

## **The Effects of Total Quality Management on Exports in Manufacturing Based Small and Medium Enterprise's: A Case Study of Organizations from Selected Regions of Pakistan**

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### **Abstract**

*The importance of exports and Small and Medium Enterprise's development cannot be undermined for any country's economic and social development. The current study is motivated due to limited understanding of Total Quality Management (TQM) among manufacturing based SMEs in the context of Pakistan. The objective of the study was set to assess the level of TQM implementation and its impact on the exports in the case of manufacturing based SMEs in Pakistan. The study utilized survey methodology and data is collected through convenient sampling from 120 respondents belonging to manufacturing based SMEs located in Peshawar, Haripur, and Rawalpindi. Correlation and regression analysis were carried out on the data. Key findings indicate that there is low level of TQM implementation despite its positive effects on export promotion in the sample firms. The low implementation can be associated to limited resources, owner's low education and interest in quality and limited support from government and its related agencies. It is suggested that increase of TQM implementation among manufacturing based SMEs in Pakistan can yield some desirable outcomes such as exports.*

**Key Words:** Exports, TQM, SMEs, Manufacturing sector, Continuous improvement, Process management

## **Introduction**

Small and Medium Enterprises (SME's) contribution to any country's economic development is vital as SMEs provides self-employment, generate taxes, enhance the GDP, and enable effective utilization of country's resources. SMEs also contribute to the society by involving in global trade including imports and exports and thus improving country's balance of payment as well as consumers welfare. According to experts, SMEs are providing more than half of the employment and playing a major role in national economic development of several developing economies (Valmohammadi, 2011). Thus, economic system of several countries is anchored on highly efficient and productive SMEs (Hill, Nancarrow, & Wright, 2002). Exports on the other hand, are highly important for a country and their contribution in economic development is also well established (Khan & Saqib, 1993). In Pakistani context, relatively few studies are conducted in manufacturing based SMEs.

Many previous studies which examined the relationship between TQM and business performance focused on large organizations and were limited in terms of empirical evidence focusing on SMEs, (Seth & Tripathi, 2005) especially in developing countries (Koh, Demirbag, Bayraktar, Tatoglu, & Zaim, 2007), in ASEAN countries (Arumugam, Ooi, & Fong, 2008), and emerging market economies (Demirbag, Koh, Tatoglu, & Zaim, 2006).

Overall, the limited literature on TQM (Total Quality Management) in Pakistani based SMEs suggests that there is limited awareness and application of TQM among Pakistani SMEs. Moreover, the positive outcomes of TQM in Pakistani based SMEs are also reported. The current study is motivated due to scarcity of

literature on TQM in manufacturing based SMEs in addition to low understanding of TQM.

### **Conceptual Framework**

TQM, which is a management philosophy, is a set of management practices as well as philosophies which aims to improve the quality of all aspects of an organization. The concept is developed as a result of intense competition faced by the American and European manufacturers from the Japanese manufacturers. The concept quickly become a managerial fad and first widely adopted in developed countries and later in developing countries. Pakistan is also a later adopter in the introduction of TQM in Pakistan. This study utilized six key factors of TQM based on the work of Abusa (2011) which are expected to appropriately cover the concept. These factors are top management commitment, customer focus, people management, supplier quality management, continuous improvement, and process management. Moreover, the application of the quality management concepts in SMEs and its impact on business performance has not yet been clearly understood (Gadenne & Sharma, 2009).

### **Problem Statement**

In Pakistani context, relatively few studies are conducted in manufacturing based SMEs. Example include a study conducted by Moosa (1999) in ISO certified firms and found that overall awareness about various quality tools is low and most of the quality management is practiced in production function alone. Awan (2003) also conducted a study in ISO registered firms belonging to sports industry of Pakistan and found that TQM resulted in increase in sales including exports, increase in customer satisfaction, and better

utilization of human and material resources as well as reduction in costs and wastages. Overall, the limited literature on TQM in Pakistani based SMEs suggests that there is limited awareness and application of TQM among Pakistani SMEs. Moreover, the positive outcomes of TQM in Pakistani based SMEs are also reported. The current study is motivated due to scarcity of literature on TQM in manufacturing based SMEs in addition to low understanding of TQM.

