



**Arab American University
Faculty of Graduate Studies**

**Assessing the Effect of Organizational Culture on the
Application of Quality Management Practices in
Palestinian Food Industries**

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**This Thesis was Submitted in Partial Fulfillment of the
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Declaration

The work provided in this thesis, unless otherwise referenced, is the researcher's work and has not been submitted by others elsewhere for any other degree or qualification.

Student's Name

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Signature



Date

15/03/2022

Dedication

I dedicate this achievement to my beloved mother for her support, encouragement, and endless sacrifice, and to my sisters who always stand for me.

unlimited gratitude to everyone who gave me any help and guidance.

Acknowledgment

I address my gratitude to God Almighty for his incredible generosity and grace and for giving me the strength, health, and knowledge to finish my studies.

Special thanks and appreciation to Dr. Yahya Saleh for agreeing to be my supervisor and giving me his time and knowledge. His valuable comments guided me throughout my work on the thesis, which has made outstanding contributions in finalizing my study.

I extend my thanks to the examination committee for their efforts in reviewing the thesis and suggesting modifications to improve it.

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Finally, I would like to express my warm thanks and gratitude to my family members for their unconditional patience and love.

List of Abbreviations

QM	Quality Management
OC	Organizational Culture
CVF	Competing Values Framework
GPD	Gross Domestic Product
PCBS	Palestinian Central Bureau of Statistics
ISIC4	Palestinian Industrial Classification for Economical Activities
MNE	Ministry of National Economy
OECD	Organization for Economic Co-operation Master's and Development
PFIU	Palestinian Food Industries Union
PLS-SEM	Partial Least Square-Structural Equation Modelling
CR	Composite Reliability
VIF	Variance Inflation Factor
AVE	Average Variance Extracted

Abstract

Globalization and e-commerce have exposed local products to fierce competition, both with other local producers and with imported products. Consequently, this situation drives factories into adopting quality management (QM) practices in the workplace to maintain their position in the market, increase customer satisfaction, boost earnings and improve the quality of their performance. The shift towards quality practices is indeed a long-term process. However, the literature argues that organizational culture (OC) could influence the success of QM adoption. Still, there are relatively few studies concerning this subject, especially in developing countries, and few in Palestine, especially in the food industry.

This study focuses on studying the Palestinian food industry sector, aiming firstly at modeling and empirically testing the impact of OC via employing the competing value framework (CVF) on infrastructure and core quality practices. Secondly, it explores the type of OC followed in the food sector. Besides investigating the degree of adoption of each of the seven dimensions of quality practices in this sector. Lastly, another relevant contribution from this study is to assess the influence of both OC and QM practices on quality performance.

This study has employed a quantitative research approach. More specifically, a survey strategy was applied, and the necessary data was collected through an electronic questionnaire mailed to the targeted companies.

Despite the fact that the sample size was 68 participants, the actual number of respondents was 70. The collected quantitative data was analyzed using the SMART-PLS software package and the partial least squares structural equation modeling (SEM-PLS) technique.

The results of the analysis indicate that each type of the four OC's (Market, Clan, Adhocracy, Hierarchy) is capable of influencing one or more dimensions of QM practices.

Furthermore, the findings indicate that, unlike other cultures, the market culture appears to be more capable of inducing applying both the infrastructure and core quality practices simultaneously. Meanwhile, clan culture has a significant influence on dimensions of QM practices related to infrastructure

infrastructure, and adhocracy influences core, yet; hierarchy culture doesn't affect either of them. Another important finding is that both types of QM practices affect quality performance.

Moreover, clan culture has a positive moderating effect between infrastructure QM practices and performance quality

Keywords: Palestine food manufacturing sector, Quality management practices, Organizational culture, competing value framework, SEM-PLS

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Chapter One

Introduction

1.1 Overview

This chapter illustrates an overview of the research as the background of the study is presented in the first section, followed by the research problem. In addition to outlining the research objectives and aims, this chapter also shows the significance of the study and determines the research questions and hypotheses. The last part presents the thesis structure.

1.2 Background

In the open market era, companies strive to deliver competitive products with high quality and low cost to guarantee customer satisfaction and loyalty, yet attract new customers to compete with national and international competitors.

Local manufacturing development achieves financial returns, increases national income, reduces unemployment, and enhances social stability.

In Palestine, manufacturing is the second-largest economic activity, with 3549 industrial establishments (Palestinian Central Bureau of Statistics [PCBS], 2017). Food manufacturing occupies a vital position within the manufacturing sector as it has 628 establishments (Ministry of National Economy [MNE], 2021), besides its positive influence on the growth of the agricultural industry. However, despite its vital importance, food manufacturers face many challenges from the competition with Israeli and external imported products. The political instability in Palestine, lack of control over borders, and restriction in freedom of movement are also amongst these challenges. Al-Bitawi (2019) declares that only 4.8% of food manufacturers in Palestine hold

quality certification according to PCBS industrial survey 2019. Also, the researcher points to the lack of skills required in the factories of food industries.

The food sector in Palestine needs to invest in effective quality programs to enhance customer perception towards the quality of food products. These programs require implementing core and infrastructure quality practices and commitment to conform to international standards besides obtaining international and Palestinian quality certificates.

Quality Management (QM) is a philosophy gaining popularity in the modern world due to its perceived benefits (Idrees, 2018). Most of the QM champions claim that it helps a company ameliorate its performance, improve product quality, cut costs, enhance productivity, and increase customer satisfaction (Al-Khalifa & Aspinwall, 2000; Patyal & Koilakuntal, 2018). However, despite the importance of QM, the literature shows that many initiatives have problematic issues regarding the implementation of quality projects (Lee et al., 2004; Gambi et al., 2015). In this thesis, quality practices including both core and infrastructure practices mentioned in (Patyal & Koilakuntla, 2017) are adopted.

Drawing upon literature, many researchers have pointed to organizational culture as a significant factor in determining the success of QM practices implementation (Eniola et al., 2019; Hilman et al., 2019). Consequently, before implementing infrastructure and core QM practices, managers must understand the importance of cultural values and choose the type of culture that facilitates implementation of QM successfully (Patyal et al., 2019; Patyal & Koilakuntla, 2018).

This study explores the influence of the organizational culture in the quality management implementation in the Palestinian context, more precisely in the food

manufacturing sector. Furthermore, it aims at identifying which type of organizational culture should be pursued in this aspect to strengthen the overall quality of performance. Organizational culture has four dimensions: clan, hierarchy, market, and adhocracy, which formulate the competing values framework (CVF) (Zeb et al., 2021; Botti & Vesce, 2018).

After reviewing the relevant literature, the researcher found some studies in the Palestinian context regarding QM in different sectors such as in the study conducted by (Herzallah et al, 2013) examined TQM practices, competitive strategies, and financial performance in Palestinian industrial SMEs while (Sayyad, 2017) study focused on the TQM and firm performance , but less dealt with the effect of organizational culture on QM. However, within the limits of her knowledge, the researcher has found limited studies on the impact of organizational culture on implementing QM in the manufacturing sector. Therefore, this study is expected to fill in the gap and increase knowledge in this context.

1.3 Research Problem

The food industries sector is of great importance among the entire manufacturing sector in Palestine. It is one of the most promising sectors that can contribute to enhancing national income. Still, this sector suffers from significant challenges, with other things, the general impression amongst citizens of the low quality of products compared to the Israeli or imported product (Mallah & Jaaron, 2021). Besides, the challenges of political instability, lack of control and management of borders which creates unreliable supply chains and logistics and delay in delivery and eventually higher costs to food manufacturers. These difficulties and others affect the competitiveness power of the

Palestinian food products and their position in the market. On top of that, they weaken the Palestinian product's ability to gain and maintain customer loyalty. Furthermore, it hinders the openness of new markets through the export of products. To overcome the mentioned difficulties, the food industry should continuously improve their quality performance by adopting quality management practices, obtaining quality certificates, and applying its terms in the work environment.

Many researchers have demonstrated the importance of organizational culture (OC) as a significant factor in determining QM practices' success. More specifically, Cameron and Quinn (2005) stressed that in many organizations, failures in QM practices are attributed to partial deployment and lack of understanding of the OC in these organizations. However, little is known about OC as a facilitator for implementing quality practices in Palestine, particularly in the food manufacturing sector. So, there is a research need to understand how OC affects QM practices and which types of OC are considered as a motivator to implement it in the Palestinian context, and the influence of both QM practices and OC on quality performance. In summary, the purpose of this study is to focus on assessing the effect of OC on implementing QM practices in order to bridge this gap.

1.4 Significant of Research

This study's importance arises from its focus on a significant sector in the Palestinian economy, the food industry. This sector is considered the most rapidly-developing sector in Palestine (Smirat & Shariff, 2016) that contributes to increasing the national economy and supports the success of other economic sectors; moreover, it is a promising sector to create export opportunities.

Besides, this sector's strengthening would provide food products' basic needs for citizens from local products. According to PCBS (2019), statistics reveal that the Palestinian family spends, on average, about 31% of its income on food.

Nevertheless, this sector faces enormous challenges that hinder its ability to compete internally and externally. This situation requires producing products with highly competitive capacity in terms of quality, prices, and maintaining customer satisfaction (Gorane & Kant, 2016). In addition, companies need to continuously increase operational productivity while being flexible for future environmental fluctuation. Unfortunately, Palestine's food industry still lacks effective quality systems at the organizational level (Herzallah et al., 2014).

Organizations that adopt and implement effective QM principles and practices and pursue product quality will improve their competitive position, business success, differentiate their products, and on top of that, realize customer satisfaction and achieve customer retention. In addition, the QM practices need supportive organizational culture (OC) at all levels in the work environment, as many researchers identify OC as a significant factor supporting the QM initiative.

The researcher strives to help the Palestinian food industry bear and succeed in such hypercompetitive environments. This study is sighting to highlight the role of OC on QM practices in food manufacturing sector in Palestine besides enriching the literature in this regard as the studies are not that many; precisely, the studies in this topic in Palestine are relatively rare. However, the study strives to bridge this gap; furthermore, the study highlights the main OC types that motivate QM practices in Palestine.

The study also investigates whether the OC is moderating between quality practices and quality performance. The research provides significance to those who have started or

might be interested in or contemplating starting a QM program in some organizations or those who face obstacles with deploying these practices.

1.5 Goal and Objective of the Research

The purposes and goals of the research are derived from the research problem. This study aims to explore the role and influence of the OC on successfully deploying QM practices in the Palestinian food industry. Moreover, the study is intended to contribute to literature as there are limited studies to find about the role of OC in supporting QM practices in food industries in Palestine. However, the main objectives of the study are:

1. What is the the most influential types of OC in the Palestinian food industries.
2. What is the level of adopting QM practices in Palestinian food industries.
3. How does OC impacts QM practices in Palestinian food industries?
4. How does OC types influence quality performance (QP) in Palestinian food industries?
5. How QM practices influence QP in Palestinian food industries.
6. What type of OC plays a moderating role between QM practices and QP in Palestinian food industries.

1.6 Research Questions and Hypotheses

To realize the objectives of the thesis focusing on the research problem, a set of questions were developed as follows:

1. To what extent does each type of the four OCs follow in the Palestinian food industries?
2. To what extent are QM practices implemented in the Palestinian food industries?

3. Which types of the four types of OC's affect QM practices in Palestinian food industries?
4. Does each type of OCs affect QP in Palestinian food industries?
5. Does each type of QM have an impact on QP in Palestinian food industries?
6. What types of the four OCs have a moderating role between QM and QP in in Palestinian food industries?

To determine the influence of the OCs on the QM practices for each dimension individually and whole, the following hypotheses are formulated. More specifically, for each type of OC, nine hypotheses are presented

- Ha1: Clan culture positively affects the quality information in the core QM practices in Palestinian food industries.
- Ha2: Clan culture positively affects the product design in the core QM practices in Palestinian food industries.
- Ha3: Clan culture positively affects the process management in the core QM practices in Palestinian food industries.
- Ha4: Clan culture positively affects customer involvement in the infrastructure QM practices in Palestinian food industries.
- Ha5: Clan culture positively affects the supplier involvement in the infrastructure QM practices in Palestinian food industries.
- Ha6: Clan culture positively affects the top management support in the infrastructure QM practices in Palestinian food industries.
- Ha7: Clan culture positively affects workforce management in the infrastructure QM practices in Palestinian food industries.

- Ha8: Clan culture positively affects the core QM practices in Palestinian food industries.
- Ha9: Clan culture positively affects the infrastructure practices in Palestinian food industries.
- Hb1: adhocracy culture positively affects the quality information in the core QM practices in Palestinian food industries
- Hb2: adhocracy culture positively affects the product design in the core QM practices in Palestinian food industries.
- Hb3: adhocracy culture positively affects the process management in the core QM practices in Palestinian food industries.
- Hb4: adhocracy culture positively affects customer involvement in the infrastructure QM practices in Palestinian food industries.
- Hb5: adhocracy culture positively affects the supplier involvement in the infrastructure QM practices in Palestinian food industries.
- Hb6: adhocracy culture positively affects the Top management support in the infrastructure QM practices in Palestinian food industries.
- Hb7: adhocracy culture positively affects workforce management in the infrastructure QM practices in Palestinian food industries.
- Hb8: adhocracy culture positively affects the core QM practices in Palestinian food industries.
- Hb9: adhocracy culture positively affects infrastructure practices in Palestinian food industries.
- Hc1: hierarchy culture positively affects the quality information in the core QM practices in Palestinian food industries.

- Hc2: hierarchy culture positively affects the product design in the core QM practices in Palestinian food industries.
- Hc3: hierarchy culture positively affects the process management in the core QM practices in Palestinian food industries.
- Hc4: hierarchy culture positively affects customer involvement in the infrastructure QM practices in Palestinian food industries.
- Hc5: hierarchy culture positively affects the supplier involvement in the infrastructure QM practices in Palestinian food industries.
- Hc6: hierarchy culture positively affects the Top management support in the infrastructure QM practices in Palestinian food industries.
- Hc7: hierarchy culture positively affects workforce management in the infrastructure QM practices in Palestinian food industries.
- Hc8: hierarchy culture positively affects the core QM practices in Palestinian food industries.
- Hc9: hierarchy culture positively affects infrastructure practices in Palestinian food industries.
- Hd1: market culture positively affects the quality information in the core QM practices in Palestinian food industries.
- Hd2: market culture positively affects the product design in the core QM practices in Palestinian food industries.
- Hd3: market culture positively affects the process management in the core QM practices in Palestinian food industries.
- Hd4: market culture positively affects customer involvement in infrastructure QM practices in Palestinian food industries.

- Hd5: market culture positively affects the supplier involvement in the infrastructure QM practices in Palestinian food industries.
- Hd6: market culture positively affects the Top management support in the infrastructure QM practices in Palestinian food industries.
- Hd7: market culture positively affects workforce management in the infrastructure QM practices in Palestinian food industries.
- Hd8: market culture positively affects the core QM practices in Palestinian food industries.
- Hd9: market culture positively affects the infrastructure practices in Palestinian food industries.

The following hypotheses are formulated to explore the impact of the OCs and QM on quality performance:

- Hqp1: Quality information positively affects QP in Palestinian food industries.
- Hqp2: Product design management positively affects QP in Palestinian food industries.
- Hqp3: Process management positively affects QP in Palestinian food industries.
- Hqp4: Customer involvement positively affects QP in Palestinian food industries.
- Hqp5: supplier involvement positively affects QP in Palestinian food industries.
- Hqp6: Top management support positively affects QP in Palestinian food industries.
- Hqp7: Workforce management support positively affects QP in Palestinian food industries.
- Hqp8: Core QM practices support positively affect QP in Palestinian food industries.

- Hqp9: Infrastructure QM practices support positively affect QP in Palestinian food industries.
- Hqp10: hierarchy culture positively affects QP in Palestinian food industries.
- Hqp11: adhocracy culture positively affects QP in Palestinian food industries.
- Hqp12: Clan culture positively affects QP in Palestinian food industries.
- Hd13: market culture positively affects QP in Palestinian food industries.

If the data analysis illustrates a relationship between QM practices and QP, then the following hypotheses will be tested to assess whether there is a moderating role of OC between QM practices and QP.

