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# PEOPLE-RELATED TQM PRACTICES, INTRINSIC MOTIVATION AND QUALITY PERFORMANCE: EMPIRICAL STUDY IN SRI LANKAN APPAREL INDUSTRY

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**Abstract:**
Total Quality Management (TQM) has been implemented in diverse industries globally, anticipating performance improvements. Among the plethora of research supporting the success of TQM, there are controversial reports highlighting failures of TQM. Employee work attitudes arising as the immediate outcomes of TQM have been reported and have been conceptualised as mediators. The search for factors influencing failures of TQM has not been conclusive and there are certain contexts in which the phenomenon has not been tested. Furthermore, there is a paucity of studies relating to employee work attitudes and their mediating effect in TQM domain. This paper aims to determine the relationships between people-related TQM, intrinsic motivation, and quality performance and the mediating effect of intrinsic motivation in the Sri Lankan apparel industry. Analysis of the data obtained from a sample of 566 machine operator employees using Structural Equation Modelling revealed that people-related TQM practices did not influence intrinsic motivation or quality performance. Intrinsic motivation did not exert any mediating effect in the study context. Among the PTQM practices, team work, training and employee involvement were significant drivers of intrinsic motivation and quality

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performance while top management commitment and employee empowerment were not.

**Keywords: p**eople-related TQM practices, quality performance, intrinsic motivation, mediating effect

## 1. Introduction

Quality issues are in the main agenda of almost all major organisations. Total Quality Management (TQM), is an integrated approach to achieving and sustaining high quality output, focusing on the maintenance and continuous improvement of processes and defect prevention at all levels and in all functions of the organization in order to meet or exceed customer expectations (Flynn, et al., 1994). Almost four decades after its emergence, TQM having surpassed the initial faddish connotations, has not only penetrated diverse business sectors (Sousa & Voss, 2002) but has also survived diverse opinions of its effectiveness. TQM has been one of the most popular research streams in the operations research domain, reporting both success and failure stories. Despite the maturity of TQM research, the findings on reasons for failures of TQM have not been conclusive. The controversial reports cast doubts about the potential of TQM to deliver improved performance. This controversy has led to a string of research in search of explanations for this phenomenon. Notwithstanding the plethora of findings, the failures or sub-optimal performance of TQM need further investigation in different contexts. Recent studies in TQM illustrate the search for this phenomenon in developing countries, especially in the Asian context. This paper addresses the scarcity noted in the Sri Lankan context in identifying the factors influencing quality performance in the Sri Lankan apparel industry. A preliminary study conducted in the apparel companies affirmed that the sub optimal performance of TQM has been experienced in this industry.

The search for the mechanism through which TQM delivers improved performance has pointed towards the pivotal role of people in this process. TQM being a socio- technical system (Chaudhuri & Jayaram, 2019; Qureshi et al., 2019), the importance of balancing the social or people- aspects with the technical facets has been emphasised. Further, the technical systems being more standardised, the inconsistencies in the effectiveness of TQM can be attributed to the potential variations in the people outcomes. In fact, the employee attitudes are the variables that differ from one organisation to another and explain the uneven results of the quality systems (Douglas & Judge, 2001; Montes et al., 2003). The call by Morrow (1997) to focus on employee work attitudes, which are the immediate outcomes of TQM, has since then diverted the direction of research towards the people aspects of TQM. Contemporary research has delved into the effect of TQM, specially the soft or people-related TQM practices on employee work attitudes. The employee work attitude most studied in this connect is job satisfaction (Chathurika & Dileepa, 2016; Khan et al., 2019; Prajogo & Cooper, 2010, 2017; Ooi et al., 2005), in addition to affective commitment (Arunachalam & Palanichamy, 2017; Karia &

Aasari, 2006; Ooi et al., 2006), job involvement (Karia and Ahmad, 2000; Karia and Aasari, 2006; Ooi et al., 2007) and turnover intentions (Guimeraes, 1996; Karia and Asaari, 2006; Ooi et al., 2006). Further, it has been conceptualised by Montes (2003) and Sadikoglu and Zehir (2010) that employee work attitudes mediate the relationship of TQM and performance, reiterating the need to study employee work attitudes and their mediational effects. However, it is observed that intrinsic motivation as a potential outcome of TQM and as a mediator have been neglected in TQM research.

The objectives of this paper are to address the questions of whether people-related TQM (PTQM) practices drive intrinsic motivation and quality performance in the Sri Lankan apparel industry and whether intrinsic motivation plays a mediating role in the relationship between PTQM and quality performance. The apparel industry, contributing 47% of the export earnings in Sri Lanka is of economic significance to the country. Quality performance is critical to this industry, faced with stiff competition in supplies to many global super brands. The paper envisages to provide rich insights on finer points of harnessing employee potential to boost quality of products. Additionally, the paper would investigate the impact of the individual PTQM practices on intrinsic motivation. The rest of the paper is organised as follows. The contemporary research on the study variables will be reviewed leading to the presentation of the hypotheses and conceptual framework. The research methodology will be described followed by the results and analysis, and discussion of findings. Recommendations and conclusion will form the rest of the paper.

## 2. Literature Review

The people-related TQM practices, intrinsic motivation, quality performances and their relationships are discussed in the sections below.

### 2.1 TQM and Organisational Performance

TQM is a management approach which emerged to improve quality of products and services and through that to strengthen organisational performance. Multiple performance measures achieved through TQM have been reported (Nair, 2006). These measures range from financial performance (Lamine & Lakhal, 2018; O' Neilln, Sohal & Teng, 2016; Shafiq, Lasrado & Hafiz, 2017; Sila, 2018), operational performance or quality performance (Gambi et al., 2015; Sadikoglu & Olcay, 2014; Youssef & Youssef, 2018), customer-focused performance (Durairatnam et al., 2011; Mehralian & Nazari, 2017; Psomas & Jaca, 2016; Rahman & Bullock, 2005). Among the wide variety of performance measures, quality performance is considered to be the primary means through which TQM impacts organisational performance. Positive influence of TQM on quality performance has been reported by a vast number of researchers (for example, Anil & Sathish,2019; Bhathia & Awasthi, 2018; Modgil & Sharma, 2016; Patyal & Koilakuntla, 2017; Psomas & Jaca, 2016). Among the plethora of research evidence that TQM implementation has helped in performance improvement, there are, however, many

contradictory reports. Although TQM is implemented, it has not always resulted in the expected performance improvement (Adawiyah, 2012; Akdere, 2009; Anil & Sathish, 2016; Dilawo & Salimi, 2019; Dubey et al., 2018; Jayaram et al., 2010; Manni et al., 1989; Mosadeghrad, 2014; Menezes, 2012; Nair, 2006, Kumar & Sharma, 2015; Slutti et al., 1994). Specifically, failures of TQM to improve quality performance has been reported by Chaudhuri and Jayaram (2019), Barros et al. (2014), Maani (1989). This controversy remains a much-researched topic to date, emerging with critical success factors or reasons for failure in varied contexts. This paper aims to report findings on the influence of TQM in the Sri Lankan apparel industry.

TQM which, at its inception was perceived as working through its superior technical prowess, was embraced by a plethora of organisations globally, in the quest for attaining superior quality and competitiveness. However, pondering on the controversy of sub-optimal effectiveness or failures of TQM, Sousa and Voss (2002) opined that while the what to do in TQM implementation is clear, how to do it is ambiguous, causing the performance variations. Search for the reasons for this controversial phenomenon has triggered much research and the focus shifted from a purely technical view to a social view point. In fact, TQM has been explained based on socio technical theory (STS) of Trist and Bamforth in 1951. The STS upholds that optimisation is achieved by the use of both technical and social aspects based on a clear consideration of the interactions between the two. The theory stresses that maximum performance in any workflow, process or from the use of machinery or a device can be achieved only if the social and technical aspects are implemented in conjunction.