This study is intended to fill the literature gap by looking at the effects of TQM in the context of manufacturing based SMEs in Pakistan. For this purpose, the study has chosen the exports as main outcome for the analysis in current study. The findings can be helpful for SMEs, academics, practitioners, and policy makers.

### **Objectives**

Based on the gap in literature, the objectives of the current study are set to assess the level of TQM implementation among the Pakistani manufacturing based SMEs. Second objective of the study is to see the effects of TQM on exports in the Pakistani manufacturing based SMEs context.

### **Research Question:**

1. Does Total Quality Management have Effects on Exports in Manufacturing Based SME'S?

### **Sub Questions:**

- 1.1. Does Top Management Commitment have Effects on Exports in Manufacturing Based SME'S?
- 1.2. Does Customer Focus have Effects on Exports in Manufacturing Based SME'S?
- 1.3. Does People Management have Effects on Exports in Manufacturing Based SME'S?

- 1.4. Does Supplier Quality Management have Effects on Exports in Manufacturing Based SME'S?
- 1.5. Does Continuous Improvement have Effects on Exports in Manufacturing Based SME'S?
- 1.6. Does Process Management have Effects on Exports in Manufacturing Based SME'S?

**Hypothesis:**

H<sub>1</sub>: Total Quality Management has Significant Effects on Exports in Manufacturing Based SME'S

**Sub Hypotheses:**

H<sub>2</sub>: Top Management Commitment has Significant Effects on Exports in Manufacturing Based SME'S

H<sub>3</sub>: Customer Focus has Significant Effects on Exports in Manufacturing Based SME'S

H<sub>4</sub>: People Management has Significant Effects on Exports in Manufacturing Based SME'S

H<sub>5</sub>: Supplier Quality Management has Significant Effects on Exports in Manufacturing Based SME'S

H<sub>6</sub>: Continuous Improvement has Significant Effects on Exports in Manufacturing Based SME'S

H<sub>7</sub>: Process Management has Significant Effects on Exports in Manufacturing Based SME'S

**Literature Review**

Small enterprises can be defined as an enterprise which employs 10-35 employees and has productive assets of Rs. 2-20 millions while medium enterprises are having employees between 36-99 and productive assets of Rs. 20-40 millions (SMEDA, 2007-Small and Medium Sized Enterprises Development Authority of Pakistan).

A lot of variety exists in SMEs; however, some key characteristics of SMES are as follow. A major characteristic of SME is that they have comparatively limited resources (Bridge, O'Neill, & Cromie, 1998). The scarcity of resources is due to the fact that mostly, SMEs capital is furnished from one or few individual.

Another characteristic of SME is that mostly they have organizational type of sole proprietorship or partnership and often owner and manager are same (Bridge et al., 1998). That's why, Noor, Ramayah, Carlene, & Liz (2010) argues that in SMEs, the personality and competencies of owner makes a significant effect on the success or failure of SMEs.

According to Ramström (1971), mostly SMEs have simple and organic structure with high degree of informality and less sophistication. Because of small size, there is small hierarchy and workers can easily interact with each other and with management (Julien, 1998). SMEs also have limited customer base along with direct interaction between employees and customers (Julien, 1998). Mostly, SMEs exist to serve a small segment called 'niche' (Storey, 1994). Despite some degree of flexibility, SMEs are reported to show a high degree of resistance in accepting change as well as implementing new technologies (Marri, Gunasekaran, & Sohag, 2007).