- Hm1: The relationship between Core practices and QP will be stronger when Adhocracy culture is high in Palestinian food industries.
- Hm2: The relationship between infrastructure practices and QP will be stronger when Adhocracy culture is high in Palestinian food industries.
- Hm3: The relationship between Core practices and QP will be stronger when market culture is high in Palestinian food industries.
- Hm4: The relationship between infrastructure practices and QP will be stronger when market culture is high in Palestinian food industries.
- Hm5: The relationship between Core practices and QP will be stronger when clan culture is high in Palestinian food industries.
- Hm6: The relationship between infrastructure practices and QP will be stronger when clan culture is high in Palestinian food industries.
- Hm7: The relationship between Core practices and QP will be stronger when hierocracy culture is high in Palestinian food industries.

- Hm8: The relationship between infrastructure practices and QP will be stronger when hierocracy culture is high in Palestinian food industries.

1.7 Thesis Structure

This research consists of six chapters. It is structured as follows:

Chapter One exhibits a general overview of the research topic by presenting the background of the study, the problem statement, the research questions and hypotheses, the research objectives, significance and ends with clarifying the research sections.

Chapter Two demonstrates the theoretical and empirical data found from scrutinizing previous related researches, QM practices, and OC concepts, definitions,

Chapter Three focuses on the methodology used in the research and clarifies the different types. In addition, this chapter includes the stage of data collection and the mechanisms for determining the size of the sample and ends with a brief explanation of the "SMART-PLS" software used in data analysis to examine relationships between dependent and independent variables.

Chapter Four presents an analysis of the collected data and the results; The descriptive statistic's findings are displayed in the first section, using the partial least squares structural equation modeling (PLS-SEM) the quantitative data collected via a questionnaire were analyzed to test the proposed hypotheses.

Chapter Five discusses the results of analyzing the conceptual model and the hypotheses testing results; afterward, the theoretical implications of the research study limitations and the expected future researches are presented in the following sections.

Chapter Six presents a set of recommendations depending on the study outcomes, while the research outcomes are finally epitomized in the conclusion section.

Chapter Two

Literature Review

2.1 Overview

This chapter reviews significant literature relevant to the research problem. It demonstrates the theoretical and empirical data from the previously-researched related papers on QM practices and OC. The chapter also includes an explanation of the current situation of the Palestinian food manufacturing industry.

2.2. Quality

2.2.1 Brief History of Quality

The term quality emerged in the middle of the last century, started in the US for Quality Control then went to Japan and came back to the US strengthened as a management philosophy. Its implementation spread, from the manufacturing to the service sector, health sector, public sector, and nonprofit organizations. (Sanchez & Blanco, 2014; Casadesús & de Castro, 2005)

QM gained immense importance worldwide as much research highlighted its capacity to arm the organizations with competitive advantage through the best manufacturing characteristics with lower cost, less time, high-quality products, and manufacturing flexibility (Lee & Zhou, 2000; Obert & Spencer, 1996; Shetty, 1993; Spitzer, 1993). The credit of the evolution of this concept related to some important experts and consultants. Deming proposed 14 points to apply quality in the organization. Juran developed the quality triangle (quality planning, quality control, and quality improvement). Crosby raised the slogan of doing things right the first time. Ishikawa, was a leader in stressing employee participation and quality circles. Taguchi, on the

other hand, generated the loss function and guiding models to prevent the accuracy of the defect. These gurus proposed a different set of organizational requirements for the effective implementation of quality. However, the majority of them stressed the importance of technical factors like (statistical control, data-driven decision, process design) and organizational and strategical factors (top management support, employee's empowerment and involvement, and customer focus) to implement quality in the working place (Fonseca,2015; Sanchez & Blanco, 2014; Ershadi Saraph et al., 1989).

2.2.2 Definitions of Quality

The concept of quality developed from being product-oriented to customer-oriented, which requires meeting and exceeding customer expectations (Ershadi et al., 2019; Idrees,2018) via association of business processes to provide value-for-money products and services (Dale et al., 2016).

However, in today's business world, there is no consensus on one definition of quality. Different definitions of quality are posed under different circumstances where the notion of quality has been interpreted in diverse ways by authors (Kumar et al., 2016; Dale et al., 2016; Munizu, 2013; Reeves & Bednar, 1994). Despite this, this study adopts the definition propounded by (Mellat-Parasat and Digman(2007)). Hence, their description was more detailed. Their approach proposes that quality is something that demands a holistic approach, not just internal characteristics but also external characteristics (supplier and customers), and includes both soft and hard practices. Table (2-1) demonstrates some of the definitions of quality as proposed by researchers including (Mellat-Parasat & Digman,2007) definition.

Table (2. 1): Definitions of Quality

#	Definition	Author
1	conformance to specifications	(Gilmore,1974)
2	conformance to requirements	(Crosby, 1979)
3	meeting and/or exceeding customers' expectations	(Gronroos, 1983)
4	management approach of an organization, centered on quality, based on the participation of all its members and aiming success through customer satisfaction, and benefits to all members of the organization and to society	(Wiklund et al, 2003)
5	QM can be defined as a holistic management philosophy that strives for continuous organizational improvement.	(Kaynak, 2003)
6	QM can be seen as a holistic approach to company-wide quality operated through leadership, management structure, quality tools, supplier support, customer focus, process management, learning, employee fulfillment and focus, teamwork, and CI	(Mellat-Parasat & Digman, 2007)
8	Quality as a concept has moved from being an attribute of the product or service to encompass all the activities of an organization.	(Idrees, 2018)
9	the degree to which a set of inherent characteristics fulfils requirements (ISO 9001 2015).	(Dale et al., 2016)

2.2.3 Stages of Quality

QM evolved, as researchers denoted (Dahlgaard-Park et al., 2018; Saleh et al., 2018; Winkelmann et al., 2015), to four stages during the last several decades. Namely, first, it starts with a simple quality inspection of the final product. If it is of poor quality, it will be filtered to reworked or scrapped, which results in a high waste rate and loss of time. This stage was followed by quality control that shifted from product-oriented to process-oriented associated with the spread use of statistical process control (SPC) and

quality charts to respond to any process variation just in time and avoid production waste.

The third stage, which was in the sixties of the last century, is quality assurance. This stage did not depend on controlling and monitoring the quality of processes and products only. Nevertheless, it changes of emphasis from detection to prevention of poor quality. It has evolved to include identifying risks and expected problems and taking preventive steps to avoid their occurrence and not manage them. However, all these actions were guided from enterprise to customer as one direct push approach. Lately, in this stage, customer quality requirements began to be considered by the vendors while planning to quality (Pfeifer & Sommerhäser, 2001) to avoid producing good products technically but not desired from them.

A systematic, integrated, and consistent viewpoint from the overall view of the organization became an urgent need due to the increased complexity and diversity of products and the raising of customers' demands and expectations. That approach was achieved by creating a common harmonization between all partners from more substantial customer involvement and close partnership with suppliers. Thus, the total quality management (TQM), the fourth stage became visible in the last ten years (Winkelmann et al., 2015). It is a set of guiding principles that extend quality from the manufacturing area, including all areas and steps of management for managing an organization comprehensively to benefit all stakeholders. Furthermore, it recognizes the relationships between leadership, employee, processes, customer satisfaction, technical components, and business results, all together as an organizational approach to achieve quality (Jung et al., 2018).

Winkelmann et al., (2015) stated that quality management nowadays is used not only due to market pressure but also in fields with no straight competition but an urge for own advancements, such as education, health care or public administration, and last but not least non-profit organizations. Figure (2-1) represents evolving stages of quality management.

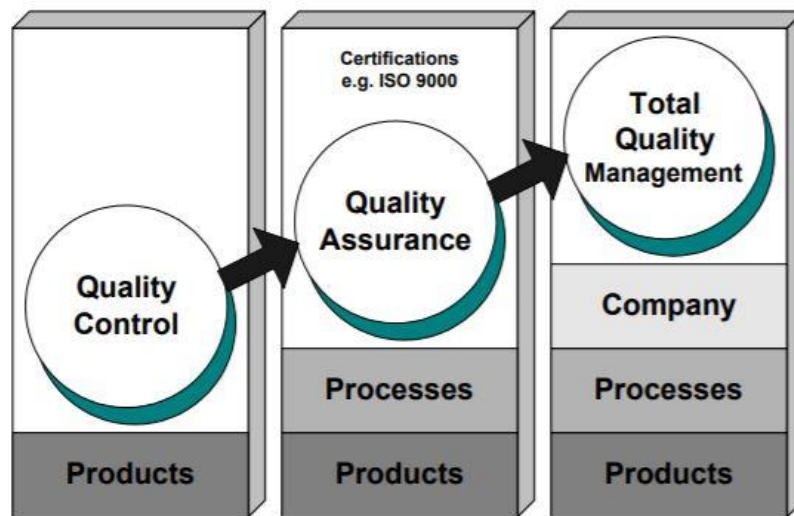


Figure (2.1): The evolution toward total quality management (TQM) (Mangelsdorf,1999)

To guarantee quality management implementations, many countries in different regions have introduced quality prizes known as Business Excellence Models. The ultimate purposes of the awards are to help organizations in both the private and public sectors conduct self-assessments. The assessment measures their improvement progress and company potential and share best management practices, thereby increasing national competitiveness.

The most notable awards are the Deming Prize, MBNQA, and EFQM. The following lines summarize the criteria for each of these awards:

1- Deming Prize: It is one of the first most important quality awards in the world. The Union of Japanese Scientists and Engineers (JUSE) introduced it in 1951 to award the companies, who have achieved notable improvements applying the Total Quality Management (TQM). Toma and Marinescu (2018) pointed to that by reviewing the terms of the award, it becomes clear that it includes essential requirements related to the vision and role of the higher leadership. It attaches great importance to the customers through understanding their needs and interacting with them. The award also includes criteria for analysing procedures, permanent improvement, and utilizing statistical tools. It also gives importance to the participation and development of employees and social responsibility ("Deming prize,"2007).

2- MBNQA Prize: - the well-known and worldwide used model Malcolm Baldrige National Quality Award was authorized by Reagan, President of the United States, in 1987. The ultimate objectives of the award are to help raise companies' performance and execution capabilities and share best management practices for all types of organizations, thereby increasing national competitiveness in core areas of quality management. The criteria are divided into seven categories: leadership, strategic planning , workforce focus , customer focus , operations focus , measurement analysis and knowledge management and results (Jaeger et al., 2013).

EFQM: - In 1991, the European Foundation for Quality Management (EFQM) founded the European Quality Award (EQA) that aimed to praise the excellence of the European enterprises (CalvoMora et al., 2015). It comprises of five “Enablers” criteria (Leadership, Policy & Strategy, People, Partnerships &

Resources and Processes, Products & Services) and four “Results” criteria (Customer Results, People Results, Society Results, and Key Results).

Numerous countries have designed their quality standards and models upon one or more of those awards. By comparing the three models, we find that they gave great importance to the role of the senior leadership as an essential element for achieving quality, in addition to the participation of partners from employees and customers in the process of developing and building the quality system, and focused on building decisions based on knowledge and statistical data; Table (2-2) summarizes a comparison between the three models.

Table (2.2) Comparison between MBNQA, EFQM and Deming Prize (Garza-Reyes et al., 2015)

Criteria	MBNQA	EFQM	Deming Prize
Leadership	X	X	X
Policy and strategy	X	X	
People Management	X	X	X
Resources		X	
Processes	X	X	X
Customer satisfaction	X	X	
People satisfaction		X	
Impact on Society		X	
Business Results	X	X	X
Information and Analysis	X		X
Standardization			X
Quality Assurance			X
Maintenance			X
Improvement			X
Future Plans			X

On the other hand, ISO9001-2015 defines seven QM principles as follows:(Customer focus, Leadership, engagement of People, Process approach, improvement, evidence-based decision making, relationship management).

2.2.4 Core and Infrastructure Quality Practices

Previous studies divided quality management (QM) practices into two main clusters. More specifically, the first cluster includes infrastructure or soft practices related to people, their interactions, and their teams. The other cluster of practices includes techniques and is methodology-oriented to improve process performance via scientific methods and statistical tools. Statistical process control (SPC) is one of these practices. These practices are called core or hard practices (Rahman & Bullock, 2005).

To elaborate more on this clustering, QM practices have been classified in literature into two categories one of them is considered as soft practices and known as infrastructure and related mainly to human aspects including leadership, team building, empowerment, and training, while the other is considered as hard practices and known in the literature as core practices referring to quality techniques and including (quality tools, statistical process control, data information, and analysis) (Asif, 2019; Herzallah,2014; Naor, 2008). Figure 2-2 summarizes these two types of QM practices. Other studies classified QM practices into two models, either mechanistic or organic, as organizations adopt mechanistic when they focus more on productivity and efficiency only. On the other hand, when the organization works on employee improvement and teamwork, it becomes closer to the generic model. However, some organizations follow both models (Prajogo, 2005). Other studies pointed to the people, process, and technology as three pillars for QM practices (Mastor & Ibrahim, 2012).

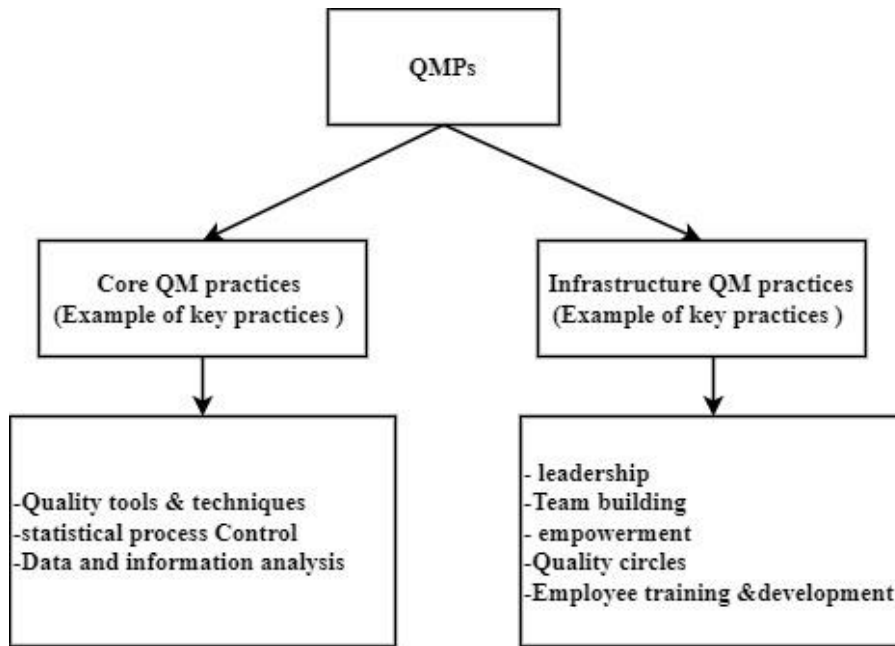


Figure (2. 2)A categorization of some key QM practices (Asif, 2019)

According to Yam et al. (2005), hard quality refers to the implementation of systematic processes which enable an organization to change itself continuously for improved performance, whereas soft quality refers to the human aspects of a system such as employee involvement, management commitment towards quality, training, learning, and teamwork (Zeng et al., 2013).

It is stated in (Naor et al., 2008) that Flynn and others in 1995 classified the two types of quality practices into seven dimensions in which infrastructure consists of (top management support, workforce management, supplier involvement, and customer involvement), the core consists of (quality information, process management, and product design). Based on Ahire et al. (1996) quality practices include supplier management, customer focus, employee involvement and training, internal quality information, statistical process control, and benchmarking.

This study adapted Flynn and his college's classification to QM practices that were established in 1995, and each item will be explained in the subsequent paragraphs.

2.2.4.1 Core (Hard) Quality Practices

Abdallah (2013, p.2), after Deming (1986), pointed to the hard element of TQM by stating, "In God we trust, all others must use data." Hard practices concerning the use of tools and methods of quality management to enhance and support the overall performance and productivity (Abdallah, 2013; Fotopoulos & Psomas, 2009; Lewis et al., 2006). These tools include the design process, statistical process control (SPC), quality function deployment, and others (Ho et al., 2001). Zeng et al. (2013) identified the hard aspect as the practice that focuses on controlling processes and products using tools and techniques to satisfy and conform to the predetermined requirements. In summary Hard elements are considered tangible quality practices elements (Gadenne & Sharma, 2009).

- **Quality Information**

Effective decision-making builds upon data and information analysis and the findings; therefore, firms that make their decision-making on data and information analysis are more successful than their counterparts who do not (Munizu, 2013; Kaynak, 2003).

Using data and information analysis can promote both exploitation and exploration (Munizu, 2013).

