Impact of TQM Implementation on the Performance of SMEs in Palestine

أثر تطبيق إدارة الجودة الشاملة على أداء المنشات الصغيرة والمتوسطة الحجم في فلسطين

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ABSTRACT

The purpose of this study was to examine the extent of Total Quality Management (TQM) practices are implemented by the Palestinian SMEs. It also examined whether the adoption of TQM practices leads to improvements in business results. The impact of TQM implementation on organizational performance improvement was measured through using European Foundation Quality Management (EFQM) Excellence Model. Finally, the issues faced by the sample companies during the implementation of quality improvement initiatives were also identified.

A questionnaire was designed and distributed to SMEs in the Ramallah. Data were collected from a sample of 310 SMEs in Ramallah. The respondents were managers and owners of the sample companies. The questionnaire was designed using a mix of descriptive, rational and causal approaches to answer the study questions, and to help test the study hypotheses. Statistical techniques like frequency tables, descriptive statistics, correlation coefficient and multiple regressions were used to analyze the data.

The results of this study indicated that TQM philosophy and other formal quality management systems are not adequately and holistically implemented in companies, in Ramallah. Most SMEs who are implementing formal quality management systems had held the certification for six years or less. Moreover, six sigma and EEM are the most popular among formal quality systems that SMEs in Palestine implemented or tried to implement. All TQM practices have significant positive relationship with business results; however, partnership and resources are the best predictors of business results. Broad quality objective without measurable targets and that managers don’t have adequate knowledge of TQM implementation are the major issues faced by the sample companies during the implementation of formal quality management systems.

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DECLARATION

I hereby declare that to the best of my belief and knowledge, the work presented in this thesis is original. I have not submitted any part or the entire work to any other university or college for a degree.

Signature of the researcher

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Chapter 1: Introduction

In the 1980s, Total Quality Management (TQM) concept was originally defined (Suarez, 1992; Madu, 1998). Literature provides evidence that practitioners and researchers alike have broadly protected the positive effects of TQM practices on firms' overall performance and effectiveness (Santos-Vijande & Alvarez-Gonzalez, 2007). Although some consider TQM concept to be ambiguous and hazy especially with the fact that the leading authors, like Juran, Deming and Crosby, use different terms and critical factors while discussing the topic in the literature (Limpiada, 2015; Madu 1998; Suarez, 1992). The empirical research on critical factors of TQM started in 90s where different studies have yielded to different sets of these factors (Pira & Zylfijaj, 2017; Calvo-Mora et al, 2013; Kalra & Pant, 2013; Arshida & Agil, 2013; Idris & Zairi, 2006; Morrow, 1997), which in turn led to unified TQM implementation measurement instruments.

In the last few decades, an extensive number of TQM literatures have examined the impact of TQM practices on organizational performance through using the basic principles of TQM such as customer focus, human resource management and continuous improvement (Alamri et al., 2014; Sadikoglu & Oclay, 2014; Chen, 2015; Reed et al., 1996). However, empirical studies reveal opposing findings and lack of consensus concerning its key constructs (Al-Damen, 2017, Baidoun et al., 2018, Macinati, 2008, Maistry et al., 2017, Saleh et al., 2018, Androwis et al., 2018). Furthermore, in today's competitive environment, customers are more aware of product quality, and business owners are more conscious about the importance of quality improvement initiatives, which steers organizations to use and implement TQM in order to gain competitive advantage over others, through advanced customer services and satisfaction, gaining business resources, or obtaining massive funding (Shafiq et al., 2017).

In this sense, the main challenge for organizations is how to survive in the fast-changing environment and the high competition that the world is facing. Such fast change leads organizations to move from product quality to process quality, reaching the top of the ladder where innovation quality and building an innovation organization is the need (Lopez et al., 2016). To achieve this, many organizations have started cultivating TQM culture in their organizations to achieve their goals (Oakland, 2014), where TQM is a business strategy and system which involves individuals at all levels and functions of an organization to meet customer needs and requirements and enhances the enterprise performance (Jabeen & Mahmood, 2015; Lopez et al., 2016).

Moreover, the impact of TQM on organizational performance is a regular subject in several divisions of management, including operations management, and it is of interest of both practicing managers and academic scholars (Chen, 2015). This subject is based on a wide range of indicators that differ across studies and are in some cases contradictory, especially regarding financial performance, which is measured using return on assets (ROA) or return on investment (ROI) (Santos-Vijande & Alvarez-Gonzalez, 2007). Some research has found a positive effect of TQM on the financial performance (Hansson & Eriksson, 2002; Al-Damen, 2017; Hendricks & Singhal, 2000; Kaynak, 2002; Sabella et al., 2014, Maistry et al., 2017, Androwis et al., 2018). Other researches do not support or report a negative occurrence of the causal relationship between TQM and financial performance (York & Miree, 2004, Macinati, 2008, Saleh et al., 2018).

Therefore, such opposition in results is mainly due to the complexity of TQM activities, especially that the most frequent reason for TQM failure is the wrong implementation approaches (Yusof & Aspinwall, 2000; Ghobadian & Gallear, 2001; Santos-Vijande & Alvarez-Gonzalez, 2007; Oluseun & Oluwatoyin, 2008, Saleh et al., 2018). It requires

implementing a new way of managing business, a change in working culture, which in turn affects people and the whole organization process, and requires the allocation of significant resources (Shafiq, 2011, Santos-Vijande & Alvarez-Gonzalez, 2007; Yusof & Aspinwall, 2000).

Regardless of the fact that there are contradictory results concerning the impact of TQM implementation on organizational performance, and different TQM conceptualization and measures, TQM benefits can be reinforced through avoiding such differences. Furthermore, there is a general agreement that a systematic method or framework is needed to put TQM in practice (Bou-Llusar et al., 2009). However, there is no universally accepted TQM framework (Bou-Llusar et al., 2009; Yusof & Aspinwall, 2000; Gomez et al., 2017). Consequently, and with the emergence of excellence models and quality awards, it has become a common practice to use them as an operational definition of TQM and to link TQM to the criteria of well-known Quality Award models (Gomez et al., 2017; Lopez et al., 2016; Bou-Llusar et al., 2009; Santos-Vijande & Alvarez-Gonzalez, 2007). Several authors have suggested that quality awards models fit the definition of TQM, consider its major components, and could therefore be considered valid frameworks for TQM (Bou-Llusar et al., 2009, Sabella et al., 2015, Baidoun et al., 2018). As a result, several national and regional quality awards have been established to promote quality and serve as models of TQM (Bohoris, 1995).

Although most TQM research is related to organizations operating in developed countries such as Europe, Japan, the USA, and Australia (Sabella et al., 2015; Psomas & Jaca 2016), still, some researchers have focused on organizations operating in developing countries and economies such as Pakistan (Shafiq, 2011; Kureshi et al., 2009**),** Saudi Arabia (Sweis et al., 2013), Libya (Abusa, 2011), Jordan (Al-Damen, 2017, Saleh et al., 2018,

Androwis et al., 2018) and Palestine (Sabella et al., 2015; Baidoun, 2003 and 2004, Baidoun et al., 2018).

Many studies such as Temtime & Solomon (2002) found that TQM could be used by SMEs with considerable success. SMEs account for more than half of all formal jobs worldwide (Nguru, 2016). The exponential growth of SMEs has been contributing greatly to the global economy, in the advancement of business and practical knowledge (Herzallah & Mukhtar, 2016). Small and Medium Enterprises main role is being drivers of local growth and job creation, in addition to playing an increasingly important role in addressing urgent development challenges, especially those related to sustainability and service delivery (Nguru, 2016). SMEs have the ability to create new job opportunities. Due to their flexible nature, they have the ability to adapt to customer's needs and wants better than larger organizations (Jabeen & Mahmood, 2015).

Few studies have examined the extent of TQM practices on the Palestinian organizations, the impact of TQM implementation on the performance of such organizations, and the major challenges facing the implementation (Baidoun et al., 2018; Sabella et al., 2015; Baidoun, 2004; Herzallah et al., 2014; Altayeb & Alhasanat, 2014). None of the studies examined the impact of TQM implementation on Palestinian SMEs in general, driving a researcher to think of this study as a focal core interest.

Accordingly, the aim of this study is to provide empirical evidence on the impact of TQM implementation on the performance of organizations especially Small and Medium Enterprises (SMEs), through using the European Foundation for Quality Management (EFQM) Excellence Model (EEM).

The thesis is constructed as follows: first, review the TQM literature, SMEs, and the EEM and describe the impact of TQM implementation on SMEs performance. Second, describe the methodology followed in the research. Third, represent the analysis and the results. Results derived from this study are discussed then. Finally, a discussion and some conclusions are presented in the last section of the research.

Chapter 2: Implementation of TQM and Organizational performance

2.1. TQM Definition

Although the literature on TQM includes a rich range of works, there is no consensus on the definition of quality (Demirbag et al., 2006). In the last two decades, there have been numerous definitions as given by several organizations around the world, particularly in developed economies (Shafiq et al, 2017, Lakhe & Mohanty, 1993). Researchers and practitioners have adopted the definition which is most suited to their views, although both academics and practitioners considered it to be an approach used for the improvement of product quality only, whereas now they consider that it could be used for continuous improvement of every process in an organization (Shafiq, 2011).

All are the same, these definitions emphasize on the efforts put in by organizations to fulfill customer requirements. To Crosby, quality means “conformance to requirements”, but Deming does not define quality in a single phrase; he asserts that quality is a relative term that will change in meaning depending on the customer’s needs, and finally Juran defines quality as “fitness for use”; he stresses a balance between products free from deficiencies and product features (Suarez, 1992; Madu, 1998). Here are other definitions: TQM is a management philosophy that focuses on people and work process, basically to satisfy customers and improve the organizational performance with the involvement of the proper coordination of work processes to keep the continuous improvement in all business units with the goal of meeting or surpassing customer’s expectations (Oluseun & Oluwatoyin, 2008; Temtime & Solomon, 2002; Aized, 2012). Okaland (2014) defined TQM as a way of managing to improve the effectiveness, flexibility, and the competitiveness of a business

through meeting the customer requirements, and this is not restricted to the functional characteristics of the service or product. Others defined TQM as an all-inclusive system for achieving continuous improvement in customer satisfaction and it is a philosophy of total integration of the business to achieve the required results. Its main goal is to achieve greater effectiveness and efficiency, increased market-share and lower operating cost (Uduk, 2015). Moreover, TQM has been defined as an integrated organizational effort designed to improve quality at every level (Aized, 2012). The International Organization for Standards (ISO) defines TQM as a management approach for organizations concentrating on quality, based on the contribution of all its members and aiming to achieve long-term success through customer satisfaction and benefits to all members of the organization and to the society in general (Kenneth, 2012).

Keeping in view the above definitions, the following definition of TQM has been developed to be used in this research:

TQM is an approach to achieve customers' satisfaction at the lowest cost through managing and continuously improving all the processes of an organization by involving everyone (Demirbag et al., 2006).

2.2. TQM and Organizational Performance

An extensive quantity of the TQM literature has examined the impact of TQM implementation on organizational performance, but empirical studies reveal inconsistent findings (Shafiq et al., 2017; Hansson & Eriksson, 2002; Al-Damen, 2017; Hendricks & Singhal, 2000; Kaynak, 2002; Sabella et al., 2014; York & Miree, 2004, Androwis et al., 2018, Saleh et al., 2018). On the one hand, many researches deliver empirical evidence that there is a positive association between TQM implementation and organizational performance

(Shafiq et al., 2017; Ahmad et al., 2017; Pipan et al., 2012; Zatzick et al., 2012; Bou-Llusar et al., 2009; Santos-Vijande & Alvarez-Gonzalez, 2007; Demirbag et al., 2006, Androwis et al., 2018).

The results of considerable empirical studies conducted in various countries support the positive associations between implementation of TQM and organizational performance. For instance, Shafiq et al. (2017) provided empirical evidence from the textile industries of Pakistan. The findings of this study reveal that TQM has a strong positive causal effect on organizational performance and supports the argument of TQM proponents that companies can achieve higher levels of both financial and non-financial results by implementing the TQM philosophy. Ahmad et al. (2017) provided empirical evidence that there is a significant relationship between TQM practices in SMEs and organizational performance. The study conducted by Pipan et al. (2012) among large companies in Slovenia indicated that the implementation of TQM through European Foundation for Quality Management Excellence Model (EEM) affect the performance of the companies. Bou-Llusar et al. (2009) provided empirical evidence from Spanish manufacturing that TQM practices have a strong positive effect on organizational performance. Santos-Vijande & Alvarez-Gonzalez (2007) concluded that implementing TQM through adopting the EEM contributes to firms outperforming competition. Zatzick et al. (2012) provide empirical evidence from Canadian business establishments that the implementation of TQM can be more successful when it is complementary with core elements of the organization's activity system. Androwis et al. (2018), a study from the Jordanian construction chemicals companies, confirm that TQM practices positively and significantly affect the organizational performance.

On the other hand, other research indicated that there is weak or no relationship between TQM implementation and performance, especially financial performance. Macinati (2008)

provides empirical evidence from Italian health care providers which indicate that quality management practices are not significantly related to financial results. Shafiq (2011) discusses that "only about one-fifth, at best one-third, of TQM programs in the United States and Europe have achieved significant or even tangible improvements in quality, productivity, competitiveness or financial returns". Based on a study from the manufacturing organizations in Jordan, Saleh et al. (2018) indicate that there is no guarantee that if companies implement TQM their business future will be hopeful, but they can gain many benefits.

The above-mentioned studies conclude that the relationship between TQM implementation and the different dimensions of organizational performance is inadequate, accordingly, further empirical research is needed to examine this relationship in more depth.

2.3. Organizational Performance

Due to the disagreement in the discussion above about the positive association between TQM implementation and organizational performance, Lakhal et al. (2006) believed that there is a need for more solid and detailed understanding of quality management's performance effects, by using finer quality performance models. Apart from all the contradictions of whether there is a relationship between TQM implementation and organizational performance, various dimensions and measures of organizational performance have been applied when estimating the effect and economic impact of implementing TQM (Jorgensen & Nielsen, 2013). Marr (2015, p.199) wrote that projects and organizations performance matter that is why it is essential to monitor them carefully to make sure they deliver the objectives they were initiated to deliver. In addition to keeping an eye on such project's performance allows to assess current performance levels, provides input for future goal setting and decision making, and helps anticipate any potential problems (Demirbag et

al., 2006). Organizational performance is an important quality characteristic of any company or firm that can be achieved by valuable results (Androwis et al., 2018).

The review of the TQM literature related to performance shows that there is a difference in the use of performance measurement frameworks. The research doesn't use an adequate definition of organizational performance (Shafiq, 2011). For example, A three-year research by Carlyle (2013) shows that, before 1980, mostly all organizations continued the use of financial measurement; such as profit, return on investment, and productivity, as the sole arbiter of performance even though they noticed the need to expand performance measures to include non-financial measures (Carlyle, 2013, Androwis et al., 2018). Post-1980, where changes in the world market drove companies to investigate ways to compete more effectively, through new techniques such as flexible manufacturing systems (FMS), computer integrated manufacturing (CIM), just-in-time management (JIT), optimized production technology and total quality management (TQM) (Ghalayini & Noble, 1996).

Due to such changes, non-financial indicators such as customer satisfaction, process improvement, employee satisfaction or society results adequately, may be equally important in implementing TQM principle, as they may have a mediating effect on organizational performance (Demirbag et al., 2006). Androwis et al. (2018) stated that the market share of an organization can be used to highlight its success and brand loyalty can also be used to measure the consumer loyalty and overall retention in companies. The study also pointed that operational performance can be considered as a measurement for organizational performance. (Androwis et al., 2018). Shafiq (2011) suggests that traditional financial measures of accounting like return-on-investment and earnings-per-share might give misleading indicators about the organizational performance. However, studies such as Demirbag et al. (2006) Bou-

Llusar et al. (2009), Shafiq (2011) consider this issue and take both financial and non-financial measures of performance.

Currently, the most commonly used methods for measuring organizational performance may roughly be placed within operational, financial and non-financial performance (Marr, 2014; Jorgensen & Nielsen, 2013).

2.4. TQM Frameworks

In the last few decades, there have been many efforts to paradigm frameworks and lists to help organizations understand how to implement good quality management. However, there is no universally accepted TQM framework (Bou-Llusar et al., 2009). As a result, several Quality Awards, frameworks and models have been used to guide research into TQM in efforts to measure TQM World-Wide (Calvo-Mora et al., 2013; Santos-Vijande & Alvarez-Gonzalez, 2007). In this sense, Yusof & Aspinwall (2000) and Calvo-Mora et al (2013) differentiated three types of implementation frameworks:

1. Based on experts, quality leaders or gurus;
2. the excellence models or quality awards; and
3. those extracted after theoretical and/or empirical research.