### **SMEs in Pakistan**

SMEs are considered as an engine for creating jobs, economic growth, and success of a country (Ebrahim, Ahmad, & Taha, 2009). Despite, such benefits, Government of Pakistan gave little attention to the SMEs sector and situation did not change until 1998 when Government created 'Small and Medium Enterprise Development Authority'. The objective of this institution is to promote small and medium size businesses in the country and provide the necessary assistance (KalSoft, 2004). According to Aziz & Ahmad (2013) as well as SMEDA, there are 3.2 million business firms in Pakistan which are contributing more than 30% of national GDP and earns

35% export earnings. Experts, however, believes that actual figures are much higher than the official figures as many SMEs owners do not get the registration or hide data due to taxation issues. Aziz & Ahmad (2013) described that majority of SMEs in Pakistan are with less than 99 people while insufficient management skills and poor development of human resource is also common. Thus it can be argued that despite huge potential, these SMEs are unable to tap the potential benefits due to lack of support and training (Noor et al., 2010). Government of Pakistan under the leadership of Prime Minister Nawaz Sharif has started a major loan scheme. The loan scheme will provide small loans on low subsidized interest rates to young individuals in order to setup their own businesses. This grand scheme is expected to increase the SME sector in the Pakistan.

### **TQM for SMEs**

TQM is one of the most important topics in operations management research and has received high attention in the last two decades (Jung & Wang, 2006). Porter & Tanner (2001) defined TQM as a business process focusing on improving organizational effectiveness, efficiency and responsiveness to customer needs by actively involving people in process improvement activities. Since TQM is more a managerial philosophy, therefore, it covers a wide range of organizational aspects. There is not much consensus as to what constitute TQM; therefore, different experts have come up with their own list of TQM factors. For example, Saraph, Benson, & Schroeder (1989) identified eight essential factors including role of top management, quality policy and role of the quality department, training, product / service design, supplier quality management, process management, quality data reporting and employee relations.

Similarly, Black & Porter (1995) validated ten factors including people and customer management, supplier partnership, communication, customer satisfaction, external interface management, strategic quality management, teamwork, operational quality planning, improvement measurement systems, and corporate quality culture.

This study utilized six key factors of TQM based on the work of Abusa (2011) which are expected to appropriately cover the concept. These factors are top management commitment, customer focus, people management, supplier quality management, continuous improvement, and process management. Their relevance for SMEs is as under. Top management's commitment is a key TQM factor. It requires organization's top management to be committed towards quality, become role model, and make policies and take steps to implement quality. Since, many SMEs are managed by the owner; therefore, the management function in these SMEs is quite weak. The managers in SMEs have limited managerial skills and experience (Haksever, 1996). Moreover, top management in SMEs tends to adopt a short term perspective which does not match and support TQM very effectively (Ghobadian & Gallear, 1996). Despite such limitations, SMEs can be very effective in implementing TQM as they got edge in terms of small size and direct interaction of employees with management and customers (Ghobadian & Gallear, 1996).

Customer focus is another TQM factor which refers to understanding the needs of customer in a timely manner and then producing products and services accordingly. According to Haksever (1996), SMEs are in disadvantageous position in comparison to the

larger organizations as due to limited resources; they are unable to collect very sophisticated data related to customer needs. However, other experts such as Ghobadian & Gallear (1996) argue that since SMEs have close and direct interaction with customers; therefore, they are in advantageous position as they can easily understand and collect data related to customer needs. Effective people management which is also called Human Resource Management is also an important factor of TQM and includes employees training and education, offering reasonable compensation system, and reasonable feedback mechanism. The HR function in most SMEs is also not very sophisticated (De Kok, 2003). Most SMEs offer very limited or no training and there is often informal and inadequate compensation (Ghobadian & Gallear, 1996). Thus, the less use of high performance HRM practices put SMEs in disadvantageous position for TQM implementation.