### 2.2 People-related TQM practices

From early stages of TQM research, two distinct sets of practices have been identified- the hard or the core practices, and the soft or the infra structure practices. Traditional TQM implementation focused on the hard practices including process management, systematic measurement, data- based decision making, performance standards, and use of statistical techniques. However, with maturity of the TQM research and the accompanying reliance on human resources for organisational performance excellence, the contemporary TQM implementation relies more on the people aspects. A set of soft TQM practices, delineated from the soft sphere, termed people-related TQM practices has gained popularity in the contemporary research domain. This terminology introduced by Prajogo and Cooper (2010) has been adopted by other researchers in recent works (for example, Chathurika & Dileepa, 2016; Durairatnam et al., 2019, 2020; Khan et al., 2019; Prajogo & Cooper, 2017). The current study, positioned in the soft or people side of the TQM, adopts the people-related TQM practices to verify its effectiveness towards quality performance in the Sri Lankan apparel industry. The practices included under the cluster of people-related TQM include top management commitment, employee empowerment, employee involvement, training, and teamwork. Similar soft TQM practices have been used in other studies as well (Ooi et al., 2005, 2006, 2007; Gupta et al., 2018; Sahoo & Yadav, 2019; Wickramasinghe, 2012).

Top management commitment refers to the management's acceptance of responsibility for quality, participation in quality improvement efforts and formulation of strategies and goals for quality improvement (Zu, 2009). Management commitment and conviction in the potential of TQM to deliver improved performance translates into active facilitation of TQM in the organisation (Dubey et al., 2018). Top management support creates a learning environment conducive for TQM (Beer, 2003), promotes implementation of TQM by provision of direction and required resources (Ahire & O'Shaughnessy, 1998; Yeung et al., 2005); facilitates training of employees and encourages employee involvement (Kaynak, 2003). In addition, top management commitment, exerts an indirect influence on performance through its impact on other TQM practices (Flynn et al., 1995; Wilson & Collier, 2000). Positive correlation of top management leadership with firm performance has been established in many previous studies (Bashar et al., 2017; Talib et al., 2013; Sadikoglu & Olcay, 2014). At the same time, many TQM failures have also been attributed to the absence of top management support (Prajogo & Cooper, 2010; Sohal & Terziovski 2000: Talapatra & Uddin, 2018).

Empowerment, a key ingredient of TQM (Ugboro, 2009) is a shift in power to employees in lower levels in the hierarchy of the organization (Ukil, 2016). Empowerment creates a platform for employees to unleash, develop and utilise their skills and knowledge to their fullest potential for the welfare of the organisation as well as for themselves. In the TQM environment, empowerment is operationalised through delegating authority and providing resources so that employees can identify and solve quality-related problems (Hill & Huq, 2004). It also can be likened to job enrichment, providing freedom to employees to take responsibilities for their ideas, decisions and outcomes (Ugboro, 2009), without referring even small problems to senior management. The structural empowerment created by top management through delegation of decision-making authority, gives rise to psychological empowerment of employees results in job satisfaction leading to improved quality performance (Ad-Dmour, 2018). Positive impact of empowerment on quality performance through enhanced employee confidence level has been established (Ferdousi & Shabnam, 2018; Pakdil & Leonard, 2015; Pradhan et al., 2017).

Employee involvement is any activity or sense of responsibility related employee participation in work. This includes improvement activities, teamwork, and commitment to the organization's decision-making process (Evans and Lindsay, 2011) and, reduction in bureaucratic procedures (Abdallah et al., 2017; Evans and Lindsay, 2011). Employee involvement or participation in quality improvement is central in the implementation of TQM (Chathurika & Dileepa, 2016). This involves developing top-down and bottom-up communication mechanisms, providing a platform for employees to voice their concerns on quality issues and direct participation in decision-making processes (Prajogo & Cooper, 2010). Employee involvement manifests through intervention of top management through setting formal structure and work norms. It can also be triggered through voluntary or unstructured participation arising from internal stimulation within employee (Albuhisi & Abdallah, 2018; Edwinah & Augustine, 2013). Provision of

opportunities and support for improvement activities and recognition of the efforts facilitate employee involvement (Abdulla & Tari, 20018; Fotopoulos and Psomas 2009; Laohavichien et al., 2011). Organisations which provide employees access to key information and involve them in improvement activities reap better returns from TQM (Douglas & Judge 2001). Importance of employee involvement in successful implementation of TQM has been posited as only second to top management commitment; at the same time, lack of employee involvement has been reported as the predominant obstacle (Jaeger & Adair, 2016). Employee involvement generates a quality culture in the organisation and is the foremost critical success factor for quality programs (Nadim & Al- Hinai, 2016). Employee involvement is necessary for continuous improvement in a TQM context (Abdulla & Tari, 2018). When employees are involved, they play a key role in identifying opportunities for improvement, understand better the ways the product or service is designed and improved and can suggest other ways for improvement (Kim et al., 2012). Studies have clearly established that involved employee's productivity, stimulation of innovative ideas and increased customer satisfaction (Lawler, 1994; O'Driscoll & Randall, 1999). Organisational performance improvement through employee involvement has been reported by Pambreni et al. (2019). Employee involvement through training, communication, empowerment, rewards and recognition, plays a positive role on implementation of TQM. It aids in fostering process and systems approach, facilitates continual improvement and fact-based decision making (Bakotić & Rogošić, 2017).

In the globalised environment the status of training will determine the effectiveness of the organisation's quality initiatives (Chathurika & Dileepa, 2016; John & Juster, 2019; Sadikoglu & Olcay, 2014). In the TQM context, training refers specifically to employees being trained on TQM processes, procedures and quality techniques and methods. Training is critical for process improvement and control, as well as product quality. In addition, training facilitates better use of information and participation in product design. Employee training is embedded in TQM philosophy as a critical component of people management (Choi & Eboch, 1998). It is considered a vehicle for implementing and reinforcing quality practice (Reed, Lemak & Mero, 2002). Training in TQM aims to impart the skills and knowledge required for all employees in order to work towards quality improvement and provides them confidence in achieving high-quality outcomes from their work. Unless employees have received formal and systematic training in quality management, other TQM elements such as employee empowerment and involvement would not be effective (Ahire, Golhar & Waller, 1996; Kaynak, 2003). Training can also have positive effects on design (Kaynak, 2003), an increased awareness of quality-related issues related to process as well as design and feedback (Abdullah & Tari, 2018). Previous studies have established that training is positively related to operational performance as well as customer results (Kaynak, 2003; Phan et al., 2011). Training at all levels of management has been reported as a critical factor in determining successful TQM implementation (Talapatra & Uddin, 2019). Positing that training creates awareness, builds employees' commitment to quality policy and strategy, facilitates

teamwork, enhances performance standards, and bolsters the skills and abilities of employees, Palo and Padhi (2003) advocate that organisation needs to focus more upon improving communication competencies, multiple skill development and customer value training.

Teamwork is central to TQM and has taken various forms in TQM, including quality control (QC) circles, cross functional teams, and quality improvement teams (Chathurika & Dileepa, 2016; Prajogo & Cooper, 2010). Teamwork has been positioned as central to TQM on the premise that quality problems are best solved by involving people from various departments in the organisation (Imai, 1986). In addition, teamwork and group problem solving, permitting decentralised decision making are an important part of TQM (Flynn et al., 1994). Teamwork encourages the collaboration among different individuals or groups. Active interpersonal relationship among team members along with clarity of tasks and responsibilities is critical for teamwork to be effective. It is also noted that task assignment based on skills and abilities of team members, plays a key role in setting the quality of team work in the organisation (Aziz et al., 2018). Successful teamwork motivates employees and provides self-efficacy, fulfilling social needs in the workplace (Prajogo & Cooper, 2010; Rahman & Bullock 2005). Solutions arrived at collectively are generally thought to be better, more creative and foster commitment to the ultimate outcome. However, to realise the advantages of collaboration, teams must genuinely facilitate the participation and involvement of members, overcome hierarchical power differences and engage in solving of work problems. Quality circles or quality improvement teams are effective ways to showcase the importance of employees. Moreover, teamwork is a method to achieve employee involvement and participation (Fuentes-Fuentes et al., 2004).

Based on above discussion on the potential of the people-related TQM practices to influence quality performance, the following hypothesis is proposed.