Yet, one of the models used for TQM is the four Ps and three Cs; planning, people and processes to improving the overall performance, and culture, communication and commitment provide the soft outcomes of the model to make organizations successful (Oakland, 2014). Other models that are based on gurus that were developed by Edwards Deming are the PDCA (plan-do-check-act) and the Deming Philosophy (Kiran 2017). Moreover, Joseph Juran also developed Juran's Quality Trilogy and Crosby developed Crosby's absolutes of Quality management (Kiran 2017; Calvo-Mora et al., 2013). Besides

the European Foundation for Quality Management (EFQM) Excellence Model was introduces at the beginning of 1992 as the framework for assessing organizations for the European Quality Award, and it is a non-prescriptive framework based on 9 criteria (Santos-Vijande & Alvarez-Gonzalez, 2007). This research is based on the EEM, which is defined and described in the following section together a justification of its applicability to identifying TQM constructs.

2.4.1. EFQM

The European Foundation for Quality Management (EFQM) Excellence Model (EEM) was introduced in 1992 as the framework for assessing organizations for the European Quality Award (Michalska, 2008; Santos-Vijande & Alvarez-Gonzalez, 2007). EFQM was established in 1988 by fourteen leading European businesses and it is a membership based, not for profit organization, with a mission to be the driving force for sustainable excellence in Europe and a vision of a world in which European organizations excel (EFQM, 1999). The primary aim for developing the EEM was to come up with a representation of TQM theory to be implemented in all types of organizations and to support organizations to achieve business excellence through continuous improvement, learning, innovation and the deployment of key processes (EFQM, 2010; Sadeh et al., 2013; Calvo-Mora et al., 2014; Gomez et al., 2017).

Moreover, the EEM consists of nine criteria that were grouped into two main broad areas. Five of these are the *enablers*, which are specified as implementation factors or facilitating agents; cover what the organizations do and how they do things (EFQM, 2001; Sadeh et al., 2013; Calvo-Mora et al., 2014; Bou-Llusar et al, 2009). And four are the *results* that the organization attains, concerning their customers, employees, society and other key results; show the outcomes which organizations target, measure and achieve (EFQM, 2001; Sadeh et al., 2013; Calvo-Mora et al., 2014; Bou-Llusar et al, 2009). The enabler criteria

cover what an organization does, and the results criteria cover what an organization achieves (Santos-Vijande & Alvarez-Gonzalez, 2007). Results are caused by enablers and enablers are improved using feedback from results (EFQM, 2011). Furthermore, the model shows a dynamic nature, it indicates that activities such as innovation, learning or creativity boost and strengthen the impact that the model's agents have in the results, which in turn refers to the continuous improvement of the system in the search for excellence (Calvo-Mora et al., 2014).

To clarify, the enabler group of the EEM consists of (Sadeh et al., 2013, EFQM 2011): Leadership; acts as the engine for an organization and drives strategies to implement vision and mission by managing people, resources and processes. Excellent organizations have leaders who shape the future and make it happen, acting as role models for its values and ethics and inspiring trust at all times, such leaders are flexible, enabling the organization to anticipate and react in a timely manner to ensure the on-going success of the organizations. Policy and Strategy; implements effective strategies involves creating partnerships, establishing process measurement system, planning resources and modifying organizational structures with explicit attention being paid to quality issues. Excellent organizations implement their mission and vision by developing a stakeholder focused strategy; policies, plans, objectives, and processed are developed and deployed to deliver the strategy. People; performs the processes in order to improve quality through empowerment and freedom so they are clear about the purpose of their work and they will find the best way to achieve it. Based on the EFQM (2011), excellent organizations value their people and create a culture that allows the mutually beneficial achievement of organizational and personal goals; they develop the capabilities of their people and promote fairness and equality. They care for, communicate, reward and recognize, in a way that motivates people and builds commitment and enables them to use their skills and knowledge for the benefit of the organization. Partnership and Resources; manages internal resources and involves suppliers and other

external partners to support quality policies and strategies. Excellent organizations plan and manage external partnerships, suppliers and internal resources in order to support strategy, policies, and the effective operation of processes. Processes; adds value to customers and stakeholders aligned with strategy and objectives. Excellent organizations design, manage and improve processes to generate increasing value for customers and other stakeholders.

Furthermore, the EEM differs from the empirical research perspective by acting as a practical tool, which gives it several advantages; as other quality awards (Santos-Vijande & Alvarez-Gonzalez, 2007; Karastathis et al., 2014). For instance, the model is revised and updated on regular basis which guarantees its comprehensiveness, dynamism and tracking the latest developments in TQM (Gomez et al., 2017). Likewise, it has a wide-ranging set of sub-criteria that defines and details the exact meaning of each criterion, which in turn facilitates the identification of items in the scale developments (Karastathis et al., 2014). Additionally, award models are intended to be instruments for comparing an organization with its competitors in order to achieve and/or maintain competitive advantage. In the case of EEM, the increasing convergence of European markets dissipates any concern regarding the universalism issue. Therefore, empirical evidence relative to the effects on performance of TQM practices according to this model acquires great relevance for all firms competing in the European Union (Santos-Vijande & Alvarez-Gonzalez, 2007). For all these reasons, the EEM presents an operational, complete and useful framework as a reference for TQM philosophy effective implementation in any type of organization (Lopez et al., 2016; Calvo-Mora et al., 2014, Bou-Llusar et al., 2009).

However, in the EEM, the distinction made between TQM factors is not explicit. In this sense, the leadership and people criteria represent the social factors of the TQM in the model, while the criteria that refer to the processes, the alliances and resources refer the technical

character of the TQM (Bou-Llusaret al., 2009). The policy and strategy criterion is the most difficult to classify as it guides the management of the rest of the facilitating agents and it contains both social and technical elements (Calvo-Mora et al., 2013).

Accordingly, scholars have widely studied the validity of excellence models for the TQM implementation. In this sense, many studies conclude that the EEM and its criteria do capture core concepts of TQM and can predict the relationships between TQM procedures and organizational performance (Bou-Llusar et al., 2009; Calvo-Mora et al., 2014; Lopez et al., 2016). Moreover, the literature confirms the validity of EEM in the financial sector, health care organization, SMEs and in large organizations (Calvo-Mora et al., 2014; Sila, 2007; Beikzad, Totakhaneh & Maleki, 2012).

2.4.2. Critical Success factors of TQM

After looking to the historical development of the TQM framework and definition, it is important to establish an understanding and knowledge of the underlying critical success factors of TQM. Critical success factors (CSFs) are the behavioral aspects of management styles or the human features which emphasized on organization's TQM (Arumugam et al., 2011).

CSFs can be defined as "the limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance for the organization", they are the critical key area where 'things must go right' for the business to flourish and to produce the greatest "competitive leverage" (Arshida & Agil, 2013, Fryer et al., 2007). If results in these areas are not adequate, the organization's efforts for the period will be less than defined." (Arshida & Agil, 2013).

The most important point to note is that most of the authors have derived their set of CSFs based on a large company approach and used factors and elements that are not all deemed suitable for SMEs (Yusof & Aspinwall, 2000). Moreover, different studies show a variety of critical success factor ranging from 5 to 12. Some studies reveal ten critical factors, others develop a special instrument to measure quality management based on 8 critical factors, and few expanded the practices even further and identified 12 factors (Arshida & Agil, 2013; Pira & Zylfijaj, 2017). Although many TQM authors recommend that further concern should be made for the evaluation of TQM critical success factors, the results of their adoption and the type and extent of their relationships (Idris & Zairi, 2006; Prajogo & McDermott, 2005; Arshida & Agil, 2013).

Moreover, Critical success factors are both internal and external and they require special attention as they can affect the firm for better or worse. These factors provide early warning method and a way to avoid surprise and wasted opportunities (Kalra & Pant, 2013). Given the diversity of these critical factors, literature classifies these factors according to their nature, as factors of social (soft) and technical character (Calvo-Mora et al., 2014). These factors guide the implementation of the TQM principles in practice and facilitate continuous improvement of the system (Kalra & Pant, 2013).

However, there are factors that were thought to be critical and applicable for SMEs (Androwis et al., 2018; Sabella et al., 2015; Jorgensen & Nielsen, 2013; Arshida & Agil, 2013; Arumugam et al., 2011; Yusof & Aspinwall, 1999), the common factors are discussed below:

2.4.2.1. Top Management Commitment

Based on the existing literature, top management commitment is unarguably one of the most important factors underlying the success of TQM through providing the needed resources of money and time to allow, permit and support improvement (Androwis et al., 2018). Many studies argued the necessity of top management commitment, as top management has a large influence on the overall attitude and strategic direction of the organization (Jorgensen & Nielsen, 2013).

Top management commitment to quality must be verified and demonstrated, by actively communicating the mission and vision through-out the entire organizations (Demirbag et al., 2006; Salaheldin, 2009; Jorgensen & Nielsen, 2013). Among other aspects, this implies that managers ought to concentrate on aligning quality objectives with the vision, start quality as a corporate culture and create a culture where continuous improvements are supported and reluctance towards change is minimized (Jorgensen & Nielsen, 2013). This means that establishing a quality culture in alignment with the overall business strategy is essential for the success of the organization (Salaheldin, 2009; Jorgensen & Nielsen, 2013). Therefore, management must believe in TQM and ensure that the principles, strategies and advantages of TQM are clear and well defined to all employees in the organizations (Fening et al., 2017).

Despite the agreement of most studies upon the importance of management communicating the vision and quality objectives, conveying the strategy solely is insufficient Demirbag et al., 2006). Vision and mission statements have to be operationalized into daily activities that must be carried out (Arshida & Agil, 2013). As described in number of studies, the role of management must be focused towards driving, involving and assessing, rather than planning and controlling (Jorgensen & Nielsen, 2013; Demirbag et al., 2006).

2.4.2.2. Supplier quality management

The success of TQM is vastly depending upon the organization's ability to satisfy and fulfill the interests of various stakeholders (Jorgensen & Nielsen, 2013). Fening et al. (2017) showed that supplier quality management is a major part of quality management since the supplied materials are usually a main source of quality concern. Supplier's ability to fulfill the needs of the organizations is however also crucial for the organization (Demirbag, 2006; Androwis et al., 2018). Hence, a close relationship between the supplier and manufacturer should be achieved to ensure providing quality supplies from the supplier within the required time (Androwis et al., 2018; Jorgensen & Nielsen, 2013). As a result of this interrelatedness, keeping record and providing feedback on quality performance is often considered highly important for the purpose of problem identification and supplier process improvements (Demirbag, 2006). Several studies indicated that to ensure the success of TQM, long term mutually beneficial close vendor and supplier relationships should be created (Androwis et al., 2018; Jorgensen & Nielsen, 2013; Fening et al., 2017).

Besides addressing the importance of mutual beneficially supplier relationships, Fening et al. (2017) acknowledge the importance of involving the organization's suppliers in the product development process and establishing clarity of the specifications provided to suppliers, in order to ensure that quality standards are met. Besides, the management of materials, closeness to customers and corporate culture in the running supply chain management practice has an important role in improving the organizational performance (Androwis et al., 2017).

2.4.2.3. People Management

People management, also referred to as employee focus and employee relationship, is also considered as one of the most important factors underlying a successful employment of TQM in many studies, as TQM implies involving the whole organization (Jorgensen & Nielsen, 2013).

There are two main dimensions in defining empowerment: psychological dimension which falls into intrinsic motivation that creates self-efficiency and structural dimension (Androwis et al., 2018). Managers count on employee's empowerment as a key TQM practice to increase the success implementation of it, since TQM focuses on the culture of involving all employees in the work performance and development (Fening et al., 2017). In this sense, the importance of internal and external information sharing is widely emphasized, as sharing information across functional groups of the organization is seen as a way of encouraging employees and making them feel responsibility for quality decisions and improvements (Jorgensen & Nielsen, 2013; Androwis et al., 2018). Likewise, involving employees by hearten them to come up with suggestions related to quality development and improvements, is seen as an essential element underlying a successful implementation of TQM and performance enhancement (Demirbag, 2006; Idris & Zairi, 2006; Prajogo & McDermott, 2005).

Besides involving employees in the decision-making process, employees need continuous focus on education and training, as training, education and reward are considered important factors underlying the sustainability and enhancement of organizational growth (Arshida & Agil, 2013; Pira & Zylfijaj, 2017). Members involved in the TQM process should receive sufficient training in communication skills, quality awareness and problem-solving techniques, in order to guarantee successful implementation of TQM system,

moreover, fundamental orientation should be included in the training program explaining the basic TQM concepts and procedures to provide employees with an important knowledge that can be later associated with more advanced topics (Prajogo & McDermott, 2005, Adrowis et al., 2018). Effective training will improve the loyalty of employees, motivation and work performance (Adrowis et al., 2018). Thus, customer satisfaction will be increased, and customer complaints will be reduced (Sadikoglu & Oclay, 2014).

2.4.2.4. Customer focus

An extensively covered element within the TQM literature is customer focus and in association herewith, customer satisfaction. TQM companies focus on serving the external customers. Thus, customers' expectations and requirements are first known and understood. Given the increasing focus on the creation of competitive advantages it is argued, that quality ought to be defined from an external perspective of customer expectations, rather than from predetermined internal specifications (Jorgensen & Nielsen, 2013; Androwis et al., 2018). This encourages companies to produce high quality and reliable products/services on time with increased efficiency and productivity. Hence, the sales and the market share will increase as well (Sadikoglu and Olcay, 2014).

According to Prajogo & McDermott (2005), it is a necessity that both current as well as future needs of the customers are understood and met, when creating and sustaining a customer-oriented organization. This implies that the organization must establish a variety of mechanisms, enabling efficient ways of letting customers contact the organization with product inquiries and related questions, as well as establishing channels from which the organization can obtain knowledge about customer preferences (Arshida & Agil, 2013). In order to gain full advantage of this knowledge, it is important that incoming information and

changes in customer preferences are analyzed and understood (Idris & Zairi, 2006; Jorgensen & Nielsen, 2013; Androwis et al., 2018).

2.4.2.5. Process Management

The underlying idea behind process management is that an organization should be seen as a set of interrelated processes and that continuous improvement of each process is a step towards performance improvements (Jorgensen & Nielsen, 2013). The main goal of process management is to analyze, understand and manage the processes that are involved in meeting the customers' requirements to ensure that they are consistently met (Arshida & Agil, 2013).

Accurate data are significant for both management and employees to make better decisions related to process improvement (Androwis et al., 2018). The team must recognize and classify quality problems' causes and propose solutions. The recommended solutions should then be screened to choose best solution(s) for implementation (Jorgensen & Nielsen, 2013). Successive performance should be measured and evaluated to determine the need for further action. Different tools can be used by the quality improvement team in studying processes, such as: cause-and-effect diagrams, histograms, pareto diagrams, scatter diagrams, check sheets and control charts (Arshida & Agil, 2013). Process management includes specifically identifying and documenting process management procedures with instructions required for machine operation and set-up, posted at each workstation to minimize the likelihood of operator error understood (Idris & Zairi, 2006; Jorgensen & Nielsen, 2013; Androwis et al., 2018).

2.5. TQM Implementation

TQM has been widely applied by organizations across the world and economies have emphasized that quality must be put in place and integrated into all aspects of the

organization; in order to harvest the benefits associated herewith (Jorgensen & Nielsen, 2013). Although, in the beginning of TQM introduction, most literature was focusing on the TQM that deals with the manufacturing industry with tangible products, but later on, literature focused also on the service industry with intangible products (Pira & Zylfijaj, 2017). In both cases, it is broadly agreed that the long-term success of TQM within an organization is the implementation process (Ghobadian & Gallear, 2001). Therefore, for companies to implement TQM in an effective way, through facilitating their continuous improvement of every aspect of their business operations, a change from traditional business operations from a production-oriented approach to a competitive approach is needed (Marr, 2015, p.100). Some studies suggested that cultural change is required for a successful or sustained TQM implementation (De-Leon, 2017; Kalra & Pant, 2013).

Although the implementation of TQM is optional, still for organizations operating in global markets, the implementation of TQM is a necessity in order to increase the competitive position of the company (Pira & Zylfijaj, 2017: Jorgensen & Nielsen, 2013). Advocates of this argument suggest that implementing quality management enables organizations to stay in the competition but does not create a lead in the competition (Jorgensen & Nielsen, 2013). Organizations need to implement a set of quality management practices in order to compete at a global level, especially due to rapid globalization (Salaheldin, 2009). On the other hand, others have chosen to describe the impact of TQM implementation in relative terms as a way of increasing the competitive position of the company, rather than competitive advantage or a necessity to stay in the competition. In this manner, the purpose of TQM has been described as an enhancement of the company's competitive position by means of obtaining satisfied customers at the lowest possible costs (Jorgensen & Nielsen, 2013).