Continuous improvement is another TQM factor which refers to organizational continuous monitoring of its processes and bringing improvements on incessant basis. The scarcity of resources in SMEs hinders the continuous improvement and its tools such as PDSA (Ghobadian & Gallear, 1996). A counter argument can be that SMEs due to small size can be more adoptable and thus continuous improvement is a lot easier in SMEs. Process management is another TQM factor which includes more hard aspects of TQM. Several sub activities such as house-keeping, benchmarking, statistical techniques, constitute the process management. According to Ghobadian & Gallear (1996), SMEs are unable to follow the process management due to limited resources and less managerial expertise. Overall, it can be conclude that TQM factors in SMEs are affected by

limited resources, low management skills, short term thinking, informal system, and low attention towards quality.

### **Exports and its Importance for Pakistan**

Pakistan is a developing economy and depends heavily on exports for growth and foreign reserves. Exports related data is normally collected and published by Pakistan Bureau of Statistics. A review of this data shows that Pakistani exports are averaged of 35070.16PKR Million from 1957 until 2015. Similarly, the highest Pakistani exports in any one particular month were 275483 PKR million in September 2013; while the lowest recorded exports in the history are 51 PKR million in April 1958. According to Pakistan Bureau of Statistics (2015) Pakistan's main exports are mineral fuels (19 percent of the total shipments), manufactured goods (19 percent) and beverage and tobacco (13 percent). Others exports items include: food and live animals (11 percent), crude materials (11 percent), chemicals (11 percent), machinery (8 percent) and miscellaneous articles (8 percent). Pakistan main export partners are United States (13.6 percent), China (11 percent of the total export), United Arab Emirates (8.5 percent) and Saudi Arabia (8.5 percent).

The role of exports for economic expansion of a country is evident from the classical writings. Classical writers such as Marshall (1890) supported the notion of economic progress of a country through international trade. The positive impact of exports on the economic growth of a country especially among developing countries is well established in the literature (Bahmani-Oskooee & Alse, 1993). In Pakistani context, a study conducted by Khan & Saqib (1993) also found a strong positive relationship between export performance and economic growth in Pakistan. Another study conducted by Khan,

Malik, & Saqib (1995) found a strong support for export growth and economic growth in Pakistan. A relatively recent study conducted by Azam & Naeem (2009) also found that domestic investment, FDI, and trade openness had positive effects on economic growth in Pakistan during the period of 1971 to 2005. Thus, it can be concluded that exports indeed supports economic growth and are good for the country.

### **The Relationship between TQM and Exports**

Literature on TQM have supported its positive outcomes including productivity and manufacturing performance (Chenhall, 1997); quality performance (Fuentes, Montes, & Fernandez, 2006); employee satisfaction and performance (Sadikoglu & Zehir, 2010; Fuentes et al., 2006); innovation performance (Sadikoglu & Zehir, 2010); and customer satisfaction (Fuentes et al., 2006). TQM is also having positive relationship with market share (Sadikoglu & Zehir, 2010), financial performance (Fuentes et al., 2006); and aggregate firm performance (Sadikoglu & Zehir, 2010). The positive outcomes of TQM for SMEs in the context of developing countries are also reported (Salaheldin, 2009; Demirbag et al., 2006). Example of such studies include a study conducted by Salaheldin (2009) in Qatari Industrial sector which found positive effect of TQM on operational and organizational performance. Similarly, a study conducted by Demirbag et al., (2006) in Turkish textile industry found a positive relationship between TQM and non-financial performance of SMEs. Valmohammadi (2011) conducted a study in Iranian manufacturing SMEs and found positive effect of TQM on several dimensions of organizational performance including profitability, customer satisfaction, sales growth, and employee morale.

In Pakistani context, relatively few studies are conducted in manufacturing based SMEs. Example include a study conducted by Moosa (1999) in ISO certified firms and found that overall awareness about various quality tools is low and most of the quality management is practiced in production function alone. Awan (2003) also conducted a study in ISO registered firms belonging to sports industry of Pakistan and found that TQM resulted in increase in sales including exports, increase in customer satisfaction, and better utilization of human and material resources as well as reduction in costs and wastages.

