Available online at www.elixirpublishers.com (Elixir International Journal)

Project Management

Elixir Project Mgmt. 48 (2012) 9621-9625

ISSN: 2229-712X

Investigating relationship between employees' involvement and quality improvement in manufacturing SME

Farzad Eavani[1], Kamran Nazari[2] and Mostafa Emami[3]

[1]Department of Accounting, Scool of Social Since, Razi University, Kermanshah, Iran.

[2]Teacher of Payam-noor University.

[3]Young Researchers Club, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran.

ARTICLE INFO

Article history:

Received: 5 May 2012;

Received in revised form: 28 June 2012;

Accepted: 26 July 2012;

Keywords

Employees' involvement,
Quality improvement,
TQM,
Manufacturing SME

ABSTRACT

In today's globalize economy, competition is becoming ever more intense. Many companies are trying very hard not only to satisfy their customer's needs but where possible exceed them. This can only be achieved through cost reduction, improvement in product performance, increased customer satisfaction and a constant effort towards world class organizations. In order for companies to survive and grow in the future, it is essential that they deliver high quality goods and services. Those that can deliver quality are the ones that will prosper in the next century (Ross, 1994).

The main aim of this research focused on a set of concerns regarding HR initiatives focused on employees' commitment and quality awareness, developed in smaller firms. These concerns gave rise to the research's main focus and got materialized through the following purpose: the study HR initiatives focused on employees' commitment and consciousness/awareness about the importance of quality improvement in firms' competitiveness.

© 2012 Elixir All rights reserved.

Introduction

Recently, important changes in industry's competitive edge have been putting strong pressures on continuous improvement needs, accelerating breakthrough in quality management issues. As a result, over last years, many organizations (small, medium sized, large, from industry, from services) have embraced Total Quality Management (TQM) as the management philosophy that rules their strategic planning. At the same time, literature focused on TQM has been growing along last decades.

Several authors have been "preaching" its importance for firms' performance, as a way to improve competitiveness; others, studied how TQM has been applied in different kinds of organizations and/or different economic contexts; many of them searched for the main negative factors behind the lack of success of TQM' implementation in several cases; some of them attempted to develop frameworks for TQM's development in different kinds of organizations (very small firms, SME, large companies) and/or different economic sectors (both industries and services). In fact, several researches have been conducted over a couple of decades, attempting to clarify TQM's concept, exploring empirically the theory behind the philosophy and looking for the main critical success factors in its principles' implementation.

Through a thorough analysis of literature published essentially by the called quality gurus and other quality issues experts, the pioneer study carried out by Saraph et al. (1989) performed a previous extraction of one hundred and twenty organizational prescriptions for an effective TQM implementation and subsequently clustered them into eight categories of critical success factors (CSF), defining these, as critical issues in managerial planning/action that must be practiced to achieve an effective quality management. The main aim of this study was later pursued by several authors approaching this issue through different methodologies or replicating the framework in different cultures/countries (Zairi, 2005; Rahman, 2001; Dow et al., 1999; Yusof and Aspinwall, 1999; Tamimi, 1998; Black and Porter, 1996; Miller, 1996; Zairi, 1996; Ahire et aL, 1995; Badri et al., 1995; Kasul and Motwani, 1995; Powell, 1995; Tamimi and Gershon, 1995; Watson and Korukonda, 1995; Flynn et aL, 1994; Easton, 1993; Porter and Parker, 1993; Ramirez and Loney, 1993). As observed through a literature review, independently of methodologies used, organizations studied, or geographical focus, everyone agrees that employees' involvement/and commitment are key factors for TQM's successful implementation.

Employees' involvement in TQM

According to Pun and Chin (1999), TQM added a new dimension to quality management issues: the redefinition of quality from the customer's viewpoint, based on marketplace evidences. As stressed by the authors, through such dramatic shift in perspective, quality may be seen as a powerful competitive weapon and included in firms' strategic planning. In fact, as highlighted by Brah et al. (2002), TQM can't be seen as a quick fix way, stressing that its success involves a long-term paradigm shift through significant organizational changes.