- **Process Management**

In process management, all the resources of an organization are utilized in a consistent, reliable and repeatable mode to achieve its goals (Psomas et al., 2011). The key purpose of process management and control is to promote productivity, reduce variations in processes, and minimize defect rates (Asif, 2019). The research done by (Biazzo &

Bernardi 2003) revealed that both the EFQM and the MBNQA attribute great importance to process management and control in evaluating the organization's progress towards QM.

- **Product Design**

(gotzamani and Tsiotras ;2001) cleared that Enhancing a product design involves organizing the product and process specifications clearly, testing and inspecting new products before they go to market, and taking account of customer requirements during the product development phase, all of which can contribute to customer satisfaction.

Product design refers to the efforts exerted using a structured procedure through science, techniques, and innovative ideas, including identifying customer needs, assessing and prioritizing different product characteristics, and later transmuting the agreed requirements into a prototype prior to launching the product (Asif, 2019; Saleh et al., 2018).

Pant and Chavan (2018) mentioned that via the literature reviewed, it is found that product development and design will be better if the opinions of people from different fields are considered for product development.

2.2.4.2 Infrastructure (Soft) Quality Practices

People-oriented practices focus on organizational development and change, particularly in the areas of management commitment and leadership, customer relationships, personnel management, and supplier relationships (Zu, 2009).

Management struggles to measure and assess infrastructure practices due to their difficulty in quantifying them; nevertheless, implementing infrastructure QM practices

lead to businesses performing better than their competitors (Abdallah, 2013). The main components of these practices which are adopted in this study are listed below.

- **Top Management Support**

According to Javed (2015), some principles and practices of QM may vary in firms and industries. Still, there is a common agreement on the importance of leadership in implementing QM. Therefore, top management support is mandatory for all strategy and action plans. Moreover, Sirma et al. (2019) noted that attempts to implement QM often fail because top management doesn't lead and gets committed. QM requires top management's involvement in creating and deploying clear quality values and aims harmonious with the objectives of the company. Blal and Sturman (2014) and Mastor and Ibrahim (2012) recommend that top management is ought to guide all quality activities, allocating budgets and resources, monitoring progress and planning for change, control through visibility, and encouraging participation by all employees.

- **Employee Management**

Employees are one of the significant assets that contribute to the survival of the organization and the achievement of its goals. Employees are the creators of innovation and the improvements required to enhance productivity and improve quality (Bakotić & Rogošić, 2017). Employee involvement and empowerment are a must to improve the current and future product or service quality. Therefore, it is essential to provide employees with new techniques and practices necessary to implement QM successfully (Mastor & Ibrahim, 2012). Moreover, Mastor and Ibrahim (2012) pointed to the importance of the rewards the employees for the quality of work in tangible or intangible ways. At the same time, Crosby and Juran indicate that reward and

recognition should be instituted to support the quality management movement (Mukhopadhyay,2020).

- **Customer Involvement**

An increasing number of industries focus on customers' needs to satisfy them and keep them loyal as a source for profit maximization (Saleh et al., 2018). Yaacob (2014) mentioned that customer satisfaction, as a criterion measure, the success of QM is consistently evaluated; therefore, customer focus is rated as one of the principal pillars in the implementation of QM.

Ershadi et al. (2019) pointed to the importance of providing different communication means for receiving the voice of customer (VoC) and the customer's opinions and imposing them in delivering products and services. Besides, many researchers pay great attention to the implementation of an effective response and customer complaints system.

- **Supplier Involvement**

Zeng et al. (2013) indicate that many authors demonstrate that the integration and co-management with the supplier network can enhance the product quality delivered to the final customer and obtain successful business management. Thus, suppliers' close long-term relationships require a selection process based on delivery reliability, product quality, cost, and overall rating performance measures critical for competitive advantages (Vanichchinchai & Lgel, 2011).

Effective supply relationship needs to share information between partners, work together to avoid and solve a problem during and after the design phase. Concerning the significant role of the supplier in the product and services quality, supplier development is necessary. Contributing to supplier development may include raising performance

expectations, training and education on quality requirements and know-how. Over and above, similar aspects regarding supplier management relationships have already been encompassed in TQM (Anichchinchai & Lgel, 2011; Sriyakul et al., 2019).

2.3 Organizational Culture (OC)

2.3.1 Organizational Culture (OC) Definition

Organizational Culture (OC) performs a vital role in shaping the management style, conferring its personality and values since the OC principle could promote the changes and support new orientations in an organization. The importance forces the culture lies in its operation outside of our consciousness. Thus, if leaders do not manage culture, the culture will manage them (Schein, 2010). The research attention in the management field increases toward OC, especially with accelerating change in the universe that requires organizations to become more flexible, responsive, and cope with change to survive and compete. Much research on the OC field pointed to the importance of knowing and shaping the OC properties as one of the manager's priorities activities as it influences all aspects of the organization and prepares it to compete in the changing market (Monavarian & Bakhtae, 2006).

There is no unified definition of OC, where there are many overlapping and integrated definitions showing norms, behaviors, and beliefs as the intangible factors that form OC. Ahmady et al. (2016) consider the complete description of culture is a quite monotonous set of beliefs, values, customs, and methods transmitted by the members; others (like Eniola et al., 2019; Hadian, 2017) adopted the definition proposed by Schein, (2010) that OC is a pattern of shared basic assumptions that the group learned while solving external adaptation and internal integration thus taught to new members

as the accurate way to think, feel in link to those and a well-known simple definition is the way of doing thing around here (Sun, 2008). Additionally, Nelson and Quick (2013) named four functions of organizational culture: providing members a sense of identity, increasing members' commitment, reinforcing organizational values, and acting as a control mechanism for shaping behavior.

2.3.2 Models of Organizational Culture

Goffee and Jones' Model

Goffee and Jones (1996, 2003) consider OC similar to communities and divide culture into two categories; sociability and solidarity. Based on that, they developed a cultural matrix of four groups. The first is the network OC as this type of organization tends to be more socially active and invest in friendship. While mercenary OC is the opposite of network culture and emphasizes the hierarchy besides separate between work life and personal life, the fragmented culture has a low level of personal and professional relationship and a high level of solitude. Finally, the communal OC show exhibits higher levels of integration compared to network culture and with limited hierarchies.

Figure 3-2 depicts this OC model.

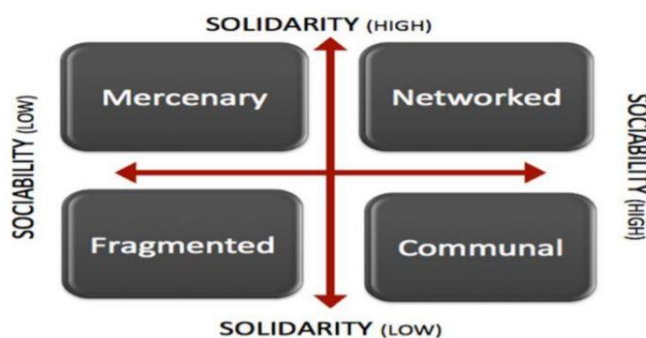


Figure (2. 3): Goffee and Jones (Alkhoraif & McLaughlinb, 2017, p.76)

Competing Values Framework (CVF)

Quinn and Spreitzer had Developed CVF in 1991 (Alkhoraif & McLaughlin, 2017), which is considered the most common and widely-applied model within OC research (Eniola, 2019). Choi et al. (2010) cited that according to Quinn and Cameron(1988), CVF has been considered one of the 50 most important models in management science.

CVF is built of two axes, horizontal axis emphasis between internal orientation and external orientation. This axis differentiates between organizations' tendency towards internal harmonies relationship and process against competition, differentiation, and rivalry. On the other hand, the vertical axis symbolizes the organization's trend towards flexibility versus control and stability. For example, some organizations tend to be changing and transformational, whereas others prefer being stable, predictable. As a result, from those two axes, four subcultures constitute opposing values arise: Clan, Adhocracy, Hierarchy, and Market. Figure 2-4 depicts the CVF model.

Clan culture: organizations that take this approach tend to be friendlier and more comfortable to work and dominated by the extended family feel. In such a culture, the organization is held together by loyalty and employee commitment. Success is when being sensitive to customer needs and concern for people (Kokt & Ramarumo, 2015).

Adhocracy culture: organizations characterized by this type of culture are dynamic and entrepreneurial places to work and ready to take risks. The organization's commitment is towards experimentation and innovation The organization's long-term emphasis is on growth and offering unique products, and on top of that, being a product or service leader is essential (Kokt & Ramarumo, 2015).

Hierarchy culture: the formalized and structured place to work those procedures govern the employees' work. Formal rules and policies maintain a smooth-running organization. The organization's concern is stability and predictability (Kokt &

Ramarumo, 2015).

Market culture: this kind of organization is very results-oriented. The focus is on winning, reputation, and competitiveness. Market share and penetration are key indicators of success. Competitive pricing and market leadership are equally important (Kokt & Ramarumo, 2015).

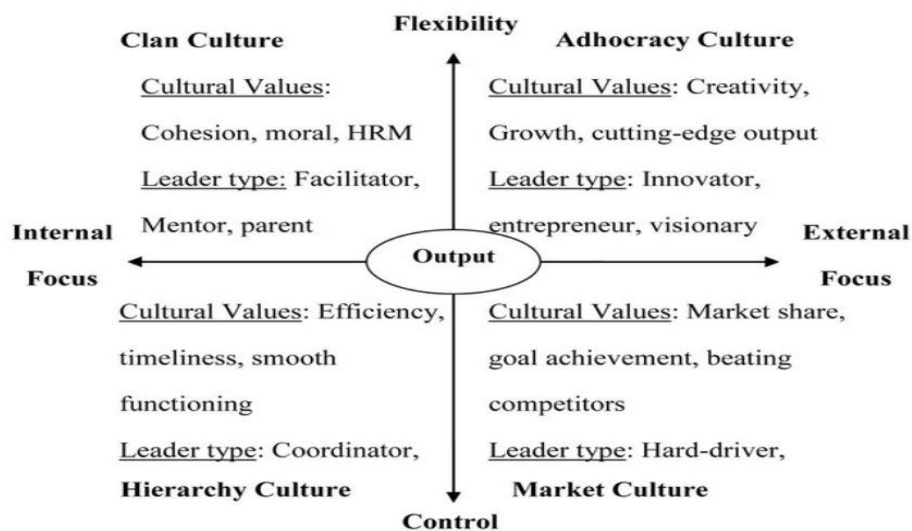


Figure (2. 4): The competing Values Framework (source: Choi et al., 2010, p. 173).

Note. Figure is adapted with permission from "Diagnosing and Changing Organizational Culture Based on the Competing Values Framework" (Cameron & Quinn, 1999)

Schein's Model

Schein's model is another widely-used model in analyzing OC. This model was developed in 1985 by Edgar Schein (Huragu, 2019; Kokt & Ramarumo, 2015). Schein finds that organizational culture is placed from a group working together and develop patterns through collaborating to solve problems and strengthen organization survival. Artifacts, espoused values, and basic assumptions are the three levels establishing the framework Schein proposed, while the level of the artifact is outward manifestations of culture that are tangible and visible like slogans, uniforms, office design, etc. The

espoused values level represents organization principles and standards. On the other hand, the basic assumption level is invisible, yet holding the core organization beliefs that shape the other levels and is hard to change. Figure 2-5 depicts Shien's model.

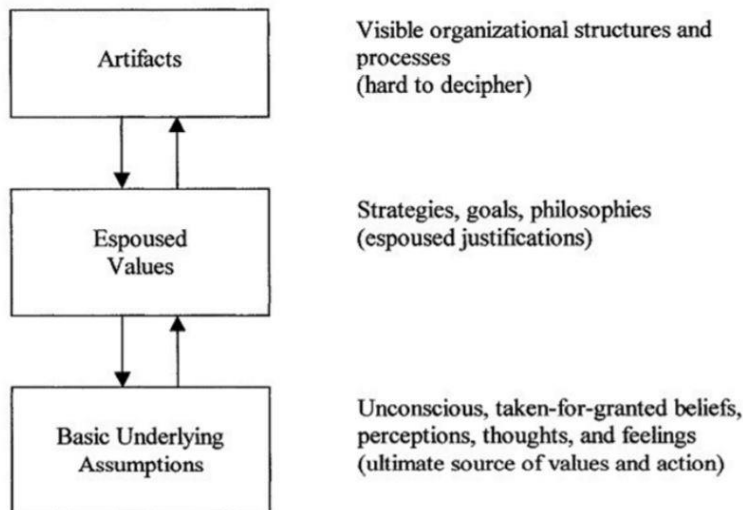


Figure (2. 5): Organizational culture Schein's model (Alkhoraif et al , 2017)

The current study utilizes the well-known CVF model to explore the OC's form and characteristics adopted in the Palestinian food industries sector. This model examines the degree of flexibility versus controlling behavior and internal focus versus external orientation. Furthermore, it is recognized as the most effective way to describe a company's culture, and it is a widely-applied model within OC research.

2.4 Quality Performance (QP)

Since companies are constantly seeking effective and efficient results in all their endeavors, assessing and measuring the performance of their business is of significant importance. In addition, performance measurement can provide management with invaluable information that will enable them to monitor the team's performance,

identify weaknesses, improve motivation, report progress, and pinpoint problems. (Taouab & Issor, 2019). It is important not to overlook the fact that it is difficult and even impossible to improve something without measuring it.

Taouab and Issor (2019) and Kumar and Mishra (2020) stated that there is no consensus on what the definition of firm performance should be, as long as there is no operational definition upon which the majority of scholars would agree, there would be diverse interpretations offered by different people based on their own experiences.

However, Kumar and Mishra (2020) mentioned that it is strongly recommended that improving the organizational performance requires identifying and measuring the impact of TQM practices on it. Arda et al. (2019) also clarified in this sense, QP is an essential indicator in the process of converting QM into a capability that can improve competitive edge.

2.5 Food Industry in Palestine

The food industry is defined as any manufacturing process that increases the value of primary and intermediate goods to produce a final good fit for human consumption food or producing an intermediate commodity used to create a final good fit for consumption food (Mustafa, 2005). Food manufacturing is one of the oldest manufacturing industries in Palestine (Malah, 2018). Developing this sector improves the provision of food security to the Palestinians. Furthermore, according to PCBS, this sector contains 694 establishments; most exist in the West Bank, having 566 establishments. Moreover, as per the Palestinian Food Industries Union (PFIU), this industry occupies 18.5% of the labor force in the market, with over 18,000 male and female workers ranking first in terms of the number of employees among all production sectors. PCBS reported on

Palestinian Consumer Day on March 15, 2019, that food expenditures per capita in Palestine comprised on average 31% of total monthly expenditures, yet according to PFIU, Palestinian families spend approximately 36%-40% of their income on food, yet according to PFIU Palestinian families spend around 36%-40% of their income on food.

On the other hand, Al-Bitawi (2019) reported that, in 2016, food industries contributed a whopping 21.7% to production in Palestine's manufacturing sector, and their share of the country's Gross Domestic Product (GDP) was about 4%. The food and beverage industries have a share of approximately 19% and 12% of the total Palestinian exports and imports, respectively (PCBS, 2018).

Aside from that, growing the economy of this sector contributes to the prosperity of other industries related to it, such as the agricultural sector, the livestock sector, and the plastic and packaging products sector. It is evident from all the data provided here that this sector is in high demand. Investing in it will positively affect many aspects of the Palestinian economy. Table (2-3) summarizes the Palestinian food industries subsectors.

Table (2. 3): List of food manufacturing categories in Palestine source (PCBC*, 2018)

(Value in thousands of US dollars)

ISIC4 code	Sub sector	No of factories	No of workers	Production	added Value-
1010	Meat-poultry	40	631	57420.6	26068.6
1030	Fruit and vegetable-pickling canning	198	1667	93919.3	32245
1040	Oils and fats	3	135	12817.3	6001.7
1050	Dairy and milk	135	2629	153469.8	53661.4
1061	Grain mills and starch	87	362	70669.2	14594.8

1071	Bread and bakery	2556	9945	281593.1	109866.4
1073	Sugar, confectionery, and sweet	77	942	38433.4	17775.7
1074	Agri-products and pasta	12	90	3894.3	1417.2
1075	restaurants meals and dishes to go	15	58	6146.6	2947.8
1079	Other food products	231	1330	76627.1	26336.3
1080	Animal feeds	23	508	102617.5	27211.7

* Data does not include Jerusalem governorate

Although this sector's importance, it faces tremendous obstacles and challenges hindering its competitiveness and market share in the domestic and foreign markets. The challenges include, but are not limited to, the high competitiveness with Israeli products and imported from abroad, the rapid development in the technologies and tools used, and customers in the open market have become more selective and aware of choices, which requires continuous improvement and innovation in products (Herzallah et al., 2014; Al-Bitawi, 2019).. These challenges require the food manufacturing business in Palestine to adopt and implement quality practices and tools to produce high-quality products at lower costs and gain customer satisfaction.