### **Research Methodology**

The study adopted an objective approach accompanied with quantitative methodology and cross sectional survey as a main tool for data collection. The study was conducted during 2015. The decision is taken keeping in view the cost and time constraints. Below is the detail of methodology.

### **Instrumentation**

A survey for data collection was designed which consisted of three parts. First part was used to collect data about respondent's demographic and organizational information. Second part was designed to collect information about TQM and its six dimensions which was adopted by a measure developed by Abusa (2011). There were 50 statements used to measure TQM and its sub dimensions which were anchored on Likert scale. Third part was used to collect perceptual export related information. This part asked respondents two questions. First question asked respondents to tell the estimated Pakistani rupees figure of exports related sales of their organization during last one year. Second question asked respondents to tell the

perceived proportion of exports to the total sales of their organization during last one year. It is understood that answers to the exports related questions as well as TQM statements were based on the respondent's perception and memory; and thus subject to recall bias and thus remained a limitation of the study.

### **Population and Sampling**

This study is focused towards manufacturing based SMEs in Pakistan; therefore, all of the manufacturing based SMEs in Pakistan constitute its population. The sample was drawn from industrial estates and industrial parks located in three major cities of Pakistan including Peshawar, Haripur, and Rawalpindi.

### **Data Collection Method**

Survey questionnaire included an introductory letter which explained the aim of the research, provided the instructions of how to complete the questionnaire, and ensuring respondents that their confidentiality will be strictly maintained. A total of 300 questionnaire were distributed out of which 120 used questionnaire were returned which gave a satisfactory reply rate of 40%. The high response rate was achieved because individuals were reminded about survey after few weeks of non-response. Moreover, alternative arrangements of filling the survey in an online webpage were also made. The language used in the questionnaire was English. The respondents included owners as well as the top management team of the organization.

### **Reliability and Validity**

In order to ensure the generalized results the study ensured reliability and validity. The validity was established by applying the face validity of the measure adopted in the current study. To address

the reliability of the measures adopted in the current study, the Cronbach alpha test was used. The results given in the table II shows that the Cronbach alphas for all six aspects and the full scale were well above 0.60 and thus can be considered satisfactory (Sekaran & Bougie, 2010). The following table provides demographic information of survey.

*Table 1: Demographic Profile of Survey Respondents and Organizations (N=120)*

|                               | <b>Frequency</b> | <b>Percentage (%)</b> |
|-------------------------------|------------------|-----------------------|
| <b>Gender</b>                 |                  |                       |
| Male                          | 101              | 84.16%                |
| Female                        | 19               | 15.83%                |
| <b>Age Group</b>              |                  |                       |
| 25 Years & Less               | 30               | 25%                   |
| 26 To 40 Years                | 59               | 49.16%                |
| 41 Years & Above              | 31               | 25.83%                |
| <b>Educational Level</b>      |                  |                       |
| Intermediate Or Less          | 47               | 39.16%                |
| Bachelors                     | 39               | 32.50%                |
| Masters Or Above              | 34               | 28.33%                |
| <b>Manufacturing Nature</b>   |                  |                       |
| Textile                       | 23               | 19.16%                |
| Agriculture & Dairy Products  | 19               | 15.83%                |
| Construction Material & Tools | 27               | 22.50%                |
| Household Goods               | 31               | 25.83%                |
| Food & Beverages              | 7                | 5.83%                 |
| Others                        | 13               | 10.83%                |

Analysis of the demographic information shows that the data was collected from 101 male (84%) and 19 female (16%). Most of the respondents belonged to the age groups of 26 to 40 years (49%) and subsequently to the age group of 41 years and above (25%). Similarly, education wise, 32% respondents had educational level of 14 years; while, 28% respondents had education level of 16 years and above. Respondents belonged to the different types of manufacturing nature and the highest category was household goods (25.83%

respondents), followed by construction material and tools (22.5% respondents). Similarly, 19% respondents belonged to the textile sector; 15.8% to agriculture and dairy products; and 5.8% to food and beverage; while, 10% belonged to the 'other' category.