**$H_1$:** People-related TQM practices are related to quality performance.

### 2.3 PTQM, intrinsic motivation and quality performance

Similar to the binary classification of TQM practices into soft and hard categories, the outcomes of TQM also have been conceptualised as soft and hard performances. While the financial, operational, quality, customer focused performance can be considered under the hard performance platform, the soft or people-related performance measures include employee work attitudes and behaviours, such as job satisfaction, commitment, motivation, job involvement, turnover intention and organisational citizenship behaviours. Morrow (1997) advocated that researchers should focus on the immediate or short -term outcomes which are the employee – related outcomes. This school of thought has triggered research interest resulting in reports that TQM practices, specifically the soft or the people-related practices influence improvements in job satisfaction (Chathurika & Dileepa, 2016; Khan, Malik, & Janjua, 2019; Prajogo & Cooper, 2010, 2017; Ooi et al., 2005), affective commitment (Ooi et al., 2006), job involvement (Ooi et al., 2007), motivation (Sadikoglu & Zehir, 2010). Among the employee attitudes studied as

immediate outcomes of TQM, job satisfaction takes precedence, followed by commitment and job involvement. IT is noted that motivation as an employee attitudinal outcome of has not received much attention in TQM studies, bridging which gap is an aim of this paper.

Motivation is an attitudinal variable, which has been discussed in relation to its effect on performance. Based on the distinction of type of reward- intrinsic or extrinsic- motivation itself can be separated into two types. Rewards extrinsic to the individual, part of the job situation, given by others and satisfying lower order needs relates to extrinsic motivation. On the other hand, rewards intrinsic to the individual and arising from the performance itself are thought of satisfying higher order needs such as self-esteem and self- actualization, are related to the second type, which is intrinsic motivation. They involve such outcomes as feelings of accomplishment, feelings of achievement, and feelings of using and developing one's skills and abilities. Intrinsic motivation is viewed as more directly connected to performance than extrinsic motivation since higher effort – reward probabilities can be established for them than for extrinsic rewards (Lawler, 1970; Ryan & Deci, 2000).

Intrinsic motivation as defined by Lawler and Hall (1970) is "*the degree to which a job holder is motivated to perform well because of some subjective rewards or feelings that he expects to receive or experience as a result of performing well*". It emphasizes that the motivation is towards personal achievement and task success rather than towards 'extrinsic' satisfactions arising from features such as additional pay or good working conditions (Ryan & Deci, 2000; War, Cook, & Wall, 1979). For a job to be intrinsically motivating, it must be perceived by the employee as requiring use of abilities the individual values, in order to perform the job effectively and offering a feeling of a high degree of self-control over setting own goals. The people-related TQM practices induce an environment conducive to intrinsic motivation. Montes et al. (2003) identify the TQM related leadership which increases a team vision for achieving tasks, clarification of work roles in relation with their team, employee empowerment, training and employee involvement practices as intrinsic motivators. Sadikoglu and Zehir (2010) state that participative management, open communication, employee empowerment and engagement in TQM provide self-actualization need fulfilment leading to intrinsic motivation. Relationship between TQM and intrinsic motivation has been empirically reported by Sadikoglu and Zehir (2010). Therefore, the following hypothesis is posed:

**$H_2$:** People-related TQM practices are related to intrinsic motivation.

Early management theorists suggested that the employees' willingness to whole-heartedly attempt to perform at their potential is dependent on the employee maintaining positive feelings and attitudes about the job. Employees with better job-related attitudes are more productive and engage more in behaviours that are beneficial to the firm (Rodríguez-Escudero et al., 2010). Additionally, collaborative effort is much more likely to occur when employees experience positive attitudes (Likert, 1961) and collaborative effort can increase organisational effectiveness (Ostroff, 1992). Employees' positive work

attitudes are important factors affecting organisational performance (Bou & Beltran, 2005; Pun et al., (2001).

Social exchange theory (SET) of Blau (1964) can be drawn upon to explain the employee work attitudes consequent to implementation of TQM, specifically people-related TQM, and the ensuing organisational performance outcomes. PTQM practices with potential to promote employee development, participation, involvement, and empowerment create a leaning, supportive environment. In response to these positive actions emanating from the organisation, positive work – related attitudes are created in employees. Satisfied, committed, and motivated employees will make extra efforts towards the success of the organisation owing to social exchange relationship with the organisation. This will result in identification with and involvement in the goals and policies of the organisation and the intrinsic satisfaction it rewards. PTQM resulting in intrinsic motivation will prompt employees to exert extra effort towards achieving organisational goals and will produce improved organisational performance, which in this case is the quality performance.

Based on these arguments the following hypothesis is posited;

**H3:** Intrinsic motivation is related to quality performance.

### 2.4 Mediating effect of Intrinsic Motivation in the relationship of People-related TQM and Quality Performance

The mediating role of intrinsic motivation can be explained based on social exchange theory. Employees, perceiving benefits of the people-related TQM practices experience intrinsic motivation. As a result of the motivation, inter-organisational collaborative innovation develops in a way that is beneficial to the firm (Zhou et al., 2008). In addition, behaviours favourable to the firm develop (Heiman & Nickerson, cited by Hernandez-Espallardo et al., 2018). In a TQM environment, favourable work attitudes result through development of effective work environment (Flynn et al., 1995), fostering teamwork (Zhao et al., 2004) and engagement in more job related pro- social behaviours (Organ & Konovsky, cited by Zhao et al., 2004). Soft TQM Practices such as participative decision making, employee empowerment, employee involvement and training serve to create a supportive and intrinsically motivating environment. Based on these facts, it can be postulated that favourable employee attitudes resulting from implementation of TQM practices will in turn lead to improved performance. Accordingly, intrinsic motivation can be expected to play a mediating role in the relationship between people-related TQM practices and quality performance. Therefore, the following hypothesis is posed:

**H4:** Intrinsic motivation mediates the relationship between people-related TQM practices and quality performance.

The conceptual framework developed for the study is presented in Figure 1.

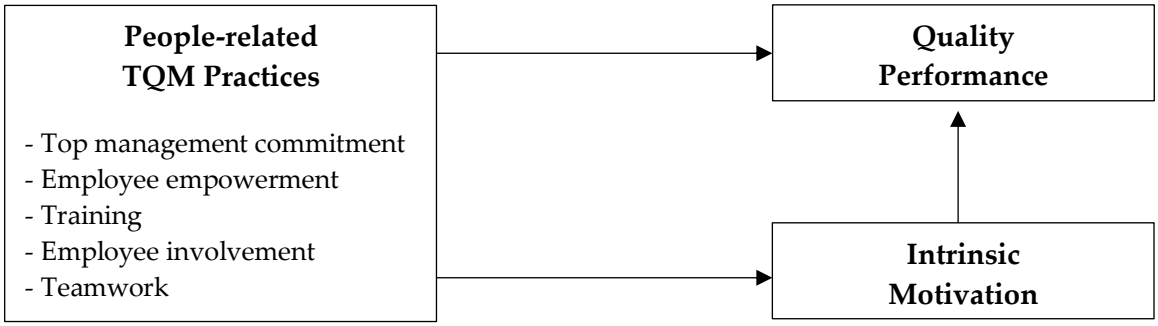


**Figure 1:** Conceptual Framework

## 3. Methods

This section of the paper will focus on a description of the sample, data collection procedure, survey instrument, and the statistical tests to evaluate the hypotheses.

### 3.1 Sample and data collection

The population of this study constituted the top 100 apparel export companies in Sri Lanka. Quality Managers of the 56 companies which agreed to participate in the survey served as coordinators of the survey. Questionnaires, translated in Sinhala, the local language, were served to 15 randomly selected machine operator level employees in each company. Survey questionnaires were personally administered by the research team. 590 questionnaires were collected (70.2% response rate). Majority of the respondents (83%) were 20- 40 years age; 46.8% were G.C.E. (O/L) qualified and 41.3% were G.C.E. (A/L) qualified; majority of respondents had tenure ranging from 1 to 5 years (42.2%) while 24.6% counted less than 1 year of tenure. 85% of the organisations were of large size (greater than 250 employees) and 67.3% organisations had implemented TQM for more than 3 years. Of the 590 questionnaires that were returned (70.2%), 566 were deemed usable for the data analysis.

