HRM effects on TQM

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Abstract
Human resource management and total quality management having been identified as "new" approaches have attracted a great deal of practitioners' interest. Environmental pressures to change, for example, turbulent market conditions and heightened competition, have left organizations little choice to introduce novel approaches in human resource management (HRM) and total quality management (TQM) in every company. A fundamental aspect of the soft dimensions of TQM is human resource management (HRM). We try to show the HRM parts that affected with TQM approach and are needed to be improved for implementing TQM in any company in this article.

INTRODUCTION

The nature and extent of changes in the environment have had a significant impact on business organizations, consequently, companies have considered and prioritized their requirements (Smyth and Scullion, 1996).Total quality management (TQM) and human resource management (HRM) have been an important theme in management and business research for the past few decades due to its potential to affect a range of organizationally and individually desired outcomes. Human resource management and total quality management are becoming more interlinked (Boselie and Wiele, 2002). A number of commentators suggesting that only the integration of HRM and TQM managed organization will be able to survive in the future (Redman and Mathews, 1998). The HR professionals played a central role in creating and communicating the TQM vision of the company (Palo and Padhi, 2005).

REVIEW OF THE LITERATURE
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HRM is important for TQM success in any sphere of activity (Daniel Jime´nez-Jime´nez and Martı´nez-Costa, 2009). Despite differences in nomenclature (workforce management, employee relations, employee satisfaction, etc.) and the different practices considered (training, teamwork, empowerment, etc.) there is a consensus in the literature that highlights the important role of human resource management in implementing a TQM system in an organization (Aldakhilallah and Parente, 2002; Chandler and McEvoy, 2000; de Menezes and Wood, 2006; Mandal et al., 1998; Vouzas, 2007; Wilkinson et al., 1991). Enterprises that devote themselves to the implementation of TQM also need to perform HRM aggressively, if they are to increase the firm's performance significantly. A total quality system is comprised of two distinct systems: the management system and the technical system. The management system is concerned with issues of HRM (Evans and Lindsay 1996). Gunasekaran (1999) develops a conceptual model for the implementation of TQM. The model presents seven major strategies in the successful implementation of TQM. Of these, six are related to HRM.

This study considers 33 HRM practices, which are those that are most commonly identified in the literature as enhancers of TQM. We try to collect the results of these studies as an comprehensive article.

Total quality management

TQM is a general philosophy of management that attempts to maximize the competitiveness of an organization through the continual improvement of the quality of its products, services, people, processes and environments. There are many definitions of TQM; interestingly, no single definition can express the whole picture (Eriksson and Hansson, 2003). The implementation of TQM also benefits the company image,

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and improves the satisfaction and quality awareness of employees (Yang, 2006). Traditionally, it has been assumed that a company could gain competitive advantage through three different strategies: cost, differentiation or segmentation (Porter, 1985). Many researchers have analyzed the impact of TQM on business performance, examining the mechanisms that could lead to the improvement of management (Adams et al., 1999; Bou-Llusar et al., 2009; Choi et al., 1998; Dow et al., 1999; Easton and Jarrell, 1998; Elmuti and AlDiab, 1995; Forker et al., 1997; Hendricks and Singhal, 2001a, 2001b, 1996; Hua et al., 2000; Kumar et al., 2009; Mohrman et al., 1995b; Powell, 1995; Sila, 2007; Terziovski and Samson, 2000, 1999; Yong and Wilkinson, 1999).

Total quality management, a modern management philosophy, has become a widely used concept, linking the employers' emphasis on quality to a wider industrial relations approach. The TQM approach puts the responsibility for product or service quality directly on to the workforce. Besides a thorough management review, accompanied with much talk about "philosophy", "mission" and "leadership", a "customer orientation" and the aim of "zerodefects" are the key themes in TQM. Commitment to quality has to be companywide and led from the top. Jackson and Ashton (1993) argue that a quality system resembles a new car without petrol: perfect in every respect, but it will not go. The quality fuel is staff attitude and motivation and it is essential that any business has to address this. The idea of treating other employees as internal customers is used to try to influence employee attitudes and obtain increased commitment to the employers' objectives.

BS 5750 has been developed to a general strategy of TQM. Setting out how organizations can establish, document and maintain an effective quality system that will prove to customers that the organization is committed to quality and can supply their quality needs.