### **Data Analysis**

Once quantitative data was collected, it was entered in to SPSS version 20 and checked for any errors or missing values. After complete checking, frequencies were calculated to form a demographic profile of the respondents. In order to test the level of TQM implementation among manufacturing based SMEs, averages were calculated and chart were used. Similarly, for checking the relationship between TQM elements and exports variables, regression analysis technique was used. Before running the regression, its assumptions including data normality, multi co-linearity, and Homoscedasticity were checked and found within satisfactory range.

### **Variables**

#### ***Independent:***

Total Quality Management: *Dimensions* (Top Management Commitment, Customer Focus, People Management, Supplier Quality Management, Continuous Improvement, Process Management)

***Dependent:*** Exports: (Model 1: Log of perceived export value during last one year, Model 2: Perceived proportion of exports to the total sales during last one year)

### **Findings**

Key results of the study are given in this section. Table II and figure 1 shows the descriptive statistics, Cronbach's alpha for the TQM dimensions.

Table 2. *Descriptive Statistics*

| Dimensions                | Number of Items | Cronbach's Alpha | Min  | Max  | Mean | S.D |
|---------------------------|-----------------|------------------|------|------|------|-----|
| Top Management Commitment | 09              | .75              | 1.89 | 4.44 | 3.61 | .51 |
| Customer Focus            | 10              | .81              | 2.30 | 4.20 | 3.47 | .43 |
| People Management         | 12              | .76              | 2.67 | 5.17 | 3.54 | .43 |
| SQM                       | 06              | .69              | 2.17 | 5.00 | 3.96 | .62 |
| Continuous Improvement    | 07              | .64              | 3.71 | 4.57 | 3.55 | .44 |
| Process Management        | 06              | .72              | 3.17 | 5.00 | 4.12 | .49 |
| Full Measure              | 50              | .74              |      |      |      |     |

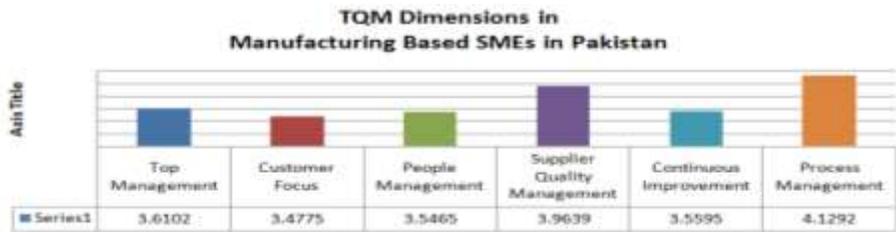


Figure 1: Mean Score for TQM Dimensions in Manufacturing Based SMEs in Pakistan

Mean score on the six dimensions of TQM shows that the level of TQM implementation in manufacturing based Pakistani SMEs ranges from low to medium. The first dimension was top management's commitment and results shows that management in manufacturing based SMEs is moderately interested and committed towards implementing quality (M=3.61, S.D=.51). Results on the second dimension of TQM shows that manufacturing based SMEs have medium level customer focus (M=3.47, S.D=.43). People management which is third dimension of TQM in this study is also moderately practiced (M=3.54, S.D=.43). The results on the fourth dimension of TQM which is supplier quality management shows that this dimension is practiced little higher compare to the other TQM dimensions (M=3.96, S.D=.62). The fifth dimension is continuous improvement and results shows that it is also moderately practiced by manufacturing based SMEs in Pakistan (M=3.55, S.D=.44). Finally, the last and sixth dimension of TQM was process management and

results shows that it receives greater attention of SMEs as the mean score on this dimension is highest among all six dimensions (M=4.12, S.D=.49). Overall, based on the above results, it can be concluded that manufacturing based SMEs in Pakistan have moderate level of TQM implementation and thus there is valid room for improvement.