Over last few decades several holistic management philosophies, involving extensive change processes (Total Quality Management, Business Reengineering, Lean Management), have been emphasizing employees' role, through an increased participation in the process for change. In fact, the influence of employees' involvement in firms' changing processes has been extensively reported in both academic and practitioner journals which strongly highlight its importance and

Tele:
E-mail addresses: emamemostafa@yahoo.com

© 2012 Elixir All rights reserved

potential on organizational changes (Sun et al., 2000; Chiu, 1998; Wilkinson, 1998; Dale, et al., 1997; Hackman & Wageman, 1995; Marchington, 1995) through personal involvement on problem-solving and decision-making.As enhanced by Gunasekaran et al. (1998) or Kanji (1990), among others, Total Quality Management may be defined as a management philosophy based on people and with a strong emphasis on continuous improvement seeking at achieving total quality through a full participation of everyone in organizations. Deming (1986) and other quality gurus have characterized human resources' (HR) management as a significant driver of total quality management's implementation, emphasizing its implications in quality continuous improvement. Wilkinson (1995) defined it as a model focused on total customer satisfaction, through employees' high involvement in decision making. In fact, as stressed by Welikala and Sohal (2008), employees' involvement in decision making is intrinsically at the heart of the TQM concept. As stressed by Pun et al. (2001), terms `employee involvement' and `participative management' are often used interchangeably. Thus, as suggest by the authors, to avoid confusion, this paper also used "employee involvement" as a generic concept that group all common features of both terms.

Pun et al (2001) highlighted that employees' involvement may provide the foundation for quality efforts and strategy development, and ensure that practices implemented conform to quality requirements that are followed by everyone in the organization According to Van der Wiele et al. (1997), TQM's acceptance as a managerial philosophy, brought significant human resources implications. As stressed by Welikala and Sohal (2008), the literature focused on TQM suggested that the low success rates of many TQM programs was due to a lack of emphasis on HR issues (leadership, training, participative management, rewarding and appraisal systems, decision-making process). Tamimi & Sebastianelli (1998) observed that almost half of barriers for successful TQM programs' implementation were related to people. TQM's advocates, like Pun & Chin (1999), usually highlight that the more organizations apply employee involvement initiatives, the more positive results they will gain, and the more profitable and competitive they will become, through higher employee satisfaction, and quality of life at work, among other factors. As stressed by Kochan et al. (1995), human resources management issues, may result in significant differences between performance indexes in organizations with similar capabilities. Such evidences were corroborated by other researchers. As found by Powell (1995) employees' empowerment was significantly correlated with overall corporate performance. Dow et al. (1999) concluded that workforce commitment had a significant positive association with organizational performance. O'Brien (1995) observed that higher productivity and efficiency may be reached through employees' empowerment. According to Dale et al. (1997), results suggest a positive correlation between high employee involvement and companies' productivity and long-term financial performance. Dale et al. (1997) emphasized that employees are in the best position both to recognize problems and to find improvements, if they are interested, and sufficiently empowered to take steps to make improvements. As highlighted by Shearer (1996), employees' empowerment and awareness about quality challenges facilitate their participation towards continuous quality improvement. In fact, as stressed by Pfeffer (1998), people-based strategies requires more than cosmetic changes, implying high commitment in doing things differently, such as training employees in multiple skills, organizing workers in teams, instituting suggestion systems, organizing problems' solving mechanisms like quality circles, and so forth. As highlighted by Besterfield et al. (1999), the core objective of TQM is to guarantee that everyone is conscious that he belongs to a relationship customer-supplier and that his full involvement is essential in the prosecution of quality improvement.

Training and development needs

Employees' empowerment and involvement at all levels is important to gain competitive advantages and business overall success. As enhanced by Pace (1989), employees' empowerment and involvement is crucial to problems' solving and therefore to quality continuous improvement, since employees involved and focused in their job, at their level, are in the best position to make decisions to have control over processes' improvement. Bayazit's (2003) research, based on a survey conducted on 250 Turkish organizations, enhanced that, among other factors, employees' involvement/commitment, and quality training and development are key factors for TQM's successful implementation. Increasingly, companies' shift toward philosophies focused on quality continuous improvement like TQM, lead firms to develop and implement initiatives directed at employees' training and development.

According to Ross (1993), higher involvement means, more responsibility, which requires specific skills, generally reached through training and development programs. In fact, it is believed that training and development programs are powerful agents both to develop personal capabilities and skills, and to improve firms' growth/profitability. Juran and Gryna (1993) stressed that training and development are a key factor in any quality continuous improvement program, enhancing that employees should be provided with the main skills and knowledge compatible with the role they are concerned with, searching higher commitment levels towards quality improvement, and in the last instance, higher levels of efficiency and effectiveness.

