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Total quality management practices, competitive strategies and financial performance: the case of the Palestinian industrial SMEs

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The purpose of this paper is to examine the relationship between total quality management (TQM) practices, competitive strategies – cost leadership and differentiation – and firm performance in the Palestinian economy. Within this study, TQM has been conceptualised as soft and hard practices, in congruence with the literature. An empirical analysis based upon an extensive validation process was applied to refine TQM, competitive strategies and financial performance scales. Data were collected through surveying 202 Palestinian industrial small and medium enterprises. Structural equation modelling was carried out to test the anticipated relationships. Results derived from this study show that TQM practices have an indirect, positive and significant relationship with financial performance through competitive strategies. In addition, a direct, positive and significant relationship between competitive strategies and financial performance was observed. Results derived from this study might help managers to implement TQM practices in order to effectively allocate resources and improve financial performance.

Keywords: TQM; cost leadership; differentiation strategy; small and medium enterprises; Palestine; manufacturing sector

1. Introduction

Quality management plays an important role in the overall organisational strategy. The major challenge for global organisations is to survive in this increasingly competitive global market (Zakuan, Yusof, Laosirihongthong, & Shaharoun, 2010). Organisations that adopt total quality management (TQM) and pursue product quality will improve their competitive position, business success, and differentiate their products (Belohlav, 1993; Fernandez-Perez & Gutierrez-Gutierrez, 2013; Lam, Lee, Ooi, & Lin, 2011). Recent studies showed positive relations between TQM implementation and the performance of companies (Duh, Hsu, & Huang, 2012; Gimenez-Espin, Jiménez-Jiménez, & Martínez-Costa, 2012; Kaynak & Hartley, 2008; Kim, Kumar, & Kumar, 2012; Lam et al., 2011; Rahman & Bullock, 2005). Most literature also agrees about the positive relationship between TQM and competitive strategies – differentiation and cost leadership (Fuentes, Llorens Montes, & Molina, 2006; Reed, Lemak, & Montgomery, 1996). However, some recent studies did not find a significant relationship between cost leadership and TQM (Jung, Wang, & Wu, 2009; Prajogo & Sohal, 2006). This study addresses this issue through the study of the relationship between TQM and competitive strategies.

The Palestinian industrial firms today face many challenges while trying to survive the intense competition in the local market from other international companies. Palestine will

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become a member of the World Trade Organization (WTO). As a result of preparations for joining the WTO, Palestine will be competing with the rest of the world through the creation of conditions that will attract investments, both internationally and locally, in productive and competitive enterprises within its borders (Hoang, Igel, & Laosirihongthong, 2010; Palestinian Ministry of National Economy, 2013).

Many Palestinian organisations have started the quality movement journey and, for example, many of these organisations obtained ISO and international certificates (Palestinian Ministry of National Economy, 2013). In response to the challenges that Palestinian organisations are facing, TQM could be a key to obtaining improvements in today's business environment (Zakuan et al., 2010).

The Palestinian manufacturing sector is characterised by small-scale activities in traditional sectors, where the vast majority of companies are considered small and medium enterprises (SMEs) (Katib, Tsipouri, Bassiakos, & Haj-Daoud, 2012). Literature collects some recent studies about SME's TQM implementation in specific countries, such as Portugal (Sousa, Aspinwall, Sampaio, & Rodrigues, 2005), Malaysia (Eng & Yussof, 2003) or Ethiopia (Temtime & Solomon, 2002). However, only a few studies have been conducted in Palestine to assess the implementation of TQM and its effects (Baidoun & Zairi, 2003; Najeh & Kara-Zaitri, 2007), and no one is specifically focused on SMEs.

On the other hand, there is no conclusive evidence about the context-dependent approach to TQM (Sila, 2007). Specifically, regarding the company size, some papers affirm that large companies' context is more appropriate for TQM implementation (Duh et al., 2012; Hoang et al., 2010). Others observed how SMEs are more suitable (Hendricks & Singhal, 2001), and finally others did not find significant differences (Sila, 2007). There is a variety of results regarding these issues (Gimenez-Espin et al., 2012). To address these issues, this paper analyses the context of Palestinian SMEs and generates empirical evidence about this.