2.6 Previous Studies

The studies on QM in the food industry in Palestine are relatively rare (Abdel-Haleem, 2005; Herzallah, 2014) specially the ones that investigated the impact of OC on QM implementation in the Palestinian context and as shown in table (2-4) different results in studies from different countries were shown regarding the role of OC in implementing QM practices. Toward bridging this gap and to study this relation between OC and QM practices in Palestinian case, this study seeks to find out the extent to which QM practices are applied in the food industry sector and the role that OC plays in the

success of applying these standards, moreover, the impact of each of them on improving the overall quality performance. Thus, this sector will be able to compete, bear, and succeed in such hypercompetitive environments. Table (2-4) summarizes the studies that the researcher was able to find and that dealt with the same topic under study.

Table (2. 4) Previous studies on OC and QM

Authors	Country	Sector	Summary
(Eniola et al., 2019)	Nigeria	SMEs manufacturing	The study demonstrates that TQM and OC have a positive direct impact on SMEs' performance, and TOM also has a positive aberrant effect on SMEs through OC.
(Naor et al., 2008)	Six countries	Manufacturing plants	This study indicated that OC relates most strongly to infrastructure QM than to core QM practices. Infrastructure QM practices also have a significant impact on manufacturing performance.
(Prajogo & McDermott, 2005)	Australia	Different organizations	The result revealed that different types of cultures determine different subsets of TQM practices, which is consistent with the pluralist view. There was a significant relationship between hierarchical culture and TQM practices.
(Idrees, 2018)	Pakistan	Textile industries	It was found in this thesis that organizational culture mediates the relationship between quality management and organizational performance.
(Al-Bourini et al., 2013)	Jordan	Insurance companies	The study had many findings. There was a statistically significant effect of

			organizational culture (support and promotion values, meaningful values, discipline values, and freestyle values) on quality management in Jordanian insurance companies. A statistically significant difference was found in organizational culture in Jordanian insurance companies owing to differences in occupational variables (occupation, years of experience).
(Patyal & Koilakuntla, 2018)	India	Manufacturing	The findings show that hierarchical and rational cultures prevail in Indian manufacturing organizations where top management commitment and Six Sigma structures are crucial aspects of the infrastructure and core QM practices. Additionally, group culture and development culture are the most supportive culture types for infrastructure and core QM practices.
(Rad, 2006)	Iran	Isfahan University Hospitals	The result of this paper was that, the success of TQM in hospitals with organic organizational structure and medium organizational culture was higher than mechanistic and bureaucratic hospitals with weak organizational culture

2.7 The Conceptual Framework

The development of the conceptual framework required an in-depth review of previous studies to clarify the concepts, assumptions, and relationships between variables that guide the current research structure. As the goal of this study is to assess the impact of the OCs culture on the QM practices implementation, the concepts of both variables had been investigated in order to identify the dimension of each of them.

As the research focuses on the manufacturing sector, the study employed for OC variable the well-known CVF model with it is four types of culture (clan, market, hierarchy, adhocracy) which was developed by Quinn and their associate peers (Kimberly & Quinn, 1984; Quinn & Rohrbaugh, 1981, 1983; Quinn & McGrath, 1985) as a tool to recognize the OC (Patyal & Koilakuntla,2018).

On the other hand, in the previous research studies, the most replicated dimensions for measuring QM practices for both core and infrastructure have been identified as (process management, quality information, and product design) and (top management support, customer involvement, workforce management, and supplier involvement).

Regarding quality performance; this study examines the quality of performance based on a set of indicators for the following items: reducing production costs, increasing customer satisfaction, increasing profits, making knowledge-based decision, and improving the quality of the product.

As a final point in this chapter, Figure (2-6) reflects the proposed conceptual framework in this study. More precisely, the model includes the hypotheses mentioned in the previous chapter for testing the effects of the four OCs on the QM practices and how each of these factors affect the quality of performance.

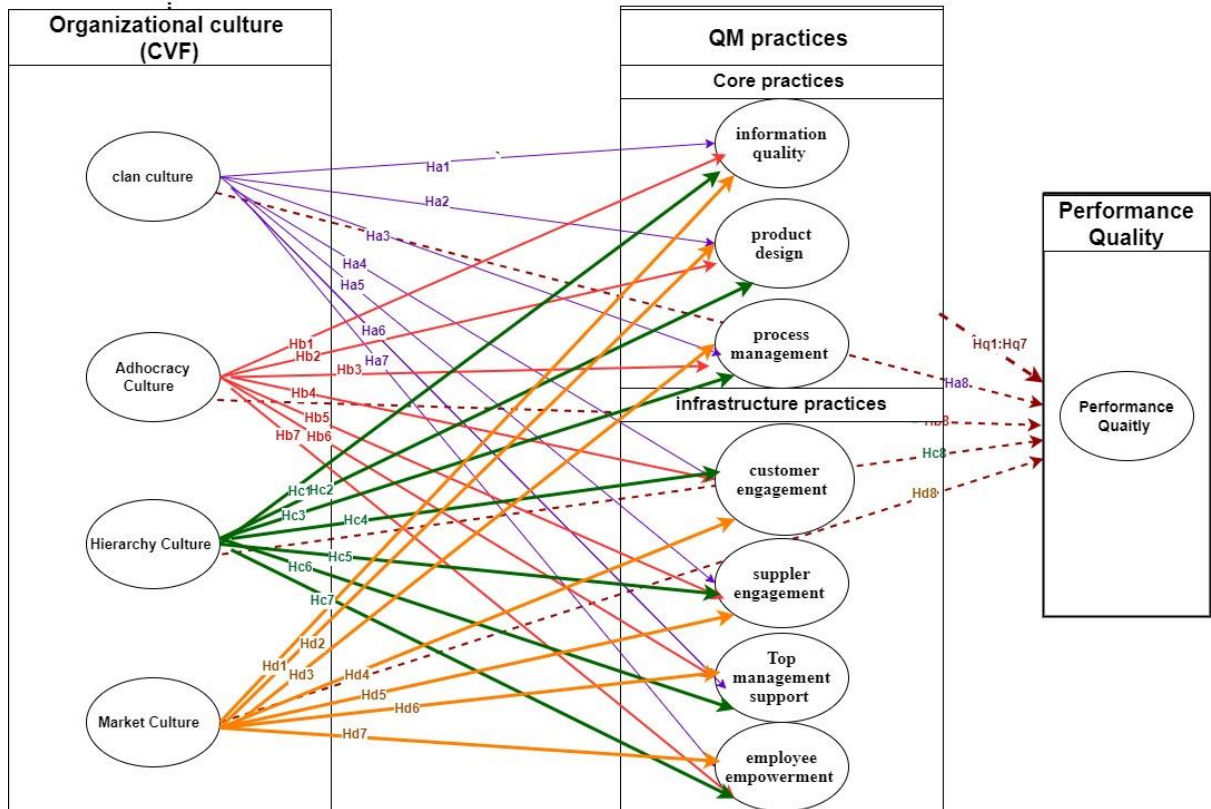


Figure (2. 6): The study conceptual framework

Chapter Three

Methodology

3.1 Overview

This chapter demonstrates the methodological approach used in this thesis. The first section focuses on different research philosophies and techniques—the methodological choice of quantitative, qualitative, or multiple methods is considered in the next section. And the research strategies design is explored.

The succeeding part explains the targeted population, sampling methods, and techniques for collecting data. Moreover, discussing the issues associated to validity and reliability is presented. The final section presents the data analysis techniques using (PLS-Path modeling) employed in this thesis to explore relationships between constructs.

3.2 Research Approach

It is the pathway through which knowledge can be pursued, explanations, and new information about the research problem, logically and systematically (Mondal, 2018).

In addition, the type of problem influences the choice of research methodology under investigation (exploratory or confirmative) that drives the selection of data collection and analysis methods and ultimately, the nature of the conclusions the research will have to draw (Turnbull et al., 2021).

3.2.1 Research Approach Types

The research type determination is not narrowed to the problem under inquiry only. It includes other factors, namely the target of the investigation, the nature of the study, the culture of the organization sponsoring the study, and the venue of future publication of

the results (Queirós et al., 2017; Khaled, 2021). There exist three basic forms of research including explanatory, exploratory, descriptive, or a combination of these (Kothari, 2017; Casula et al., 2021)

3.2.1.1 The Exploratory Research

The purpose of exploratory research is to obtain new insights and find out what is happening. It is performed whenever a researcher wants to discover a domain, learn about new topics, and increase knowledge. (Palagi et al., 2017).

It is the initial research into hypothetical or theoretical. There is an intention to ask questions and assess phenomena in a new light. This type of research is accurate for developing a hypothesis rather than investigating them; it is usually adopted in the early stages of research where the concepts are not clear enough to create an operational definition. This type of investigation generally relies on a qualitative approach. (Palagi et al., 2017; Akhtar, 2016)

3.2.1.2 The Descriptive Research

The descriptive research method refers to the type of research that aims to obtain information on the current state of phenomena. It aims to portray an accurate profile of persons, situations, people, or events (Ragab & Arisha, 2018).

3.2.1.3 The Explanatory Research

This research helps to find out the reasons behind the occurrence of a particular phenomenon, usually when explaining a situation or problem in the form of causal relationships between variables (Ragab & Arisha, 2018). The research is mainly

concerned with the causes or why“ factor about some phenomenon. Explanatory research helps get insight to build, elaborate, extend or test a theory. This approach is much relevant to quantitative (Akhtar,2016).

Meanwhile, the researcher has found, within the limits of her knowledge, no previous Palestinian study in the food industry that assessed the impact of each type of OCs on the QM thus derived from what was mentioned above, explanatory research is empirically tested depending on the surveyed data from the food industry to explore the correlation between the variables (cause and effect) relationships in the Palestinian context.

3.2.2 Research Approach Methods

Research approach as categorized in literature is factionalized into two types of methods as illustrated below:

Inductive method: It is an abstract level that elaborates a process where theory is developed by observing what the researcher has observed during his/her study. It is a recursive process that entails moving back and forth between data analysis and the literature to make meaning out of concepts (Azungah, 2018; Rahi, 2017).

The deductive method is an empirical level where theory already exists and is proved by researchers. Generally, the researcher intends to use this method to test an existing theory, formulating hypotheses and collecting recent data from respondents, then exploring the findings using statistical tests. This method is recommended whenever researchers work on a particular concept by creating assumptions and then verifying them (Azungah, 2018; Rahi, 2017).

Besides earlier mentioned, researches are classified also based on the nature of data collection techniques to qualitative or quantitative.

While, **the qualitative method** is adopted when the researcher wants to observe or interpret a phenomenon with the intention to develop a theory. This approach assumes that single feelings and emotions of a person are equally important to analyze. Therefore, open-ended questions, interviews, and observations are often used in collecting data for this method type (Rahi, 2017).

In contrast, **the quantitative method** is a scientific method and can identify its grounds in the positivist paradigm. This method focuses on fresh sample data collection under the problem from a large population and analysis of the data but ignores an individual's emotions and feelings (Rahi, 2017). In this approach, the primary tools used to gather data are questionnaires or structured interviews.

The nature of the current study is a deductive quantitative, and the process of collecting data is carried out utilizing a questionnaire.

3.3 Research Methodology

For a research development process to be deemed successful, a methodology must include logical, mostly sequential steps to achieve the desired objectives in a reliable, confident manner. Identifying the research problem and clarifying the purpose of the study, along with the study's objective, was carried out at the very beginning of the study. As part of the scope of this phase, the significance of the study was defined as well.

In the next step, an in-depth review of literature pertinent to the topic. In this regard, academic journals, conferences, government reports, and library resources were

reviewed. As a result, this step contributes to capturing the key variables for both the dependent and independent variables used in the study as well as defining the dimensions for each of them. In addition to determining the research gap and the contribution of this study to bridging this gap. Consequently, the research questions and hypotheses are formulated.

The following step in the research process included establishing the research methodology and strategy that led to answering the research questions and hypotheses.

The fourth step was the data collection, which was comprised of designing the data collection instrument (questionnaire), establishing the study population, and selecting a representative study sample. The questionnaire was designed to be answered online however, in order to ensure the widest participation of the target group the research made field visits to some factories in addition to contacting others by phone or email.

This fifth step involved analyzing and interpreting of the data gathered in the study in order to assess the hypotheses identified throughout the study, either accepting or rejecting them. Also, it investigated whether or not there is a relationship between the variables according to the framework that was proposed.

In this methodology, the last point was to draw conclusions and formulate recommendations based upon the results obtained in the data analysis and interpreting step. Figure (3-1) demonstrates the methodology flowchart.

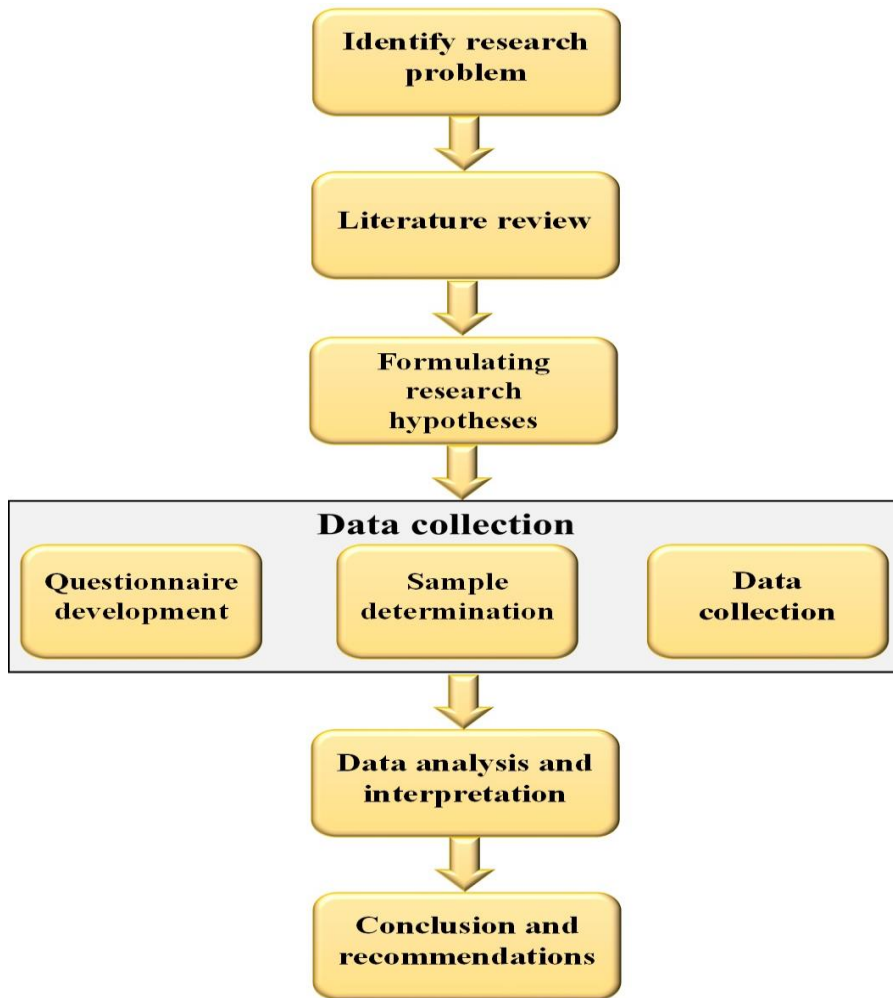


Figure (3. 1): Research methodology flowchart

3.4 Questionnaire Design

In quantitative research, the researchers utilize a pre-constructed standardized instrument or predetermined response categories for describing perspective and experience variations; These methods generally require large, randomly selected samples (Yilmaz, 2013); An instrument used to collect data from the target population to compile the right data at the right time, using the appropriate methods (Song et al., 2015)

The questionnaire is one of the most common tools to accomplish this task. In this respect, it is imperative to be aware of how important a well-designed questionnaire is and whether the questionnaire actually measures what it is intended to measure (Song et al, 2015). The questionnaires can be hardcopies or online version moreover they are administered either during face-to-face meetings, over the phone, sending by email or via the Internet using web-based application. The main feature of using a questionnaire is that the researcher can use it to conduct a survey simultaneously on a large sample. Nevertheless, this method consumes less effort, time, and cost than other approaches, such as interviews and observations.

