Researcher</th>
<th>Year</th>
<th>Key Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Barrier</td>
<td>1992</td>
<td>Key to survival for SMEs.</td>
</tr>
<tr>
<td>2</td>
<td>Henricks</td>
<td>1992</td>
<td>Small companies are advised not to implement TQM all at once.</td>
</tr>
<tr>
<td>3</td>
<td>Henricks</td>
<td>1992</td>
<td>Difficult to afford expensive consultants.</td>
</tr>
<tr>
<td>4</td>
<td>Brown</td>
<td>1993</td>
<td>Seven basic quality-improvement tools generally poorly supported in SMEs.</td>
</tr>
<tr>
<td>5</td>
<td>Moreno-Luzon</td>
<td>1993</td>
<td>Small firms lag behind big ones in the application of TQM.</td>
</tr>
<tr>
<td>6</td>
<td>Azzone and Cinarca</td>
<td>1993</td>
<td>Some quality related investments in large firms are rendered unsuitable for small firms.</td>
</tr>
<tr>
<td>7</td>
<td>Moreno-Luzon</td>
<td>1993</td>
<td>Problems of small firms in developing a quality culture are resistance to change, lack of experience in QM, lack of resources.</td>
</tr>
<tr>
<td>8</td>
<td>Simons and Kerr</td>
<td>1993</td>
<td>The role of the smaller firms as suppliers to the larger firms places a substantial burden on the small companies.</td>
</tr>
<tr>
<td>9</td>
<td>Goh and Ridgway</td>
<td>1994</td>
<td>TQM and its benefits are out of SMEs league.</td>
</tr>
<tr>
<td>10</td>
<td>Shrivastava</td>
<td>1995</td>
<td>Competitive advantage can derive by harnessing existing capabilities in areas such as quality management.</td>
</tr>
<tr>
<td>11</td>
<td>Ghobadian and Gallear</td>
<td>1996</td>
<td>The lack of product quality from SMEs adversely affects the competitive ability of the larger organizations because SMEs are their suppliers.</td>
</tr>
<tr>
<td>12</td>
<td>Chittenden et al.</td>
<td>1996</td>
<td>Impetus to attain certification comes not from a desire to improve, but from pressure by large companies.</td>
</tr>
<tr>
<td>13</td>
<td>McTeer and Dale</td>
<td>1996</td>
<td>Elapsed time amount and paperwork are major drawbacks in installing the new system (TQM) by SMEs.</td>
</tr>
<tr>
<td>14</td>
<td>Haksever</td>
<td>1996</td>
<td>Lack of experience, knowledge, finance, human resources and time are the main problems to implement TQM in SMEs.</td>
</tr>
<tr>
<td>15</td>
<td>Quazi and Padibjo</td>
<td>1997</td>
<td>ISO 9000 certification is a stepping stone towards TQM.</td>
</tr>
<tr>
<td>16</td>
<td>Negri</td>
<td>1997</td>
<td>Italian SMEs prioritize process capability for quality improvement.</td>
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<tr>
<td>17</td>
<td>Struebing and Klaus</td>
<td>1997</td>
<td>Lower costs of implementing and maintaining TQM in SMEs.</td>
</tr>
<tr>
<td>18</td>
<td>Boon and Ram</td>
<td>1998</td>
<td>TQM practices are organizational quality policies developed in the planning phase and deployed in the implementation stage.</td>
</tr>
<tr>
<td>19</td>
<td>Yusof and Aspinwall</td>
<td>1999</td>
<td>Training and education is one of the most important items on the agenda for small businesses in adopting TQM.</td>
</tr>
<tr>
<td>20</td>
<td>Yusof and Aspinwall</td>
<td>2000</td>
<td>TQM should not be implemented at the expense of losing flexibility which is strength in small businesses.</td>
</tr>
<tr>
<td>21</td>
<td>Hendricks and Singhal</td>
<td>2001</td>
<td>Financial performances depend on effective implementation of TQM.</td>
</tr>
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<td>22</td>
<td>Pun</td>
<td>2002</td>
<td>The implementation of TQM involves a fundamental change in conducting business.</td>
</tr>
<tr>
<td>23</td>
<td>Neergaard</td>
<td>2002</td>
<td>TQM can foster continual improvement (CI) through integrated, consistent, and involving everyone and everything in SMEs.</td>
</tr>
<tr>
<td>24</td>
<td>Temtime</td>
<td>2003</td>
<td>Continuous planning and quality improvement a prerequisite for the survival of not only large firms but also for SMEs.</td>
</tr>
<tr>
<td>25</td>
<td>Lewis et al.</td>
<td>2005</td>
<td>The potential benefits that could be derived from TQM criteria were lacking in the areas of Top management commitment and Gap</td>
</tr>
</tbody>
</table>
4. **EFFECT OF TQM IN ORGANIZATION PERFORMANCE**