Consequently, the main aim of this study is to empirically examine the indirect relationship between TQM practices and financial performance in Palestinian industrial SMEs through competitive strategies.

This research generates significant contributions. Firstly, this paper assesses the debate about TQM and the cost leadership strategy relationship that lacks a general agreement due to recent studies. Secondly, it also brings empirical evidence to the discussion about of the SMEs context for TQM implementation. Finally, Palestine still lacks effective quality systems and applications at the organisation level. In order to bridge this gap, an investigation into the effects of TQM implementation in the Palestinian industrial firms is needed. Also, this study could enhance the thinking of the government's decision-makers and top management in Palestinian organisations to adopt TQM practices to create a better management style which will enable them to compete locally and internationally.

This paper is organised as follows. Section 2 reviews the literature of TQM practices, competitive strategies and organisational performance. Section 3 describes the methodology of a research carried out in Palestinian industrial structural equation modelling (SEM). In Section 4, we present the analysis and the results. Results derived from this study are discussed in Section 5. Finally, a discussion and some conclusions are presented in Sections 6 and 7.

2. Theoretical background

2.1 *Total quality management*

According to Kaynak (2003, p. 406), TQM can be defined as: 'a holistic management philosophy that strives for continuous improvement in all functions of an organization, and it

can be achieved only if the total quality concept is utilised from the acquisition of resources to customer service after the sale.'

For TQM implementation, literature classified TQM practices in two groups: soft and hard TQM practices (Abdullah, Uli, & Tari, 2009; Fotopoulos & Psomas, 2009; Green, 2012; Ho, Duffy, & Shih, 2001; Hoang et al., 2010; Ingelsson, Eriksson, & Lilja, 2012; Leavengood, Anderson, & Daim, 2012; Rahman & Bullock, 2005). Soft TQM practices are related to human aspects and associated with management concepts and principles (Dahlgaard-Park, 2012; Leavengood et al., 2012; Vouzas & Psyhogios, 2007). They include many practices such as Management Leadership, Customer focus, Employee relations or Supplier management. Hard TQM practices refer to quality tools and techniques, production and technical aspects (Vouzas & Psyhogios, 2007). Hard TQM practices include practices such as Quality data and reporting, Product/service design, and Process management. Literature shows that hard TQM practices can mediate the effect of soft TQM practices on quality performance (Ho et al., 2001).

Based on the literature review (Abdullah et al., 2009; Fotopoulos & Psomas, 2009; Ho et al., 2001; Hoang et al., 2010; Kaynak & Hartley, 2008; Leavengood et al., 2012; Powell, 1995; Rahman & Bullock, 2005; Saraph, Benson, & Schroeder, 1989; Vouzas & Psyhogios, 2007), eight practices have been identified as critical for successful TQM implementation in the Palestinian industrial SMEs: management leadership, customer focus, training, employee relations, quality data and reporting, supplier management, product and service design, and process management.

2.2 *Competitive strategies*

Competitive strategy is defined as the strategy which looks for a preferably competitive situation for the organisation in which it acts. It aims to establish certain levels of profits and sustain that in a competitive atmosphere of industry (Porter, 1980).

Porter (1980) had put three strategies – Cost Leadership, Differentiation and Focus – to deal with the various competitive powers that are used or applied at the level of the business unit. In this study, the researchers use cost leadership and differentiation strategies, because they are the most commonly used strategies in the literature (Amoako-Gyampah & Acquaah, 2008; Fuentes et al., 2006). Literature strongly supports that competitive strategies are positively related to organisational performance (Chi, 2010; Jung et al., 2009).

Cost leadership strategy aims to realise the least possible cost of a certain industry and avoid the flaws and wastes (Belohlav, 1993; Chung, Hsu, & Tsai, 2010), through reducing operational and production costs (Porter, 1980), controlling indirect costs, materials supply or product distribution (Prajogo, 2007), or increasing their capacity utilisation and production efficiency (Fuentes et al., 2006).

Differentiation strategy aims to provide better products or services to satisfy customers' needs (Belohlav, 1993; Chung et al., 2010). This strategy includes creating differentiated products or services provided by a firm that are different from products and services of competitors. These products and services must be accepted by customers as unique and different from any products or services which serve the same purpose in the market (Porter, 1980).