### 3.2 Measures

The questionnaire consisted of a total of 39 items with high reliability, carefully selected from previous studies. Responses were sought on a 5-point Likert scale ranging from 1= strongly disagree to 5= strongly agree. People-related TQM practices, a second order construct with five first order variables, was measured by adopting the items used by Prajogo and Cooper (2010, 2017) consisting of top management commitment (6 measurement items), employee empowerment (5 items), employee involvement (6 items), training (5 items) and teamwork (6 items). Intrinsic motivation was measured by 6 items and quality performance by 7 items adopted from Zu et al. (2008). All variables exhibited good internal consistency and reliability with Cronbach's alpha values exceeding 0.8.

### 3.3 Data Analysis

Exploratory Factor Analysis was carried out using SPSS Version 16 to verify the reliability of the selected items as reliable measures of the relevant variables. Validity and internal reliability were verified through computation of average variance extracted (AVE) and composite reliability (CR) values. Data analysis to test the hypotheses in the conceptual model was carried out using Structural Equation Modelling (SEM), which is considered appropriate for analysis of models with second order latent variables (Prajogo & Cooper, 2017). SEM analyses were performed using AMOS software Version 20. Confirmatory factor analysis to confirm model fit of the measurement model was followed by the structural model which was subjected to maximum likelihood analysis as estimation method to test the hypotheses.

## 4. Results

Table 1 presents the results of the exploratory factor analysis Cronbach's alpha, AVE and CR values of the constructs and variables in the model, attesting sampling adequacy, internal validity and reliability.

**Table 1:** Results of EFA, Reliability and Validity

| Variable | Kaiser-Meyer-Olkin | Cronbach's Alpha | Average Variance Extracted | Composite Reliability |
|---|---|---|---|---|
| Top management commitment | .881 | .835 | .483 | .667 |
| Employee empowerment | .840 | .817 | .570 | .783 |
| Employee involvement | .837 | .800 | .570 | .683 |
| Training | .815 | .813 | .539 | .765 |
| Teamwork | .823 | .807 | .511 | .761 |
| Intrinsic motivation | .848 | .814 | .530 | .788 |
| Quality performance | .825 | .863 | .592 | .865 |

The KMO values of higher than 0.8, presented in Table 1, exhibited by the variables are indicative of good sampling adequacy (Hutcheson & Sofroniou, 1999). According to Nunnally (1978), Cronbach's alpha values exceeding 0.7 imply satisfactory internal consistency of measures. Similarly, AVE and CR values equal to or greater than 0.5 and 0.6 are recommended to attest validity of variables (Bagozzi & Yi, 1988). Furthermore, Fornell and Larcker (1981) state that if variables with lower AVE values report composite reliability of above 0.6, the discriminant validity of the variables is accepted. Therefore, the validity and reliability of all variables in the model are deemed satisfactory.

CFA was conducted for the structural model and the results indicate satisfactory goodness of fit indices. The model yielded normed chi- square value of 2.321, CFI value of 0.912 and RMSEA value of 0.048. The threshold values for above indices are less than 5, greater than 0.9 and less than 0.08 respectively, as stipulated by Awang (2016). The results of the maximum likelihood estimation to test hypothesis are presented in Table 2.

Based on the decision rules adopted for this study with acceptable values for beta coefficient or path estimate, the associated critical ratio (C.R. > 1.96) and P values (at the 0.05 level and 0.01 level) as recommended by Awang (2016) and Byrne (2001), and standardised regression weights (SRW > 0.2) recommended by Ramayah (2012), the results in Table 2 indicate that the relationship of PTQM and quality performance is not significant. Thus, H1, that PTQM is related to quality performance is not supported in the Sri Lankan apparel industry context. Similarly, the relationship between PTQM and intrinsic motivation is not significant and therefore H2 is also not supported. However, the relationship between intrinsic motivation and quality performance with all maximum likelihood estimates being satisfactory (β = 0.221, C.R. = 2.378 and P = 0.006) and SRW greater than 0.2 (Ramayah, 2012), position H3 as supported, thus establishing a significant relationship between intrinsic motivation and quality performance.

**Table 2:** Results of path analysis of structural model

| Path | SRW | β Estimate | C.R. | P | Results |
|---|---|---|---|---|---|
| QP<---PTQM | .044 | .048 | 1.062 | .293 | H1 not supported |
| IM<---PTQM | .036 | .047 | .913 | .361 | H2 not supported |
| IM<---TM | .158 | .060 | 1.890 | .143 | Not significant |
| IM<---EE | .160 | .052 | 1.231 | .218 | Not significant |
| IM<---EI | .231 | .171 | 1.965 | .015 | Significant |
| IM<---TR | .252 | .201 | 2.025 | .048 | Significant |
| IM<---TW | .285 | .299 | 4.945 | .000 | Significant |
| QP<---IM | .264 | .221 | 2.378 | .006 | H3 Supported |

PTQM= people-related TQM practices, IM= intrinsic motivation, TM= top management commitment, EE= employee empowerment, EI= employee involvement, TR= training, TW= teamwork, QP= quality performance

This paper, at the outset, stated the aim to investigate the impact of individual people-related TQM practices on intrinsic motivation. According to the results presented in Table 2, teamwork, training and employee involvement are significant drivers of intrinsic motivation while top management commitment (β= .06, C.R.= 1.89, P= .143) and employee empowerment (β= .052, C.R.= 1.231, P= .218) are not. Teamwork (β=.299) emerges the most significant PTQM practice driving intrinsic motivation, followed by training(β=.201) and employee involvement (β=.171). Every unit increase in teamwork would improve intrinsic motivation by 0.299 units, training by .201 units and employee involvement by .171 units.

### 4.1 Mediating effect of intrinsic motivation

Mediation effect was tested through bootstrap approximation by constructing two-tailed bias-corrected confidence intervals based on 2000 bootstrapped samples that exhibited the magnitude of the levels of direct and indirect effects and their level of significance (*P* value). The results of the mediation test are illustrated in Table 3.

**Table 3:** Results of the bootstrap analysis

| | **Direct effect** | | **Indirect effect** | | **Results** |
|---|---|---|---|---|---|
| PTQM → QP (IM as mediator) | | | | | |
| β estimate | .050 | Not | .003 | Not | No |
| P | .516 | significant | .412 | significant | mediation |

The results of the bootstrap analysis indicate that in the model with intrinsic motivation as mediator both direct and indirect paths are not significant (p values higher than 0.05). Therefore, intrinsic motivation does not act as a mediator in the relationship between people-related TQM practices and quality performance. Accordingly, H4 is not supported. In mediation testing through estimating path coefficients, according to Awang (2016), for a full mediation to occur, firstly the direct relationship should not be significant; the relationships between independent variable to mediator and the relationship between mediator and dependent variable should be significant. In case of a partial mediation, all of above 3 relationships need to be significant, permitting that the effect of the direct relationship should weaken as the mediator enters the model. In the current study, the relationship between people-related TQM and intrinsic motivation was not significant, which causes intrinsic motivation to fail in acting as a mediator.

## 5. Discussion

The primary aim of this paper was to identify the relationships between people-related TQM practices, intrinsic motivation and quality performance in the apparel industry in Sri Lanka. Through this study, the five dimensions of people related TQM practices (top management commitment, employee empowerment, employee involvement, training, and teamwork). TQM had been established by majority of past research as significantly related to quality performance. The findings of the current study, contradicting many previous reports in literature (Ahmed et al., 2018; Anil & Sathish, 2019; Khan, Malik & Janjua, 2019; Nair, 2006; Zu et al., 2008; Sila & Ebrahimpour, 2005: Psomas & Jaca (2016); Molina-Azorin et al., 2009; Adawiyah, 2012 among others) did not find any significant relationship between people-related TQM practices and quality performance. However, similar to the current study, contradictory findings have been expressed by previous studies by Abbeh et al. (2019), Dubey et al. (2018), Jayaram et al. (2010), Jun et al. (2006), Menezes, (2012), Niazi et al. (2019), Othman et al. (2019), and Oliveria et al. (2019). These studies have reported that TQM does not act as a driver of performance in certain contexts. These results reflect similar sentiments expressed by managers in the Sri Lankan apparel industry during the preliminary study to understand the problem. Majority of the apparel industry managers stated that TQM initiatives in their companies had not yielded the expected results. Responding to the perceptions of improvement of quality performance upon implementing TQM, 40% of them rated performance below expectations, while 11% were of the opinion that TQM was not effective at all in

improving performance. This situation is reflected in the rejection of H1, affirming that PTQM does not influence quality performance in the Sri Lankan context.