In this research, an electronic questionnaire was designed using Google Form to distribute it to the targeted firms. In addition, the researcher contacted the firms by phone, email and field visits to urge them to contribute and respond to the questionnaire by answering it with a high degree of objectivity to collect the raw data. Almost all of the questions were closed-ended, which helped researchers identify a general pattern of reactions from participants. In addition, close-ended questions can provide categorized information. Aside from that, they are easy to administer, analyze, code, and explore relations between the variables (Song et al., 2015). To measure the variables OC, QM practices, and quality performance under investigation, the scored five-point Likert-type scale was utilized, ranging from a scale of 1 (strongly disagree) to a scale of 5 (strongly agree) for each of the items in the variables.

An extensive systematic literature review has been conducted to explore and develop items that measure each of these constructs. This process led to the creation of ninety-scale items. Afterward, three judges (Dr. Ashraf Almimi from Arab American University

, Dr. Mohammad Othman and Dr. Ayham Jaaron from Najah university) who evaluated the generated items in terms of clarity, redundancy, and how accurately each item reflected its construct. The items were revised as a result of the feedback provided by the judges. As a consequence, some questions have been reformulated, and others have been deleted, leaving an overall number of seventy-six questions.

There are five main sections in the final version of the Questionnaire, the first page was a cover letter that contained an objective summary of the study, thank-you notes to all the participants who co-operated with the study, and the researcher's contact information for any further inquiries.

First section mainly contained the demographic characteristics of the respondent and the firm he/she represents such as participate job title, participant gender, firm subsector, numbers of employees, years of working in the field and firm location

Second section consists of four subsections to measure the adoption level of the four types of the OC in CVF (clan, hierarchy, market and adhocracy) in the food industry in Palestine a sum of 29 measurement item were formulated guided by previous studies (Zeb et al., 2021; Botti and Vesci, 2018; Patyal and Koliajuntal, 2018; Naor et al., 2008; Al-Khalifa 20000; Hooijberg and Petrock,1993)

In the third section, two subsections are divided into Core and Infrastructure QM practices.

This study adapted Flynn and his college's classification to QM practices that were established in 1995, and identified 7 dimensions for OM practices

Core practices composed of three dimensions which require a sum of 19 items to assess the implementation level of each dimension. On the other hand, infrastructure practices

include four dimensions that required 24 items to evaluate the maturity of their implementations in work. the previous studies

(Naor et al., 2008; Idrees, 2018; Patyal and Koliajuntal, 2018; Asif, 2019; Jung & Wang, 2006; Mastor & Ibrahim,2012) Aided in formulation the indicators for each dimension in this

Section four has 7 items to assess the quality performance of the firm.

Section five – Open-ended Question (optional). The use of open questions was designed to encourage the participant contribute any ideas or comments he/she believes are important and have not been included in the survey or to add further explanation.

The questionnaire has been formulated in two versions, in Arabic and English language, both of them are available in the appendix (A), (B). However, the online version was in Arabic and was distributed to 76 firms via email, telephone, and many of them were contacted personally in order to encourage cooperation and resolve any ambiguity in the items. In total, three and a half months in the year of 2021 were needed to compile the designated responses, A total of 70 questionnaires were submitted and all of them were found to be valid. Data collected were stored anonymously on the online google database.

3.5 Sampling Techniques

Since the study's main objective is to answer the research question accurately and adequately, selecting the right population is a must. However, according to Taherdoost (2016) collecting data from the entire population in most cases is unrealistic as its time and resource consuming; therefore, the best option is a selection of a representative sample of the target group using sampling techniques. Moreover, as mentioned in the

same paper, the method of selecting a representative sample involves three stages: defining the target population, selecting the sampling frame, and determining the sampling method.

The population in this research is the food manufacturing sector in Palestine, where the thesis seeks to examine the impact of OC culture in applying QM practices in this sector.

According to MNE official data for 2021, there are 598 registered working companies in the food manufacturing sector and the list of food companies have from the PFIU are (187) companies distributed between the West Bank and Gaza Strip. To be geared toward ensuring adequate participation of a representative sample of the population that serves the researchers' objectives, a representative sample of the population has been chosen based on the predetermined criteria. The criteria included that the company must be registered at MNE according to the Palestinian Law of Companies and registered in PFIU; the company ought to work in the production and manufacturing field, not in the importing or packaging field. The study also excludes bakeries, slaughterhouses, cattle and cow farms, and companies that do not have a department or employee specialized in implementing quality standards.

The research criteria were applied to all firms to set the right population. On the ground of this, a final list of 82 factories fulfilled these criteria, through which the sample must be selected.

In order to determine the sample size, we used sample size formulas. These formulas calculate the size of the sample based on several parameters. Steven Thompson sampling formula is used to calculate the sample size as

$$n = \left[\frac{N \times p(1-p)}{\left[N-1 \times \left(d^2 \div z^2 \right) \right] + p(1-p)} \right]$$

Where;

n = the sample size.

N = the population size, (82).

d = the percentage error, (0.05).

P = proportion of the property offers and neutral, (0.5).

z = z value is the upper of the normal distribution (1.96 for 95% confidence level).

Accordingly,

$$n = \frac{82 * 0.5(1 - 0.5)}{\left[(82 - 1) * \left(\frac{0.05^2}{1.96^2} \right) \right] + 0.5(1 - 0.5)} = 68 \text{ firms}$$

3.6 Data Analysis Technique

The collected data don't give any indicators as it is considered primary data; thus, to transform it into valuable information, these data should go into the process of analysis then interpretation. In this area, there are various tools and software packages that offer various data analysis options starting from small sample spreadsheets created with an application like Excel to advanced specialized software such as SPSS, Minitab and SMART-PLS.

Visualization of data and implementation of the methods and techniques used to answer the thesis questions have different forms, and are not limited to just graphs and tables, but also include complex statistical tools to allow testing of relationships between variables, trends, and predictions. In this thesis, the gathered data was analysed statically using the Partial Least Squares Structural Equation Modelling (PLS-SEM). The SMART-PLS is used as the core software package in the data analysis process with

the help of Excel sheets and SPSS for encoding data and developing descriptive charts for demographic information.

3.6.1 SEM -PLS Path Model

PLS-SEM was developed by Herman Wold in 1982 (Hair et al., 2020). It has been reported several times that PLS-SEM provides significant benefits due to its ability to simplify estimating models with a great number of constructs, indicators, and structural paths with no imposing distributional assumptions on the data. Furthermore, PLS-SEM is used to determine causal relationships between variables and it handles small sample sizes that do not require to be normal as PLS is considered a nonparametric statistical method (Cham et al., 2020). Besides its higher statistical power, which makes it suitable for exploratory research that examines less developed or emerging theories (Hair et al., 2019). In fact, PLS-SEM method is used by a wide range of social science disciplines such as human resource management, operations management, marketing management and more (Cham et al., 2020; Hair et al., 2019).

Structural equation models consist of two sub-models: the inner model that specifies the relationship between independent and dependent latent variables. In contrast, the outer model establishes the relationship between latent variables and the observed indicators; SEM treats variables as either exogenous variables or endogenous variables. The former has arrows pointing outward, while the latter has arrows leading into it and representing other variables' effects (Wong, 2013). Figure (3-3) illustrates the SEM

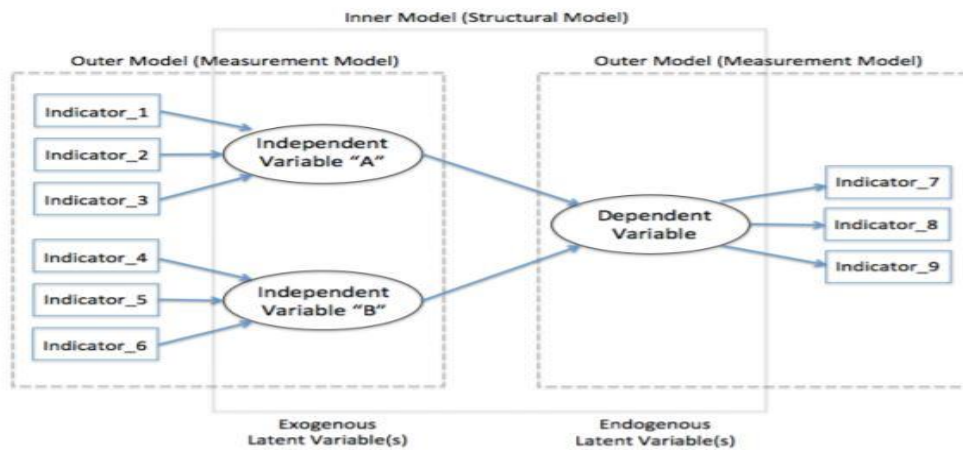


Figure (3. 2): Inner vs. outer models in a SEM diagram (Wong, 2013)

The indicators for the latent variables can be either reflective or formative. While the reflective latent variables show a common latent factor structure and demonstrate that changes in the underlying latent construct correspond to changes in the reflective indicators.

Because of this, the indicators are all correlated and represent the underlying construct. Since the indicators are very closely related, dropping an indicator should not change the conceptual meaning of the variable (Freeze & Rashke, 2007).

For formative composite variables, the indicators impact the construct. These are often referred to as causal indicators, and the construct is often referred to as a combination variable. Thus, the omission of an indicator entails omitting a component of the construct (Freeze & Rashke, 2007).

3.6.2 Assessing PLS-SEM Path Model

Path modeling visualizes the variables/constructs and hypotheses that are examined when SEM is applied. Measurement and structural theories are the two types of theories that should be involved in developing a path model.

Akter et al. (2017) illustrates that the findings of the measurement model provide sufficient evidence of reliability, convergent validity, and discriminant validity concerning the outer model. These findings provide confidence in all the hypothesized relationships based on the structural model (inner model).

The variables indicators in this study are reflective for both QM practices and OC based on the prior researchers (Nazar et al., 2020; Eniola et al., 2019; Azeem et al., 2021, Imran et al., 2018) and for quality performance. Moreover, the SMART-PLS software package is utilized to analyze raw data because it is user-friendly, easy to use, and available for free across the globe.

Chapter Four:

Data Analysis and results

4.1 Overview

This chapter is devoted to testing hypotheses and discovering relationships between the variables under study. The first part of the research covers the presentation of descriptive statistics' findings. Then the SMART-PLS program is used to test hypotheses by analyzing the data collected via implementing the partial least squares structural equation modeling (PLS-SEM).

The analysis results and findings of the impact of OC on applying OM practices in the Palestinian context and food manufacturing firm's sustainable performance are presented in the next sections.

4.2 Demographic Profile

This part analyzes the representative sample's descriptive data Diversified those companies in terms of the number of years' experience of respondents, company ownership structure, the sub-sector in the industry, size of the company industry, number of employees, years of food manufacturing, location, exporting activities, acquiring quality certifications; the demonstration of the results exists in the following lines.

4.2.1 Demographic Profile for Respondents

Respondents Gender: The analysis reveals that 76% of the respondents from the targeted food firms were male, whilst 24% of the respondents were female, as exhibited in Figure (4-1).

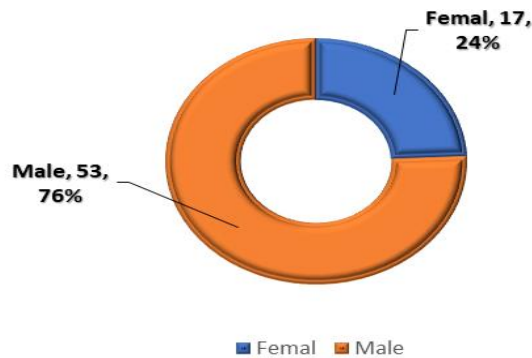


Figure (4. 1): Respondents' Gender

4.2.1.1 Respondents' work experiences in companies: Figure (4-2) indicates that 21% of respondents have work experience of fewer than five years, and the same percentage has been obtained among respondents with work experience between 11 and 15 years. Also, 19% of respondents have over 15 years of work experience, while 39% have between six and ten years.

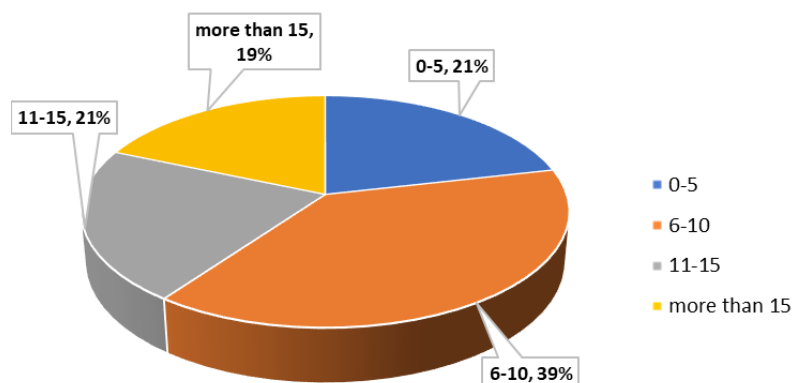


Figure (4. 2): Respondents' work experiences

4.2.1.2 Respondents' Positions: Figure (4-3) represents that the majority of the respondent was working in the quality department as (quality manager and quality engineer) with 63 %, and 16% of them were company manger, whereas 7% is the percentage that represents each of production manager, HR manager, and other respondents.

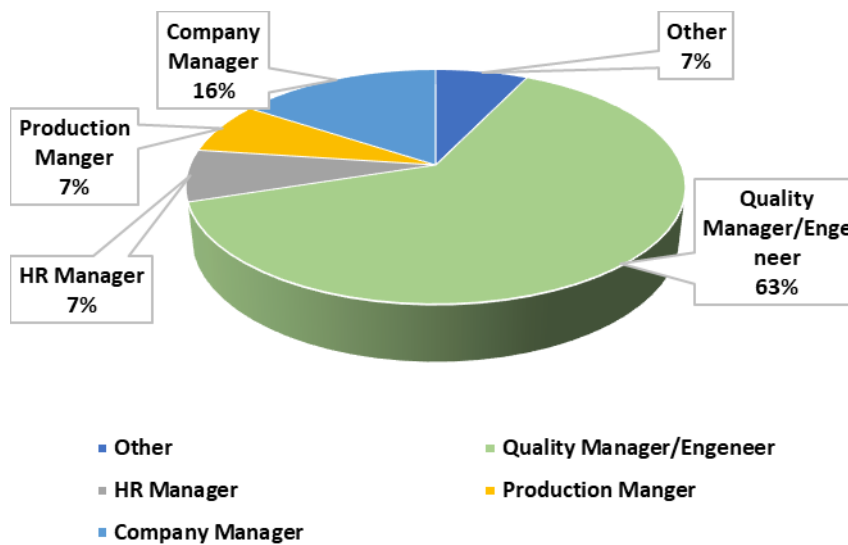


Figure (4. 3): Respondents' positions

4.2.2 Demographic Profile for the Targeted Firms

4.2.2.1 Firms' Locations

A company's location refers to the geographic area where a company exists. Palestine has two levels of the regional administration. The first level includes two main areas – the West Bank and Gaza Strip. The second level contains 16 governorates distributed between the two main areas (Afaneh, 2018).

As seen in Figure (4-4), the percentage of food companies located in the West Bank region represents 84% of the entire sample; meanwhile, the remaining rate (16%) is in the Gaza Strip.