3. Hypotheses development

The effect of management leadership on other soft TQM practices has been highlighted in the management literature. Several studies show a significant relationship between

management leadership and soft TQM practices (Ahire, Golhar, & Waller, 1996; Kaynak, 2003; Kaynak & Hartley, 2008; Kim et al., 2012; Leavengood et al., 2012; Sila & Ebrahimpour, 2005). The significant relationship between leadership management and soft TQM practices resulted from the essential role of management leadership in a successful implementation of TQM practices. Management leadership is the most important factor influencing the successful implementation of quality management principles and practices, as it drives and influences other TQM practices (Ahire et al., 1996; Deming, 1986; Jung et al., 2009; Juran, 1986; Mokhtar & Yusof, 2010). The employees need tools and systems in their work which can be supplied only by top management (Baidoun & Zairi, 2003). Therefore, this leads to the following hypothesis:

H1: Management leadership is positively related to soft TQM practices.

Many studies have found a significant relationship between soft TQM and hard TQM practices (Ho et al., 2001; Kim et al., 2012). For example, product and service design enables organisations to meet or exceed customers' requirements and expectations better than their competitors (Flynn, Schroeder, & Sakakibara, 1994). Involving customers in product and service design and in processes development reduces quality problems in the production process (Flynn et al., 1994).

Integration with suppliers and customers during product design improves design quality (Mokhtar & Yusof, 2010). Supplier management can help producers to procure materials and parts that can be used efficiently (Leonard & Sasser, 1982), which in turn will enable organisations to reduce waste, and create a leaner operation (Krajewski & Ritzman, 2001).

The availability and the use of quality data help employees and managers to solve problems through feedback of quality data (Saraph et al., 1989). The use of quality data and reporting is necessary for improving supplier quality management because it allows buyers to assess and monitor suppliers' performance (Kaynak, 2003; Kaynak & Hartley, 2008; Sila & Ebrahimpour, 2005). Therefore, the following hypothesis is presented:

H2: Soft TQM practices are positively related to hard TQM practices.

Most literature shows a positive relationship between hard TQM practices and both competitive strategies (Fuentes et al., 2006; Reed et al., 1996). Hard TQM practices increase revenues through product reliability and reduced costs through process efficiency (Llorens-Montes, Jover, & Fernandez, 2003). TQM tools and techniques have been approved by the international organisations which adopted them, with a high level of commitment to reduce cost, deliver high quality products and increased competitive performance through increased quality of products or service (Douglas & Judge, 2001). Others papers showed a significant relationship between hard TQM practices and differentiation. The successful of differentiation strategy is based on features and specifications that are difficult for competitors to mimic, and enable the firms to create a positive status, brand image and customer loyalty and avoid potentially severe price competition (Amoako-Gyampah & Acquaah, 2008; Porter, 1980). Therefore, this leads to the following hypotheses:

H3: Hard TQM practices are positively related to competitive strategies.
H3a: Hard TQM practices are positively related to cost leadership strategy.
H3b: Hard TQM practices are positively related to differentiation strategy.

Many studies have discussed the relationship between each of the two competitive strategies and organisational performance (Porter, 1980; Prajogo, 2007; Prajogo &

Figure 1. Proposed model.

Sohal, 2006). Some of the studies found a positive and significant relationship between differentiation strategy and performance, while no significant relationship was found between cost leadership strategy and performance (Prajogo, 2007; Prajogo & Sohal, 2006). The reason for this is that achieving higher quality requires using more expensive components, and management techniques are incompatible with achieving low costs (Prajogo & Sohal, 2006), and this will override the potential benefit that could be expected from it (Powell, 1995). Other studies have found a positive relationship between both competitive strategies and financial performance (Fuentes et al., 2006). Cost reduction can be achieved through the elimination of defects that result in a reduction of failure costs (Prajogo & Sohal, 2006). On the other hand, differentiation strategy forms a barrier for competitive forces and leads to a sort of loyalty to the products of the organisation and a reduction in sensitivity towards price for customers (Porter, 1980). In view of the above, the following hypotheses can be proposed (Figure 1):

H4: Competitive strategies are positively to financial performance.
H4a: Cost leadership strategy is positively related to financial performance.
H4b: Differentiation strategy is positively related to financial performance.