However, most of TQM failures are due to the improper implementation and management of the system and less from any fundamental flaws in the system or its components (Shafiq, 2011; Oluseun & Oluwatoyin, 2008; Akkarasrisawad, 2005). This shows that the way in which TQM is implemented needs to be considered (Shafiq, 2011).

2.6. SMEs and TQM Implementation

SMEs are the backbone of every economy; they are the engine of economic growth and innovation (Ahmad et al., 2017; Fening et al., 2017; Suryana et al., 2015). However, SMEs are being compelled to use models developed in the context of large organizations to improve their quality and so their competitiveness as quality has become the basis of global competition (Pereira & Pedroso, 2005; Akkarasrisawad, 2005). These models need to be modified, adapted or revised to fit the needs and characteristics of SMEs (Yusof & Aspinwall, 2000) because differences exist in policymaking procedures, structure and utilization of resources (Pereira & Pedroso, 2005).

Consequently, SMEs are an interesting context for the study of TQM, as they play a significant role in supply chain; the supply of goods and services to large organizations (Oliveira et al., 2017; Jabeen & Mahmood, 2015; Jorgensen & Nielsen, 2013). Compared with large organizations, SMEs have been slow to adopt TQM due to the different characteristics between the two groups (Akkarasrisawad, 2005). Many companies' management believed that TQM implementation was an avenue for survival in competitive environments through promoting growth and changing customer expectations; put their customers first and meeting or exceeding their expectations (Ghobadian, 2017; Pira & Zylfijaj, 2017; Jorgensen& Nielsen, 2013).

Furthermore, in recent decades, SMEs in all sectors have done a breakthrough by ensuring and creating their product and/or service quality in every complexion of daily operations because quality is a key to gain competitive advantage (Ahmad et al., 2017). Generally, the lack of product or service quality would adversely affect their competitive ability not only on the macro level but also to larger organizations (Oliveira et al., 2017; Ahmad et al., 2017; Akkarasrisawad, 2005; Jorgensen & Nielsen, 2013).

However, SMEs decision of whether to follow a TQM approach might not stem from the company itself, but due to market and customer demands or external pressure (Jorgensen & Nielsen, 2013). Usually, it is harder for some SMEs to follow TQM approach because of the inflexibility and rigidity of the owner or manager, the focus on short-term objectives and activities, the lack of technical expertise, managerial time and financial resources (Yusof & Aspinwall, 1999, Pereira & Pedroso, 2005). Therefore, the TQM as an approach demands competitiveness and flexibility of the business (Pira & Zylfijaj, 2017).

2.6.1. SMEs Definition (Types, the sector in general)

In the majority of countries, Small and Medium-sized enterprises (SMEs) are defined as organizations employing between 10 and 250; small enterprises are firms with a number of employees ranging between 10 and 50 employees, and Medium-sized enterprises are firms with a number of employees ranging between 50 and 250 (World Trade Organization, 2017). However, there is no standard international definition of SME, as SMEs are defined differently in the legislation across countries, in particular because the dimension small and medium of a firm are relative to the size of the domestic economy (OECD, 2017; World Trade Organization, 2017). SMEs account for 90% to 95% of businesses throughout the world and 50%-60% in terms of employment, these percentages differ between developing and developed countries (Antony et al., 2016; World Trade Organization, 2017). SMEs are

generally defined based on three traits: number of employees, paid-in capital and annual revenues (Kureshi et al., 2009). Many countries around the world use different standards to define SMEs, usually it is a combination between the three above-mentioned standards. Some definitions are sector-specific, further complicating comparisons across countries (Hamed et al., 2009; World Trade Organization, 2017).

Moreover, there is an important role for SMEs in the existence of larger organizations as they often supply goods and services to such organizations (Oliveira et al., 2017; Jabeen & Mahmood, 2015), and due to globalization, larger firms outsource their business to smaller firms (Antony, Vinodh & Gijo, 2016). The Success of SMEs has shown a direct positive impact on the economic growth and development in both developed and developing countries (Mahmud & Hilmi, 2014).

However, in Palestine, there is no predetermined or consolidated definition for SMEs. Researchers and companies use different definitions for SMEs, which in turn affects the conclusions and results of their studies especially those related to this type of organizations (Hamed et al., 2009; Abd Al Kareem, 2010; Baidoun et al., 2018). Each researcher determines the best definition for his/her study.

A study by Palestine Monetary Authority (PMA) defines SMEs as enterprises staffed by less than 25 employees, with annual sales not exceeding 7 million dollars or equivalent (PMA, 2016; Baidoun et al., 2018).

Furthermore, the PMA gives a special attention to the SME sector as it has a key role in the development of the national economy, creation of job opportunities, alleviation of rising unemployment, diversification of income and fostering of entrepreneurship as a main contributor to the labor market (PMA, 2017). It acquires more than 90% of total projects

(more than 140 thousand project) in the Palestinian Economy (PMA, 2017; Abd Al Kareem, 2010).

Based on the Annual Statistical Report (2016) published by the Palestinian Ministry of National Economy, the number of registered establishments in Palestine increased by 16.8% in 2016 compared to 2015 of which 35.7% in Ramallah and Al-Bireh Governorate, 17.9% in Hebron, 14.3% in Nablus and 0.7% in Tubas. The report also shows that 50.7% of the capital of these registered establishments does not exceed $100 thousand, 44.7% are between $100K and $500K, and the rest are above $500K (Ministry of National Economy, 2017).

However, it is important to take into consideration the distinction between formal and informal firms; formal SMEs are usually defined as being officially registered while informal SMEs are not (World Trade Organization, 2017). In this study, we will only consider registered SMEs.

Chapter 3: Research and Methodology

3.1. Introduction

Extensive research conducted in the study of organizational performance with respect to TQM led to different conclusions based on the research methodology. It is therefore essential that the suitable methodology is used to present the work plan of the study. A good research strategy should have clear objectives from the research questions, good source of data and then consideration of the constraints (access to data, location, time and finances) (Adams et al., 2007, p.22).

This chapter explains and describes the procedures employed in undertaking this study. It describes the research design, strategy, population, data collection and analysis procedures. Furthermore, justification of each choice regarding the mentioned issues is included, in order for the research design to be supported. This is a correlational exploratory research based on quantitative analysis of collected data. Cluster sampling and simple random sample of Palestinian SMEs is employed in sampling the firms. Questionnaires were directed to the management to aid in collecting the necessary data.

Finally, this chapter is divided into two sections, the theoretical framework and the methodology. An insight into the theory that is used as a framework for this research will be given in the first section, while an explanation of the rationale behind the methods used for the research will be discussed in the second section.

3.2. Research Aims and Objectives

The main aim of this research is to investigate and identify the extent of SMEs managers' usage of TQM practices, its implementation and its impact on the company's performance.

The underlying objectives for the aim are:

1. To examine the extent of TQM implementation in SMEs in Palestine.
2. To investigate the impact of TQM implementation on SMEs performance in Palestine.
3. To inspect the major challenges facing TQM Implementation in Palestinian SMEs.

These three objectives will be measured through using the EEM to assess the impact of TQM implementation on Palestinian SMEs. The literature review has earlier highlighted some of the benefits that accrue to an organization from TQM implementation.

3.3. Theoretical Framework

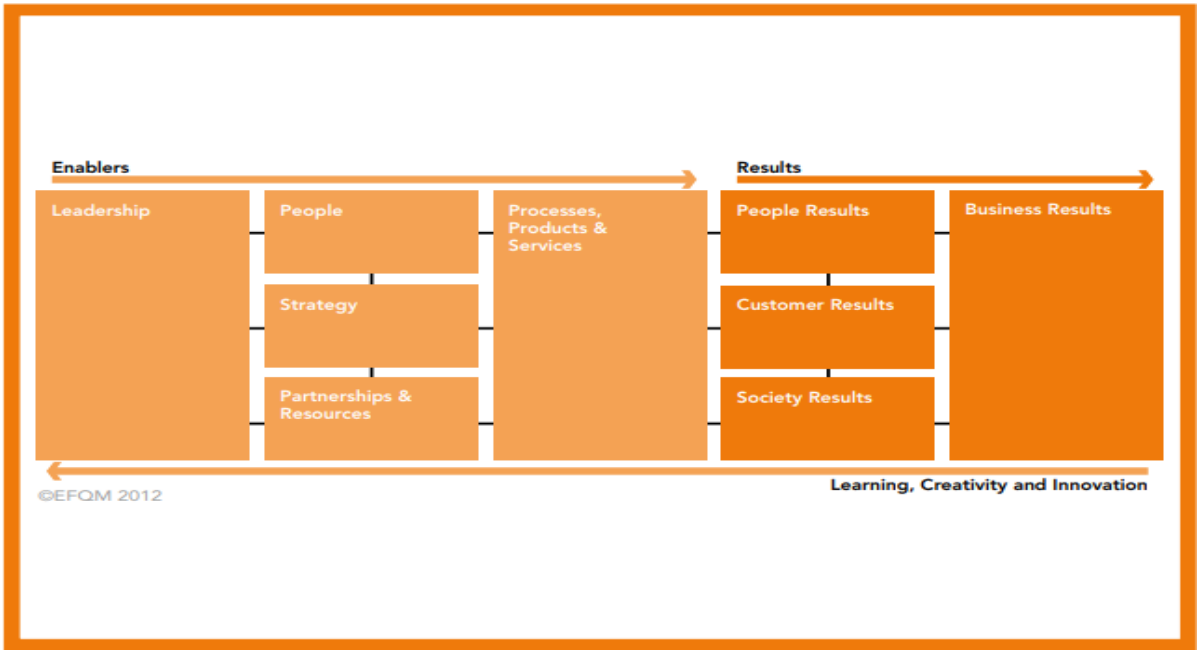
"A theoretical framework is a conceptual model of how one makes logical sense of the relationship among the several factors that have been identified as important to the problem" (Sekaran, 2003, pp.86-87). Cases and variable are always part of elements used in research.

Objects, whose behavior or characteristics are studied, are called cases. Cases usually are persons, but they can also be groups, organizations, department, etc. They can also be events, pairs of people, utterances, etc., while variables are the characteristics of the cases. They are qualities and attributes of the cases that are measured or recorded. The name variable refers to the variance caused in the results of the cases based on their attributes (Oluseun & Oluwatoyin, 2008).

Moreover, variables can play different roles in any study; these roles are played through independent variables and dependent variables. Usually there is only one dependent variable that is the outcome variable or the one you are trying to predict. On the other hand, independent variables, also known as the predictors or explanatory variables, are the factors that you think they explain the variation in the dependent variable (Adams et al., 2007, pp. 82).

As mentioned in the literature review, the EEM will be used to measure the impact of TQM implementation on organizational performance. The EEM is based on the premise that: excellent results with respect to performance, customers, people and society are achieved through *leadership* driving *policy and strategy*, that is delivered through *people partnerships* and *resources*, and *processes*. The EEM is depicted below in figure 3.1 (EFQM, 2012).

Figure 3.1 The EEM (2012)



Below is the EEM criterion of quality and details on the model as described by Dubas, K. & Nijhawan, I. (2005) and Oluseun & Oluwatoyin (2008):

Enablers

- Leadership: the driver of the business who gives direction to business objectives, it is concerned about how the top management inspire and drive total quality as a vital process for continuous improvement.
- People: this involves how the company harnesses the potential of its employees in order to improve the business continuously. With EFQM covering training, evaluation, effective human resources development, empowerment, teamwork, rewards and recognition. It ensures the effective development of people's skill, effort and time.
- Strategy: how the firm's policy reflects the concept of total quality and how this principle is being used to determine improvement strategy. It covers product, service quality and organizational policy and strategy.
- Partnership & resources: this involves how the resources of the company are disbursed to support quality initiatives. Active encouragement of supplier partnership is given, with emphasis on mutually beneficial relationships. On resources, the facilities need to be maintained for capability, and materials should be conserved.
- Processes and products services: The efficient managing of processes to ensure that business objectives of value creation are achieved. It involves identifying and reviewing the processes involved in production so as to deliver the organization's strategy.

Results

- People results: People are supposed to be adequately surveyed, with ideas such as team briefings and suggestion schemes incorporated.

- Customer results: This is external customer's perception of the company's product. This requires evaluation of customer satisfaction through surveys and interviews. Loyalty and market share are measures.
- Society results: ethical principles should inspire organizational behavior. What the company is continuously improving in its objectives that exceeds the limited objectives of compulsory norms.
- Business results: what the company is achieving in relation to its planned business. EFQM requires a "balanced scorecard" type approach, as well as cost of quality, product and process measures.

The EEM is based on the idea that achieving customer and people satisfaction and impact on the society needs leadership driving policy and strategy, resources, processes, people management, leading ultimately to business results.

Many researchers have compared the EEM to other management standards and approaches. The main models are the EEM in Europe, the MBNQA model in the USA and the Deming Application Prize model in Japan. Some research evaluates the EEM internal structure and identifies that it reflects the holistic approach of TQM (Bou-Llusar et al, 2009; Gomez et al., 2017; Lopez et al., 2016, Shafiq, 2011, Kim et al, 2010).

Bou-Llusar et al. (2009) recommend that the EEM or the MBNQA could be used as guidelines for TQM implementation as they describe the EEM as providing detailed information through the definition of the criteria, sub-criteria and guidance points that can be useful in the measurement of the implementation of TQM. Kim et al. (2010) put forward that the EEM is based on the principles and practices of TQM. Shafiq (2011) mentioned that quality is a living concept that has experienced a continuous evolution acquiring new meaning and it is mostly understood as excellence.

Additionally, most of these studies conclude that EEM is the best available framework to implement the concepts of TQM philosophy (Lopez et al., 2016). Comparing the EEM to the MBNQA and the Deming Application Prize, it's clear that the EEM is the best representative of TQM philosophy compared to the other models (Tari, 2005). Furthermore, Kim et al. (2010) indicate that the EEM enables organizations by providing categories of the practices and detailed criteria to measure the performance of organizations. Indeed, the underlying concepts in the EEM are noticeably the same as the MBNQA, but in the EEM the society and people results are addressed more comprehensively. EEM also gives greater importance to partnership development and customer results.

Moreover, Russell (2000) gives detailed comparison between the main and sub-criteria of the EEM and ISO 9001:2000[1]. It is evident from the comparison that there is a very clear link between the sub-criteria of the EEM and the clauses of ISO 9001:2000. However, there are few places where the relationship is not very strong, especially that ISO 9001:2000 does not address society results and does not put emphasis on people and key performance results. These results are compared to old version of ISO 9000[2] (Russell, 2000). However, a similar situation still exists in the latest version, ISO 9001: 2008, especially in the case of the society results. Nevertheless, ISO 9001:2008 could be used as a ladder in the implementation of the EEM (Gutierrez et al., 2010).

Thus, it can be concluded from the above discussion that the EEM is the best option to implement TQM among the available frameworks and models.

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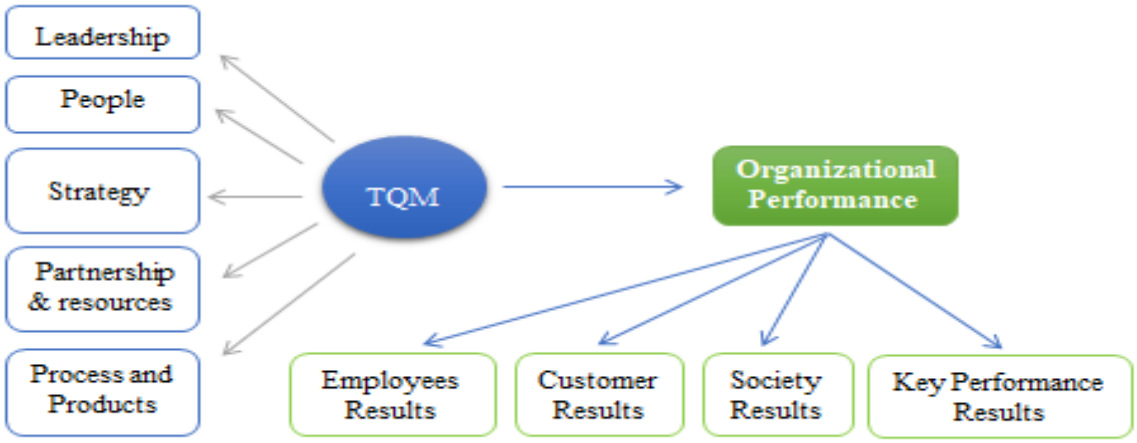
[1] ISO 9001:2000 is one of the ISO 9000 family of standards which provides a set of standardized requirements for quality management system. This standard can be implemented regardless of the user organization's activities, size or type (Shafiq 2011).