The relationship between HRM and TQM

Traditional HRM practices conflict with TQM and should be changed (Schonberger, 1994). Although organizations have initially focused on a production-oriented perspective of quality (Wilkinson et al., 1991), the recent literatures has underlined the importance of HRM for success (Vouzas, 2006). In fact, the "soft dimensions" of TQM (customer orientation, leadership, culture or HRM) as they have been described by many authors (Bou Llusar et al., 2009; Fotopoulos and Psomas, 2009). Therefore, the human resource function must take the lead in activities such as job design and teams that promote cooperation, empower employees to provide information, participation and autonomy, select employees that can adapt to the organizational culture, foster programmes of training and development with quality goals and define appraisal and compensation policies which support quality targets. A fruitful cooperation between HRM and TQM can produce better organizational results. The alignment of HR and quality policies, such as creating and communicating the TQM vision, preparing the organization and employees for TQM implementation and generating quality awareness among the employees across all levels, functions, and departments, should contribute to an increase company performance (Palo and Padhi, 2005).

Management authors have tended to focus on the concepts associated with HRM and TQM rather than providing evidence of their close relationship. This relationship by stating:
Quality management has high personnel content. It gives strategic importance to policies and processes that personnel managers have traditionally considered to be on their patch (Giles and Williams, 1991).
The role of the HRM department is therefore central to the success of total quality. TQM and HRM are in pursuit of the same goals – productivity, profitability, a customer-oriented company and a motivated workforce (Herbig, 1994). Management style Impact on management Identification of management/ behavior, skills and employee styles and attitudes. attitudes Modification of these where they inhibit the successful introduction of TQM Skills Analysis of training and Meeting demands development needs, skills requirements and gaps.

Human resources appropriate recruitment, Effective policies and procedures career development, and remuneration policies Shared values Ability to identify attitudes, Shared values are pertinent in improve motivation, morale an TQM program.

In the achievement of total quality in the organization the human resource dimension is very important (Deming, 1982, 1986). Continuous quality improvement depends upon the best use of the talents and abilities of a company's workforce. To achieve world class quality, it is imperative that a company empowers its workers. Companies must develop and realize the full potential of their workforce and maintain an environment conducive to full participation, personal and organizational growth. This can be

achieved through creating the appropriate human resource development through training, employee participation and involvement, building quality awareness among employees, and motivating employees. The main issues considered in human resource development are: human resource management, employee involvement, quality education and training, employee recognition and performance, and employee well-being and morale. The human resource development in an organization is an important contributor to proper and meaningful quality management since the quality philosophy and practice have to be part and parcel of the entire workforce and not the concern of only a few.

Empowerment

The link between HRM and TQM was identified as being in the area of development and empowerment of people and the shift from a control based style of management to an empowering management where attention is focused on coaching and leading.

It is generally accepted that a TQM environment fosters employee empowerment. In fact, five of Deming's 14 points relate directly to the notion of involvement and empowerment (Rahman, 2002). According to the literature, TQM should promote empowerment of front-line employees, giving them more responsibility and information (Schuler and Harris, 1992), and so undermining middle managers' traditional role in implementing and monitoring the instructions of top management.

TQM means taking on greater responsibility, often for the same pay (Snape et al., 1995). Thus, for quality initiatives to work, there must be sufficient participation (Ferna´ndez, 1996; Newall and Dale, 1991; Schuler and Jackson, 1987) and communication on the part of all employees in quality decisions, because they can improve the organizational processes (Mohanty and Sethi, 1996; Schonberger, 1994; Wilkinson et al., 1994). Organizational job descriptions should reflect these variables and be designed to promote quality. Moreover, jobs descriptions require a customer and innovation orientation and continual improvement (Blackburn and Rosen, 1993; Schonberger, 1994), allowing employee autonomy, responsibility and flexibility (Simmons et al., 1995; Snape et al., 1995). However, although job descriptions should be explicit and formal (Schuler and Jackson, 1987), because of the importance of documentation to the system (Ferna´ndez, 1996), TQM may require a move away from detailed, fixed job descriptions in order to foster flexibility and teamwork (Bowen and Lawler, 1992; Snape et al., 1995).

Some empirical research has found support for these arguments. For example, Lam (1996) showed how TQM programs improve employee participation in decision making. Utley et al. (1997) argued that organizations that have motivators present are more likely to have successful quality management implementation than those that are use hygiene factors to improve performance. Wood and Peccei (1995) observed how communication fosters a consciousness of quality. Finally, (Boon et al., 2006) found that organizational trust and empowerment have a strong relationship with the propensity of employees to remain within the organization.