4. Research methodology

4.1 *Measurement instrument*

The questionnaire was developed after an extensive review of the literature related to quality management practices and performance. The researchers adapted items for TQM practices from the measurement instruments of Saraph et al. (1989) and Kaynak and Hartley (2008). We adapted items for performance measurements from the studies of Kaynak (2003) and Kaynak and Hartley (2008). Finally, we adapted items for competitive strategies from the study of Miller (1986). A seven Likert scale was used for the items that measured the TQM practices, where 1 stood for strongly disagree and 7 strongly agree. Regarding the competitive strategies items, the respondents were asked about the position of their firm vis-a-vis their leading competitors and a seven Likert scale was used for these items. Regarding the financial performance items, the respondents were asked to rate the level of their site's performance during the past three years compared with that of their main competitors, also using a seven Likert scale.

4.2 *Sample and data collection*

The study population is made up of SMEs in the Palestinian industrial sector. We decided to limit our target group to firms based in Palestine with more than 20 employees. Lower sizes do not guarantee quality management implementation in Palestine. This study ignores micro firms because of TQMs limited capacity to generate wealth in them

(García-Bernal & García-Casarejos, 2012, p. 7). For firm selection purposes, the researchers used the database from the Palestinian Ministry of National Economy, which includes about 13,000 firms in Palestine, the vast majority of which are considered micro SMEs (Palestinian Ministry of National Economy, 2013).

A total of 350 structured questionnaires with closed questions were sent to firms in July 2012. Respondents completed the questionnaires via face-to-face interviews, by e-mail and or fax. The questionnaire was filled out by the CEOs and quality managers.

Less than 80 questionnaires were returned and correctly filled in the first batch. Three weeks after the initial mailing, a follow-up letter by email was sent to those who had not responded, and this was followed up by telephone contact.

Finally, a total of 228 questionnaires were filled in and returned. Of these 228 questionnaires, 23 were incomplete and were excluded, thus leaving 205 usable questionnaires and a response rate of 58.66%. The response rate is considered a good representation of the population, as the response rate of 50–65% for business surveys is considered acceptable (Willimack, Nichols, & Sudman, 2002). Of these 205 questionnaires, we eliminated 3 answers, due to the fact that they correspond to large companies. Consequently, the final sample was composed of 202 Palestinian SMEs.

Of the total of 202 firms, 50.00% had less than 40 employees, 30.19% had between 40 and 80, and finally 19.80% were firms that had more than 80 employees and less than 250. As to the annual sales volume, 46.04% of the firms had less than 1 million euros, 45.05% had from 1 to 7 million and 8.91% from 7 to 40 million. No firm had an annual sales volume higher than 40 million euros. As noted, all firms had less than 250 employees and less than 40 million euros annual sales volume. As a result, and according to the Fourth European Directive, all can be categorised as SMEs. Finally, according to the industrial sector, 19.75% of the firms belonged to the Mining and quarrying and construction sector, 17.84% to Textile, Leather and Shoe Industry, 32.2% to Metal Industries, 9.91% to Chemical Industry and Veterinary Industries, Handicraft and Traditional Industries, Plastic Industry, Paper Industry, Furniture Industry, and 20.30% to Food Industry and beverages.

To test the nonresponse bias for early and late respondents, sample *t*-test procedures were performed for observed variables. No significant differences were found between the early and late respondents.

4.3 *Measurement analysis*

The scales of any construct measures must meet three essential psychometric requirements: unidimensionality, reliability and validity (Hair, Black, Babin, & Anderson, 2010; Hulland, 1999). The scales used in this research were validated in previous studies. However, this research validates them once again in order to demonstrate that they meet the psychometric properties mentioned. According to the sources from which we obtained the different groups of indicators, eight TQM practices are analysed: management leadership (ML), customer focus (CF), training (TR), employee relations (ER), quality data and reporting (QD), supplier management (SM), product and service design (PD) and process management (PM). For competitive strategies there were two strategies: cost leadership (CL), and differentiation (DIF). Differentiation strategy was divided into two groups: Innovation (DI) and Marketing (DM). For performance there is only one scale: financial performance (FP).