[2] ISO 9000: is a family of standards which represents an international consensus on good quality management practices (Shafiq 2011).

3.4. Hypothesis Formulation

The theoretical framework above gives insight on how the researcher derived the hypothesis formulated for this research. One major hypothesis will be tested in the research that will help in answering the research questions highlighted earlier in this chapter (Figure 3.2).

Figure 3.2 Research Model



3.5. TQM and SMEs Performance

Studies regarding TQM have been applied to SMEs by previous researchers (Ghobadian, 2017; Pira & Zylfijaj, 2017; Jorgensen& Nielsen, 2013). This is due to the leading role played by SMEs in most developed and developing countries. However, evidence from empirical studies has shown contradictory findings about the impact of TQM implementation on SMEs performance as mentioned in the literature review above. For example, some empirical studies supported a positive association between TQM implementation and organizational performance (Shafiq et al., 2017; Ahmad et al., 2017; Pipan et al., 2012; Zatzick et al., 2012, Bou-Llusar et al. 2009), whereas others indicated a weak or no association (Shafiq, 2011; Macinati, 2008; Su et al., 2008).

Based on the literature review, studies which have been conducted in different countries and organizational context provide empirical evidence that there is a strong positive relationship between TQM practices and business results. For example, a study provides empirical evidence from the manufacturing and services sector of Spain that TQM implementation have a strong positive association with organizational performance (Bou-Llusar et al, 2009). Shafiq et al. (2017) indicate that TQM has a strong positive causal effect on organizational performance. Hendricks & Singhal (2000) collected evidence from quality award winning companies and conclude that implementation of TQM has a positive association with the organizational performance.

However, the finding of Macinati (2008) indicates that there is a lack of significant statistical relationship between financial performance and quality management implementation. Su et al. (2008) highlight that TQM implementation does not have a direct effect on the business results of companies. Shafiq (2011) concluded that the relationship between TQM practices and business results was inconclusive.

The above-mentioned studies lead to the conclusion that the impact of TQM implementation on organizational performance is inconclusive, thus further empirical research is needed to investigate this relationship in more depth.

However, Sila and Ebrahimpour (2005, p.1144) suggested that: “Certain factors may not be related to certain performance measures in a specific country or industry or type of firm simply because they are not applicable within that context and thus are not significant predictor of performance. Therefore, these issues must be explored in more detail in future studies since it is crucial that a company’s resources and efforts be allocated to only those practices that will yield best performance for the organization, if at all”.

More empirical studies in different contexts are needed, in order to gain further visions into the relationship between TQM practices and different dimensions of business results. Hence, this empirical work seeks to validate the nine criteria of the EEM as constructs. This will be achieved through determining the impact of the Enabler criteria on the Results projected in the EEM, which means evaluating the notion of causality. In this sense, the Results constructs will be given a separate status as the dependent variables that are influenced by the TQM implementation followed by organizations.

Hypothesis 1: TQM implementation through using the EEM will have positive impact on SME performance

H0: TQM implementation has no impact of on SMEs performance

H1: TQM implementation has significant impact of on SMEs performance

3.6. Research Design and Methodology

This research intends to assess the impact of TQM implementation on Palestinian SMEs. The research is based on research design stages to ensure the achievement of the above-mentioned research aims and objective.

A review of the existing research shows that there are few commonalities with the profile of this study. Baidoun (2003) also conducted his study on Palestinian companies to identify the critical quality factors by interpreting the consensus amongst TQM organizations in Palestine as to level of perceived importance of each of the 31 quality factors required for the success of TQM implementation in their organizations. However, he has not examined the extent of TQM implementation in Palestinian SME nor the major challenges facing TQM implementation in such companies. Similarly, Baidoun et al. (2018) assessed the level of

TQM implementation in Palestinian governmental and non-governmental hospitals using MBNQA framework. However, they did not study anything related to SMEs specifically, and also none of the studies related to TQM implementation in Palestine used EEM.

Kumar (1999) and Adams et al. (2007, pp. 81) point out that the term research design is a plan, structure and strategy of investigation so conceived as the blueprint for fulfilling research objective and answering research questions. According to Kumar (1999) and Sekaran (2003, pp.119), the various issues involved in the research design include the purpose of the study, the type of investigation, the type of the sample that will be used, the methods by which the required data will be collected, as well as the process that will be followed for the analysis.

The information about the implementation of TQM practices is associated with business results and the effect of organizational characteristics on the level of TQM implementation was collected through the perception of managers and owners that are involved in the process.

Based on thorough literature review, different research questions are developed about the relationships between the implementation of TQM practices and organizational performance. This hypothesis is evaluated based on empirical data. This data was collected from SMEs in Palestine between May 2018 and November 2018.

3.6.1. Selection of the Research strategy for This Research

In this section, the appropriate research strategy will be selected. However, before deciding the best strategy for this research, this section provides a brief overview of major research strategies.

This discussion about research strategies always revolves round major strategies: qualitative and quantitative, and deductive and inductive. Deductive and inductive are two methods for representing conclusion to a research. According to Sekaran (2003, p.27), “deduction is the process by which we arrive at a reasoned conclusion by logical generalization of a known fact, while induction on the other hand, is a process where we observe a phenomenon and, on the basis, arrive at a conclusion”.

These two methods may vary in the data gathered through observation, may lead to formulation of hypothesis and theory, while those gathered via logical reasoning lead to the acceptance or rejection of hypotheses. This research implemented the deductive methodology, specifically hypothesis testing; the impact of TQM implementation on organizational performance. In the research question, the effect of independent variable (TQM practices) needs to be investigated on the dependent variable (Business results). Similarly, the best predictors of business results need to be identified.

Research methodology on the other hand is the science and philosophy behind all research, but research method is a systematic way to solve a problem and to conduct and implement research (Adams et al., 2007, pp. 25). Methodology is about anything that has to do with procedures or techniques of investigation, that is, the set of techniques used in one piece of research. It is essential in gathering relevant information thereby giving effective and reliable representation.

Moreover, research method approach is categories into two main categories depending on how they are conducted, quantitative research methods and qualitative research methods. The main difference between the two research methods is that quantitative research methods transform the information into numbers and amounts, whereas qualitative research methods use the researcher’s interpretation of information that cannot or should not be translated into

numbers or amounts (Adams et al., 2007, pp. 26). The main objective of the quantitative technique is to find out if a theory can be generalized, on the other hand, a qualitative research is aimed at understanding a social or human problem from multiple perspectives and it is mostly conducted in a natural setting (Kumar, 1999).

Moreover, the quantitative research method is a deductive method, and it involves the use of statistics in determining the relationship between variables. Quantitative strategies may involve experiments or surveys. Therefore, this research method provides a strong foundation for the generalization of questionnaire results to the study population, being Palestinian SMEs. By employing this approach, the degree of in-depth research naturally will be limited compared to a study grounded in a qualitative oriented approach. However, bearing in mind the focus on developing a conclusion applicable for Palestinian SMEs in general, a quantitative approach is applied.

3.7. Data Collection Methods

Data collection is the ways information is gathered. There are two ways of collecting information, primary data and secondary data. These two sources of data enable researcher to reach enough information from SMEs in Palestine, in addition to the impact of TQM implementation on these types of organizations.

3.7.1. Secondary Data

Secondary Data is information collected by others for purposes that can be different from those of the researcher. It is a combination of published and unpublished documents related to the research and it is highly important, as it comprises the logical framework of the research (Sekaran, 2003, p.423).

Secondary data collection has both advantages and disadvantages, one of the foremost advantages of using secondary data is that it helps the researcher formulate and understand better the research problem, broadening the base for scientific conclusions to be drawn. However, it should be taken into consideration that other researchers, organizations or government departments for research and studies has different objectives and purposes when collected the data; therefore, it might not be suitable for the current research.

For the purpose of the study, the secondary data collected includes academic article, textbooks, and journals related to TQM implementations. In addition, several online resources were used to gather information for the literature review. This type of data collection was mainly used for the literature review since it was unable to meet the research objectives.

3.7.2. Primary Data

When secondary data is not available or is unable to meet the research objectives, primary data is gathered (Sekaran, 2003, p.220). The primary data collection involves the use of research instruments, such as questionnaires and interviews that have been constructed exclusively for the purpose of the study. For the purpose of this research, primary data were collected using questionnaire. The essence of this was to obtain information on Palestinian SMEs knowledge of TQM practices and how its impact on their organization's performance.

The main concern of a researcher is to ensure that the results of the research are accurate and applicable. Therefore, once the instrument used for the conduction of the research is ready, then the reliability and validity of the measures are established (Sekaran, 2003, p.203).

3.7.2.1.Reliability and Validity of Primary Research

Oluseun & Oluwatoyin (2008) state that the reliability of an investigation is satisfying if another researcher can conduct the same research and draw the same conclusions. This means that reliability is the consistency of the results achieved from the instrument used in the research. Moreover, the reliability is realized when the same research process is repeated and reprodu ces results within the previously specified confidence limits. Therefore, in order to test the reliability of the questions asked for this research, and to ensure the finding of this research the Cronbach Alpha and the significance level were used. The result from the reliability test shows Cronbach Alpha to be above 0.900 on the average of all variables considered, which is above the required 0.7 mark (acceptable) and above the value of 0.8 (preferable) (Pallant, 2007), whereas, the level of confidence of 95% is used.

Table 3.1 indicates the values of Cronbach's alpha for the individual constructs and the overall questionnaire. It is evident from table 3.1 that all the values of Cronbach's Alpha are more than 0.7.

Table 3.1 Reliability Analysis of Section II and III of the Questionnaire

Constructs	No. of Items	Cronbach's Alpha
Leadership	9	0.816
People	9	0.862
Strategy	8	0.829
Partnership and Resources	10	0.878
Processes and Products	8	0.844
Employees	7	0.832
Customers	8	0.847
Financial and Non-Financial Results	12	0.923
Society	7	0.882
Overall Reliability of the questionnaire		0.961

Furthermore, validity represents the extent to which an instrument measures what it is intended to measure. Validity has two main categories, internal and external. External

validity refers to the extent the research results can be generalized, while internal validity refers to whether the hypothesized cause yields the given effect on the research. Thus, this research uses past findings related to the impact of TQM implementation on organizational performance, as basis for selecting variables used to establish the impact of TQM implementation on the performance of SMEs in Palestine. Validity here is established through published measures for the TQM concept (Sekaran, 2003, p.208).

3.8. Questionnaires

A questionnaire is a research instrument consisting of series of questions and other prompts for the purpose of gathering information from respondents. Most often it is designed for statistical analysis of the responses (Kumar, 1999). According to Sekaran (2003, p.236), "a questionnaire is a pre-formulated written set of questions to which respondents' records their answers, usually within rather closely defined alternative". It's considered the heart of a survey operation (Kothari, 2004, p.101). Self-completion questionnaires are cheaper option and quicker to administer compared to telephone surveys (Bryman, 2012, p. 233). Finally, it allows the respondents to supply answers that are confidential to them (Sekaran, 2003, p.236). Therefore, Lopez et al. (2016), Calvo-Mora et al. (2013), Bou-Llusar et al. (2009), Macinati (2008) and Sila and Ebrahimpour (2005) use self-completion questionnaire to study the implementation of TQM practices in different countries.

After considering constraints like time, cost and population, a questionnaire will be adopted to collect the data from the sample SMEs in Palestine (Appendix 1). Indeed, online or web-based survey is the cheapest method to collect the data; however, this approach might not be quite effective in the context of sample SMEs in Palestine. Questionnaires were distributed to managers and owners.

These questionnaires were given directly to the respondents by the researcher which gave the researcher the privilege to introduce the topic and encouragement in answering the questionnaire. The questionnaire is made up of four main parts which focuses on the areas of interest of the research.

1. The first part asks about the company's demographics (sector, age, number of employees, capital, number of products, etc.)
2. The second part related to the management practices in the organization and their commitment to the implementation of TQM, customer satisfaction to products offered, and employees' satisfaction through motivation and encouragement to implement TQM.
3. The third part relates to the organization's performance and results; customers, employees, financial and nonfinancial, and social results for the calendar year.
4. The fourth and final part relates to whether the organization is using any quality management systems, and the issues and challenges that faced the organization when implementing quality improvement initiatives.

The questionnaire consists of closed-ended questions. Closed-ended questions are questions to which there is finite set of answers from which the respondent choses, such as multiple-choice questions and questions with two possible answers (usually 'Yes' or 'No') (Kothari, 2004, p.103). The benefit of closed-ended questions is that they are easy to standardize, and data gathered from these questions are easy to analyze in a statistical way. The main concern to these types of questions is that they are difficult to write as the evaluator should design choices to include all the possible answers for the respondent (Oluseun & Oluwatoyin, 2008).

3.9. Population and Sample

Sekaran (2003, p.266) describes sampling as the procedure of choosing an adequate number and the right type of elements for study from a certain population. Population is defined as the whole group of elements that the researcher is interested in studying. On the other hand, an element is a single member of the population (Kumar, 1999). The sample is defined as a subset or portion of the population, the size that is determined by the type and objective of the study, as well as time and financial constraints (Bryman, 2012, p. 426; Kothari, 2004, p.153). Therefore, sampling is the method of drawing the sample and it is a vital part of a research as it allows the researchers to generalize findings, as it is impossible to examine the whole population (Walliman, 2011).

At the beginning of this study, a large sample size was used, which consisted of SMEs in different cities in the West Bank. These cities included Ramallah, Bethlehem, Jericho and Nablus. However, distributing the questionnaire in Ramallah took a lot of time and financial effort. Moreover, SMEs in Ramallah, based on the population taken from the Chamber of Commerce & Industry, included organizations less than 2 employees, which are considered as micro small enterprises. Because of these deficiencies in the sample and data collection strategy, the researcher was unable to get good response rate. Subsequently, the initial project was reviewed. The sampling frame was selected again.

3.9.1. Population and Sample Size

As discussed in the literature, SMEs are considered the backbone of the Palestinian economy as they contribute significantly to the local employment and enhance the national income. The Palestinian Ministry of National Economy (MNE) is responsible for the registration of new companies in Palestine; in addition to controlling the economic sector, in

cooperation with the Federation of Palestinian Chambers of Commerce, Industry & Agriculture (FPCCIA). After contacting FPCCIA, a list of registered companies was provided including Ramallah, Bethlehem, Jericho and Nablus. Data from these lists were added to excel sheet and filtered to include MSMEs in Ramallah only. The result of this list indicated that there are 909 Palestinian MSMEs in Ramallah (excluding Al-Bireh, the villages and camps) registered by the FPCCIA. A random sample was generated from this list based on the random sample (Rand) function in excel. FPCCIA lists contain few details about these registered companies; it only has information related to the address and telephone numbers and emails. These lists have no details about the number of employees or the capital of these companies. Thus, keeping in mind the structured nature of the FPCCIA, the registered companies are considered as the population of this study. All the initial details about the companies were taken from the FPCCIA members lists.

The decision about the selection of appropriate sampling methods and sample size depends on many factors. Neuman (2006) and Bryman (2012) mention that the decision about the selection of a sampling approach is dependent on cost, time and required accuracy. So, the list from FPCCIA is taken as the sampling frame for this study. These SMEs are in all the cities of Palestine in different geographical regions. Sekaran (2003) suggested that under such conditions, when the population of a study is located across a geographical area, then multistage cluster sampling is the best option to get a representative sample, as it is cost effective compared to simple random sampling. Therefore, Cities of the West Bank were divided into clusters that each cluster should be representative of whole population. The clusters could be countries, cities, election districts etc. (Sekaran, 2003, p. 275).

Keeping in mind the explanation of the multistage cluster sampling given, the FPCCIA registered companies were divided into three main clusters. The division was done based on

the main 3 geographical areas in the West Bank (South, middle and North) (PCBS, 2018), where southern part of the West Bank includes Bethlehem and Hebron, Northern part includes Jenin, Tubas, Tulkarm, Nablus and Qalqiliya, and the middle part includes Ramallah and Al Bireh, Salfit and Jericho. Among these geographical areas, Ramallah is considered the economic capital of Palestine. Seventy two percent of the population of the middle part of the West Bank is in Ramallah. Thus, it was decided that all the registered SMEs in Ramallah would be considered as the sample for this study. A total of 909 SMEs is registered by the MNE in Ramallah. Among these registered SMEs, 310 companies were chosen randomly using the random sample function on excel sheets. This sample was chosen based on the table of "Sample Size for a Given Population Size" from Sekaran (2003, p. 294), this table is based on the following formula for a confidence level of 95%:

$$\mu = X \pm K S_{\bar{x}}$$

310 questionnaires were distributed on 310 companies under survey; this seems a reasonable sample size (Sekaran, 2003, p.294). These 310 questionnaires were distributed on SMEs in Ramallah. General Managers or CEO or owner or first line managers of each organization were selected as the respondents for this study to ensure a good knowledge of the firms' TQM implementation and outcomes in relation to their capability.