After conducting the descriptive statistics, the data was further analyzed by using the regression test. In order to see the effect of TQM on exports, two separate regression tests were run. For this purpose, first the perceived exports values in PKR during last one year by respondent's organizations were converted in to the log form. The conversion was made in order to smooth the data. The log values were then taken as a dependent variable. Similarly, in second model, the values of export proportion were given in the percentage form. In both regressions, TQM elements were taken as independent variables. The results are given in the table below.

*Table 3: Effect of TQM on Exports*

| <b>Variables</b>            | <b>Model 1</b> | <b>Model 2</b> |
|-----------------------------|----------------|----------------|
| Top Management Commitment   | .22**          | .57***         |
| Customer Focus              | .37***         | -.13           |
| People Management           | .36**          | .10            |
| Supplier Quality Management | -.05           | .39**          |
| Continuous Improvement      | -.03           | .26**          |
| Process Management          | .57**          | .17*           |
| R <sup>2</sup>              | .30            | .36            |
| F Statistics                | 5.55**         | 9.75***        |

*Notes: \*p < 0.10; \*\* \*p < 0.05; \*\*\* \*p < 0.01; and values in table are standardized coefficients*

Results of model 1 shows that TQM dimensions are positively and significantly related to the log of perceived export value during last one year. The results shows that for dependent variable, top management commitment is having positive and significant effect

(beta=.22, p value<0.05); customer focus having positive and highly significant effect (beta=.37, p value<0.01); people management having positive and significant effect (beta=.36, p value<0.05); and process management having positive and significant effect (beta=.57, p value<0.05). The value of R-square shows that dimensions of TQM explains about 30% variation in the perceived value of exports during last one year. Moreover, the value of F-statistics shows that model is fit and significant (F-Stat=5.55, p value<0.05).

The results for model 2 also show that TQM dimensions are positively and significantly related to the perceived proportion of exports to the total sales during last one year. The results shows that for dependent variable, top management commitment is having positive and highly significant effect (beta=.57, p value<0.01); supplies quality management is having positive and significant effect (beta=.39, p value<0.05); continuous improvement is having positive and significant effect (beta=.26, p value<0.05); and process management is having positive and significant effect (beta=.17, p value<0.1). The value of R-square shows that dimensions of TQM explains about 36% variation in the perceived proportion of exports to the total sales during last one year. Moreover, the value of F-statistics shows that the model is fit and highly significant (F-Stat=9.75, p value<0.01). Overall, these results show that TQM is having positive and significant effect on exports volume as well as percentage of exports to the total sales.

## **Discussion**

The objective of the study was twofold; first to assess the level of TQM implementation and second to see the effect of TQM on export promotion in the context of manufacturing based SMEs in

Pakistan. To achieve the research objectives, data was collected from 120 respondents who belonged to the management of manufacturing based SMEs located in three major cities of Pakistan. The results indicate that TQM implementation among SMEs in Pakistan is still low. These findings are similar to the findings of studies conducted few years ago e.g. a study conducted by Kureshi, Qureshi, & Sajid in 2010 found that significant gap exist among the SMEs Entrepreneurs regarding the knowledge of TQM practices. Another such study conducted by Moosa (1999) found that TQM concept is mostly concentrated in production function, while, its application is low in other functions,

The reason for low level of implementation can be due to lack of 'true' commitment by many SMEs as they implemented TQM not as part of a strategy to improve quality or reduce costs but in response to external pressures such as prerequisite for exporting in certain countries (Sun & Cheng 2002; Guilhon, Martin, & Weill, 1998). TQM implementation is difficult for SMEs due to the fact that most SMEs have very limited resources which make them very hard for investing in human resource or process improvement etc. Similarly, since many SMEs are under the ownership of one individual; therefore, the owner's general education and awareness of TQM can also have significant effect on organization's intention to implement TQM. Another reason of low TQM implementation can be that SMEs mostly have informal and simple structure which makes it difficult to implement something which requires high standardization as well as documentation.