Today growing number of companies uses TQM practices as strategic foundation for generating a competitive advantage and improving organizational performance. The importance of quality for company’s performance and success on the market is widely recognized in business. Performance measurement is very important for the effective management of an organization. TQM is a holistic approach to improve quality, productivity and competitiveness in the international marketplace. According to Projogo and Sohal (2004), organizational performance is measured from quality performance (e.g. reliability, performance, durability and conformance to specification) and innovation performance (e.g. product and process innovation). Lin et al. (2005) studied that organizational performance will be measured in two categories, which is satisfaction level and business results. Satisfaction level of organizational performance includes employee satisfaction, customer satisfaction and supplier satisfaction. Yoo et al. (2006) indicates that higher levels of employee empowerment lead to higher level of organizational performance. So employee satisfactions have a positive influence on organizational performance. Gaining a better understanding of customer needs and the use of this knowledge to produce a better product has a direct impact on organizational performance. The relationship between buyer and supplier is an important factor in organizational performance. The need to improve supplier’s quality and delivery performance while at the same time, reducing the costs of supplied materials and parts has motivated buyers to engage in supplier development activities, which has a direct impact on organizational performance (Krause et al. 1998). Another level of organizational performance, business results comprise four items: productivity, number of successful new product, cost performance, and profitability. TQM practices also help to improve in reducing scrap, rework and stable the production process. These in turn minimize the production cost and increase productivity (Ahmad and Schroeder, 2002). Through continuous improvement, not only errors and defects can be prevented but also product cycle’s times can be reduced, thereby improving productivity and organizational performance (Huang and Lin, 2002). According to Buzzel and Gale (1987), financial performance or profitability is an important measure of TQM outcomes. Quality improvement leads to elimination of waste, reduction of cost and increase of profit. According to Kumar et al. (2009), TQM has positive impact on company performance i.e. employee relations, operating procedures, customer satisfaction and financial results. Han et al. (2009) have also observed direct relationship between quality management and firm performance.

5. **FAILURES OF TQM**

In practice, TQM benefits are not easy to achieve. Several researchers reported the positive impact of TQM on employee performance and satisfaction, quality performance, business

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<th>Authors</th>
<th>Year</th>
<th>Description</th>
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<tbody>
<tr>
<td>26</td>
<td>Sila and Ebrahimpour</td>
<td>2005</td>
<td>Leadership and information analysis play a significant role in shaping the quality focus of companies.</td>
</tr>
<tr>
<td>27</td>
<td>Demirbag et al.</td>
<td>2006</td>
<td>Market orientation has a positive and significant impact on organizational performance through only a mediating role of TQM implementation in SMEs.</td>
</tr>
<tr>
<td>28</td>
<td>Kumar and Antony</td>
<td>2008</td>
<td>Lack of knowledge or understanding of the system and limited resources are the main reasons for failures of six sigma in SMEs.</td>
</tr>
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</table>
results, productivity and competitiveness in only 20 to 35 percent of the firms that have implemented it (Gatchalian, 1997). Hoogervorst et al. (2005) observed that there are two major reasons responsible for limited success of TQM. First reason is TQM rests on crucial contributions of employees, which is incompatible with the traditional, mechanistic view on organizing. This creates a fundamental mismatch between TQM intentions and the dominant logic the organization is using. The second reason for failures regards inconsistency and incoherence of employee behavior. According to Rad (2006), failure of the TQM is due to lack of consistent senior management commitment and support, leadership style of managers, superficial knowledge of the implementers of TQM, lack of a formalized strategic plan for change, vague improvement goals, unclear strategies and conflicting priorities, lack of developing and sustaining a quality oriented culture, lack of employees’ motivation, participation and team working, employee apathy and resistance to change, lack of linkages between remuneration and firm’s performance. There is also a lack of recognition for success, lack of training, education and technical knowledge and experience about TQM, poor coordination, close vertical communication, lack of work discipline. Lack of resources and support, financial crisis, an organizational approach, a long-term focus and failure in understanding the voice of the customer also affect TQM success (Rad, 2006).