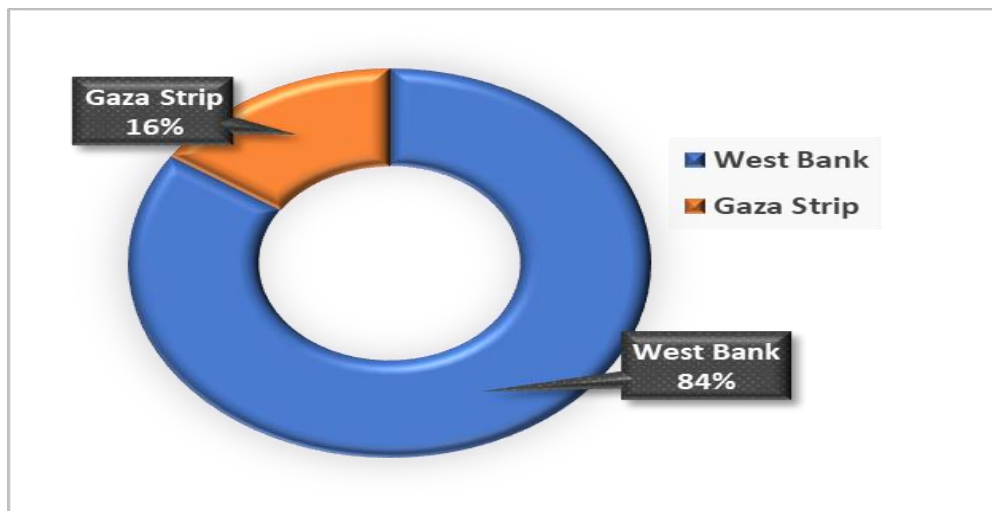


Figure (4. 4): Firms' location

In a related context, Figure (4-5) depicts the distribution of factories according to the governorates of Palestine, which lies in the second level of the geographical distribution. Figure (4-5) indicates that the West Bank companies involved in food manufacturing that are represented in the sample by the following percentage (Nablus 23%, Ramallah 21%, Hebron 14%, Jerusalem and Tulkarm 9% for each, Jericho and Tubas 4% for each, and Bethlehem 1%). At the same time, the percentage of the Gaza Strip companies from the entire sample was distributed as (Gaza city 7%, Deir Al-Balah 3%, and North Gaza 4%).

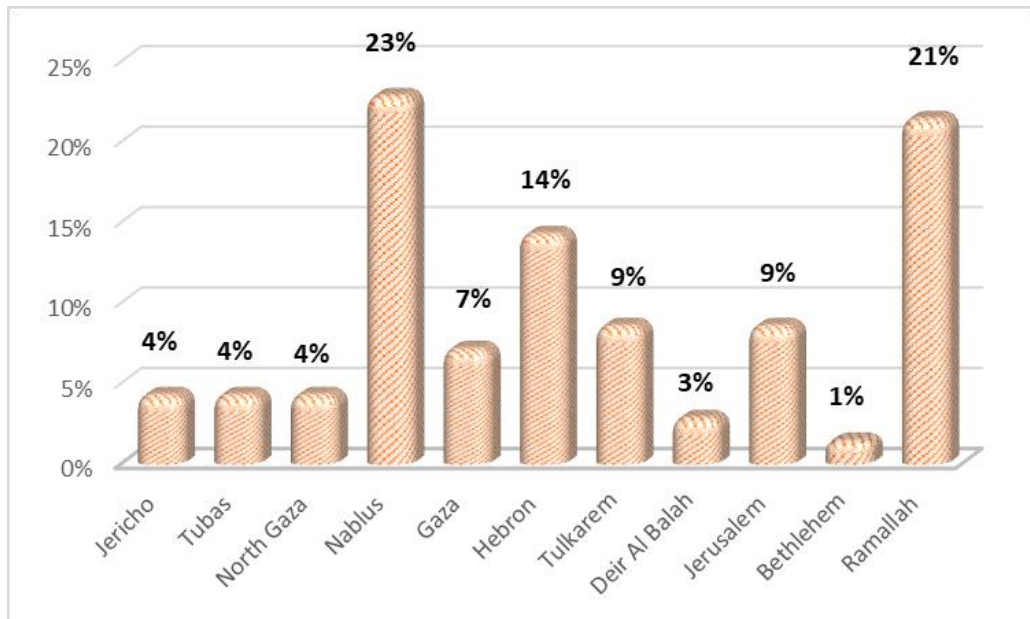


Figure (4. 5): Firms' location according to governorates

4.2.2.2 Firms Food Subsectors

The PFIU and the PCPS classify the food industry into eleven main subsectors. Concerning the data collected, Figure (4-6) below indicates that the most representative food subsectors in the sample were other food products and milk and dairy products manufacturing firms, with 26% and 20% respectively. About 16% of surveyed firms were manufacturing sugar, confectionery, and chocolate products, while the meat poultry product represents 14%. Yet, oil and fats products sectors accounted for 7% of the sample. Both drinks and water mineral, and fruit and vegetable-pickling, freezing, and canning accounted for 6% each, and 4% of respondents were from manufacturing grain mills and starch products. Lastly, only 1% of the sample went to pasta and noodles.



Figure (4. 6): Percentage of the representation of each of the Food Sub Sectors in the study

4.2.2.3 Number of Employees

According to the Organization for Economic Cooperation and Development (OECD,2021), companies can be classified into different categories based on the number of people employed. These include micro-companies with fewer than ten employees, small companies from 10 to 49, companies with 50 to 249 employees are medium-sized, and large companies that employ 250 or more people. As shown in Figure (4-7), the large companies with more than 250 employees rated 16% of the surveyed companies, 48% of the sample respondents from the medium size companies, 26% of small-size companies, and 10% of them are micro-companies.



Figure (4. 7): Number of employees in the firms

4.2.2.4 Firms' Years of Experience in the Palestinian Market

Figure (4-8) shows that 50% of the sample have been working in the Palestinian market for more than 20 years, where 17% of them have been working in the market for 15 to 20 years, 13% of them have experience in the food industry from 11 to 15 years while 16% of them have experience from 6 to 10 and 4% of them have less than five years' experience.

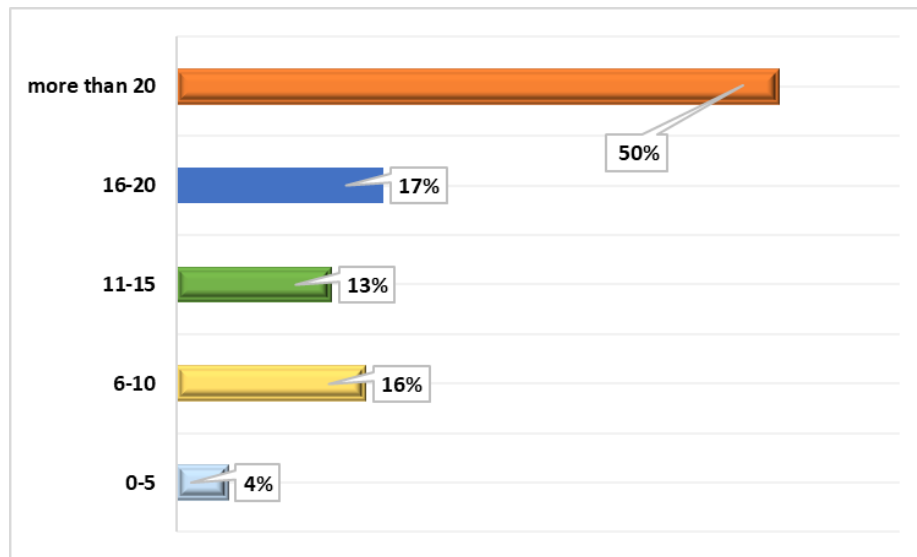


Figure (4. 8): Firms working years in the Palestinian market

4.2.2.5 Ownership Structures

The ownership structures are categorized based on the Palestinian law of companies No.6 of (MNE, 2017) into four types. Figure (4-9) indicates that distribution of the sample based on this classification, as 66% of the companies' respondents were from a private limited shareholding, 19% of the companies were public limited companies, 11% of the companies were ordinary limited companies, and 4% were public ordinary shareholding companies.

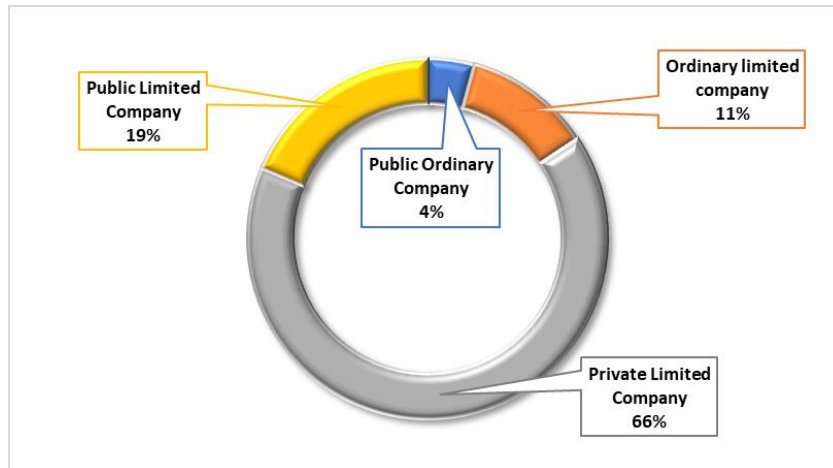


Figure (4. 9): Classification of the firms' registration

On top of that, Figure (4-10) indicates that the majority of companies in the sample, with 80% were family-owned businesses, while the remaining 20% of companies were non-family-owned businesses.

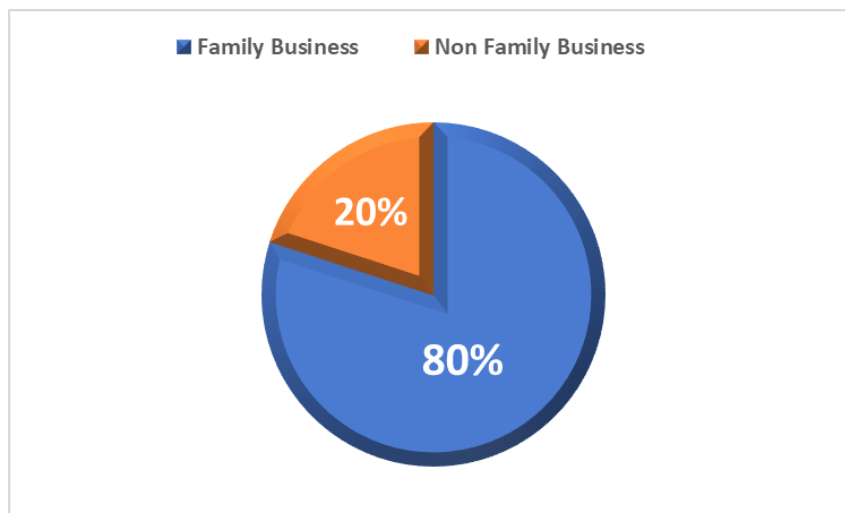


Figure (4. 10): Distribution of firms' according to ownership structure variable

4.2.2.6 Exporting Activities

According to Figure (4-11), 54% of the companies export their products whereas 46% of the companies do not.

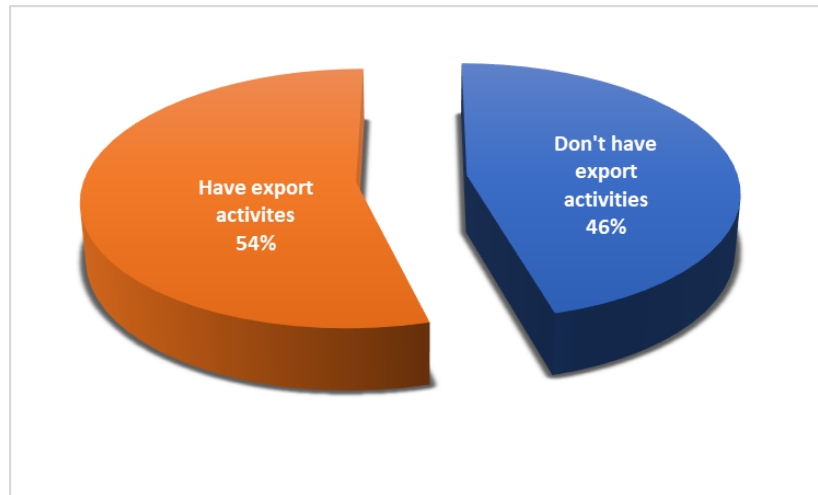


Figure (4. 11):The distribution according to firms' export activities

Consequently, from the companies surveyed in the research, Figure (4-12) emphasizes that most respondent company's food industries in Palestine (83%) target local markets as the main selling points for their products. The international market ranked second with 11%, while the regional market got only 6%.

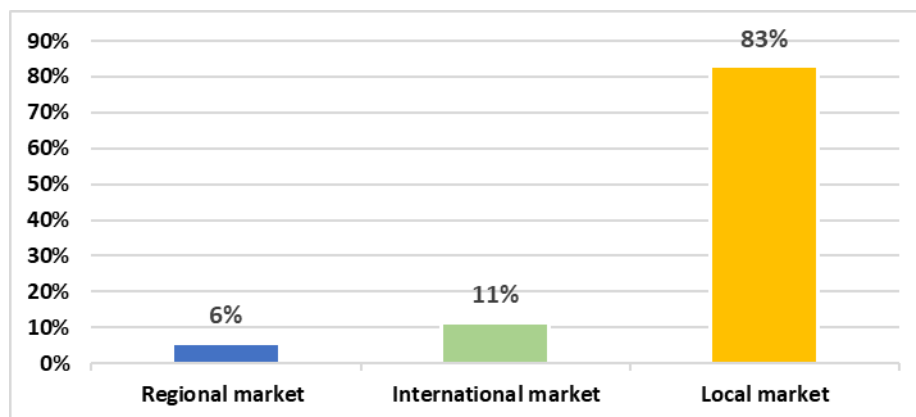


Figure (4. 12): Distribution companies according to the major selling point

4.2.2.7 Quality Certifications of Responding Companies

Figure (4-13) highlights that 67% of the tested sample was awarded certifications for their food quality, distributed these certifications among several classifications: Palestinian certifications including Palestinian quality and supervision certificates and a Palestinian Halal standards certificate; and global certifications including ISO 9001:2015 "Quality Management," ISO 22000:2015 "Food Safety Management Systems," ISO 14001:2015 "Environmental Management Systems," FSSC 22000 "The Food Safety System Certification," HACCP Certificate "Hazard Analysis and Critical Control Points," Global GAP Certification, and the OHSAS 18001 "Occupational Health & Safety" certification.

Meanwhile, 33% of the tested sample were not having any certification for their work quality. Yet, most of these companies implement quality practices and strive to hold certifications, according to respondents in the questionnaire.

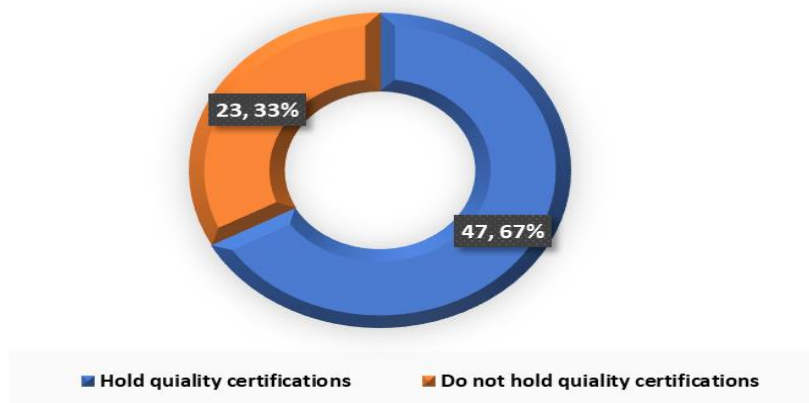


Figure (4. 13): Distribution of firms according to Quality certifications holding

4.2.2.8 Implementation of OC Types in the Workplace

Figure (4-14) indicates that the median for market and adhocracy culture is equal to 4 while it is 3.8 for hierarchy and clan cultures; furthermore, there is a high spread in the answers for the adoption of clan culture with the minimum value two and maximum value five. On the other hand, the respondent for adopting the hierarchy culture shows that it ranges from 2.3 to 5 and has more variation than market and adhocracy culture. At the same time, the adhocracy culture and the market culture showed less variability than the other two varying from 3.1 to 5 for adhocracy and 2.9 to 5 for the market.