It is assumed in this research that each respondent has a unique perception about the implementation of TQM, its business results and issues faced by their company during the implementation of quality initiatives.

Among the 310 questionnaire, 208 questionnaires were completed and returned from 310 companies. Thus, the response rate was 67.1%. 16 questionnaires were excluded from the final analyses as a major part of the data was missing from these questionnaires. A total of

192 questionnaires were received and filled properly. The analysis of the data was conducted in November 2018.

3.10. Data Analysis

After collecting the raw data, the responses were coded and entered in SPSS for the data analysis. Methods of data analysis included: Descriptive statistics (means and frequencies), T-test of hypothesis for the Mean differences, compare Means (One-Way ANOVA), Correlation analysis and Regression analysis. The hypotheses were examined at significance level of 0.05, P-value ≤ 0.05.

The first question of the research is about the extent of TQM implementation in SMEs in Palestine. Two different indicators were used to investigate the extent of TQM implementation in the Palestinian SMEs.

The first indicator was the extent of the EEM criteria (Enablers and Results) implementation and the second was the implementation of different formal quality management systems and frameworks like ISO9001, the EEM, Six Sigma and MBNQA.

Information about the two indicators was taken from the respondents. Questions relevant to these two indicators were asked in Sections II, III and IV of the questionnaire. Simple descriptive statistics and charts were used to determine the extent of EEM criteria. Bar charts were used to highlight the implementation of different quality management systems.

The second research question is about the investigation of the impact of TQM implementation through EEM (Enablers; leadership, people, strategy, partnership and resources and processes and products) on the performance (Business Results) of SMEs in Palestine. The five TQM practices are considered to be the independent variable, whereas the

performance is regarded as the dependent variable. The overall business results construct is developed from the individual constructs of the organizational performance mentioned in the EEM results criteria.

Information about all the independent and dependent variables is taken from Section II and section III of the questionnaire. Multiple regressions are used to investigate the impact of the independent variables on the dependent variable (Neuman, 2006, p.370). Multiple regressions is used rather than simple regressions because the outcome of the study is predicted from several predictor variables. Thus, to determine the impact of TQM implementation, through EEM enablers, on EEM results, multiple regression analysis will be used.

3.11. Pilot Study

The Pilot test helps the researchers in checking the data collection methods and reveals the mistakes or miscomprehension of the questionnaire. The sample examined in the pilot study must be part of the sample used for the conduction of the research; thus, the researcher may reveal unexpected findings, based on which any necessary adjustment is made (Kothari, 2004). A pilot study was conducted before the administration of the questionnaire in order to spot prospective problems that may ascend because of difficulty in the interpretation of questions by respondents. According to Walliman (2011), respondents in a pilot study could range between 5 and 100. A group of 15 experts consisting of TQM practitioners, academics and SMEs managers from Palestine were selected. After obtaining their feedback on the original questionnaire, a final questionnaire was prepared. This time more managers from SMEs sector were added to the group. The final questionnaire was sent to 10 SMEs in Palestine. Again, all the respondents were requested to comment on the construction, wording and level of English, any technical terms used and the length of the questionnaire.

Chapter 4: Data Analysis and Findings

4.1. Introduction

This chapter contains a statistical and graphical analysis of the data mined from the questionnaires using the SPSS software. The findings are presented according to the research objectives and questions.

4.2. Analysis of Research Population

Questionnaires were mainly distributed on owners, directors, general managers of SMEs that have the knowledge needed about the company in general, its suppliers, products, operations, employees and customers. It took the researcher 3 months in the distribution and collection of the questionnaire. As mentioned in the previous section, 310 questionnaires were distributed among 310 SMEs, of this 208 were returned but 16 of them were rejected due to so many omissions in filling and 102 were not collected due to continuous delay in filling and return.

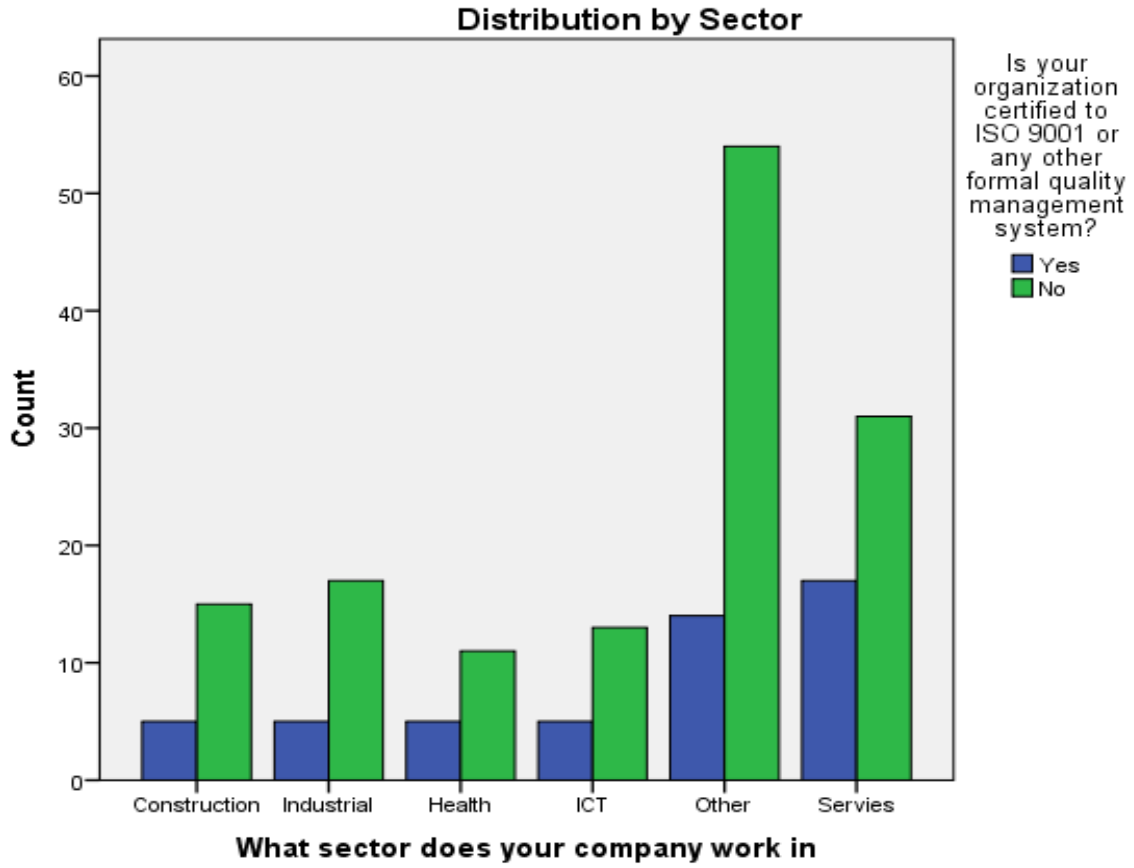
Out of the 192 respondents, 51 companies were certified to ISO 9001 or any other formal quality management system, while the remaining 141 companies are not certified to any formal quality management system. Below is the descriptive statistics of the research population.

4.2.1. Distribution of Respondents by Sector

Questionnaires were distributed to SMEs in different sectors, namely services, ICTs, health, construction, industrial and others. Figure 4.1 illustrates the representation of each sector for these SMEs. Starting with the services sector which represents 25% of the total population, which is the highest percentage amongst sectors. This sector had 17 certified for

formal quality management system companies and 31 uncertified companies. Moving to the industrial sector which had 5 respondents drawn from certified companies and 17 respondents uncertified, representing 11.5% of the total population. The construction sector had 5 certified companies and 15 uncertified companies, representing 10.4% of total population. Moreover, the ICT sector represents 9.4% of the total population, 5 are drawn from certified companies and 13 are uncertified. Health sector had 5 certified companies and 11 uncertified companies, representing 8.3% of the total population. Finally, 35% of the total population referred to other sectors especially commercial. Other sectors[3] had 14 certified companies and 54 uncertified companies. This is represented in table 4.1 and figure 4.1 below:

Figure 4.1 Distribution of Respondents by Sector



[3] Other sectors include: Tourism, entertainment, consumer goods, food and beverages, fitness.

Table 4.1 Distribution of Respondents by Sector

			Is your organization certified to ISO 9001 or any other formal quality management system?		
			Yes	No	Total
What sector does your company work in	Construction	Count	5	15	20
		%	9.8%	10.6%	10.4%
	Industrial	Count	5	17	22
		%	9.8%	12.1%	11.5%
	Health	Count	5	11	16
		%	9.8%	7.8%	8.3%
	ICT	Count	5	13	18
		%	9.8%	9.2%	9.4%
	Other	Count	14	54	68
		%	27.5%	38.3%	35.4%
	Services	Count	17	31	48
		%	33.3%	22.0%	25.0%
Total		Count	51	141	192
		%	100.0%	100.0%	100.0%

4.2.2. Distribution of Companies by Age

The graph in figure 4.2 and table 4.2 show that the maximum responses were collected from companies that is one to three years old (21.4%), followed by companies with age between four to seven years old (20.8%), above fifteen years (20.3%), from twelve to fifteen (14.1%), less than one year (12.5%) and from eight to eleven years (10.9%).

Figure 4.2 Age of Responding Companies

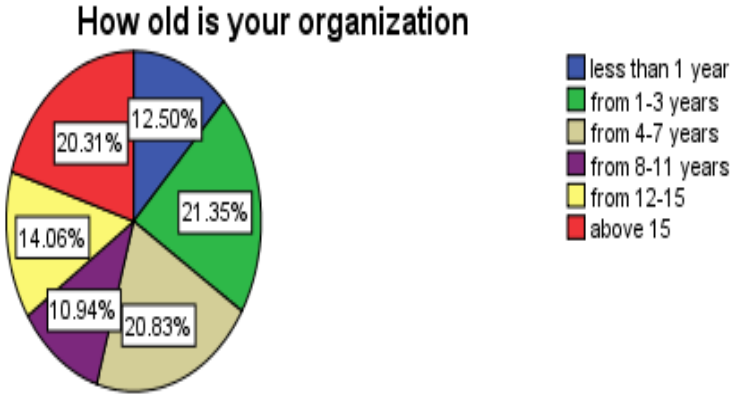


Table 4.2 Distribution of Respondents by Company's Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 1 year	24	12.5	12.5	12.5
	from 1-3 years	41	21.4	21.4	33.9
	from 4-7 years	40	20.8	20.8	54.7
	from 8-11 years	21	10.9	10.9	65.6
	from 12-15	27	14.1	14.1	79.7
	above 15	39	20.3	20.3	100.0
	Total	192	100.0	100.0	

4.2.3. Distribution of Companies by Number of Employees

Table 4.3 and figure 4.3 show the percentage of the companies with respect to their size from where the questionnaires were received. From figure 4.3, 37% of response came from companies who have less than five employees, 33.9% of responses came from companies who had employees between five and fifteen, 15.1% of responses came from companies that have employees between sixteen and fifty, and only 14.1% questionnaires were received from companies who had employees between fifty and a hundred. This means that 70.8% of our sample companies have less than 15employees which indicates that our sample more likely to be small enterprises rather than medium.

Figure 4.3 the Size of Companies from where the Responses were Received

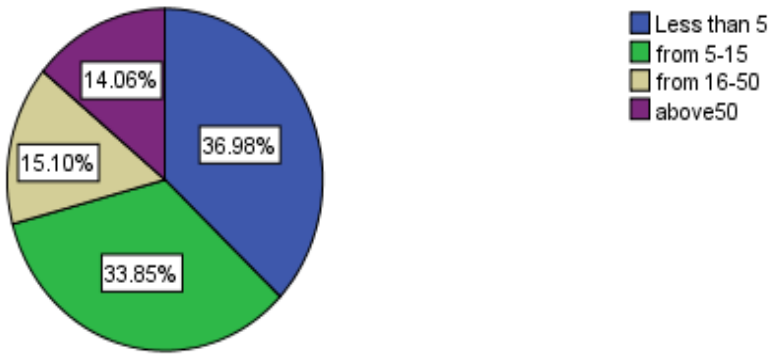


Table 4.3 Distribution of Respondents by Company's Number of Employees

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 5	71	37.0	37.0	37.0
	from 5-15	65	33.9	33.9	70.8
	from 16-50	29	15.1	15.1	85.9
	Above 50 less than 100	27	14.1	14.1	100.0
	Total	192	100.0	100.0	

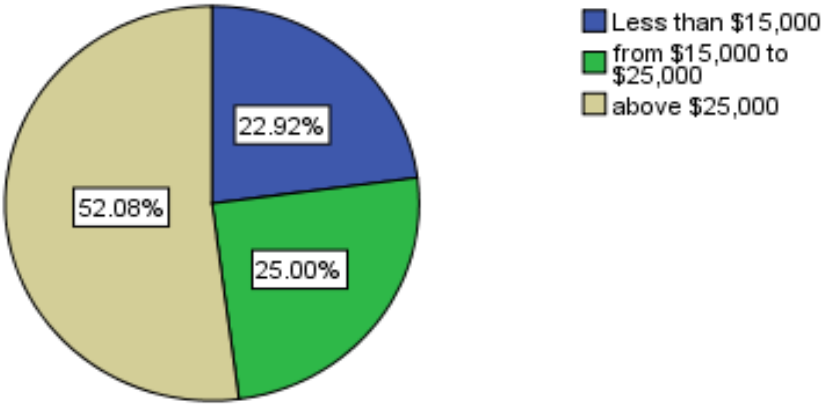
4.2.4. Distribution of Companies by Capital Invested

Table 4.4 shows that 52.1% of the companies invested above $25,000 and less than $50,000 in capital, 25.0% from $15,000 to $25,000, and 22.9% less than $15,000. This means that the majority of SME's invest more than $15,000 in capital, which in turn goes with the definition of SMEs in Palestine.

Table 4.4 Distribution of respondents by Capital invested

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than $15,000	44	22.9	22.9	22.9
	from $15,000 to $25,000	48	25.0	25.0	47.9
	above $25,000 less than $50,000	100	52.1	52.1	100.0
	Total	192	100.0	100.0	

Figure 4.4 Respondent Companies Invested Capital



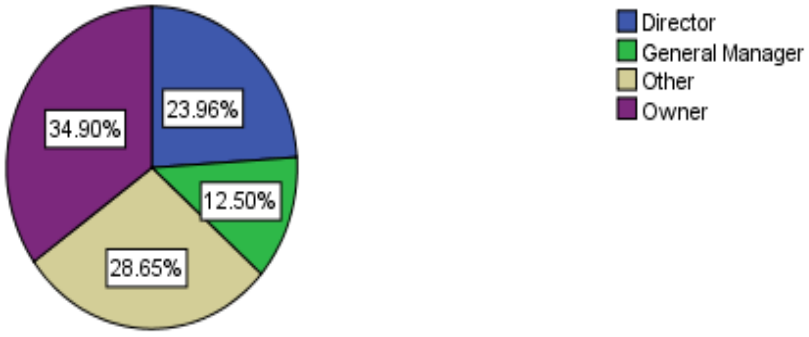
4.2.5. Distribution of Companies by Job Position

Table 4.5 and figure 4.5 indicate that the majority of respondents were owners (35%) followed by directors (CEO) (24%), general manager (13%) and others (First Line Managers) (29%). The mixed responses from different positions show that the data will not be biased because of only having responses from one position, such as owners, directors or general managers.

Table 4.5 Distribution of respondents by job position

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	CEO (Directors)	46	24.0	24.0	24.0
	General Manager	24	12.5	12.5	36.5
	First Line Managers (Others)	55	28.6	28.6	65.1
	Owner	67	34.9	34.9	100.0
	Total	192	100.0	100.0	

Figure 4.5 Job Positions of Respondents



The above discussion indicated that the profile of the sample of the current study is much different in comparison to the existing studies; therefore, the results of current study might not be compared with the findings of existing studies. Therefore, in later chapters, all the findings of this study are discussed in the light of the findings of existing studies around the

world but not in Palestine, as this study is considered the first of its kind in Palestine to study TQM implementation in SMEs in Palestine.

4.3. Descriptive Analysis of Variables and T-test of Hypothesis

This section of the analysis deals with the descriptive analysis of different variable and test of hypothesis. Descriptive analysis used for the hypothesis is assessed followed by the test of hypothesis.

4.3.1. The Extent of TQM Implementation in Palestinian SMEs

As discussed in previous sections, two different indicators were used in order to investigate the extent of TQM implementation in SMEs in Palestine. Firstly, the implementation of different quality management systems and frameworks was investigated. Secondly, the extent of implementation of EEM criteria (enablers and results) was determined. The next section shows the analysis of the data for each indicator.