Customers' increasing expectations and requests regarding quality, and competition's price sensitivity, characterizing the global market arena where SME are competing, have been reinforcing the importance of human factors, strengthening the need for effective training and development initiatives focused on quality improvement, as a means of reaching sustainable competitive advantages. In fact, several researches' results enhanced that a trained and developed workforce is a key factor in quality continuous improvement programs (Sohal et al., 1998; Dale et al., 1997). As stressed by Dale et al. (1997), training and development in quality management issues may improve employees' abilities/skills, allowing organizations to promote employees' commitment and foster workforce's quality awareness. As enhanced throughout literature, developing extensive training programs seems to benefit employees' overall performance, providing them with the skills needed for effectively implement quality and productivity improvement initiatives. Based on a meta-analysis focused on the results of human resources programs on employees' performance, Guzzo et al. (1985) concluded that training has a positive impact on employees' individual productivity. Based on their research, Delaney and Huselid (1996) concluded that training was significantly related to organizational performance. Chandler and McEvoy (2000) highlighted that a total quality management strategy was most effective when supported by significant

training, founding support for the frequently claimed prescription that more training is helpful in TQM's implementation, since there is a strong commitment to TQM' principles, otherwise investment and commitment to training won't have significant impact on firms' earnings.

HR initiatives directed at quality improvement in SME

As already referred, several researches have been looking for key factors, crucial for a successful TQM principles' implementation. Unfortunately most of these focused essentially on large firms and few paid special attention to smaller firms. According to Yusof and Aspinwall (1999), both realities are quite different, but some key dimensions are common to both types of firms, enhancing HR management and training/education. However, as stressed by Yusof and Aspinwall (1999), among other researchers, comparing with larger firms, SME face particular problems which may hinder their progress through TQM, namely regarding capital, human and technical resources.

Existing management literature acknowledges that there are significant operational differences between SME and large firms, and researchers concerned with organizational size noticed that what applies to larger organizations may not apply to SME. In fact, researchers like Yusof and Aspinwall (1999), or Price and Chen (1993), among others, pointed out that some characteristics of quality management are suitable to smaller firms, while other are more in line with larger organizations, highlighting that TQM principles such as employee participation, flexibility, and closeness to customers could be more successfully applied in smaller firms than in larger ones. In fact, small firms are generally characterized by a lean structure based on a direct and close link between top management and employees at the lower level in the hierarchical structure; as a result, SME may benefit from a higher flexibility, a higher customer orientation, and a faster decision-making process (Ghobadian and Gallear, 1997; Ahire and Golhar, 1996; Azzone e Cainarca, 1993). As highlighted by Roca-Puig et al. (2006), smaller firms' social subsystem (people management) may provide greater values compared with large firms' realities.

However, according to Noci (1996), despite small firms may benefit from special advantages, they also face significant weaknesses that may difficult quality improvement's progress. Researchers argue that small firms lack clout with suppliers (Noci, 1996; Azzone and Cainarca, 1993), lack sufficient financial resources (Azzone and Cainarca, 1993; Noci, 1996; Carson, 1985; Gunasekaran et al., 1997), lack specialist skills (Conti, 1993; Carson, 1985; Wilkes and Dale, 1998), lack necessary information channels to keep up to date with developments in quality (Conti, 1993), lack professional managerial expertise (Conti, 1993; Wilkes and Dale, 1998), and rely mostly on short-term goals, possibly meaning that they lack long-term quality improvement plans (Gunasekaran et al., 1997). In fact, as stressed by Noci (1996), most of SME' long-term strategies are based on orders from larger organizations.

Regarding specifically HR management like training and development, researchers worried with the effects of firms' dimension on human resources management noted that differences in attitude towards employee training may be attributed to firm's dimension. In fact, it seems that, as firm size generally increases, more formal training and development programs may be provided. As highlighted throughout literature, as firms grow, training and development initiatives turn more structured and formal (Barrett and Mayson, 2007), being usually delegated to specialists inside or outside the firm (Kotey and Slade, 2005; Hornsby and Kuratko, 1990). For example, Roberts, et al. (1992) enhanced that frontiers for informality may be perceived in firms above 20 employees. Jennings and Beaver (1997) complete such observation referring that beyond such limit most owners becomes overloaded and seek to delegate responsibilities toward a management more professional.

Several researchers, like Reid and Harris (2002) enhanced that most successful SME provide more employees' training and development programs than the average. However, despite the perceived importance of training and development for improvements in productivity, and for firms' sustained competitive advantage, expressed throughout literature, authors like Kotey and Folker (2007), and Storey (2004), observed that there is a general reluctance among SME to provide formal employee training. In fact several reasons have been pointed out throughout literature, in order to try to explain such perception.