The analysis began with the study of unidimensionality, through an exploratory factor analysis, performed with SPSS version 20.0. Results from the exploratory factor analysis conducted on all scales showed that each indicator measures a single variable, as required by unidimensionality.

While studying the reliability of individual indicators, confirmatory factor analysis (CFA) using AMOS 20.0 revealed that some measured variables regarding TQM practices, competitive strategies and financial performance had a squared multiple correlation R^2 less than .4 (Kim et al., 2012), so they were removed from the model. We eliminated the following items: CF1, CF5, CF6, SM2, SM5, PM3, PM5, CL2, CL4, DM1, DM2, DM5, DI3 and DI4). The final items consisted of 34 items for TQM practices, 9 items for competitive strategies and 5 items for financial performance.

In order to ensure the internal consistency of the model, Cronbach's alpha, composite reliability and variance extracted were calculated. A consistent measurement scale must meet three criteria: (1) that the Cronbach's α is greater than .7 (Nunnally, 1978), (2) the reliability also exceeds .7 and (3) the extracted variance is greater than .5. The analysis in Table 1 shows that all analysed scales meet all three requirements, demonstrating the internal consistency of the measurement model.

Hulland (1999) stated that reliable indicators must meet three requirements. First, their factor loadings should be significant (z-value > 1.96, $p < .05$). Second, these loads must be greater than .4. According to Hair et al. (2010), factor loadings greater than .30 are considered significant; loadings greater than .40 are considered more important; and finally, if loadings are .50 or greater, they are considered very significant. Third, the individual reliability value (R^2) exceeds .40 (Kim et al., 2012). Results derived from the CFA can be seen in Table 2, which shows that the indicators had met the requirements, being individually guaranteed reliability and convergent validity. In conclusion, the analysis of measurement models demonstrates that measures used in this study are unidimensional, reliable, and valid.

CFA was conducted to confirm the underlying structures of each construct. Hence, it aims to confirm a pre-specified relationship between indicators and latent variables. The goodness of fit test is carried out by different fit indices. The results show a good fit for the all constructs (see Table 3).

Table 1. Internal consistency of the measurements model – the reliability and validity indexes values.

Variable	Cronbach alpha	CR	AVE	No. of final indicators
ML	.891	.896	.591	6
CF	.802	.805	.580	3
TR	.896	.897	.790	5
ER	.828	.814	.790	4
QD	.887	.890	.669	4
SM	.824	.843	.701	4
PD	.835	.834	.640	4
PM	.840	.857	.734	4
CL	.847	.849	.672	4
DM	.765	.735	.712	3
DI	.655	.703	.612	2
FP	.862	.852	.536	5

Note: CR, composite reliability; AVE, average variance extracted; MSV, maximum shared squared variance; ASV, average shared squared variance.

Table 2. CFA of the measurement model.

Variable	Standardised factor loading	R^2	CR (z-value)
ML1	.764	.584	12.420
ML2	.725	.526	11.556
ML3	.810	.656	13.605
ML4	.746	.556	12.093
ML5	.796	.634	13.311
ML6	.767	.588	12.469
CF2	.729	.532	10.948
CF3	.777	.603	11.933
CF4	.775	.600	11.878
TR1	.761	.580	12.426
TR2	.830	.689	14.070
TR3	.841	.707	14.529
TR4	.775	.600	12.707
TR5	.776	.602	13.001
ER1	.813	.661	13.606
ER2	.647	.418	10.163
ER3	.702	.493	10.928
ER4	.719	.517	11.454
QD1	.860	.740	14.872
QD2	.854	.729	14.704
QD3	.765	.585	12.423
QD4	.788	.620	13.026
SM1	.663	.439	10.359
SM3	.716	.512	11.239
SM4	.775	.600	12.587
SM6	.699	.489	11.093
PD1	.786	.617	12.922
PD2	.729	.531	11.518
PD3	.669	.448	10.357
PD4	.634	.402	9.585
PM1	.783	.614	12.870
PM2	.744	.553	11.982
PM3	.685	.469	10.656
PM4	.727	.529	11.614
PM6	.752	.565	12.172
CL1	.753	.567	12.090
CL3	.696	.484	10.847
CL5	.811	.657	13.486
CL6	.787	.620	12.941
DI1	.705	.497	10.282
DI2	.702	.492	10.172
DM4	.656	.430	9.403
DM5	.774	.600	11.771
DM6	.647	.418	9.563
FP1	.676	.458	10.086
FP2	.714	.510	10.876
FP3	.735	.541	11.324
FP4	.779	.608	12.316
FP5	.752	.565	11.703

Table 3. Goodness-of-fit indices.