4.3.2. The Extent of Implementation of Certified Formal Quality Management Systems

As mentioned previously, investigation of the implementation of different quality management systems is the first indicator used to identify the extent of TQM implementation in the sampled SMEs. Respondents were asked whether their organization is certified to ISO 9001 or any other formal quality management system.

Figure 4.6 Graphical Representation of Whether Companies are Certified to Formal Quality Management System or not

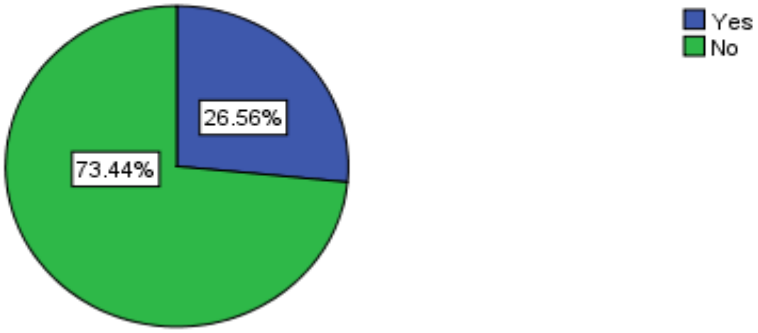
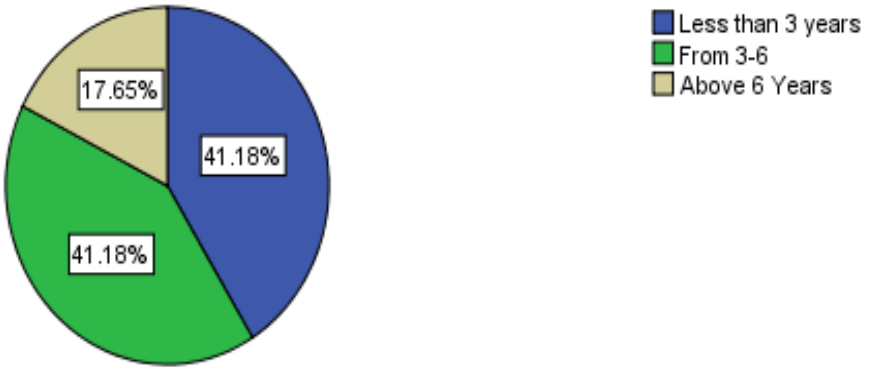


Figure 4.6 indicates the percentage of companies certified to ISO 9001 or any other formal quality management systems. The graph shows that 73.44% of the sample companies are not certified to any formal quality management systems, while only 26.56% are certified.

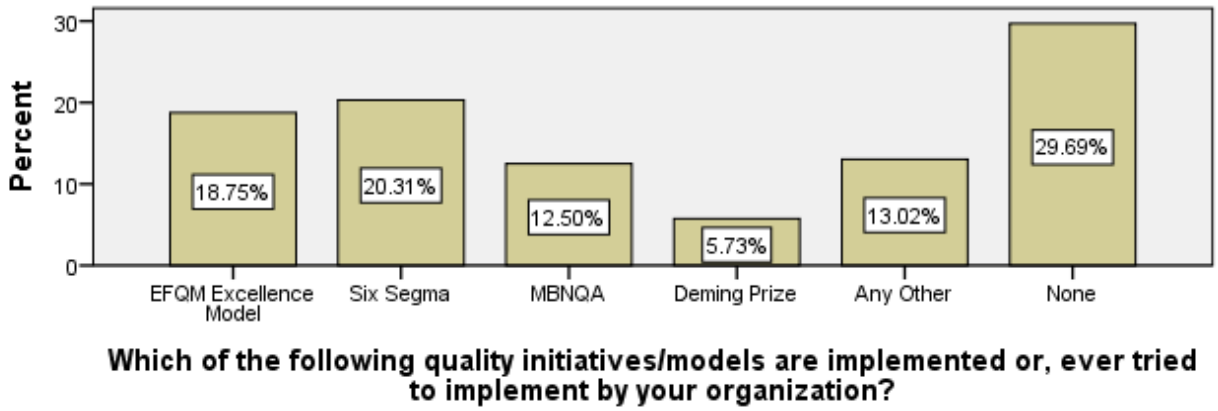
In the same question, respondents were asked to mention the duration of the ISO 9001 certification or other formal quality management systems, if their company was certified to any of the systems. Figure 4.7 indicates the different durations of certified systems. The majority of respondents (82.4%) indicated that their companies had held the certification for six years and less; this percentage is dividend on two, 41.2% less than 3 years and 41.2% from 3-6 years, but only 17.6% replied that their companies had held the certification for more than six years.

Figure 4.7 the Use Duration of Certified Systems



Moreover, figure 4.8 indicates the extent of the implementation of different management systems in Palestinian SMEs. This figure shows that 20.3% of the respondents have replied that their companies have implemented or tried to implement quality systems, 20.3% Six Sigma, 18.8% EEM, 12.5% MBNQA, 5.7% Deming Prize, 13.0% other quality systems and 29.7% of the respondents haven't implemented or tried to implement any quality systems.

Figure 4.8 the Extent of Implementation of Different Quality Systems



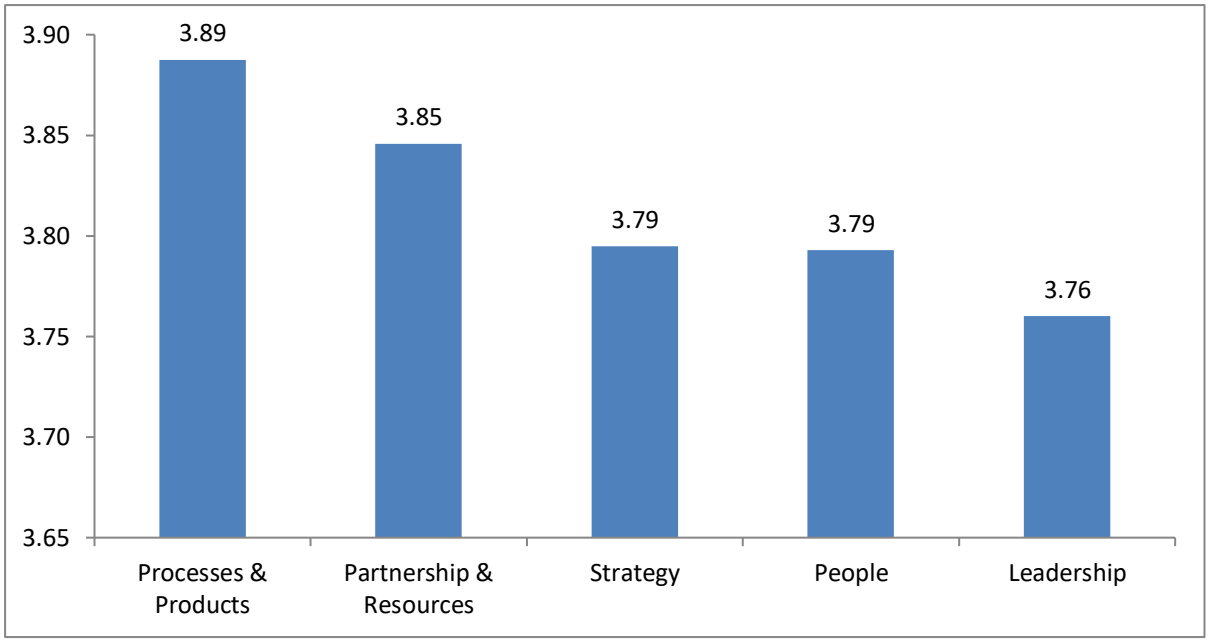
These results show that only 26.56% of the respondents indicated that their companies are certified to formal quality management systems for less than six years. However, much higher percentage of respondents mentioned that their companies were interest in the implementation of quality systems. After Six Sigma, the respondent companies seem

interested in the implementation of EEM. According to the perception of respondents, other models and frameworks such as MBNQA, Deming Prize and other systems were given the least importance by the sampled SMEs. The high interest in implementing quality systems indicates that companies are more aware of the importance of quality.

4.3.3. The Implementation of EEM's Enablers and Results Criteria

Based on the criteria of the EEM, different items were developed in the questionnaire. The nine criteria were measured in the questionnaire. Figure 4.9 and table 4.6 describe the extent of TQM implementation based on the mean values of these items.

Figure 4.9 The Level of the Implementation of EEM Criteria- Enablers (Mean Score)



The Likert scale from 1 to 5 was used to measure the perception of managers and owners on the implementation of specific practices within their companies. In this scale '5' was referred to strongly agree and '1' to strongly disagree.

Table 4.6 The level of Implementation of EEM Criteria- Enablers

	Mean	Std. Deviation	% Degree of Implementation
Processes & Products	3.89	0.617	77.80
Partnership & Resources	3.85	0.640	77.00
Strategy	3.79	0.620	75.80
People	3.79	0.651	75.80
Leadership	3.76	0.613	75.20

Table 4.6 and figure 4.9 highlight that processes and products is the best managed factor with a mean score of 3.89 and a percentage of implementation of 77.80%, followed by partnership and resources with a mean score of 3.85. Strategy and people with a mean of 3.79 and leadership with a mean of 3.76, having a lower score. The level of implementation for all of them is higher than 75%.

Figure 4.10 The Level of the Implementation of EEM Criteria- Results (Mean Score)

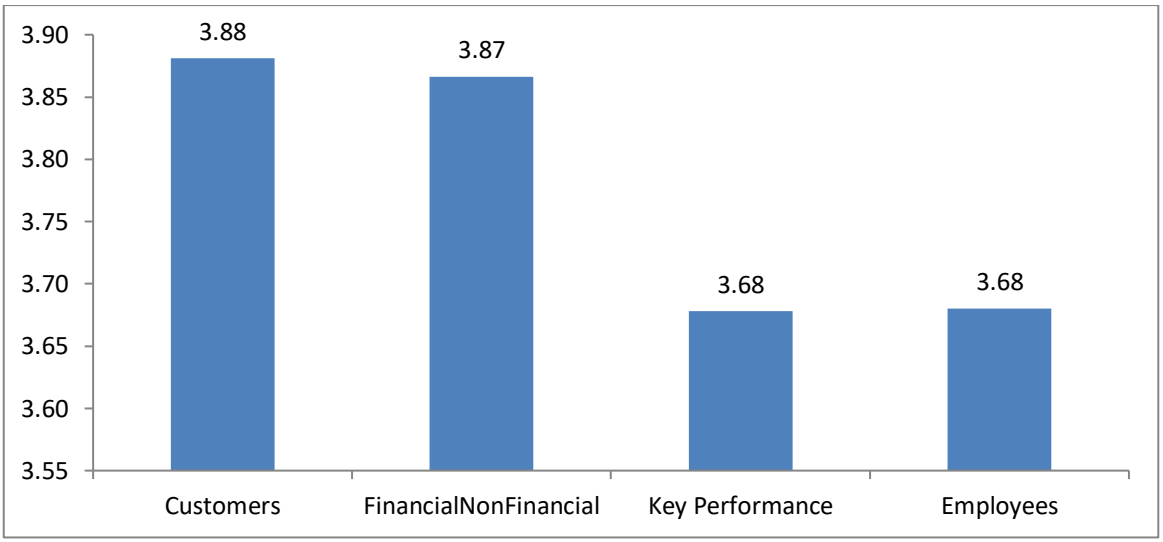


Table 4.7 The level of Implementation of EEM Criteria- Results

	Mean	Std. Deviation	% Degree of Implementation
Customers	3.88	0.633	77.60
Financial/Non-Financial	3.78	0.680	75.60
Society	3.68	0.740	73.60
Employee	3.68	0.661	73.60

Table 4.7 and figure 4.10 highlight that the customer results show a higher average score with 3.88, followed by financial and non-financial results (3.78). The worst scores are society impact and employee results with an average of 3.68.

In order to get further details about EEM implementation constructs, enablers and results have been transformed into the categories of 'Disagree and Strongly Disagree', 'Neutral' and 'Agree and Strongly Agree'.

According to these results, all constructs are thought to be well implemented by the sample, as most of the respondents perceive the implementation of all constructs. The level of leadership implementation has the highest disagree and strongly disagree compared to other constructs, while processes and products has the highest agree and strongly agree.

Both Enabler criteria and Results criteria are well implemented. Same as processes and products, customers have the lowest disagree and strongly disagree; while both employees and society has the lowest agree and strongly agree.

In summary, the EEM constructs are thought to be implemented systematically in the sample of SMEs. Most respondents perceive that the implementation of constructs of both Enabler criteria and Result criteria are at the level of 'agree and strongly agree' and 'Neutral'.

4.3.4. The Impact of TQM Implementation on SMEs Performance

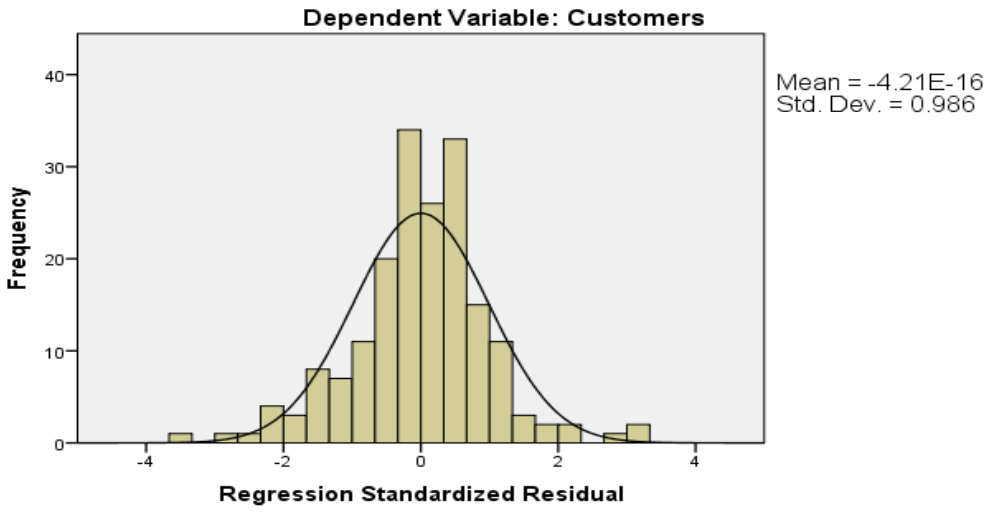
The second research question was developed to study the impact of TQM implementation on SMEs performance. SMEs performance is measured through four main dependent variables (customers' results, Employees' results, financial and Non-financial results, and society results). The details of the analysis techniques and constructs development are given the data analysis section. Multiple regression analysis is used to

analyze the data based on that discussion (Pallant, 2012, p. 146). The analysis below includes the assumptions checking the multicollinearity and normality of the data.

Starting with the impact of TQM implementation on customers' results, results show the Normal P-P Plot which indicates that the points lie in a reasonably straight diagonal line from bottom left to right; this indicated that there is no major deviation from the norm. Moreover, in the scatter plot of the standardized residuals, the residuals are in a roughly rectangular distribution; with most of the scores concentrated in the center; this indicates that there is linearity in the data. The scatter plot shows that there are no noticeable outliers.

To check the multicollinearity, Table 4.8 depicts the correlations between the variables in the model. Multiple regression doesn't go in line with multicollinearity or singularity, as multicollinearity exists when the independent variables are highly correlated (r=0.9 and above) (Pallant, 2012, p. 149). All the independent variables have a positive relationship with the dependent variable and this relationship is less than 0.9 thus all the independent variables are retained.

Figure 4.11 the Histogram for the Regression Standardized Residual



In Table 4.8 the ‘collinearity statistics’ column indicates that multiple correlations with other variables are low (the values for ‘tolerance’ are more than 0.1). Collinearity diagnostics on variables are part of the multiple regression procedure, as it has two values: Tolerance; is an indicator of how much of the variability of the specified independent is not explained by the other independent variables in the model and is calculated using the formula 1-R squared for each variable (should be more than 0.1). While the other value given is the VIF ‘variance inflation factor’; which is just the inverse of the Tolerance value (1 divided by Tolerance) and it should be less than 10 (Pallant, 2012, p.156). Moreover, the values of the VIF are less than 10; this means that there is no multicollinearity.