Other reasons include cultural as well as institutional. In terms of culture, Pakistani culture is generally possesses high resistance

towards new ideas. There is often suspicion towards new phenomenon and TQM is also no exception. Moreover, as TQM is a product of Western and Japanese culture and thus requires specific type of behavior which might not be very much aligned with Pakistani culture. The low level of implementation can also be due to limited support by the government and its supporting agencies. Moreover, institutional arrangement in Pakistan is like this that they offer little assistance and support to the SMEs; therefore, SMEs have to rely on their own capabilities and resources to implement TQM.

The results also indicated that TQM is having positive and significant effects on exports promotion. These results are consistent with other several International studies in developing countries which reported positive outcomes other than exports e.g. Salaheldin (2009) and Demirbag et al., (2006). The results are also consistent with some local studies such as Awan (2003) who also found to have positive effect of TQM on exports related sales. Overall, the results shows that Pakistani Manufacturing based SMEs are still lagging in TQM implementation while the TQM contribute positively in exports promotions.

### **Conclusion**

The study was conducted with a view to assess the level of TQM implementation and its effects on exports. Data collected from 120 respondents belonging to manufacturing based SMEs in Pakistan shows that overall there is low level of TQM implementation in these organization. Similarly, there is low level of awareness and commitment of top management towards quality management. Other TQM practices such as supplier quality management, process management, and continuous improvement are also practiced at low

level. The TQM implementation is also suffered from limited human and financial resources along with low managerial know how and low support from the government. The literature suggests that TQM implementation can yield positive outcomes for organizations and the current study also found positive effects of TQM on exports. Thus, it can be concluded that if organizations commit more resources towards implement TQM, then it can certainly produce positive outcomes including boost in exports. Therefore, it can be argued that TQM can be a mantra for success for manufacturing based SMEs in Pakistan as it can enable SMEs to gain more market share in International markets, better adoption for competitive environment and globalization, and greater social benefits for the country as well.

### **Recommendations**

Based on the findings of the study, the following recommendations are put forward.

1. SMEs in Pakistan should give more importance to the TQM and should strive towards removing the gap between desired and actual level.
2. Management in SMEs should also put more efforts to improve the level of TQM implementation in their respective organizations as it can be a key for survival as well as for gaining competitive advantage.
3. Quality management team should be actively involved in lobbying and communicating benefits of TQM to the top management in order to secure more commitment and resources for TQM.
4. Government should develop Institutions which provide assistance to the SMEs regarding quality management implementation.

5. Universities should also offer more courses in order to increase the awareness and skills related to TQM.
6. Researchers should also conduct more context based research which enables SMEs businesses to understand the nature of TQM and resolve issues related to implementation.

### **Limitations**

The study has some limitations which are related to the methodology as well as sampling. The data collection is only based on survey technique while other methods of data collection such as interviews were not utilized which remains a limitation. Another main limitation is related to small sample size with limited geographical coverage which makes it difficult to generalize the results over wider context. Similarly, the survey instrument utilized in the current study was also originally developed by Abusa (2011) for conducting research in Libya; therefore, the result of that instrument needs to be interpreted with care as cultural bias can mislead the results. The study while obtaining information on TQM, used only six dimensions of TQM; which however remains a limitation as other dimensions of TQM also exists which this study did not focused on. The actual export data in addition to TQM related information was also not easily available and difficult to access; therefore, the perceived values given by the respondents were used which are also subject to human error. The study only used cross-sectional data, while longitudinal data may have provided better results.

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