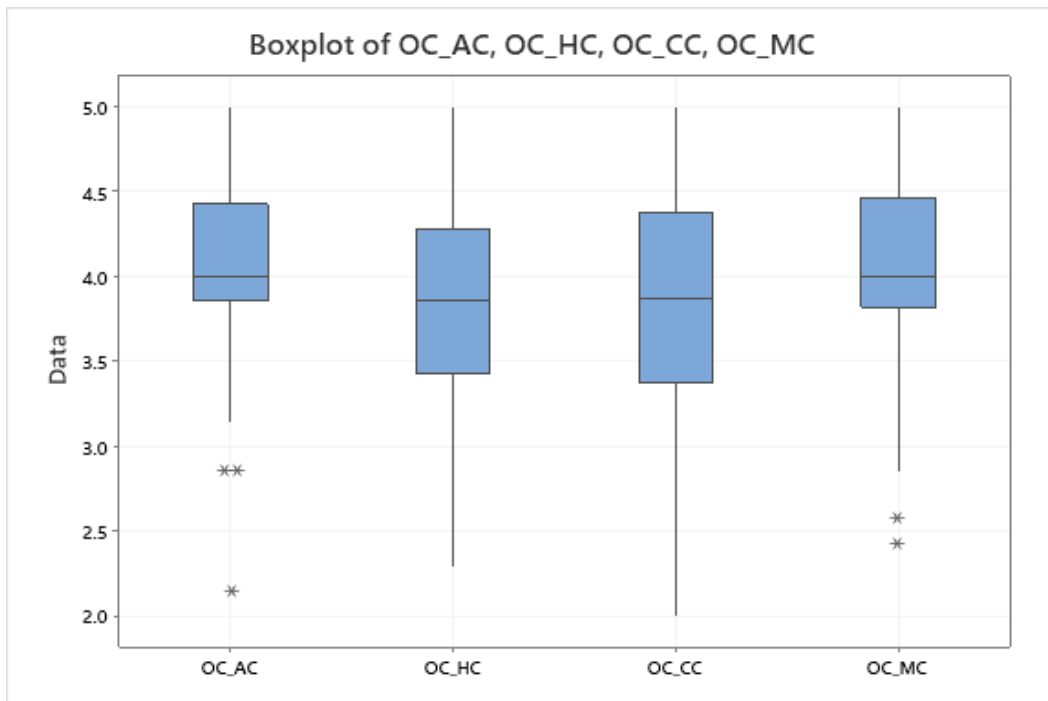


Figure (4. 14): The implementation of OC types in firms' workplace

4.2.2.9 Implementation of QM practices in the workplace

Figure (4-15) below illustrates that all quality practices have a median of four and higher value, however, customer involvement and process management have the height

median with 4.4 and 4.3, respectively, compared with all others core and infrastructure categories. Supplier involvement and information quality both got the lowest median with 4 degree and both in addition to process management have high variation as the answers varies from 2.5 ,2.3,2.4 to 5. As shown in the Appendix (4-1) a further test was performed using One-Way ANOVA, and the result showed a significantly lower value than 0.05

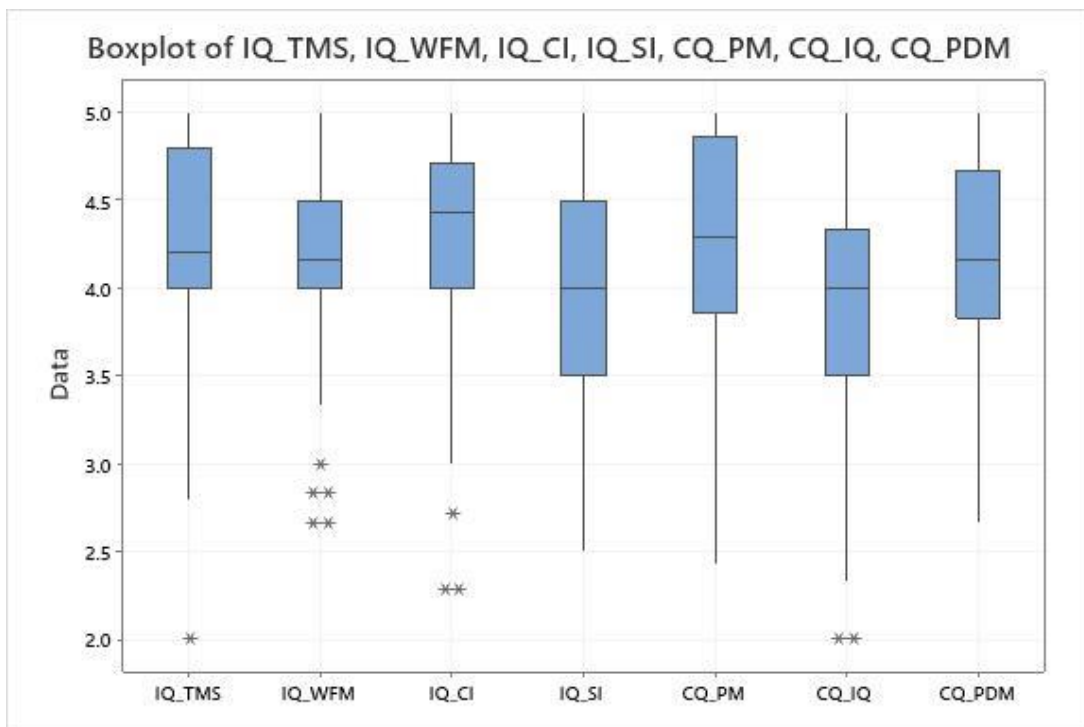


Figure (4. 15): The implementation of QM practices in firms' workplace

4.3 SEM-Partial Least Squares (PLS) Analysis

4.3.1 Measurement Development

An extensive systematic literature review has been conducted to explore and develop items that measure each of thesis constructs. As a consequence, there was a total of 77 questions in the questionnaire that examined the variables under study and were distributed as follows: -

Having reviewed the relevant studies, 29 measurement items were designed (Clan: 8 Items, Market: 7 Items, Adhocracy: 7 Items, and Hierarchy: 7 Items) to measure the four types of organizational culture.

From previous studies (19 measurement items were developed to assess core QM (Process Management: 7 Items, Quality Information: 6 Items, and Product Design: 6 Items) and 24 to assess the infrastructure QM (Top Management Support:5 Items, Customer involvement: 7 Items, workforce management: 6 Items, and supplier involvement:4 Items), while A total of 7 items were developed to investigate quality performance.

Table (4-1) summarizes the sources that were consulted and used as guidelines for developing the questionnaire.

Table (4. 1):Variable measurement

Variable	dimensions	Construct Items	References
Organizational Culture	Clan Culture	OC_CC1: OC_CC8	(Zeb et al., 2021; Botti and Vesci, 2018; Patyal and Koliajunta,2018; Naor et al., 2008; Al-Khalifa 2000; Hooijberg and Petrock, 1993)
	Market culture	OM_MC1: OC_MC7	
	Adhocracy Culture	OC_AC1: OC_AC7	
	Hierarchy Culture	OC_HC1: OC_AH7	
OM practices - infrastructure	Top Management Support	IQ-TMS1: IQ_TMS5	(Naor et al, 2008; Idrees,2018; Patyal and Koliajunta,2018; Asif,2019; Jung & Wang,2006; Mastor & Ibrahim,2012)
	Customer involvement	IQ-CI1: IQ-CI7	
	Workforce management	IQ_WFM1:IQ_WFM6	
	Supplier involvement	IQ_SI1: IQ_SI4	
OM practices - Core	Information Quality	CQ_IQM1: CQ_IQM6	
	Product Design	CQ_PDM1: CQ_PDM6	
	Process Management	CQ_PM1: CQ_PM6	
Quality performance	Quality performance	Qp1:QP7	(Idrees,2018;García-Bernal& Ramírez, 2015)

4.3.2 Assessment of the Measurement Model

Within their study, Hair et al., (2019) described that in the context of reflective measurement model assessment, the first step entails analyzing the indicator loadings. As long as the loadings are higher than 0.70, the construct explains at least 50% of the variance of the indicator, which provides acceptable item reliability. Secondly, assessing internal consistency reliability is needed. Traditionally, Cronbach's alpha has been calculated as a measure of internal consistency reliability in social science research, but this can sometimes be a conservative measurement when evaluating PLS-SEM surveys, consequently "Composite Reliability" was suggested as a replacement prior literature (Wong, 2013); Nevertheless, the value must be higher than 0.70, but the value exceeding 0.95 is certainly not desirable (Ab Hamid et al., 2017).

As part of the reflective measurement model assessment, the third step addresses the convergent validity of each construct measure. Convergent validity indicates how well the construct explains the variance of its items. The factor loading of the indicator, the composite reliability (CR), and the average variance extracted (AVE) need to be considered in order to establish convergent validity. AVE values should be greater than 0.50 in order to ensure convergent validity convergent validity (Fornell & Larcker, 1981; Ab Hamid et al. , 2017).

Table (4-2) shows the evaluation of the three above-mentioned measurement indicators. Item loading for variables indicators are 0.7 and higher for OC, core QM, infrastructure QM, quality performance. Furthermore, Table (4-2) and Figure (4-16) show that all indicators had CR values greater than threshold 0.7, proving their reliability. The average variance extracted (AVE) have a value higher than 0.5 indicating sufficient validity of the constructs.

Table (4. 2): Reflective constructs measurement properties

Reflective Variable	Construct Items	Item Loading	Composite Reliability (CR)	Average Variance Extracted (AVE)
CQ_IQM	CQ_IQM1	0.801	0.923	0.666
	CQ_IQM2	0.830		
	CQ_IQM3	0.812		
	CQ_IQM4	0.781		
	CQ_IQM5	0.861		
	CQ_IQM6	0.809		
CQ_PDM	CQ_PDM1	0.879	0.895	0.68
	CQ_PDM2	0.826		
	CQ_PDM5	0.797		
	CQ_PDM6	0.795		
CQ_PM	CQ_PM1	0.885	0.946	0.778
	CQ_PM4	0.897		
	CQ_PM5	0.856		
	CQ_PM6	0.908		
	CQ_PM7	0.862		
IQ_TMS	IQ-TMS1	0.879	0.936	0.744
	IQ-TMS2	0.874		
	IQ-TMS3	0.907		
	IQ-TMS4	0.829		
	IQ-TMS5	0.822		

IQ_CI	IQ_CI1	0.722		
	IQ_CI2	0.857		
	IQ_CI4	0.817	0.909	0.668
	IQ_CI6	0.867		
	IQ_CI7	0.816		
IQ_SI	IQ_SI1	0.851		
	IQ_SI2	0.840	0.858	0.668
	IQ_SI4	0.757		
IQ_WFM	IQ_WFM1	0.794		
	IQ_WFM4	0.830		
	IQ_WFM5	0.820	0.883	0.653
	IQ_WFM6	0.788		
OC_AC	OC_AC2	0.864		
	OC_AC3	0.798		
	OC_AC4	0.758	0.896	0.635
	OC_AC5	0.745		
	OC_AC7	0.813		
OC_CC	OC_CC1	0.832		
	OC_CC2	0.902		
	OC_CC3	0.750	0.918	0.692
	OC_CC6	0.855		
	OC_CC8	0.812		
OC_HC	OC_HC1	0.889	0.882	0.713

	OC_HC2	0.837		
	OC_HC7	0.806		
OC_MC	OC_MC1	0.832		
	OC_MC2	0.768	0.887	0.663
	OC_MC4	0.851		
	OC_MC6	0.804		
QP	QP1	0.819		
	QP2	0.701		
	QP3	0.768		
	QP4	0.764	0.912	0.596
	QP5	0.743		
	QP6	0.781		
	QP7	0.822		

The final validation of the measurement model will use the three types of discriminate validity. In an attempt to assess the degree to which constructs differ from each other empirically. In addition to whether the indicators for a construct are surely distinguishable from other indicators of a different construct, the three measures that have been applied are cross-loading, the Fornell-Larcker criterion, and Hetertrait-Monotrait Ratio (HTML).

In terms of cross-loading measures, the load on the assigned construct should be higher than any other construct's load with a cut-off value of load higher than 0.70. Table (4-3), indicators showed that outer loading had been verified based on the criteria. The other measurement is the Fornell-Lacker, where the construct's variance with its indicators is larger than any other construct's variance. For this requirement to be met, the AVE of a

construct has to be greater than its highest squared correlation with another construct. (Hair & Kuppelwieser, 2014; Ab Hamid et al., 2017). And this has been confirmed for the constructs used in the model as presented in Table (4-4). With reference to HTML, Henschler et al. (2015) stated that HTMT's values less than 1 indicate good reliability; other researchers disagreed with this stance and recommended a value less than 0.90 (Ab Hamid et al., 2017). The estimated HTMT's values for this study were less than 0.9 for all constructs as shown in Table (4-5); therefore, the model's discriminant validity is satisfactory.

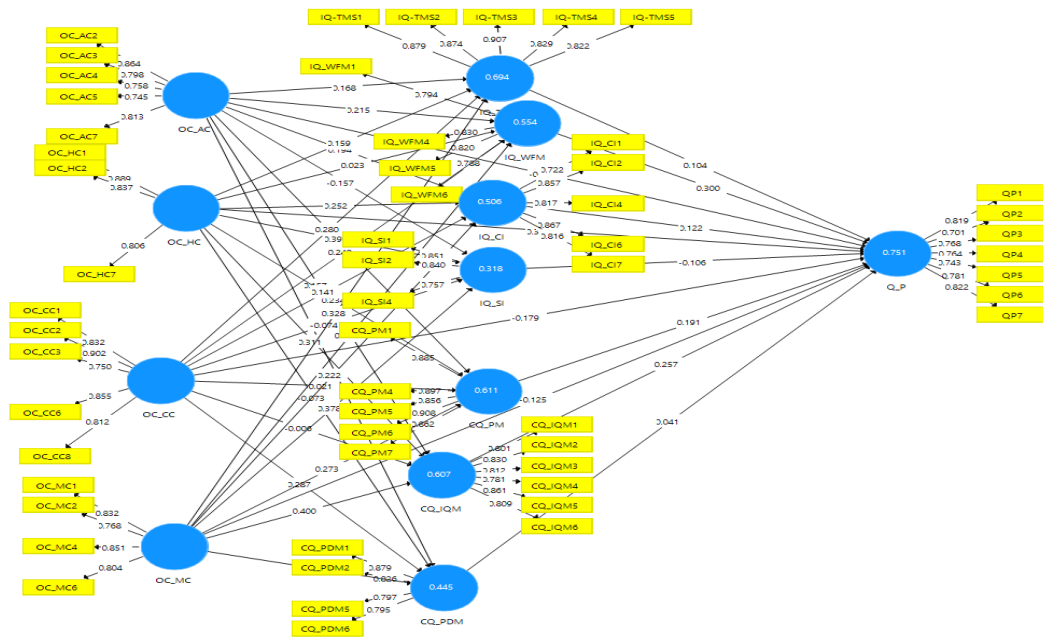


Figure (4. 16): Research measurement model pls path modeling estimate

Table (4. 3): Discriminant validity- Cross Loading

	CQ_IQM	CQ_PDM	CQ_PM	IQ_CI	IQ_SI	IQ_TMS	IQ_WFM	OC_AC	OC_CC	OC_HC	OC_MC	Q_P
CQ_IQM1	0.801	0.384	0.585	0.475	0.384	0.644	0.445	0.483	0.448	0.694	0.570	0.59
CQ_IQM2	0.830	0.540	0.654	0.625	0.514	0.636	0.596	0.411	0.468	0.593	0.637	0.639
CQ_IQM3	0.812	0.497	0.519	0.403	0.397	0.548	0.584	0.433	0.385	0.482	0.581	0.584
CQ_IQM4	0.781	0.459	0.575	0.451	0.265	0.612	0.530	0.598	0.466	0.449	0.550	0.495
CQ_IQM5	0.861	0.611	0.650	0.572	0.447	0.782	0.614	0.574	0.614	0.623	0.645	0.688
CQ_IQM6	0.809	0.525	0.662	0.661	0.313	0.683	0.592	0.600	0.597	0.532	0.625	0.722
CQ_PDM1	0.481	0.879	0.605	0.624	0.398	0.623	0.651	0.508	0.580	0.391	0.583	0.468
CQ_PDM2	0.441	0.826	0.580	0.518	0.38	0.591	0.623	0.531	0.534	0.342	0.563	0.424
CQ_PDM5	0.534	0.797	0.578	0.706	0.522	0.526	0.609	0.410	0.410	0.402	0.452	0.603
CQ_PDM6	0.586	0.795	0.525	0.573	0.392	0.542	0.571	0.421	0.491	0.376	0.464	0.545
CQ_PM1	0.674	0.657	0.885	0.68	0.400	0.660	0.687	0.664	0.539	0.563	0.631	0.784
CQ_PM4	0.666	0.623	0.897	0.712	0.466	0.640	0.714	0.615	0.609	0.583	0.63	0.638
CQ_PM5	0.582	0.493	0.856	0.641	0.345	0.611	0.642	0.565	0.518	0.477	0.564	0.526
CQ_PM6	0.647	0.605	0.908	0.807	0.456	0.601	0.679	0.542	0.476	0.598	0.625	0.693
CQ_PM7	0.708	0.654	0.862	0.689	0.453	0.729	0.662	0.708	0.632	0.649	0.704	0.716
IQ-TMS1	0.689	0.532	0.627	0.515	0.413	0.879	0.591	0.669	0.693	0.616	0.717	0.656
IQ-TMS2	0.684	0.663	0.578	0.632	0.477	0.874	0.624	0.622	0.700	0.642	0.753	0.617
IQ-TMS3	0.711	0.678	0.622	0.629	0.487	0.907	0.645	0.588	0.706	0.62	0.767	0.585
IQ-TMS4	0.711	0.513	0.627	0.531	0.447	0.829	0.572	0.522	0.456	0.519	0.516	0.623