Table 4.8 The results of Multiple Regression Analysis on the Impact of TQM Practices on Customers' Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.746	.557	.544	.428

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.208	5	8.242	44.975	.000
	Residual	32.801	179	.183		
	Total	74.009	184			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	.545	.229		2.375	.019	.092	.997		
	Leadership	.123	.078	.118	1.568	.119	-.032	.277	.434	2.306
	People	.039	.083	.040	.469	.640	-.126	.204	.334	2.990
	Strategy	.191	.086	.187	2.218	.028	.021	.361	.347	2.884
	Partnership/ Resources	.214	.087	.216	2.469	.014	.043	.386	.323	3.093
	Processes/ Products	.303	.079	.296	3.819	.000	.146	.459	.413	2.424

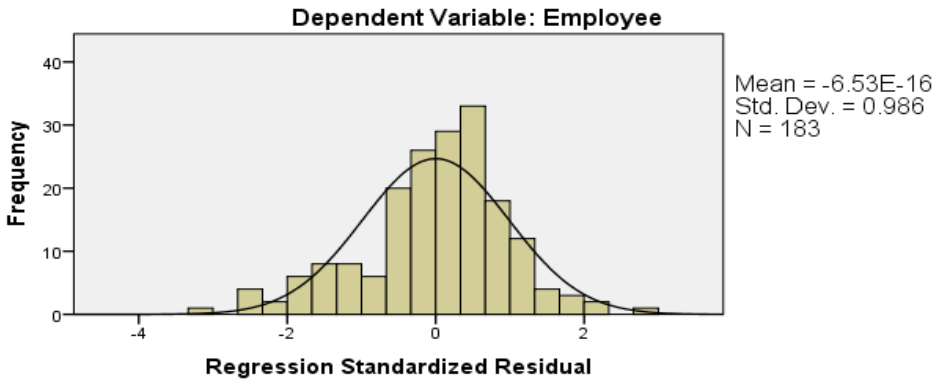
The value of R-square in the above table highlights that the variance is explained by the model (leadership, people, strategy, partnership and resources, and processes and products) in the dependent variable customers' results, this value equals 0.557 which means that 55.7% of the variance in customers' results is explained by these five independent variables. This is a respectable result (Pallant, 2012, p.158). In addition to the R-square results, the value of 'Sig' in the ANOVA table equals 0.000, which indicates that this model is statistically significant at p=0.000.

Finally, the table above indicates that the value of standardized coefficient ‘Beta’ for processes and products is 0.296 (29.6%). This value is statistically significant at p=0.000. Followed by partnership and resources 0.216 (21.6%) and strategy 0.187 (18.7%). These values are significant at p less than 0.05. These results indicate that according to the perception of managers, the construct of processes and products has the maximum ability to explain the customers’ results. On the other hand, the construct of leadership has low contribution to the customers’ results 0.118 (11.8%) and people have no significant contribution to the prediction of customers’ results. This might be due to owners delegating less power, authority and responsibility to managers and employees in general.

Moving to the impact of TQM implementation on employee’s results, outcomes indicate that there is no major deviation from the norm. Moreover, the scatter plot of the standardized residuals indicates that there is linearity in the data. The scatter plot shows that there are no noticeable outliers.

Table 4.9 depicts the correlations between the variables in the model. All the independent variables have a positive relationship with the dependent variable (employees’ results) and this relationship is greater than 0.3 and less than 0.9 thus all the independent variables are retained.

Figure 4.12 the Histogram for the Regression Standardized Residual



In Table 4.9 the 'collinearity statistics' column indicates that multiple correlations with other variables are low (the values for 'tolerance' are more than 0.1). Moreover, the values of the 'variance inflation factor' (VIF) are less than 10, this means that there is no multicollinearity. The assumption of multicollinearity is not violated.

Table 4.9 The results of Multiple Regression Analysis on the Impact of TQM Practices on Employees' Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.672	.452	.437	.48539

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.410	5	6.882	29.210	.000
	Residual	41.702	177	.236		
	Total	76.112	182			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	.720	.262		2.742	.007	.202	1.238		
	Leadership	.021	.089	.020	.237	.813	-.154	.196	.440	2.274
	People	.146	.095	.146	1.534	.127	-.042	.333	.339	2.946
	Strategy	.201	.099	.194	2.034	.043	.006	.397	.339	2.952
	Partnership / Resources	.311	.099	.305	3.138	.002	.115	.506	.327	3.058
	Processes/ Products	.095	.090	.090	1.052	.294	-.083	.272	.419	2.389

The value of R-square equals 0.672 which means that 67.2% of the variance in employees' results is explained by the five independent variables. This is a respectable result

(Pallant, 2012, p.158). In addition to the R-square results, the value of 'Sig' in the ANOVA table equals 0.000, which indicates that this model is statistically significant at p=0.000.

Finally, the table above indicates that the value of standardized coefficient 'Beta' for partnership and resources is 0.305 (30.5%). This value is statistically significant at p=0.002. Followed by strategy 0.194 (19.4%). This value is significant at p less than 0.05. These results indicate that according to the perception of managers, the construct of partnership and resources has the maximum ability to explain the employees' results. On the other hand, the construct of leadership has the lowest contribution to the employees' results 0.020 (2.00%) and has no significant contribution to the prediction of employees' results in addition to people and processes and products.

As highlighted above, SMEs often have flatter organizational structure and a shorter decision-making process, enabling fast information flow and improved communication.

Moving to the impact of TQM implementation on both financial and non-financial results' and society's results, outcomes indicate that there is no major deviation from the norm in both results. Moreover, the scatter plot of the standardized residuals indicates that there is linearity in the data. The scatter plot shows that there are no noticeable outliers.

Table 4.9 depicts the correlations between the variables in the model. All the independent variables have a positive relationship with the dependent variable and this relationship is greater than 0.3 and less than 0.9 thus all the independent variable is retained.

Figure 4.13 the Histogram for the Regression Standardized Residual

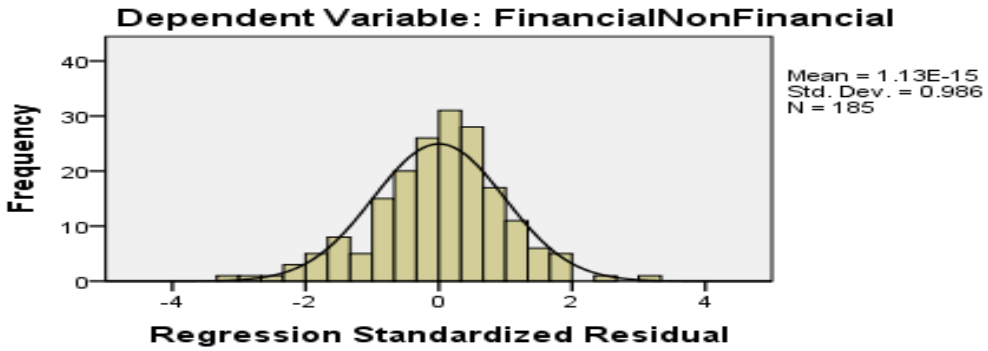
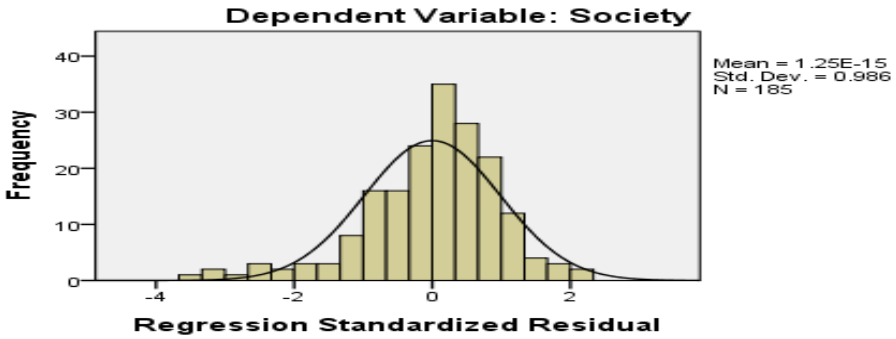


Figure 4.14 the Histogram for the Regression Standardized Residual



In Table 4.10 and Table 4.11, the 'collinearity statistics' columns indicate that multiple correlations with other variables are low (the values for 'tolerance' are more than 0.1). Moreover, the values of the 'variance inflation factor' (VIF) are less than 10, this means that there is no multicollinearity. The assumption of multicollinearity is not violated.

Table 4.10 The results of Multiple Regression Analysis on the Impact of TQM Practices on Financial and Non-Financial Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.752	.565	.553	.451

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.280	5	9.456	46.459	.000
	Residual	36.433	179	.204		
	Total	83.712	184			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	.373	.242		1.544	.124	-.104	.850		
	Leadership	.021	.082	.019	.253	.801	-.142	.183	.434	2.306
	People	.165	.088	.160	1.878	.062	-.008	.339	.334	2.990
	Strategy	.165	.091	.152	1.820	.070	-.014	.345	.347	2.884
	Partnership/ Resources	.297	.091	.281	3.245	.001	.116	.477	.323	3.093
	Processes/ Products	.261	.084	.240	3.124	.002	.096	.426	.413	2.424

Table 4.11 The results of Multiple Regression Analysis on the Impact of TQM Practices on Society Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.538	.289	.269	.633

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.144	5	5.829	14.553	.000
	Residual	71.692	179	.401		
	Total	100.837	184			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	1.031	.339		3.040	.003	.362	1.700		
	Leadership	-.037	.116	-.030	-.317	.751	-.265	.191	.434	2.306
	People	.241	.123	.213	1.954	.052	-.002	.484	.334	2.990
	Strategy	.096	.127	.080	.750	.454	-.156	.347	.347	2.884
	Partnership/ Resources	.267	.128	.231	2.081	.039	.014	.520	.323	3.093
	Processes/ Products	.126	.117	.106	1.077	.283	-.105	.357	.413	2.424

The value of R-square for financial and non-financial results equals 0.565 which means that 56.5% of the variance in financial and non-financial results is explained by the five independent variables. This is a respectable result (Pallant, 2012, p.158). On the other hand, the value of R-square for society results equals 0.289 which means that only 28.9% of the variance in society results is explained by the five variables, and r=0.538, this also indicates a strong positive relationship. This is also a respectable result (Pallant, 2012, p.132). The value

of ‘Sig’ in the ANOVA table for both financial and non-financial results and society results equal to 0.000, which indicates that this model is statistically significant at p=0.000.

Moreover, table 4.11 above indicates that the value of standardized coefficient ‘Beta’ for partnership and resources is 0.281 (28.1%). This value is statistically significant at p=0.001. Followed by processes and products 0.24 (24.0%) with a p-value of 0.002. These results indicate that according to the perception of managers, the construct of partnership and resources has the maximum ability to explain the financial and non-financial results. Conversely, the construct of leadership, people and strategy have no significant contribution to the prediction of financial and non-financial results.

Finally, table 4.12 indicated that the value of Beta for partnership and resources is 0.231 (23.1%). This value is statistically significant at p=0.039. This result indicates that the construct partnership and resources has the maximum ability to explain the society results. However, leadership, people, strategy and processes and products have no significant contribution to the prediction of society results.

Therefore, the above results indicate that processes and products, partnership and resources, and strategy have significant contribution to the prediction of customers’ results. Moreover, partnership and resources, and strategy only have significant contribution to the prediction of employees’ results. Furthermore, partnership and resources, and processes and products have significant contribution to the prediction of financial and non-financial results. Finally, only partnership and resources has significant contribution to the prediction of society results.

Although the review of the literature revealed mixed results, however, the findings of the current study indicate that according to the perception of respondents, almost all TQM

practices are positively and significantly associated with the business results. However, not all the practices are good predictors of business results.

Many previous studies support the findings of this study (Bou-Llusar et al., 2009; Shafiq, 2011; Ahmad et al., 2017; Shafiq et al., 2017; Sila & Ebrahimpour, 2005; Androwis et al., 2018; Saleh et al., 2018).

The current study supports the findings of Bou-Llusar et al. (2009) and Shafiq (2011) that the overall construct of TQM has a significant positive association with the business results. Bou-Llusar et al. (2009) conducted their study in the context of both manufacturing and service organization of Spain, using a different statistical analysis for the data compared to the current study. Moreover, Shafiq (2011) reached the same results using the same statistical analysis but for textile companies in Pakistan. However, both studies used the same EEM as TQM framework to investigate the relationship between TQM and business results.

Moreover, Androwis et al. (2018) research confirms that TQM practices positively and significantly affect the organization performance. The results generated from the research provide empirical support that the implementation of TQM in manufacturing organizations contribute to the performance and survival of such organizations.

Furthermore, Shafiq et al. (2017) and Ahmad et al. (2017) findings also support this study as it concluded that TQM has a strong positive causal effect on organizational performance, especially on both financial and non-financial results by implementing the TQM philosophy. Thus, Shafiq et al. (2017) study was conducted in textile industry in Pakistan using hard and soft TQM elements where they indicate that soft TQM elements (leadership and people) can affect performance indirectly through hard TQM elements (process management), this indirect effect was not investigated in this study. Moreover, the

finding of the current study that processes and products management has positive effect on business results supports similar finding of Sila and Ebrahimpour (2005).

On the contrary, the result of some work (Macinati, 2008, Su et al. 2008) is different from the results obtained here. For example, Macinati (2008) highlights that there is lack of significance in the relationship between financial performance and quality management implementation. A close look at both studies indicates that Macinati (2008) conducted his study in the health care providers of Italy which have an entirely different context in comparison with the sample in the current study. Health care providers could be categorized as the service sector, which provide services to the local community, whereas the SMEs in Palestine have entirely different processes. Thus, there is no comparison between the samples of these two studies.

Moreover, Saleh et al. (2018) study reveals that there is no inevitable guarantee that if organizations implement TQM their business future will be hopeful, but the research proofs that organizations can gain many benefits from TQM. The results also revealed that continuous improvement plays a major role in gaining the desired operational performance, however, process management and quality tools and techniques are inferior, yet, not significant.

This study also supports the findings of Su et al. (2008), as they indicate no direct effect of leadership and people construct on business results, but other results are contrary. For example, the business performance construct in Su et al. (2008) is derived from just three items. These items are sales, market share and market share increase. Whereas the construct of business results in the current study is derived from comprehensive measures like customer, people, society and key-performance results. All these constructs were derived from the Result criteria of the EFQM excellence model. Similarly, items they have included

in the construct of quality performance, this research includes in the key-performance construct. Furthermore, Su et al. (2008) conducted their study in China and did not include the SMEs in their sample, whereas the current study only includes SMEs from Palestine in its sample.

4.3.5. Issues or Barriers faced by companies in the Implementation of quality improvement initiatives

Based on the last research question, the researcher wants to inspect the major challenges facing TQM implementation in Palestinian SMEs. Ten barriers were identified and included in the questionnaire for those companies that have tried to implement or implemented quality improvement initiatives, including TQM. Managers and owners were asked to assess the perceived level of difficulty of each issue that their company faced during the implementation of any formal quality systems. The respondents had to use a fixed scale. ‘1’ for not an issue, ‘2’ for a minor issue, ‘3’ for a major issue, ‘4’ for most serious issue. Simple frequency tables and charts were used to analyze the data.

Table 4.12 The Level of Obstacles faced by Palestinian SMEs while Implementing Quality Improvement Initiatives

	was not an issue	was a minor issue	was a major issue	was the most serious issue
Lack of top management commitment	14%	23%	42%	21%
		86%		
Lack of resources	7%	32%	40%	21%
		93%		
Organization's culture does not support quality improvement initiatives	13%	30%	41%	17%
		87%		
Managers don't have adequate knowledge of TQM implementation	5%	26%	42%	27%
		95%		
Broad quality objective without measurable targets	4%	30%	45%	21%
		96%		
Quality initiatives are not consistent with the strategic initiative being persuaded by the organization	10%	26%	40%	24%
		90%		
Perception of the leadership that implementation of quality initiatives is a money wasting activity	9%	28%	36%	27%
		91%		
Organization pursuit multiple quality initiatives thus lack of clarity of program goals	17%	33%	24%	26%
		83%		
Lack of communication with employees	10%	33%	39%	18%
		90%		
Organizational structure didn't allow in developing quality culture (like frankness, openness)	14%	29%	38%	19%
		86%		

Table 4.12 indicated the level of obstacles faced by Palestinian SMEs while implementing or trying to implement any form of formal quality system. Managers and owners have different perceptions about the strength of these obstacles. Most respondents, who categorized these factors as an issue, considered them to be major, mainly broad quality objectives (45%), lack of top management commitment (42%) and TQM Knowledge (42%). There was very low percentage of respondents who perceived these issues as not issues.

The above results indicate that there are a large percentage of respondents who perceive that there are many obstacles facing SMEs during the implementation of quality systems. The most significant of these are the broad quality objectives and lack of TQM knowledge between owners and managers.

4.4. Interpretation of Results

The results of this study show that the TQM implementation through using the EEM had a statistically significant impact on SMEs performance. Although the findings of this study indicate that the respondents consider that their companies do not give equal importance to all the constructs of EEM criteria. According to the respondents, their companies seem more interested in processes and products, partnership and resources, and strategy. The analysis above indicated that the analyzed TQM practices significantly affect the organizational performance in SME in Palestine. Therefore, the hypothesis *H1* is supported.