Storey (1994) highlighted that difficulties felt in establishing a direct and positive relation between training and performance may hinder owner-managers from investing in employees' involvement initiatives, and formal training programs. As noted by Reid and Harris (2002), and McEvoy (1984), among others, owner-managers in smaller firms perceive generally formal training as an investment firms can hardly afford, attending both to course fees and also to costs inherent to outputs reduction while employees are off-the-job. In fact, smaller organizations don't have generally necessary resources and expertise, facing strong difficulties to gain economies of scale (Moreno-Luzon, 1993; Kotey and Sheridan, 2001; Chandler and McEvoy, 2000; Klaas et al., 2000). Westhead and Storey (1996), also highlighted that formal training may not be provided because benefits would be underestimated by small firm managers; as stressed by the authors, training and development's benefits are usually gained in the long-term, turning investments in such initiatives unattractive to SME, since these operate generally in a short time horizon. Furthermore, Westhead and Storey (1996), still add that with reduced accesses to information, smaller firms are frequently unaware about training and development programs available and respective costs and benefits. Another handicap, enhanced throughout literature (see Kotey and Folker, 2007), deals with difficulties felt by firms to maintain the employees more qualified, due to the lack of internal promotion opportunities, characterizing SME, losing trained employees for competitors. Finally, as stressed by MacMahon and Murphy (1999), as SME' strategic orientation lays upon flexibility, among other factors, owner-managers enhance difficulties felt to balance needs between highly specialized employees, as opposed to a multi-skilled workforce consistent with jobs flexible nature in SME.

As stressed by Lee and Oakes (1995), smaller organizations usually recognize the need for training; however, most of these don't have a clear understanding about what is required and lack resources to carry out effective training programs. As a result, as highlighted by Hill and Stewart (2000), SME lack systematic approaches to employees' training and development programs which are usually qualified as informal, unplanned, reactive, and short-term oriented. MacMahon and Murphy (1999) observed that smaller firms seldom perform formal training needs analyses. As stressed by Hill and Stewart (2000), smaller firms focus essentially on informal training and development initiatives since these can be easily integrated into daily operations, are centered on employees' specific needs, and

involve lower costs. According to Gibb (1997), informal training is often qualified as reactive rather than proactive. As stressed by Mabey and Thomson (2001), in smallest firms, where the owner-manager may have a direct control over work performance, training and development initiatives are essentially provided on-the-job. According to Smith et al. (2002), on-the-job training and development initiatives allow employees to learn, integrated in the real context, where skills are daily used. Furthermore, as enhanced in literature, training programs in smaller firms are essentially developed on-the-job paying little attention to employee development (see Loan-Clarke et al. 1999; Marlow and Patton, 1993).

Conclusions

In considering the important contribution of SMEs to the economy, This research has successfully revealed the level of implementation of TQM principles. It has also pinpointed areas lacking in implementation in the TQM program. It is suggested that further research be carried out immediately on those organizations that are willing to participate in the development of a suitable framework for SMEs.

Existing management literature acknowledges that there are significant operational differences between SME and large firms, and researchers concerned with organizational size noticed that what applies to larger organizations may not apply to SME. In fact, researchers like Yusof and Aspinwall (1999), or Price and Chen (1993), among others, pointed out that some characteristics of quality management are suitable to smaller firms, while other are more in line with larger organizations, highlighting that TQM principles such as employee participation, flexibility, and closeness to customers could be more successfully applied in smaller firms than in larger ones. In fact, small firms are generally characterized by a lean structure based on a direct and close link between top management and employees at the lower level in the hierarchical structure; as a result, SME may benefit from a higher flexibility, a higher customer orientation, and a faster decision-making process (Ghobadian and Gallear, 1997; Ahire and Golhar, 1996; Azzone e Cainarca, 1993). As highlighted by Roca-Puig et al. (2006), smaller firms' social subsystem (people management) may provide greater values compared with large firms' realities.

Reference

Ahire S.L., Landeros, R. & Golhar, D.Y. (1995). Total Quality Management: a literature review and an agenda for future research. *Production and Operation Management*, 4(3), 277-306.

Azzone, G. & Cainarca, G.C. (1993). The Strategic Role of Quality in Small Size Firms. *Small Business Economics*, 5(1), 67-76.

Barrett, R. & Mayson, S. (2007). Human resource management in growing small firms. *Journal of Small Business and Enterprise Development*. 14(2), 307-320.