Goodness-of-fit statistics	Measurement model for TQM	Measurement model for competitive strategies	Measurement model for performance	Structural model	Recommended values for satisfactory fit of a model to data
α^2 (sig.)	1064.259	60.803	10.696	2399.281	
Freedom degrees	540	24	4	1104	
α^2/df	1.970	2.533	2.674	2.173	<3[a]
Root mean square error of approximation	.06	.067	.065	.072	$<.08$[b]
Goodness of fit index (GFI)	.749	.939	.97	.692	$>.5$[b]
Parsimony GFI	.642	.501	–	.616	$>.5$[b]
Parsimony normed fit index (NFI)	.806	.618	–	.861	$>.5$[b]
Tucker–Lewis index (non-NFI)	.944	.930	.926	.906	$>.9$[a]
Adjusted GFI	.707	.886	.888	.646	$>.5$[b]
Incremental fit index	.960	.954	.970	.929	$>.9$[a]
Comparative fit index	.958	.954	.970	.929	$>.5$[b]

[a]Hair et al. (2010) and Byrne (1998).
[b]Byrne (1998).

5. Results

Figure 2 and Table 4 depict the results derived from the SEM of the proposed relationships. Each path in the figure indicates the standardised estimated path coefficients. We can see that all of the relationships in the model are positive and significant ($p < .05$).