Chapter 5: Conclusions and Recommendations

5.1. Introduction

This chapter summarizes the findings of the study and gives recommendations for future research; in addition, it discusses the limitation of the research. This chapter starts by giving an insight on the findings of the research where the extent of TQM implementation in SMEs in Palestine, impact of TQM implementation on organizational performance and challenges facing TQM implementation are discussed.

5.2. Discussion of Findings

The main arguments of this study were to investigate the extent of TQM implementation in SMEs, and the impact of implementing TQM on SMEs performance especially due to the benefits of this implementation on customers, financial and non-financial results, employees and society, and investigate the major challenges that face SMEs while implementing or trying to implement any formal quality system. The researcher based her argument on the EEM which deals with nine criteria of Enablers and Results, which shows the main benefits from implementing TQM. The major findings of this study are summarized with reference to each research question in the following sections.

The findings of this research indicate that according to the perception of the respondents, TQM philosophy and other formal quality management systems are not adequately and holistically implemented in companies, in Ramallah. Moreover, the majority of SMEs who are implementing formal quality management systems had held the certification for six years or less. Furthermore, Six Sigma and EEM are the most popular among formal quality systems that SMEs in Palestine implemented or tried to implement, while MBNQA and Deming Prize are the least popular. This means that SMEs in Palestine

need to take quality issues rather seriously as it is a major determinant of better performance, especially that the results of this research indicate a clear impact of TQM implementation on SMEs performance.

Furthermore, this study indicates that the sample SMEs have given almost equal importance to the elements of TQM, although customer results were given more importance compared to society and employees. This finding suggests that the sample companies should work more on developing better relationship with employees, provide them with more benefits, information and authority, and to develop better ways to achieve society related results.

The literature review concluded inconsistent findings on the impact of TQM implementation on organizational performance. However, this study supported a positive impact of TQM implementation (leadership, people, strategy, partnership and resources, and processes and products) on SMEs performance. These results are consistent with the findings of many other studies like Shafiq et al. (2017), Ahmad et al. (2017), Alamri et al. (2014), Pipan et al. (2012), Shafiq (2011), Bou-Llusar et al. (2009), Oluwatoyin & Oluseun (2008), Santos-Vijande & Alvarez-Gonzalez (2007) and Demirbag et al. (2006).

The findings of this study indicate that much of the variance in business results could be explained based on TQM practices (shafiq, 2011). Similarly, the findings of Shafiq et al. (2017), Alamri et al. (2014), Pipan et al. (2012), Oluwatoyin & Oluseun (2008) and Santos-Vijande & Alvarez-Gonzalez (2007) are also in accordance with the results of this study. Ahmad et al. (2017) and Demirbag (2006) findings support the results that organizational performance of SMEs might be improved by TQM implementation.

Many studies argue that TQM principles are universally applicable, and companies located anywhere in the world can improve their performance, however, Sila and Ebrahimpour (2005) question the universal applicability of TQM and suggest that organizations have to consider the context in which they are intending to implement these principles for the optimum benefits. On the other hand, the conformance of the results of this study with the findings of other research supports the argument that positive results might be achieved by TQM implementation in any country. All previously mentioned studies' findings comply with the results of this study, though this study was conducted on SMEs in Palestine. However, there might be variations in the strength of impact of individual TQM constructs on the different dimensions of business results.

The results of this study highlight that TQM practices have different abilities to explain the variances in business results. Among TQM practices, partnership and resources is the best predictors of business results followed by processes and products. On the contrary, people and leadership have negligible and insignificant effects on the predictability of business results in the sample SMEs in Palestine. Usually in SMEs, the owner of the company does not delegate adequate power and responsibility to top managers and employees of the company. This appears to be a major weakness in TQM implementation in SMEs, which may not be unique only in Palestine. Demirbag et al. (2006) findings also support the results of this study. Moreover, SMEs business results are more price-sensitive compared to larger companies which explain the results that partnership and resources are the best predictors of their business results. This might be due to lack of resources, lack of cheap alternatives in the Palestinian market and the high restrictions on the imports from the Israeli side.

The high positive impact of partnership and resources, and processes and products on business results is supported by many other studies like Kaynak (2002) and Shafiq (2011).

Similarly, Shafiq (2011) reported that leadership and people element have no direct effect on business results. Their findings also support current study findings that leadership and people have no direct effect on business results.

Finally, this study indicated that managers and owners from sample companies believed that the main challenges facing them when implementing or trying to implement TQM or other formal quality management systems are broad quality objective without measurable targets and that managers don't have adequate knowledge of TQM implementation. Managers and owners from sample companies perceive that the above mentioned are ranked as the top serious challenges and obstacles, in addition to the mindset that quality is a money wasting activity, the lack of top management commitment and lack of communication. Moreover, the findings of challenges faced by the sample SMEs are considered the same as those faced by most companies in other parts of the world. The results of this research are supported by many other studies around the world. For example, Shafiq (2011) indicates that managers' awareness of TQM followed by multiple quality initiatives, considering quality as money wasting activity and organization culture are the most significant issues faced the sample of his study during the implementation of quality improvement initiatives.

In the category of serious issues, respondents perceived that top management commitment and leadership are major challenges facing the TQM implementation in their companies. The finding is in accordance with the literature. Shafiq (2011) agreed that top management should lead the TQM implementation and should be committed to it.

The other significant challenge which the respondents perceive affect the TQM implementation is the incompatible culture of the organizations. This finding supports the findings of some earlier studies such as Kujala and Lillrank (2004) and Detert et al. (2000). Detert et al. (2000) mention that organizational culture is one of the major barriers in the

TQM implementation and that many of the organizational constructs have direct relevance to the implementation of TQM.

Another important challenge was the focus on short-term profits. Shafiq (2011) indicates that short-term profit is one of the top ranked serious issues facing the companies. However, this finding indicated that it is the same in the sample SMEs as well. He also argues that for the effective implementation of quality management concepts, managers and owners have to think of quality as a business strategy. So, for Gryna et al. (2007) which indicate that those organizations which integrate TQM into their business strategy can only get benefits from the implementation of it.

5.3. Limitations of the study and Future Recommendations

This study is considered the first study of TQM implementation impact on SMEs performance in Palestine especially based on EEM. Therefore, it should be considered as a base test of TQM implementation in SMEs in Palestine. Many limitations are acknowledged in the design, plan, and execution of this study. These limitations need to consider when interpreting the results of this research. The major limitations of this study were that the design of the study was based on cross-sectional research, which means that the data was only collected once in the same era of time. The researcher was unable to collect longitudinal data due to constraints related to cost and time. Cross-sectional researches do not allow the researcher to evaluate the impact and change in organizations' performance due to TQM implementation. Therefore, in future studies longitudinal data should be collected to better evaluate the impact of TQM implementation of organizations performance.

Furthermore, the test of business results (financial, customers, employees and society) was only based on the perception of the managers and owners. This data was not supported

by documents like annual reports and other organizational sources. So, in the future, studies might depend on secondary data from annual reports and other resources along with perceptual data to obtain a better view of organizational performance. Additionally, as this study was a pioneering study on the impact of TQM implementation on the performance of SMEs in Palestine, no previously validated instrument was available. Therefore, a questionnaire was developed, and it could have some limitations in its structure and language. Hence, future studies might be based on detailed investigations using other instruments such as interviews, document review, observations and other qualitative instruments.

Moreover, the researcher did not take into consideration other factors that might have affected the organizational performance, outside the implementation of TQM. These factors include political situation, technology, economic situation and other factors. These factors affect the performance of the organizations either in a positive or a negative way. Also, in this study, the respondents were owners, CEOs, general managers and first line managers of SMEs. However, to minimize bias in the responses in future studies, data need to be collected from different levels in the organization, including normal workers (bottom-line workers). Moreover, this study has somewhat limited scope of sample size, and thus the restriction to cover only a single city- Ramallah. This implies that the generalizability is affected.

This thesis recognizes the impact of TQM implementation on the performance of SMEs in Palestine. This study contributes into the body of TQM knowledge by providing new empirical evidence from SMEs in Palestine which is an under researched developing country.

It was identified that many gaps exist in the literature on the implementation of TQM in the context of SME and developing countries. This study has tried to bridge few of these gaps, as it provided first empirical evidence from Palestine about the implementation of EEM criteria. This study highlights that the Enablers and Results criteria of the EEM were not

equally emphasized in the sample SMEs. Moreover, this study has empirically contributed to the TQM literature which supports that there is an impact of TQM implementation on the performance of SMEs, and the findings of earlier studies that TQM implementation has strong and positive association with business results are validated by this study.

Furthermore, the findings of this thesis provide evidence that SMEs may achieve positive performance effects resulting from the implementation of TQM. Finally, this study provided empirical evidence that SMEs in Palestine are at their early level with reference to the implementation of quality management practices.

In order to delimit the limitations of this study, future research studies should be carried out, which covers whole organizations' departments of SMEs to establish the impact of TQM implementation on organizational performance. Moreover, more studies should be implemented not only SMEs and in the whole country not only in Ramallah. Also, it will be of great benefit to study the impact of TQM implementation on business performance using qualitative research.

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Appendix I

Survey Questionnaire

Introduction

I am an MBA student at Birzeit University, Birzeit, Palestine. This research will investigate the extent of TQM implementation and the impact of TQM implementation on the performance of SMEs in Palestine. Your responses will be kept completely confidential. No individual respondents will be identified to any other person or in any written form in any case. The name of your organization will not be publicly released.

Section I

Please respond to the following questions by ticking (√) in the appropriate box

1. What sector does your company work in?

Services ◯ ICT ◯ health ◯ construction ◯ industrial ◯ Other ◯

2. How old is your organization?

Less than 1 Year ◯ from 1-3 years ◯ from 4-7 years ◯ from 8-11 ◯ from 12-15 ◯ above 15 ◯

3. How many employees are working in your organization?

Less than 5 ◯ from 5-15 ◯ from 16-50 ◯ above 50 ◯

4. What is the amount of capital invested in your organization?

Less than $15,000 ◯ from $15,000 to $25,000 ◯ above $25,000 ◯

5. How many types of products (finished goods or services supplied to different customers) are being produced by your organization?

Less than 3 ◯ from 3-6 ◯ from 7- 10 ◯ above 10 ◯

6. What is your position in the organization?

Owner ◯ General Manager ◯ Director ◯ Other ◯

Section II

Please respond to the following questions by ticking (√) in the appropriate box that most closely represents your observations about the way management practices are in your organization.

Scale: Strongly Disagree= 1 Disagree= 2 Neutral= 3 Agree= 4 Strongly Agree= 5

Leadership					
Top management actively manages our quality program and reviews its effectiveness once implemented					
Managers encourage employees to help implement changes in the organization					
Managers give authority to employees for them to take decisions about their jobs					
Managers present themselves as role models for the employees					
Managers motivates its employees and helps them to fulfill their work at a high level					
Managers ensure that employees, customers and suppliers are aware of the company's long-term plans					
Managers view cost as more important in comparison to the quality					

of products					
Managers encourage and participate in continuous improvement initiatives					
Managers continuously acquire and update their knowledge that is valuable for the organization					
People					
Formal processes are used regularly (such as employees' briefing and attitude surveys etc.) to find out employees' opinions and views					
Employees are encouraged to update their knowledge & skills					
Employees are trained on problem-solving skills					
Specific quality training is offered to employees					
Teamwork is a common practice within the organization					
Employees performance is measures and recognized in order to motivate them and improve their work performance					
Managers recognize employees' achievements at work					
There is a transparent system to reward staff achievements and improvements, as well as a social benefits system					
Employees have easy access to the relevant information					
Strategy					
Information systems are in place to capture information about customers and markets					
The views of customers (the people/companies who buy or want to buy your company's products) are considered important while designing new products					
Managers communicate its strategy and objective with their customer, suppliers and other external agents in order to know them					
The views of employees & suppliers are considered while shaping the company's objectives					
Managers communicate its strategy and objective with all staff					
The performance of competitors and best in class companies is assessed and analyzed					
Systematic measurement of loses (e.g. production loses, the loses due to rejection of finished products etc.) is carried out					
Periodically (e.g. after every three months, six months or one year etc.) the organizational performance is evaluated against the set objectives & targets					
Partnership and resources					
There is a close working relationship with suppliers					
Our organization gives preference to quality over cost while making purchase agreements with suppliers					
Suppliers are provided with the necessary requirements (quality) of goods and services					
Suppliers are encouraged to develop long-term partnerships with the organization					
Performance of the suppliers is evaluated periodically					
Managers formulate a plan for buildings, equipment and other materials (form of use, maintenance, insurance, renovations, etc.) to					

improve the overall performance of the organizations					
Economic and financial resources are assigned and used adequately so as to ensure the success of the strategy					
The organization tries to reduce the harmful effect of its activities on the environment					
Updated information and resources are provided to all employees to perform their jobs					
In general, management of alliances and resources is carried out according to the strategy					
Processes and products (goods and services)					
Proper systems are in place to deal with customer complaints					
Production processes are capable of producing products (goods and services) according to design specifications					
Prevention of defective products is a strong attribute in this organization					
The research and development (R&D) department is continuously working on the development & improvement of the products					
Development and innovation of production processes in emphasized					
Performance of production processes is monitored					
Employees are aware of the parameters (e.g temperature, pressure etc.) of different processes, which are needed to be controlled for effective operation and to evaluate them					
Proper procedures are established to perform different jobs					

Section III

Please answer the following questions keeping in view the performance of your organization in this calendar year.

Scale: Strongly Disagree= 1 Disagree= 2 Neutral= 3 Agree= 4 Strongly Agree= 5

Customer results					
The company is concerned about collecting information from its customer to measure their satisfaction through surveys, complaints etc.					
Customer satisfaction has improved over time					
Customers' (companies/people who buy products) complaints have decreased					
The number of customer (companies/people who buy products) has increased					

Communication with customers (companies/people who buy products) has improved					
All these customer results are analyzed, and improvement plans or actions are implemented					
Customer results are compared with those of the main competitors being such comparative favorable or otherwise learning from them					
Employees' results					
The company collects relevant information to measure employee satisfaction (surveys, meetings, motivation, training, promotion, etc.)					
The number of employees leaving their jobs from the company has decreased					
Employees' absenteeism has decreased					
Employees' willingness to work for extra time have increased					
Staff rotation is low					
Employee satisfaction has improved over time					
All the employee's results are analyzed, and improvement plans or actions are implemented					
Employees results are compared with those of the main competitors being such comparative favorable or otherwise learning from them					
Financial and Non-financial results					
Effective utilization of organizational resources (e.g. buildings, equipment, and materials) has improved					
Defects/errors in the finished products have decreased					
Problems in the technical processes have decreased					
Productivity has increased					
The quality of raw materials has improved					
Performance as a whole has increased					
Company's earnings have increased					
Profit level has increased					
The size of sales has increased					
Market share of our company has improved					
Financial results as a whole have improved					
All the financial and non-financial results are analyzed, and improvement plans or actions were implemented					

Society results					
Policies to reduce and prevent risks to health and safety are developed					
Environmental protection policies are developed					
The company participates in many community activities					
The feeling the community has is evaluated through surveys, meeting authorities, etc.					
The results in society show improvements over time					
All the society results are analyzed, and improvement plans or actions were implemented					
Society results are compared with the company's main competitors, being such comparative favorable or otherwise learning from them					

Section IV

Please respond to the following questions by ticking (√) in the appropriate box.

1. Is your organization certified to ISO 9001 or any other formal quality management system?

Yes ◯ No ◯

If "Yes", then for how long;

Less than 3 years ◯ From 3-6 years ◯ Above 6 years◯

2. Which of the following quality initiatives/models are implemented or, ever tried to implement by your organization?

EFQM Excellence Model ◯ Six Sigma ◯ MBNQA ◯

Deming Prize ◯ None ◯

Any other ……

3. If your organization has implemented or ever tried to implement quality improvement initiatives, then to what extent your organization has faced the following issues or barriers?

Scale: Was the most serious issue= 4 Was a major issue= 3 was a minor issue= 2 was not an issue= 1

Customer and employees' results				
Lack of top management commitment				
Lack of resources				
Organization's culture does not support quality improvement initiatives				
Managers don't have adequate knowledge of TQM implementation				
Broad quality objective without measurable targets				
Perception of the leadership that implementation of quality initiatives is a money wasting activity				
Organization pursuit multiple quality initiatives thus lack of clarity of program goals				
Lack of communication with employees				
Organizational structure didn't allow in developing quality culture (like frankness, openness)				
Organizational emphasis on short-term profits rather than long-term gains				

This concludes the questionnaire. I truly appreciate your cooperation.