Teamwork

Teamwork is central to TQM (Aubrey and Felkins, 1988; Kochan et al., 1995; Wilkinson, 1992; Yang, 2006). There is a consensus in the literature that multidisciplinary teamwork in teams composed of members from different organizational functional areas promotes TQM (Mohanty and Sethi, 1996; Schonberger, 1994; Simmons et al., 1995). Teamwork is necessary because it involves the collaboration between managers and non-managers, between functions, as well as with customers and suppliers (Dean and Bowen, 1994). Within the context of TQM, teamwork is an important outcome and a condition for continuous improvement. It facilitates collaborative efforts to solve quality problems (Waldman, 1994), places overall responsibility for quality with the team while reducing the potential for individual blame (Wilkinson, 1992), allows greater sharing of information within the work group (Oakland, 1989) and facilitates greater co-operation to improve continuously the functioning of the work group. In line with this argument, and in agreement with the results of Boon et al. (2007), teamwork was perceived as the dominant TQM practice, which has a strong association with job satisfaction.

Staffing

It is necessary to consider employees behaviour, attitudes and values for any TQM program to be successful. There is a major drive towards increased staff training. Companies have recently doubled the size of their training program and this will increase again as TQM is implemented at various stages throughout the organization.

There has been a substantial amount of training as follows:

• Training was provided for the quality team, e.g. quality and facilitating courses.
• In-house training has been provided by the quality team.
Reference was also made to the recruitment process, appointing people with
specific qualities and values that will contribute to the continuing success of the
organization (Smyth and Scullion, 1996).

More sophisticated recruitment and selection techniques are needed for TQM (Wilkinson et al., 1994). Successful recruitment and selection of employees with the proper knowledge, skills, abilities, and attitudes compatible with a TQM philosophy can be a driving force supporting continued   program effectiveness (Clinton et al., 1994). This implies, according to Rees and Doran (2001), the identification of competences derived from a TQM strategy and the use of multi-method selection.

According to Ahmad and Schroeder (2002) the goal of the recruitment and selection process should be to identify prospective employees who could work in teams, have problem solving aptitude and are forthcoming with ideas to improve processes or at least have values and behaviours consistent with the quality management philosophy.

Consequently, companies should recruit employees with good qualifications and them requisite skills and hence facilitate the implementation of TQM (Yang, 2006).

Moreover, candidate qualities to target in recruiting include a willingness to receive new training and to expand job roles, to develop new ideas and problem-solving techniques, to work patiently in teams within and across boundaries, and being enough of a team player to be evaluated and rewarded on a team basis (Clinton et al., 1994).

Recruitment should be externally oriented in the main (Schuler and Jackson, 1987). However, some compromise over the internal market is required in order to foster TQM (Schuler and Harris, 1991) and promote employee empowerment, participation and integration. Therefore, companies should foster both internal and external recruitment (Rees and Doran, 2001). Selection methods should be designed to assess TQM; that is, selection should be based on technical abilities, problem resolution and mathematical and statistical abilities (Bowen and Lawler, 1992). Selection has to be orientated towards a more person-centred approach than a task-based selection; that is, organizational selection processes should be oriented to identifying individuals who possess quality-related competences (Rees and Doran, 2001). However, a critical aspect is that selection procedures should facilitate the appropriate culture (Wilkinson et al., 1994). The bid to develop a quality culture must be by recruiting and selecting employees with the required attitudinal and behavioural characteristics and inducting them into the quality culture (Snape et al., 1995). This implies that candidates must fit the organizational culture and the TQM system (Simmons et al., 1995; Snape et al., 1995). Finally, employment security is required to secure stability in jobs and foster TQM (Saunders and Preston, 1994). Empirical research shows that effort made during the recruitment and selection processes, looking for employees with behaviour oriented to TQM, influences the procurement of TQM results (Ahmad and Schroeder, 2002).

Training and development

Training and development have been recognized as essential to the implementation of TQM. One of Deming's 14 points was that all employees must be trained in quality improvement techniques. Companies committed to TQM invest in training (Mandal et al., 1998; Schonberger, 1994). Samson and Terziovski (1993) believed that training is vital to the internal diffusion of quality ideas and practices, as without it there is no solid foundation for a formal quality program. TQM training is not a single effort, but should be conducted on a continuous basis (Schonberger, 1994; Schuler and Harris, 1991; Schuler and Jackson, 1987; Simmons et al., 1995; Snape et al., 1995; Vermeulen and Crous, 2000). Effective training pursuits must be planned systematically and objectively (Smyth and Scullion, 1996). Basically, training has to be oriented to the process methodology (Schonberger, 1994). Employee training is fundamental for many TQM programs such as the adoption of new quality concepts, the set-up and practices of customer satisfaction systems, the use of statistical quality control, or the change of culture or quality control circle (Bowen and Lawler, 1992; Yang, 2006). Moreover, employees require three basic areas of training (Clinton et al., 1994): principles of TQM, the use of TQM tools and problem-solving techniques.