In order to gain further insights into the finding of people-related TQM practices not driving quality performance, this study delved into deeper analysis of individual dimensions of people-related TQM to understand the impact of individual people-related TQM practices on quality performance. This analysis generated interesting and insightful findings. Among the five people-related TQM practices, teamwork emerged as the dimension of highest impact on quality performance, followed by training and then employee involvement. Top management commitment and employee empowerment were not significant. This finding corroborates earlier studies where the lack of top management leadership was attributed as the main reason for failure of TQM initiative. Joshi (2018) opined that failure of TQM initiatives to deliver performance is primarily due to weaknesses in the leadership, in developing suitable policies to drive TQM. Similar interpretation has been offered by Chiarini and Vagnoni (2017), regarding lack of leadership leading to failure of TQM. The current study recorded similar findings where the PTQM dimension of top management commitment to be identified as not exerting significant driver of TQM.

Employee empowerment practices are among the key ingredients of TQM, without which continuous improvement will never happen (Ooi et al., 2007; Prajogo & Cooper, 2010; Ugboro, 2009). It is apparent from the results of this study that this aspect is weak in the apparel industry and needs management focus, to maximise TQM benefits. Lack of employee empowerment has been cited as the reason for failure of TQM in the study of Nicolaou and Kentas (2017), similar to the finding of the current study that employee empowerment was not a significant driver of quality performance.

It can be concluded that in the apparel industry context in Sri Lanka, the PTQM practices did not drive quality performance. The failure of top management to evoke positive perceptions regarding their commitment to quality and the ineffectiveness of the employee empowerment practices can be attributed to rendering the overall PTQM construct being an insignificant driver of performance. As illustrated in Table 2, only teamwork, training and employee involvement practices have asserted significant impacts on quality performance, as perceived by the floor level workers of the apparel industry. Team work and training have been identified as significant drivers of performance in the study of Ooi et al. (2007)

The findings of the study did not identify PTQM practices as influencing intrinsic motivation in floor level employees in the apparel industry. Contemporary TQM research focuses on the employee side of TQM and many studies have found significant relationships with work attitudes such as job satisfaction, affective commitment, job involvement, and turnover intention. Only a few studies had looked at the impact of TQM on intrinsic motivation (for example, Montes et al., 2003; Sadikoglu & Zehir, 2010). It had been conceptualised that the employee work attitudes including intrinsic motivation mediates the relationship between TQM and performance (Montes et al., 2003), Sadikoglu and Zehir (2010) found partial mediation effect of employee

performance measures which included intrinsic motivation. However, the current study not only, did not support any significant relationship between PTQM and intrinsic motivation, but also concluded that intrinsic motivation does not play a mediation role, neither partial nor full, in the relationship between PTQM and quality performance. This finding, as in case of PTQM and quality performance can be attributed to the insights provided by the results of the impact of individual PTQM practices on intrinsic motivation. It is found that top management commitment and employee empowerment have not been perceived by floor level employees as important. The shortcomings in implementation of these two practices has rendered the entire bundle of PTQM practices to be rendered insignificant drivers of intrinsic motivation and resultantly not as mediators. One other justification for the results reported in this paper to differ from earlier findings lies in the selection of the sample. Where most previous work has selected senior managers as respondents, this study chose to test the perceptions of machine operator level workers. The justification of selection of managers as stated was that management being the implementers would be more knowledgeable on the TQM practices. On the contrary this paper seeking for reasons for the failures of TQM, sought the perceptions of the first level employees who working at the front line of product manufacture and thereby play a key role in determining quality performance. It is posited that notwithstanding management intentions and aspirations of TQM, the full potential of such change initiatives cannot be achieved without the internalisation of the concept by those on the factory floor level. This is clearly reflected by the fact that the respondents, machine operators in the Sri Lankan apparel industry, have not perceived PTQM, especially top management commitment and empowerment practices as motivating or triggering quality performance. These findings provide important indications to managements of TQM companies on the importance of the actions and strategies relating to TQM to cascade to all levels of the organisation.

The findings presented in the paper pose several unique contributions to theory and practice of TQM. The popularly cited positive influence of people-related TQM on quality performance has been challenged. The paper also disputes that PTQM improves employee motivation. The study significantly differs in methodology from previous reports through its selection of machine operator level employees as respondents, instead of senior managers as in case of most previous studies. The importance of cascading the TQM philosophy down the hierarchical levels of organisations, to maximise benefits of TQM is a significant contribution to practice of TQM. The findings that top management commitment and empowerment need to be strengthened, and be visible to employees at all levels, shed light on areas to improve.

## 6. Recommendations

Organisations invest considerable resources on TQM implementation, yet failure of the initiative to yield anticipated results will lead to loss of confidence in the TQM philosophy. This paper concludes that people-related TQM implementation does not

lead to quality performance in the Sri Lankan apparel industry nor does it have a positive influence on intrinsic motivation. Based on the findings, the study has pointed to some actions to be prioritised for maximising the benefits of implementing TQM.

The results of the analysis of the relationship between PTQM and quality performance has revealed that teamwork, employee involvement and training were perceived as significant drivers, whereas top management commitment and employee empowerment practices were not. To tilt the overall PTQM practices as a significant driver of quality performance, it is imperative that the apparel industry strengthens these two weak practices.

Top management commitment, proclaimed by the majority of prior studies as the foremost driver of TQM, has failed to impress the lower level employees in the apparel industry in Sri Lanka. Bearing this in mind, the visibility of management participation in quality improvement programmes needs strengthening. The focus of management on strategic planning and goal setting for quality are imperative, with effective communication throughout the organisational hierarchy. Structured and on-going quality-related training and employee involvement projects need to consider the focus on strategy to bring together all levels of employees towards achieving the quality goals. Implementation of effective communication and employee feedback seeking mechanisms will help in bridging the gaps.

In implementing TQM, top management may exercise many initiatives to establish their commitment and to implement strategies to empower employees. A clear gap is seen in the Sri Lankan apparel industry with regard to the empowerment practices. Mechanisms to gradually build- in self-examination of quality of own work, aided by the required training, are desirable priorities in the management agenda. Accordingly, the initiative of problem-solving teams also needs consideration.

It is important to note that actions by top management will lose effectiveness unless they are imbibed by the workforce at all levels. Therefore, it is imperative for management to verify whether the intended implementation of TQM has penetrated down the lines of hierarchy in the organisation. The study implies that for employees to be involved, top management commitment and empowerment practices are important. Management participation in employee involvement projects such as Quality Circles will help this cause. In addition, empowerment of machine operator level employees needs serious consideration.

The study has also addressed the potential influence of PTQM on improving employee work attitudes. Intrinsic motivation was not influenced by PTQM practices. As suggested by the study that team work is a significant practice and group cohesiveness seems to hold the workers together and creates intrinsic motivation, pointing out the need for managers to implement group-based improvement activities. Initiatives such as quality circles, improve teamwork and employee motivation. Team performance-based incentives, instead of individual performance is one other initiative to harness the benefit of group working.

This study considered the implementation of people-related TQM practices, in the attempt to understand the achievement of quality performance and employee motivation. It is recommended that future studies focus on a broader set of factors which potentially influence employee work attitudes and performance. There is need to study the impact of people-related TQM and other factors such as organisational culture and organisational justice perceptions on a wider range of employee work attitudes, such as job satisfaction, affective commitment, job involvement and turnover intention in varied contexts.