Black, S. & Porter, L. (1996). Identification of the critical factors of TQM. *Decision Sciences*, 27(3), 396-402.

Carson, D.J. (1985). The evolution of Marketing in Small Firms. *European Journal of Marketing*, 19(5), 7-16.

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.

Ghobadian, A. & Gallear, D. (1997). TQM and Organization size. *International Journal of Operations & Production Management*, 17(2), 121-163.

Hill, R. & Stewart, J. (2000). Human Resource Development in Small Organisations, Journal of European and Industrial Training, 24(2/3/4), 105-117.

Marchington, M. (1995). Fairy tales and magic wands: new employment practices in perspective. *Employee Relations*, 17(1), 51-66.

Marlow, S., & D. Patton (1993). Managing the Employment Relationship in the Smaller Firm: Possibilities for Human Resource Management. *International Small Business Journal*, 11(4), 57-64.

Pfeffer, J. (1998). *The human equation: Building profits by putting people first*. Boston: Harvard Business School Press.

Porter, L. & Parker, A. (1993). Total Quality Management – the Critical Factors. *Total Quality Management*, 4(1), 13-22.

Powell, T.C. (1995). Total Quality Management as Competitive advantage: A Review and Empirical Study. *Strategic Management Journal*. 16(1), 15-37.

Price, M.J. & Chen, E.E (1993). Total quality management in a small, high technology company. *California Management Review*, 35(3), 96-117.

Pun, K.F. & Chin, K.S. (1999). Bridging the needs and provisions of quality education and training: an empirical study in Hong Kong industries. *The International Journal of Quality & Reliability Management*, 16(8), 792-810.

Pun, K.F., Chin, K. S. & Gill, R. (2001). Determinants of Employee Involvement Practices in Manufacturing Enterprises. *Total Quality Management*, 12(1), 95-109.

Rahman, S. (2001). A comparative study of TQM practice and organisational performance of SMEs with and without ISO 9000 certification. *International Journal of Quality & Reliability Management*, 18(1), 35-49.

Ramirez C. & Loney, T. (1993). Baldrige Award Winners Identity the Essential Activities of a Successful Quality Process. *Quality Digest*, 3, 28-40.

Reid, R.S. & Harris, R.I.D. (2002). The determinants of training in SME in Northern Ireland. *Education and Training*, 44(8), 443-450.

Roberts, I., Sawbridge, D., Bamber, G. (1992). Employee relations in small firms. in Towers, B (Eds). *A Handbook of Industrial Relations Practice*. 3rd ed, London: Kogan Page.

Roca-Puig, V., Escrig-Tena, A.B., Bou-llusar, J,C. & Beltran-Martin, I. (2006). A systemic and contingent view of the basic elements of quality management. *TQM & Business Excellence*, 17(9), 1111–1127.

Ross, J.E. (1993), *Total Quality Management – Text, Cases and Readings*. Delray Beach, Florida: St. Lucie Press.

Saraph, J.V., Benson, P.G. & Schroeder, R.G. (1989). An Instrument for Measuring the Critical Factors of Quality Management. *Decision Sciences*, 20(4), 810-829.

Shearer, C. (1996). TQM requires the harnessing of fear. *Quality Progress*, 29(4), 97–101.

Smith, A.J., Boocock, G., Loan-Clarke, J. & Whittaker, J. (2002). IIP and SMEs; Awareness, benefits and barriers. *Personnel Review*. 31(1/2), 62-86.

Sohal, A.S.; Samson, D. & Ramsay, L. (1998). Requirements for successful implementation of total quality management. *International Journal of Technology Management*, 16(4-6), 505-519.

Van der Wiele, A., Dale, B.G., & Williams, A.R.T. (1997). ISO 9000 Series Registration to Total Quality Management: The Transformation Journey. *International Journal of Quality Science*, 2(4), 236-252.

Wilkinson, A. (1998). Empowerment: theory and practice. *Personnel Review*, 27(1), 40-56.

Yusof, S.M. & Aspinwall, E. (1999). Critical success factors for total quality management implementation in small and medium enterprises. *Total Quality Management*, 10(4/5), S803-S810.

Zairi, M. (1996). What's in the basket? A survey on integrated management through BPR and TQM. *The TQM Magazine*, 8(6), 58-65.

Zairi, M. (2005). TQM Sustainability: How to maintain its gains through Transformational change. *Proceedings from the ASQ World Conference on Quality and Improvement*, Seattle, WA, 59(0), 175-188.