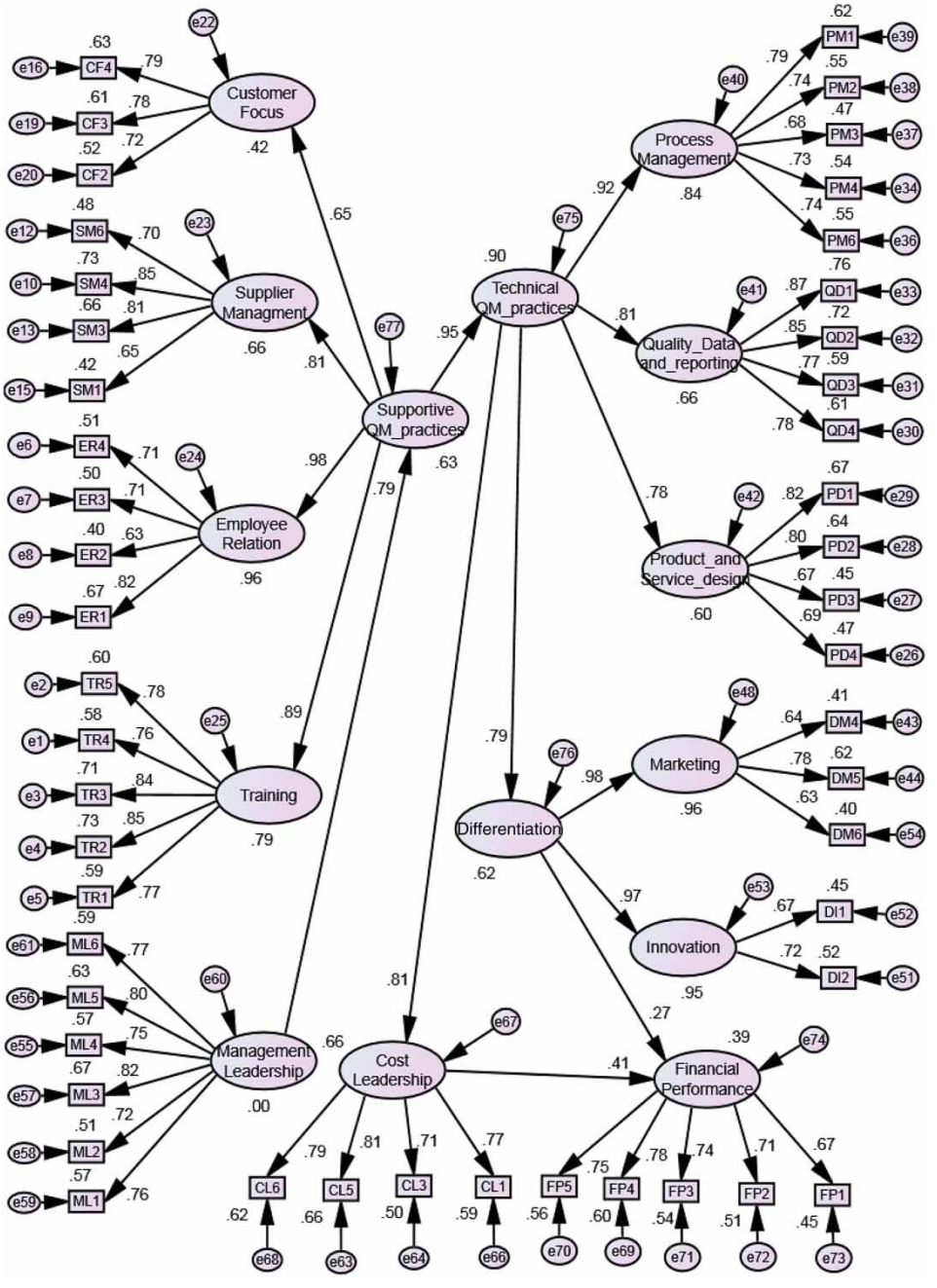

Figure 2. Structural modelling of the relationships between TQM practices, competitive strategies and performance measures.

Table 4. SEM results.

Hypotheses	Standardised est.	*z*-value	*p*
H1 (ML–soft)	.791	8.623	(.00) Sig.***
H2 (soft–hard TQM)	.947	9.099	(.00) Sig.***
H3a (hard TQM–cost)	.813	8.268	(.00) Sig.***
H3b (hard TQM–differ.)	.789	8.568	(.00) Sig.***
H4a (cost–performance)	.414	3.223	(.001) Sig.***
H4b (differ.–performance)	.271	2.142	(.032) Sig.**

These results lead us to accept all hypotheses. To complete the analysis of the measurement model, we evaluate the overall fit of the structural model (see Table 4).

6. Discussion

In this study, the relationship between TQM practices and financial performance through differentiation and cost leadership competitive strategies has been tested. For this general purpose, the first objective was to observe the relationship between management leadership and soft TQM practices, and between soft and hard TQM practices and their impact on performance. The results have shown a significant and positive relationship between management leadership and soft TQM practices, and an indirect relationship with hard TQM practices through soft TQM practices. These findings highlight the importance of leadership management and its effect on other TQM practices and are in line with many studies in the literature (Ahire et al., 1996; Deming, 1986; Green, 2012; Ingelsson et al., 2012; Jung et al., 2009; Juran, 1986; Mokhtar & Yusof, 2010).

The findings also have shown a significant and positive relationship between soft and hard TQM practices. This result confirms the findings of several previous studies (Ho et al., 2001; Rahman & Bullock, 2005). The effectiveness of implementing TQM includes soft TQM practices related to human aspects (Fotopoulos & Psomas, 2009; Prajogo & Sohal, 2006), and hard TQM practices related to technical aspects (Fotopoulos & Psomas, 2009). The effective implementation of the soft TQM practices and its success, are related to hard TQM practices (Fotopoulos & Psomas, 2009; Rahman & Bullock, 2005). These findings are very important to managers in Palestinian industrial SMEs. It guides managers to the most effective components they should consider in any quality programme they plan to adopt, because the cost of failure of quality programmes is high and hard to restore (Gimenez-Espin et al., 2012; Mokhtar & Yusof, 2010).

The second objective was to examine the relationship between TQM practices and competitive strategies. Our results indicated that Palestinian industrial SMEs trying to leverage on competitive strategies would find the TQM practice an effective way to achieve their strategic goals (Jung et al., 2009).