## 7. Conclusion

This paper drawing from socio- technical systems theory and social exchange theory has bridged empirical gaps in relation to PTQM practices, intrinsic motivation and quality performance in the Sri Lankan apparel industry. The paper has achieved the objectives of identifying the relationships between people-related TQM practices, intrinsic motivation and quality performance in the context of apparel industry in Sri Lanka as well as determining the mediation effect of intrinsic motivation. It was concluded that PTQM was not a significant driver of quality performance or intrinsic motivation, as perceived by machine operator level employees. Intrinsic motivation did not display mediation effect in the relationship of PTQM and quality performance. Furthermore, teamwork, training and employee involvement practices of PTQM were identified as significant drivers while top management commitment and employee empowerment were not. The study has contributed to both theoretical and practical issues underpinning quality performance and employee work attitudes in the apparel organisations in Sri Lanka.

The study has provided several implications for academia and managers, as well as recommendations in the area of quality performance. It is hoped that the research will trigger more similar empirical research in the future. In addition, it is also hoped that the recommendations provided in the study would help the apparel export organisations in achieving better quality performance.

## References

Abbeh, O., Ngige, C. D., & Azuka, O. M. (2019). Total Quality Management and Organisational Performance: An Exploration of Issues. *Advanced Journal of Management, Accounting and Finance* 4(6),48-68.

Abdullah, M. M. B., Tarí, J. J. (2018). Hard Quality Management and Performance: The Moderating Role of Soft Quality Management. *International Journal for Quality Research, 11*(3), 587-602.

Adawiyah, W. R. (2012). The Relationship between Soft TQM and Organisational Citizenship Behaviour; A case of Islamic Banks in Indonesia. *International Review of Social Sciences and Humanities, 2* (29), 213-226.

Al-Dmour, R., Yassin, O., & Masa'deh, R. (2018). Review of Literature on the Associations among Employee Empowerment. *Work Engagement and Employee Performance,1*(1), 313-329.

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

Ahmad, M. F., Zakuan, N., & Ahmad, J., & Takala J. (2015). Meta-analysis of the TQM impact on business performance among regions and countries. *International Journal of Industrial and Systems Engineering, 20*(2),155-165.

Akdere, M. (2009). A multi-level examination of quality-focused human resource practices and firm performance: evidence from the US healthcare industry. *The International Journal of Human Resource Management, 20*(9), 1945–1964.

Albuhisi, A., & Abdallah, A. (2018). The impact of soft TQM on financial performance: The mediating roles of non-financial balanced scorecard perspectives. *International Journal of Quality & Reliability Management, 35*(7), 1360-1379.

Anil, A., & Sathish, K. P. (2019). TQM practices and its performance effects – an integrated model . *International Journal of Quality & Reliability Management, 36*(8),1318-1344.

Anil, A., & Satish, K. P. (2016). Investigating the relationship between TQM practices and Firm's performance: A conceptual framework for Indian organisations. *Procedia Technology, 24,*554 – 561.

Arunachalam, T., & Palanichamy, Y. (2017). Does the soft aspects of TQM influence job satisfaction and commitment? An empirical analysis. *The TQM Journal, 29*(2), 385-402.

Awang, Z. (2016). Structural Equation Modelling. Shah Alam: University Technology MARA Publication Centre, UiTM Press.

Aziz, S., Mahmood, M., & Bano, S. (2018). Total Quality Management: A Frame Work for Higher Education Institution. *Journal of Research in Social Sciences, 6*(1),124-141.

Bagozzi, R., & Yi, Y. (1988). On the Evaluation of Structural Equation Models. *Journal of the Academy of Marketing Sciences, 16*,74-94.

Bakotić, D., & Rogošić, A. (2017). Employee involvement as a key determinant of core quality management practices. *Total Quality Management & Business Excellence, 28* (11-12), 1209-1226.

Barros, S. A., Sampaio, P., & Saraiva, P. (2014). Quality management principles and practices impact on the companies' quality performance. *1st International Conference on Quality Engineering and Management* (ICQEM 2014),237-247.

Bashar, A., Hasin, M. A. A., & Hoque, Md. A. (2017). The Correlation among TQM and Organizational Performance Factors in the Apparel Industry of Bangladesh. *Australian Journal of Business Science Design & Literature, 10*, 1-11.

Beer, M. (2003). Why Total Quality Management Programs Do Not Persist: The Role of Management Quality and Implications for Leading a TQM Transformation. *Decision Sciences, 34(*4), 623- 639.

Bhatia, M., & Awasthi, A. (2018). Assessing relationship between quality management systems and business performance and its mediators. *International Journal of Quality & Reliability Management, 35*(8), 1490-1507.

Bou, J. C., & Beltran, I. (2005). Total Quality Management, High-commitment Human Resource Strategy and Firm Performance: An Empirical Study. *Total Quality Management, 16*(1), 71–86.

Byrne, B. M. (2001). *Structural equation modeling with AMOS*. New Jersey: Lawrence Erlbaum Associates, Publishers.

Chathurika, H. J., & Dileepa, M. E. W. (2016). Predicting Employees' Job Satisfaction with People-related TQM Practices: Case in Apparel Manufacturing Industry, Sri Lanka. *Journal of Business Studies, 3*, 1-12.

Chaudhuri, A., & Jayaram, J. (2019). A socio-technical view of performance impact of integrated quality and sustainability strategies, *International Journal of Production Research,* 57(5), 1478-1496.

Chiarini, A., & Vagnoni, E. (2017). TQM implementation for the healthcare sector: The relevance of leadership and possible causes of lack of leadership. *Leadership in Health Services,30*(3), 210-216.

Choi, T. Y., & Eboch, K. (1998). The TQM Paradox: Relations among TQM practices, plant performance, and customer satisfaction. *Journal of Operations Management, 17*, 59-75.

Dilawo, R., & Salimi, Z. (2019). Understanding TQM implementation barriers involving construction companies in a difficult environment. *International Journal of Quality & Reliability Management, 36*(7), 137-1158.

Douglas, T. J., & Judge, W. Q. (2001). Total Quality Management Implementation and Competitive Advantage: The Role of Structural Control and Exploration. *Academy of Management Journal, 44*(1), 158-169.

Dubey, R., Angappa, G., Childe, S. J., Papadopoulos, T., Hazen, B. T., & Roubaud, D. (2018). Examining Top Management Commitment to TQM Diffusion using Institutional and Upper Echelon Theories. *International Journal of Production Research, 56*(8), 1-19.

Durairatnam, S., Narangoda, S. U., & Jayawardana, A. (2011). Impact of ISO 9001 Core Principles on Work Outcomes and Customer Satisfaction in Sri Lanka Manufacturing Organisations. *Sri Lankan Journal of Management, 16*(1 & 2), 89-103.

Durairatnam, S., Chong, S. C., & Jusoh, M. (2019). People-Related TQM Practices, Organisational Culture, Organisational Justice and Employee Work-related Attitudes for Quality Performance: A Research Agenda. *Global Journal of Management and Business Research: G-Interdisciplinary, 19*(4), 1-11.

Durairatnam, S., Chong, S. C., & Jusoh, M. (2020). Measuring Determinants of Quality Performance: Pilot Study in Sri Lankan Apparel Industry. *International Journal of Scientific & Technology Research, 9* (1), 1291-1302.

Edwinah, A., & Augustine, A. (2013). Employee involvement and organizational effectiveness. *The Journal of Management Development. 32*, 10-37.

Evans, J. R., & Lindsay, W. M. (2011). *Managing for Quality and Performance Excellence* (8th ed.). Mason, OH: South-Western Cengage Learning.

Ferdousi, F., & Shabnam, S. (2018). The Impact of TQM Practices in Improving Product Quality: Bangladesh Garment Organizations as a Case. *East West Journal of Business and Social Studies, 6 & 7*, 77-99.

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,* 339–366.

Flynn, B. B., Schroeder, R. G., & Sakakibara, S. (1995). The impact of Quality Management Practices on Performance and competitive advantage. *Decision Sciences, 26*(5), 659-692.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39-50.

Fotopoulos, C. B., & Psomas, E. L. (2009). The impact of "soft" and "hard" TQM elements on quality management results. *International Journal of Quality & Reliability Management, 26*(2),150-163.

Fuentes-Fuentes, M. M., Albacate-Saez, C. A., & Llorens-Montes, F. J. (2004). The impact of environmental characteristics on TQM principles and performance. *Omega, 32*(6), 425-42.