Empirical studies show that the use of training and development programmes is more common in companies with ISO certification that those without it (Renuka and Venkateshwara, 2006). Similarly, Mandal et al. (1998) found important links between quality initiatives and employee involvement and training.

Professional career development for TQM companies is considered an extensive and continual process with promotion opportunities for employees (Schuler and Harris, 1991), but using narrow career paths (Schuler and Jackson, 1987). Furthermore, it demands horizontal career development (Blackburn and Rosen, 1993). This includes movement between functions, job rotation and horizontal movement (Bowen and Lawler, 1992). "Horizontal" career development is likely to become more significant, and career paths may become more complex and diverse (Snape et al., 1995). Consequently, promotion criteria should be based on the acquisition of abilities (Schonberger, 1994).

Performance appraisals

This practice is probably the most controversial in the TQM literature. Traditional performance appraisal systems are likely to obstruct the aims of TQM by placing a heavy emphasis on the individual employee as the main contributor to organizational performance, as opposed to TQM's emphasis on system-level features (Soltani et al., 2004; Soltani et al., 2003; Soltani et al., 2006). Deming (1986) has argued that performance appraisal is inconsistent with TQM, because quality improvements are found by changing processes rather than people. A review of the literature shows that performance evaluation systems are criticized for failing to achieve both TQM demands and employees' expectations (Soltani, 2003; Soltani et al., 2004). The main problems of performance appraisal, according to Soltani (2003; 2006), is that it disregards the existence of variability in the system, it holds workers responsible for errors that may be the result of faults within the system and it undermines teamwork. However, other investigators conclude that performance appraisal is compatible with TQM if it is based on quality criteria (Blackburn and Rosen, 1993; Simmons et al., 1995; Wilkinson et al., 1994; Wood and Peccei, 1995), includes developmental and improvement goals (Aldakhilallah and Parented, 2002; Snape et al., 1995; Snell and Dean, 1992), and provides information and solutions to current problems (Aldakhilallah and Parente, 2002; Schonberger, 1994). Although performance appraisal can be related to individual performance, it should be focused on measuring organizational and group performance (Petrick and Furr, 1995; Schuler and Jackson, 1987; Simmons et al., 1995). Moreover, appraisal systems for TQM are characterized by 360-degree appraisal (Blackburn and Rosen, 1993), with development and coaching as leadership practices, a low degree of formality and focusing on teams/systems and individual jobs (Petrick and Furr, 1995).

Carson et al. (1991) argued that formal performance evaluation systems facilitate improved total quality performance. However, companies require a non traditional appraisal system to foster TQM. Soltani (2003), from a study of TQM-oriented organizations, concluded that performance appraisal is mainly used for training and developmental opportunities, and it is characterized by being a formal evaluation, each year, and conducted by the employee's supervisor. Compensation

Incentive plans have also been a controversial issue in the quality management literature (Snape et al., 1995). Deming (1986) is opposed to pay incentives, considering that recognition rather than reward is important. Furthermore, individual incentives may inhibit cooperation and teamwork (Snell and Dean, 1994), promoting internal strife (Gomez-Mejı́a and Balkin, 1992). However, alignment between the reward system and TQM is required (Ehigie and Akpan, 2005). Consequently, rewards should foster cooperation, employee involvement and teamwork, not emphasize individually oriented compensation (Wilkinson et al., 1994; Yang, 2006). This incentive system may be based in quality criteria (Bowen and Lawler, 1992), should emphasize equity among employees (Schuler and Jackson, 1987; Snell and Dean, 1992), and may be oriented to an improvement target (Simmons et al., 1995). Moreover, TQM requires doing away with output related pay systems and placing greater emphasis on personal development and training (Wilkinson, 1992). Finally, compensation should include financial and non-financial rewards (Blackburn and Rosen, 1993; Schonberger, 1994), promoting continuous recognition.

Thor (1994) and Okokie (1996) suggest that reward is an important influence on employees for TQM because it creates satisfaction. However, Ehigie and Akpan (2005) did not find a positive relationship between reward level and TQM implementation. In spite of this, they found that when rewards are accompanied by a desirable leadership style, the employees are inclined to practice TQM. The results of Gomez-Mejı́a and Balkin (1992) show how group incentives may complement individual incentives rather that substitute for them. Finally, Allen and Kilmann (2001) found a moderator effect of reward practices between TQM and performance.