The results illustrated a direct, significant and positive relationship between hard TQM practices and competitive strategies. This agrees with the aims of competitive strategies, and the implementation of hard TQM practices and the success of these strategies. The findings showed that differentiation strategy has a strong relationship with hard TQM practices in our model. This means that the implementation of hard TQM practices contributes to the differentiation strategy (Prajogo & Sohal, 2006). Our results complement the findings of Prajogo and Sohal (2006), Fuentes et al. (2006) and Jung et al. (2009), which pointed out that differentiation strategy has a significant relationship with TQM practices.

Also, a direct, positive and significant relationship was found between cost leadership strategy and hard TQM practices in our results. The findings agree with Fuentes's et al. (2006) study, while they disagree with the studies of Prajogo and Sohal (2006) and Jung et al. (2009). This relationship shows that there is no conflict between quality and cost. TQM implementation will lead to a cost-based advantage that reflects the cost leadership strategy. The Palestinian industrial SMEs have improved the quality of their products, which resulted in cost reduction, and led the SMEs to offer high quality with low prices, so SMEs will have higher market share and a better competitive position in the market and higher profitability.

On the other hand, the results illustrated an indirect, significant and positive relationship between hard TQM practices and financial performance through competitive strategies. This agrees with the aims of competitive strategies that seek to increase the profits through decreasing costs and increasing sales. This finding is supported by many studies in the literature (Douglas & Judge, 2001; Hendricks & Singhal, 2001; Tanninen, Puumalainen, & Sandström, 2010).

The final objective was to examine the direct relationship between competitive strategies and financial performance. The results showed a significant but weak relationship between both of the competitive strategies and financial performance. These results are due to the nature of Palestinian industrial SMEs which are small, family-owned and concentrate primarily on profit and then on customer satisfaction (Palestinian Federation of Industries, 2009).

Regarding the sample-size debate, obtained results show how SMEs' context creates a suitable environment where all the potential of TQM could be developed. Our findings are in line with the proposals of Hendricks and Singhal (2001). In this sense, SMEs present an important flexibility degree and previous experience in teamwork or empowerment, and consequently, this context is appropriate for TQM implementation.

Managers must preserve successful TQM implementation and the reduction of customer complaints and must identify customer's requirements. They must take the initiative to make changes to continually improve the quality of their products (Gimenez-Espin et al., 2012; Mokhtar & Yusof, 2010). This study shows that strong leadership in an organisation is essential for successful TQM programmes (Dahlgaard-Park, 2012). Therefore managers in Palestinian industrial SMEs should play an important role in quality improvement implementation. The employees need tools and systems in their work which can be supplied only by top management. Managers should realise the needs of employees for training to improve their interactive and problem-solving skills, quality improvement skills, data analysis and statistical techniques, and other technical skills (Gimenez-Espin et al., 2012; Green, 2012). Managers have to understand different kinds of needs for employees; and they have to satisfy all of their needs to help improve the quality of employees' working life and successfully implemented TQM (Dahlgaard-Park, 2012). This will allow them to identify and solve problems, improve work methods, take responsibility for quality, and feel that they are responsible for process improvement and customer satisfaction. Also, suppliers have to be involved in product development, process improvement and making the quality policy. This may lead to better quality and then better customer satisfaction.

7. Conclusion, limitations and further research

Our study shows that TQM practices are indirectly related to financial performance. Findings indicate that competitive strategies are positioned between TQM practices and

financial performance. The researchers argue that firms hoping to improve their performance may not realise the direct impact coming from implementation of TQM practices at the firms' level.

The results emphasise the importance of quality and the implementation of TQM in Palestinian industrial SMEs. If Palestinian SMEs want to survive intense competition in the local market from other international companies, they need to improve the quality standards of products.

Sample distribution may be regarded as a limitation of the study, because all the respondents were from West Bank and none were from the Gaza Strip in Palestine. Also, in this study, all of the respondents were from industrial firms. However, a similar study might be done making a comparison between industrial firms and service companies in terms of TQM impact on financial performance. It is hoped that future research will seek to include other neighbouring countries such as Jordan, Egypt, or Israel for purposes of comparison and to understand the extent of implementation of TQM in these countries.

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