Gambi, L. D. N., Boer, H., Gerolamo, M. C., Jørgensen, F., & Carpinetti, L. C. R. (2015). The relationship between organizational culture and quality techniques, and its impact on operational performance. *International Journal of Operations and Production Management, 35*(10), 1460-1484.

Guimaraes, T. (1996). TQM's impact on employee attitude. *TQM Magazine, 8*(1), 20–25.

Gupta, V., Garg, D., & Kumar, R. (2018). Performance evaluation of TQM attainment in Indian manufacturing sector. *International Journal of Services and Operations Management, 29*(2), 214-235.

Hackman, J., & Wageman, R. (1995). Total quality management: Empirical, conceptual and practical issues. *Administrative Science Quarterly, 40*, 309-342.

Hackman, J. R., & Lawler, E. E. (1971). Employee reactions to job characteristics. *Journal of Applied Psychology, 55*(3),259-286.

Hernandez-Espallardo, M., Osorio-Tinoco, F., & Rodriguez-Orejuela, A. (2018). Improving firm performance through inter-organizational collaborative innovations: The key mediating role of the employee's job-related attitudes. *Management Decision, 56*(6), 1167-1182.

Hill, F., & Huq, R. (2004). Employee empowerment: Conceptualizations, aims and outcomes. *Total Quality Management & Business Excellence, 15*(8), 1025–1041.

Hutcheson, G., & Sofroniou, N. (1999). *The Multivariate Social Scientist*. London: Sage Publications.

Imai, M. (1986). *Kaizen: The Key to Japan's Competitive Success*. New York: McGraw-Hill Education.

Jaeger, M., & Adair, D. (2016). Perception of TQM benefits, practices and obstacles: The case of project managers and quality management representatives in Kuwait. *The TQM Journal, 28*(2), 317-336.

Jayaram, J., Ahire, S. L., & Dreyfus, P. (2010). Contingency relationships of firm size, TQM duration, unionization, and industry context on TQM implementation -A focus on total effects. *Journal of Operations Management, 28*, 345-356.

John, M. R., & Juster, N. G. (2019). Management Commitment, Employee Training and Implementation of Quality Management Systems in Motor Vehicle Sector in Kenya: A Case Study of Isuzu East Africa Limited. *Journal of Strategic Management, 3*(3), 92-108.

Joshi, A. A. (2018). Impacts of Leadership on TQM in Food Industry in India. Masters Theses & Specialist Projects. Paper 2072. https://digitalcommons.wku.edu/theses/2072.

Jun, M., Cai, S., & Shin, H. (2006). TQM practice in maquiladora: Antecedents of employee satisfaction and loyalty. *Journal of Operations Management, 24*, 791–812.

Karia, N., & Asaari, A. H. (2006) The effects of total quality management practices on employees' work-related attitudes. *The TQM Magazine, 18*(1), 30-43.

Karia, N., & Ahmad, Z. A. (2000). Quality practices that pay: Empowerment and teamwork. *Malaysian Management Review, 35*(2), 66-76.

Kaynak, H. (2003). The relationship between total quality management practices and their effects on firm performance. *Journal of Operations Management*. *21*, 405-435.

Khan, M., Malik, S., & Janjua, S. (2019). Total Quality Management practices and work-related outcomes. *International Journal of Quality & Reliability Management, 36*(6), 864-874.

Kim I, H., Muntaner, C., Vahid, S. F., Vives, A., Vanroelen, C., & Benach, J. (2012). Welfare states, flexible employment, and health: a critical review. *Health Policy,104*(2), 99–127.

Kumar, V., & Sharma, R. R. K. (2015). Identifying Critical Success & Failure Factors for TQM Implementation: Extract from Real Case Studies. IEEE International Conference. Retrieved from www.ieeexplore.ieee.org.

Lamine, K., Lakhal, L. (2018). Impact of TQM/Six Sigma practices on company's performance: Tunisian context. *International Journal of Quality & Reliability Management, 35*(9), 1881-1906. https://doi.org/10.1108/IJQRM-05-2017-0097.

Laohavichien, T., Fredendall, L., & Cantrell, S. R. (2011). Leadership and quality management practices in Thailand. *International Journal of Operations & Production Management, 31*(10), 1048-1070.

Lawler, E. (1994). Total Quality Management and Employee involvement. Are they Compatible? *Academy of Management Executive, 8*(1), 68- 76.

Lawler, E. E., & Hall, D. T. (1970). Relationship of Job Characteristics to Job Involvement, Satisfaction and Intrinsic motivation. *Journal of Applied Psychology, 54*(4), 305-312.

Maani, K. (1989). Productivity and Profitability through Quality; Myth and Reality. *International Journal of Quality and Reliability, 6*(3), 11-23.

Malhotra, N. K. (1993). *Marketing research: An applied orientation*. Englewood Cliffs, NJ: Prentice-Hall.

Mehralian, G., Nazari, J., Nooriparto, G., & Rasekh, H. (2017). TQM and organizational performance using the balanced scorecard approach. *International Journal of Productivity and Performance Management, 66*(1), 111-125.

Menezes, L. M. De. (2012). Job Satisfaction and Quality Management: An empirical Analysis. *International Journal of Operations & Production Management, 32*(3), 308-328.

Modgil, S., & Sharma, S. (2016). Total productive maintenance, total quality management and operational performance: An empirical study of Indian pharmaceutical industry. *Journal of Quality in Maintenance Engineering*, *22*(4), 353-377.

Molina-Azorin, J. F., Tari, J. J., Claver-Cortes, E., & Lopez-Gamero, M. D. (2009). Quality management, environmental management and firm performance: a review of empirical studies and issues of integration. *International Journal of Management Reviews, 11*(2), 197-222.

Montes J. L., Jover, A. V., & Fernandez, L. M. M. (2003). Factors affecting the relationship between total quality management and organisational performance. *International Journal of Quality & Reliability Management, 20*(2), 189-209.

Morrow, P. C. (1997). The measurement of TQM principles and work-related outcomes. *Journal of Organisational Behaviour, 18*, 363-376.

Mosadeghrad, M. S. (2014). Essentials of Total Quality Management: A meta- analysis. *International Journal of Health Care Quality Assurance, 27*(6), 544-558.

Nair, A. (2006). Meta-analysis of the relationship between quality management practices and firm performance- implications for quality management theory development. *Journal of Operations Management, 24*, 948–975.

Niazi, A. Z. K., Qazi, T. F., & Sandhu, K. Y. (2019); Uncovering the Myths of TQM in Readymade Garment Sector of Pakistan: An Interpretive Structural Modeling Approach. *Review of Economics and Development Studies, 5*(3),531-540.

Nicolaou, N., & Kentas, G. (2017). Total Quality Management Implementation failure reasons in Healthcare sector. *Journal of Health Science, 5*, 110-113.

Nunnally, J. C. (1978). *Psychometric Theory*. New York: McGraw-Hill.

O' Neiling, P., Sohal, A., & Teng, C. W. (2016). Quality management approaches and their impact on firms' financial performance – An Australian study. *International Journal of Production Economics, 171,* 381–393.

Ooi, K. B., Arumugam, V., & Seng Hwa, T. (2005). Does soft TQM predict employees' attitudes? The TQM Magazine,17(3),279-289.

Ooi, K. B., Abu Bakar, N., Arumugam, V., Vellapan, L., & Loke, A. K. W. (2007). Does TQM influence employees' job satisfaction? An empirical case analysis, *International Journal of Quality & Reliability Management, 24*(1), 62-77.

Ooi, K. B., Safa, M. S., & Arumugam, V. (2006). TQM practices and affective commitment: a case of Malaysian semiconductor packaging organisations, *International Journal of Management and Entrepreneurship, 2*(1),37-55.

O'Driscoll, M. P., & Randall, D. M. (1999). Perceived organisational support, satisfaction with rewards, and employee job involvement and organisational commitment. *Applied Psychology: An International Review, 48*(2), 197-209.

Oliveira, G. S., Corrêa, J. E., Balestrassi, P. P., Martins, R. A., & Turrioni, J. B. (2017). Investigation of TQM implementation: empirical study in Brazilian ISO 9001-registered SMEs. *Total Quality Management & Business Excellence, 3363*, 1-19.