In conclusion, soft TQM practices have a positive impact on job involvement, career satisfaction and organizational commitment (Boon et al., 2005), that is, on the personnel function. A TQM orientation requires

a set of internal HRM practices, which better fit to TQM .This system of HRM practices, that we have labeled quality-oriented HRM system and that includes empowerment, job autonomy, communication, teamwork, planned training, development, and reward and recognition based in the contributions of employees, is an important enabler of TQM implementation (Carter et al., 2000; Gunasekaran, 1999; Oakland and Oakland, 2001). Moreover, it includes similar practices to those denominated by the literature as high-performance HRM practices (Bayo-Moriones and Merino-Dı́as de Cerio, 2001), which has a positive effect on organizational performance.

The quality-oriented HRM system of practices has a positive effect on TQM. HRM and performance The relationship between HRM and performance has been studied increasingly since the emergence of the strategic HRM approach at the beginnings of the 1980 s and has been supported by the resource-based view of the firm (Sanz et al., 1999). HRM systems can contribute to sustaining competitive advantage through facilitating the development of organizational resources and capabilities (Bowen and Ostroff, 2004) and contributing to sustainable advantage through organizational learning and innovation (Hatch and Dyer, 2004). Thus, a strategic perspective of HRM covers the overall HR strategies adopted by business units and companies and tries to measure their impacts on performance (Lengnick-Hall et al., 2009). A number of researchers have tried to explore the relationship between HRM and organizational performance from different perspectives (Rodrı́guez and Ventura, 2003). Although, many studies have examined individual practices, the use of systems of HRM practices has recently received more attention (Combs et al., 2006; Larraza et al., 2006; Wright and Boswell, 2002). The configurational approach (see for instance Delery and Doty, 1996) points out the importance of implementing internally consistent HRM practices, rather than isolated practices, in order to affect performance (Wright et al., 2001). The underlying assumption of the configuration approach in HRM is that the impact on performance of sets or "bundles" of interrelated HRM practices can be greater that the cumulative impact of all the individual practices comprising the bundle (MacDuffie, 1995). That is because the use of systems of practices allows companies to secure synergies from the complementarities among practices (Milgrom and Roberts, 1995). Furthermore, for some authors (e.g. Becker and Gerhart, 1996) the consideration of bundles of HRM practices is more consistent with the resource-based view of the firm, which suggests the importance of combining resources to obtain sustainable competitive advantage.

Although empirical literature reports many different approaches, the conclusions and the configurations of HRM practices studied, in general, provide support for the assumption that companies which implement systems of internally consistent HRM practices, obtain better performance. Furthermore, that support is mainly found when the HRM system adopted is similar to that which we have described here as fostering TQM (Hiltrop, 1999).

CONCLUSION AND SUGGESTIONS

All systems and subsystems across the organization, must be consistent and fit together in order to meet individual and organizational objectives. Marchington et al. (IPM, 1993, pp. 66-7) says "quality management can result in a change in the way in which HRM functions operate and possibly in a redefinition of the role of the function". In particular, as they pointed out, "quality can, undoubtedly, lead to a reassessment of the performance criteria for human resource managers".

This study considers 33 HRM practices, which are those that are most commonly identified in the literature as enhancers of TQM. They cover the most important areas of HRM: job design, teamwork, staffing, training, career management, performance appraisal and compensation (see Table I).

Insert table-I here

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Table-I

Practice	Characteristics
Empowerment and job definition	Formal planning of job task
	Broad job descriptions
	Flexibility
	Autonomy
	High participation
	High communication
Teamwork	Teamwork job orientation
	High teams autonomy
	High responsibility of their tasks
	Cross-functional teams
Staffing	External and internal recruitment
	Low formal selection processes, depending on specific job
	Polyvalence and high variety of competences
	Fit between the person and the organization and quality characteristics
	Moderate employment security
Training and development	Extensive and continuous at all levels
	Long-term orientation
	Polyvalence and broad variety of competences
	Group orientation
	Job rotation
	Career path definition
	Horizontal movement based
	Qualitative criteria promotion (changes openness, flexibility, innovation capacity . . .)
	Employee career path feedback
Performance appraisal	Continual performance appraisals
	Process (not results) orientation
	Group achievements
	Development and improvement goals
	Employee participation in performance appraisals
Compensation	Employee competences, abilities and flexibility determines salary
	Use of incentives
	Group orientation
	Equilibrium between financial and non-financial compensation