6. SUMMARY AND GAPS DENTIFIED FROM THE LITERATUR

This paper has tried to review various issues of TQM from the literature available. Author has reviewed about 120 research papers from reputed international/national journals such as International Journal of Quality and Reliability Management, The TQM Journal, Journal of Management, Asia-Pacific Journal of Quality Management, International Journal of Operations & Production Management, International Journal of Production Economics, International Journal of Automotive Industry and Management, Supply Chain Management: An International Journal etc. Major areas considered in this paper are role of top management support, organization culture, human resource management, employee involvement, customer orientation, supply chain management, ISO 9000, information technology, in implementation of TQM. This paper has also summarized TQM issues in SMEs and effect of TQM on performance of organizations. It has been observed that in most of the cases, TQM helps in improving the performance of organizations. It has been also observed that in many cases TQM has not been very successful. Reasons for failure may vary from company to company. All issues reviewed in this paper and their salient points are summarized in table 2.

Although TQM had been very popular area for the research in the past but many of the gaps still exist in the literature. Some of the gaps identified from the literature on which further research can be carried out are:

- Development of frameworks for evaluating effectiveness of total quality management in manufacturing and service sectors.
- Comparison of TQM issues between manufacturing and service sectors.
- Framework for implementing TQM in SMEs.
- Optimization of variables for maximization of TQM performance.
- Prioritization of critical success factors for success of TQM.
- Integration of TQM and information systems in supply chain.
- Effect of quality management practices on performance of supply chains.
<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Areas of strategy development</th>
<th>References</th>
</tr>
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</table>
| 1.      | Leadership/Top management support | • Group of people helps in quality performance  
• Control of an organization or quality management system | Ahire et al. (1996), Hamlin et al. (1997), ISO (2000), Pun (2001) |
| 2.      | Organization culture          | • Improve different organizations activities  
| 3.      | Human resource management     | • To motivate members of an organization  
• Make strategy for employee development and customer satisfaction  
• Employee attitude and activities  
| 4.      | Customer orientation          | • Customer satisfaction  
• Continuous improvement | Williams et al. (2001), Dale et al. (2001), Soltani et al. (2004) |
| 5.      | Information technology        | • Help in different quality related tools  
• To improve quality or high quality  
| 6.      | Supply chain management       | • Maintaining supplier relationship  
• Teamwork among supply chain partners | Fawcett and Magnan (2002), Madu and Madu (2003) |
| 7.      | ISO 9000                       | • Help in quality, efficiency and communication  
| 8.      | TQM in SMEs                    | • Improve quality of product and services  
• Reducing product cost  
• Implementation of new management  
| 9.      | Effect of TQM on performance  | • Financial performance  
• Employee relations  
• Operating procedure  
Karuse et al. (1998), Projogo and Sohal (2004), Lin et al. (2005), Yoo et al. (2006), Kumar et al. (2009) |
| 10.     | Failures of TQM               | • Crucial contributions of employees  
• Inconsistency and incoherence  
• Lack of knowledge | Hooogervorst et al. (2005), Rad (2006) |
7. CONCLUDING REMARKS

Total quality management has become more important than ever due to the age of globalization and changing customer demands. Present study has tried to explore different issues related with total quality management. It has been observed that major factors effecting TQM are top management support, organization culture, human resource management, employee involvement, customer orientation etc. TQM plays important role in success of modern advanced management approaches such as six sigma, JITs and supply chain management. Based on literature review, this paper has identified many gaps in TQM research. Therefore further study can be conducted to explore these issues such as development of frameworks for evaluating effectiveness of total quality management in manufacturing and service sectors, comparison of TQM issues between manufacturing and service sectors, role of TQM in supply chain management, framework for implementing TQM in SMEs etc. Empirical studies to compare TQM issues between developed and developing countries can also be carried out as a future scope.

REFERENCES

68. Magad, H. and Curry, A. (2003), “ISO 9000 and TQM: are they complementary or contradictory to each other?”, The TQM magazine, Vol. 15 No. 4, pp. 244-256.

About the Author