Ostroff, C. (1992). The relationship between Satisfaction, Attitudes and Performance: An organization level analysis. *Journal of Applied Psychology, 77*(6), 963-974.

Othman, I., Gani, S. N. M., & Choon, S. W. (2019). The Total Quality Management (TQM) Journey of Malaysian Building Contractors. *Ain Shams Engineering Journal*, https://doi.org/10.1016/j.asej.2019.11.002.

Pakdil, F., & Leonard, K. M. (2015). The effect of organizational culture on implementing and sustaining lean processes. *Journal of Manufacturing Technology Management, 26* (5), 725 – 743.

Palo, S., & Padhi, N. (2003). Measuring Effectiveness of Total Quality Management Training: An Indian Study. In: *International Journal of Training and Development, 3*(7), 3-16.

Pambreni, Y., Khatibi, A., Ferdous Azam, S. M., & Tham, J. (2019). The influence of Total Quality Management towards Organization Performance. *Management Science Letters, 9*, 1397-1406.

Patyal, V. P., & Koilakuntla, M. (2017). The impact of Quality Management Practices on Performance: An empirical study. *Benchmarking: An International Journal, 24*(2),511-535.

Powell, T. C. (1995). Total quality management as competitive advantage: a review and empirical study. *Strategic Management Journal, 16*(1), 15-37.

Prajago, D., & Cooper, B. K. (2010). The effect of people-related TQM practices on job satisfaction: a hierarchical model. *Production Planning & Control, 21*(1), 26–35.

Prajogo, D. I., & Cooper, B. (2017). The individual and organisational level effects of TQM practices on job satisfaction. *International Journal of Manpower, 38*(2), 215-225.

Pradhan, R. K., Hati, L. M., & Kumar, U. (2017). Impact of employee wellbeing on psychological empowerment: Mediating role of happiness. *International Journal of Manufacturing Technology and Management, 31*(6), 581–595.

Psomas, E., & Jaca, C. (2016). The impact of total quality management on service company performance: evidence from Spain. *International Journal of Quality & Reliability Management, 33*(3), 380-398.

Pun, K. F., Chin, K. S., & Gill, R. (2001). Determinants of employee involvement practices in manufacturing enterprises, *Total Quality Management, 12*, 95–109.

Qureshi, M. I., Rasiah, R. A., Al-Ghazali, B. M., Haider, M., Jambari, H., Iswan, S. (2019). Modeling Work Practices under Socio-Technical Systems for Sustainable Manufacturing Performance. *Sustainability, 11*, 4294.

Rahman, S., & Bullock, P. (2005). Soft TQM, hard TQM, and organisational performance relationships: an empirical investigation. *Omega, 33*(1), 73–83.

Ramayah, T., & Lee, J. W. C. (2012). Systems characteristics, satisfaction and e-learning: a structural equation model (SEM). *Turkish online Journal of Educational Technology, 11*(2), 196-206.

Reed, R., Lemak, D. J., & Meroc, N. P. (2000). Total quality management and sustainable competitive advantage. *Journal of Quality Management, 5*, 5-26.

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. *Contemporary Educational Psychology, 25*, 54–67.

Sadikoglu, E., & Olcay, H. (2014). The Effects of Total Quality Management Practices on Performance and the Reasons of and the Barriers to TQM Practices in Turkey. *Advances in Decision Sciences, 2014*, 5-22.

Sadikoglu, E., & Zehir, C. (2010). Investigating the effects of innovation and employee performance on the relationship between total quality management practices and firm performance: An empirical study of Turkish firms. *International Journal of Production Economics,127*, 13–26.

Sahoo, S., & Yadav, S. (2019). Total Quality Management in Indian Manufacturing SMEs. *Procedia Manufacturing, 21,* 541-548.

Shafiq, M., Lasrado, F., & Hafeez, K. (2017). The effect of TQM on organisational performance: empirical evidence from the textile sector of a developing country using SEM. *Total Quality Management & Business Excellence*, DOI: 10.1080/14783363.2017.1283211

Sila, I. (2018). Country and sector effects on the relationships among TQM practices and key performance measures. *International Journal of Productivity and Performance Management, 67*(8),1371-1393.

Sila, I., & Ebrahimpour, M. (2005). Critical linkages among TQM factors and business results. *International Journal of Operations & Production Management, 25*, 1123–1155.

Slutti, D., Maani, K., & Putterill, M. (1995). Empirical analysis of quality improvement in manufacturing: survey instrument development and preliminary results. *Asia Pacific Journal of Quality Management, 4*(1), 47-72.

Sohal, S. A., & Terziovsky, M. (2000). TQM in Australian manufacturing: Factors critical to success. *International Journal of Quality and Reliability Management, 17*(2), 158-168.

Sousa, R., & Voss, C. A. (2002). Quality management re-visited; a reflective review and agenda for future research. *Journal of Operations Management, 20*, 91–109.

Talapatra, S., & Uddin, Md. K. (2018). Some obstacles that affect the TQM implementation in Bangladeshi RMG Sector: An empirical study. *Proceedings of the International*

*Conference on Industrial Engineering and Operations Management Bandung,* Indonesia, March 6-8, 2018.

Talapatra, S., & Uddin, Md. K. (2019). Prioritising the Barriers of the Implementation of TQM Implementation from the Perspective of Garment Sector in Developing Countries. *Benchmarking: An International Journal, 26*(7), 2205-2224.

Talib, F., Rahman, Z.,& Qureshi, M. (2013). An empirical investigation of relationship between total quality management practices and quality performance in Indian service companies. *International Journal of Quality & Reliability Management, 30*(3), 280-318.

Ugboro, I. O., & Obeng, K. (2000). Top management Leadership, Employee empowerment, Job satisfaction and Customer Satisfaction in TQM Organisations: An empirical study. *Journal of Quality Management, 5,* 247- 272.

Ugboro, I. O., & Obeng, K. (2009). Top management leadership, employee empowerment, job satisfaction, and customer satisfaction in TQM organisations: an empirical study. *Journal of Quality Management, 5*, 247-272.

Ukil, M. I. (2016). The impact of employee empowerment on employee satisfaction and service quality: empirical evidence from financial enterprises in Bangladesh, *Business: Theory and Practice, 17*(2),178–189.

Warr, P., Cook, J., & Wall, T. (1979). Scales for the measurement of some work attitudes and aspects of psychological well-being. *Journal of Occupational Psychology, 52*, 129-148.

Wickramasinghe, V. (2012). Influence of total quality management on Human Resource Practices. An explanatory Study. *International Journal of Quality & Reliability Management, 29*(8), 836-850.

Wickramasinghe, V., & Gamage, A. (2011). High-involvement work practices, quality results, and the role of HR function: An exploratory study of manufacturing firms in Sri Lanka. *TQM Journal, 23*(5),513-560.

Wilson, D. D., & Collier, D. A. (2000). An Empirical Investigation of the Malcolm Baldrige National Quality Award Causal Model. *Decision Science, 31*(2), 361- 390.

Yeung, A. D. L., Cheng, T. C. E., & Lai, K. H. (2005). An empirical model for managing quality in the electronics industry. *Production and Operations Management, 14*(2), 189-204.

Youssef, M. A., & Youssef, E. M. (2018). The synergistic impact of ISO 9000 and TQM on operational performance and competitiveness. *International Journal of Quality & Reliability Management 35*(3), 614-634.

Zhou, Z., Jin, X., Vogel, D. R., & Fang, Y. (2008). Individual motivations and demographic differences in social virtual world uses: An exploratory investigation in Second Life. *International Journal of Information Management, 31*(3), 261-271.

Zhao, X., Yeung, A. C. L., & Lee, T. S. (2004). Quality management and organisational context in selected service industries of China. *Journal of Operations Management, 22,* 575-58.

Zu, X., Lawrence D., Fredendall, L. D., & Douglas, T. J. (2008). The evolving theory of quality management: The role of Six Sigma. *Journal of Operations Management, 26,* 630–650.

Zu, X. (2009). Infrastructure and core quality management practices: how do they affect quality? *International Journal of Quality & Reliability Management, 26*(2), 129-149.

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