IQ-TMS5	0.672	0.594	0.744	0.705	0.450	0.822	0.683	0.624	0.669	0.530	0.591	0.581
IQ_CI1	0.489	0.519	0.584	0.722	0.401	0.631	0.480	0.514	0.426	0.445	0.471	0.5
IQ_CI2	0.570	0.656	0.654	0.857	0.431	0.654	0.587	0.617	0.609	0.535	0.533	0.601
IQ_CI4	0.490	0.608	0.638	0.817	0.432	0.520	0.549	0.446	0.408	0.423	0.433	0.589
IQ_CI6	0.648	0.618	0.743	0.867	0.541	0.606	0.670	0.476	0.542	0.627	0.663	0.687
IQ_CI7	0.465	0.597	0.644	0.816	0.581	0.426	0.637	0.425	0.497	0.480	0.560	0.487
IQ_SI1	0.371	0.509	0.353	0.599	0.851	0.386	0.445	0.178	0.305	0.391	0.385	0.362
IQ_SI2	0.434	0.455	0.413	0.413	0.84	0.495	0.451	0.327	0.383	0.459	0.476	0.361
IQ_SI4	0.361	0.292	0.416	0.424	0.757	0.404	0.253	0.228	0.184	0.437	0.339	0.372
IQ_WFM1	0.528	0.583	0.671	0.589	0.354	0.606	0.794	0.603	0.500	0.461	0.521	0.594
IQ_WFM4	0.596	0.678	0.644	0.555	0.363	0.627	0.83	0.53	0.607	0.380	0.575	0.545
IQ_WFM5	0.473	0.527	0.564	0.574	0.485	0.497	0.82	0.318	0.470	0.469	0.513	0.534
IQ_WFM6	0.605	0.604	0.596	0.596	0.335	0.586	0.788	0.614	0.575	0.485	0.633	0.675
OC_AC2	0.515	0.472	0.568	0.455	0.281	0.647	0.574	0.864	0.575	0.492	0.663	0.519
OC_AC3	0.418	0.398	0.453	0.410	0.297	0.502	0.418	0.798	0.558	0.437	0.534	0.348
OC_AC4	0.581	0.459	0.565	0.514	0.154	0.503	0.486	0.758	0.545	0.501	0.646	0.582
OC_AC5	0.363	0.350	0.499	0.362	0.16	0.46	0.412	0.745	0.412	0.402	0.466	0.329
OC_AC7	0.589	0.537	0.684	0.622	0.294	0.647	0.648	0.813	0.690	0.512	0.597	0.512
OC_CC1	0.570	0.557	0.579	0.566	0.259	0.667	0.618	0.543	0.832	0.621	0.635	0.519
OC_CC2	0.548	0.593	0.566	0.564	0.329	0.663	0.679	0.681	0.902	0.506	0.693	0.465
OC_CC3	0.364	0.392	0.475	0.423	0.293	0.520	0.340	0.616	0.75	0.556	0.565	0.348

OC_CC6	0.462	0.453	0.540	0.439	0.27	0.589	0.581	0.507	0.855	0.567	0.587	0.495
OC_CC8	0.574	0.517	0.458	0.533	0.342	0.671	0.519	0.615	0.812	0.478	0.678	0.451
OC_HC1	0.658	0.394	0.599	0.529	0.493	0.648	0.434	0.511	0.526	0.889	0.622	0.653
OC_HC2	0.535	0.450	0.563	0.586	0.413	0.575	0.538	0.539	0.662	0.837	0.680	0.597
OC_HC7	0.559	0.310	0.492	0.452	0.425	0.493	0.441	0.450	0.459	0.806	0.542	0.528
OC_MC1	0.633	0.403	0.592	0.461	0.340	0.685	0.597	0.680	0.727	0.602	0.832	0.510
OC_MC2	0.494	0.408	0.551	0.536	0.319	0.440	0.560	0.516	0.526	0.492	0.768	0.445
OC_MC4	0.667	0.599	0.646	0.55	0.482	0.740	0.575	0.582	0.568	0.682	0.851	0.615
OC_MC6	0.596	0.603	0.548	0.592	0.440	0.648	0.551	0.624	0.661	0.584	0.804	0.509
QP1	0.667	0.603	0.682	0.61	0.364	0.685	0.672	0.617	0.533	0.638	0.599	0.819
QP2	0.511	0.439	0.517	0.472	0.335	0.567	0.518	0.416	0.482	0.504	0.464	0.701
QP3	0.673	0.522	0.646	0.505	0.315	0.591	0.597	0.504	0.507	0.569	0.614	0.768
QP4	0.566	0.553	0.614	0.644	0.461	0.502	0.629	0.438	0.397	0.582	0.491	0.764
QP5	0.369	0.338	0.483	0.467	0.247	0.363	0.426	0.220	0.245	0.375	0.210	0.743
QP6	0.585	0.396	0.573	0.59	0.410	0.467	0.496	0.391	0.266	0.459	0.413	0.781
QP7	0.699	0.439	0.61	0.513	0.270	0.608	0.580	0.517	0.503	0.625	0.602	0.822

Table (4. 4): Discriminant validity (using Fornell-Larcker criterion)

	CQ_IQM	CQ_PDM	CQ_PM	IQ_CI	IQ_SI	IQ_TMS	IQ_WFM	OC_AC	OC_CC	OC_HC	OC_MC	Q_P
CQ_IQM	0.816											
CQ_PDM	0.619	0.825										
CQ_PM	0.748	0.694	0.882									
IQ_CI	0.658	0.735	0.802	0.818								
IQ_SI	0.557	0.551	0.597	0.66	0.721							
IQ_TMS	0.802	0.693	0.739	0.697	0.614	0.863						
IQ_WFM	0.688	0.744	0.768	0.718	0.572	0.721	0.808					
OC_AC	0.633	0.567	0.707	0.608	0.402	0.704	0.652	0.797				
OC_CC	0.614	0.612	0.631	0.613	0.455	0.753	0.671	0.711	0.832			
OC_HC	0.693	0.459	0.656	0.621	0.595	0.681	0.558	0.594	0.654	0.844		
OC_MC	0.739	0.625	0.719	0.657	0.581	0.781	0.700	0.738	0.762	0.731	0.814	

Table (4. 5): Discriminant validity- Heterotrait-Monotrait Ratio (HTMT)

	CQ_IQM	CQ_PDM	CQ_PM	IQ_CI	IQ_SI	IQ_TMS	IQ_WFM	OC_AC	OC_CC	OC_HC	OC_MC	Q_P
CQ_IQM												
CQ_PDM	0.708											
CQ_PM	0.810	0.777										
IQ_CI	0.727	0.855	0.886									
IQ_SI	0.576	0.646	0.575	0.725								
IQ_TMS	0.882	0.787	0.801	0.779	0.635							
IQ_WFM	0.790	0.888	0.874	0.841	0.604	0.827						
OC_AC	0.705	0.655	0.773	0.685	0.369	0.780	0.743					
OC_CC	0.672	0.699	0.691	0.684	0.438	0.825	0.764	0.804				
OC_HC	0.811	0.556	0.753	0.733	0.678	0.790	0.685	0.71	0.777			
OC_MC	0.847	0.738	0.812	0.765	0.613	0.878	0.840	0.864	0.885	0.888		
Q_P	0.836	0.705	0.831	0.792	0.545	0.778	0.839	0.643	0.607	0.822	0.725	

4.3.3 Assessment of the Structural Model

Once the measurement model has been determined to be satisfactory, the structural model is assessed to determine the PLS-SEM results as well as to determine how well the model predicts the relationship between the constructs. When evaluating the structural model, the coefficient of determination (R^2) of the endogenous variable and the standardized path coefficients along with the effect size (f^2) and the predictive relevance (Q^2) are the primary evaluation criteria (Green et al., 2019).

By examining the R^2 value of the endogenous construct(s). The R^2 measures the variance explained by the endogenous constructs and measures the model's explanatory power. The R^2 can also be referred to as the in-sample predictive power. Depending on its value, the R^2 can range from 0 to 1, with higher values indicating greater explanatory power. For a guideline, an R^2 value of 0.75, 0.50, and 0.25 is substantial, moderate, and weak, respectively. A study's context always informs the interpretation of R^2 . Thus, the R^2 should be interpreted as a function of the study's context (Hair et al., 2019). The R^2 values in the study as shown in Table (4-6) for (CQ_ IQ,CQ_ PDM,CQ_ PM,IQ_CI, IQ_SI,IQ_TMS, IQWFM and Q_P) are, respectively (0.607, 0.445, 0.611, 0.506, 0.318, 0.694, 0.554, 0.751) .

Table (4. 6): R^2 of the endogenous latent variables

Construct	R^2	R^2- Adjusted
CQ_IQM	0.607	0.583
CQ_PDM	0.445	0.411
CQ_PM	0.611	0.587
IQ_CI	0.506	0.476
IQ_SI	0.318	0.276
IQ_TMS	0.694	0.675
IQ_WFM	0.554	0.526
Q_P	0.751	0.704

The Q^2 value is another factor to consider when assessing the PLS path model's predictive effectiveness. Geisser's Q^2 value is acquired using the blindfolding procedure. For endogenous constructs, Q^2 values above zero indicate greater predictive accuracy of the structural model for the construct. Q^2 values of more than 0, 0.25, and 0.50, respectively, indicate small, medium, and large predictive relevance of the PLS-path model (Hair et al.,2019). Table (4-8) illustrates that all constructs have predictive relevance of medium level except supplier involvement has small predictive relevance with a value equals 0.169. The goodness of fit is a global fit (GoF) measure for PLS path modeling, as suggested by (Tenenhaus et al. 2005). The purpose of the GoF is to account for both the measurement and structural models of the study model, with a focus on the model's overall performance. GoF is calculated as the geometric mean of the average variance extracted (AVE) and the average R^2 for endogenous constructs. Further Wetzels and Odekcerken (2009) proposed that when the GoF value is less than 0.1, there is no fit, between 0.1 and 0.25, there is a medium fit, and beyond 0.36, there is a large fit. Thus, the calculated GoF for the model in the study is 0.42, which is sufficient to validate it.

Table (4. 8): Construct cross-validated redundancy

Construct	SSO	SSE	$Q^2 (=1-SSE/SSO)$
IQ_TMS	350	177.078	0.494
CQ_PM	350	195.276	0.442
Q_P	490	297.065	0.394
CQ_IQM	420	258.492	0.385
IQ_WFM	280	194.783	0.304
IQ_CI	350	244.379	0.302
CQ_PDM	280	203.518	0.273
IQ_SI	210	174.492	0.169

For estimating the significance of the path coefficient and validating the hypotheses proposed, PLS bootstrapping was employed by re-sampling of 5000 as suggested by (Hair et al., 2014), choosing a two-tail t-test with a value of 1.96. The results from deploying bootstrapping are depicted in Table (4-9) and Figure (4-16). However, based on the results, it appears that 12 hypotheses were supported. Thus, whereas the clan culture positively affects product design management, top management support, and workforce management with- p-values (0.04, 0.035, and 0.008) respectively, yet clan culture does not affect other quality practices dimensions. Adhocracy culture positively affects process management quality practices as p-value value equals 0.021, at the same; it has no effects on other quality practices or performance quality management. The table also shows that hierarchy culture has a notable impact on supplier involvement and information quality however, the estimated p-value for both are 0.005, 0.043 respectively. In contrast, the other hypotheses are not supported regarding QM practices. The last OC in the table is the market culture, which positively affects two quality practices (quality information, workforce management), and the p-value value is (0.039, 0.022), yet none of the four cultures affect customer involvement

Regarding the influence of QM practices on performance quality management, the p-value (0.045, 0.024) values highlight that quality information and workforce management positively affect it; nevertheless, other quality practices don't affect it. Moreover, only hierarchy has a positive influence on quality performance with p-value 0.009.

Table (4. 9): Path coefficient of the research hypotheses first order model

path	hypotheses	(p-value)	std. error	T-value	P Values	result
CQ_IQM -> Q_P	Hqp1	0.257	0.128	2.002	0.045	Supported
CQ_PDM -> Q_P	Hqp2	0.041	0.124	0.33	0.742	Not supported
CQ_PM -> Q_P	Hqp3	0.191	0.16	1.197	0.231	Not supported
IQ_CI -> Q_P	Hqp4	0.122	0.183	0.665	0.506	Not supported
IQ_SI -> Q_P	Hqp5	-0.106	0.091	1.158	0.247	Not supported
IQ_TMS -> Q_P	Hqp6	0.104	0.176	0.59	0.555	Not supported
IQ_WFM -> Q_P	Hqp7	0.3	0.133	2.258	0.024	Supported
OC_AC -> CQ_IQM	Hb1	0.157	0.125	1.253	0.21	Not supported
OC_AC -> CQ_PDM	Hb2	0.147	0.174	0.843	0.399	Not supported
OC_AC -> CQ_PM	Hb3	0.351	0.152	2.304	0.021	Supported
OC_AC -> IQ_CI	Hb4	0.194	0.15	1.292	0.196	Not supported
OC_AC -> IQ_SI	Hb5	-0.157	0.161	0.979	0.328	Not supported
OC_AC -> IQ_TMS	Hb6	0.168	0.136	1.24	0.215	Not supported
OC_AC -> IQ_WFM	Hb7	0.215	0.166	1.291	0.197	Not supported
OC_AC -> Q_P	Hqp11	-0.032	0.117	0.274	0.784	Not supported
OC_CC ->CQ_IQM	Ha1	-0.006	0.114	0.052	0.959	Not supported
OC_CC -> CQ_PDM	Ha2	0.287	0.14	2.053	0.04	Supported
OC_CC -> CQ_PM	Ha3	0.021	0.117	0.183	0.855	Not supported
OC_CC -> IQ_CI	Ha4	0.141	0.146	0.964	0.335	Not supported
OC_CC -> IQ_SI	Ha5	-0.074	0.2	0.369	0.712	Not supported
OC_CC -> IQ_TMS	Ha6	0.28	0.125	2.241	0.025	Supported
OC_CC -> IQ_WFM	Ha7	0.374	0.142	2.641	0.008	Supported
OC_CC -> Q_P	Hqp12	-0.179	0.138	1.3	0.194	Not supported
OC_HC -> CQ_IQM	Hc1	0.311	0.154	2.024	0.043	Supported
OC_HC -> CQ_PDM	Hc2	-0.073	0.19	0.383	0.701	Not supported
OC_HC -> CQ_PM	Hc3	0.234	0.153	1.527	0.127	Not supported
OC_HC -> IQ_CI	Hc4	0.252	0.173	1.452	0.147	Not supported
OC_HC -> IQ_SI	Hc5	0.392	0.138	2.839	0.005	Supported
OC_HC -> IQ_TMS	Hc6	0.159	0.126	1.264	0.206	Not supported

OC_HC -> IQ_WFM	Hc7	0.023	0.144	0.158	0.875	Not supported
OC_HC -> Q_P	Hqp10	0.352	0.134	2.631	0.009	Supported
OC_MC -> CQ_IQM	Hd1	0.4	0.174	2.294	0.022	Supported
OC_MC -> CQ_PDM	Hd2	0.352	0.224	1.572	0.116	Not supported
OC_MC -> CQ_PM	Hd3	0.273	0.182	1.502	0.133	Not supported
OC_MC -> IQ_CI	Hd4	0.222	0.188	1.185	0.236	Not supported
OC_MC -> IQ_SI	Hd5	0.378	0.228	1.657	0.097	Not supported
OC_MC -> IQ_TMS	Hd6	0.328	0.155	2.114	0.035	Supported
OC_MC -> IQ_WFM	Hd7	0.336	0.163	2.06	0.039	Supported
OC_MC -> Q_P	Hqp13	-0.125	0.156	0.803	0.422	Not supported

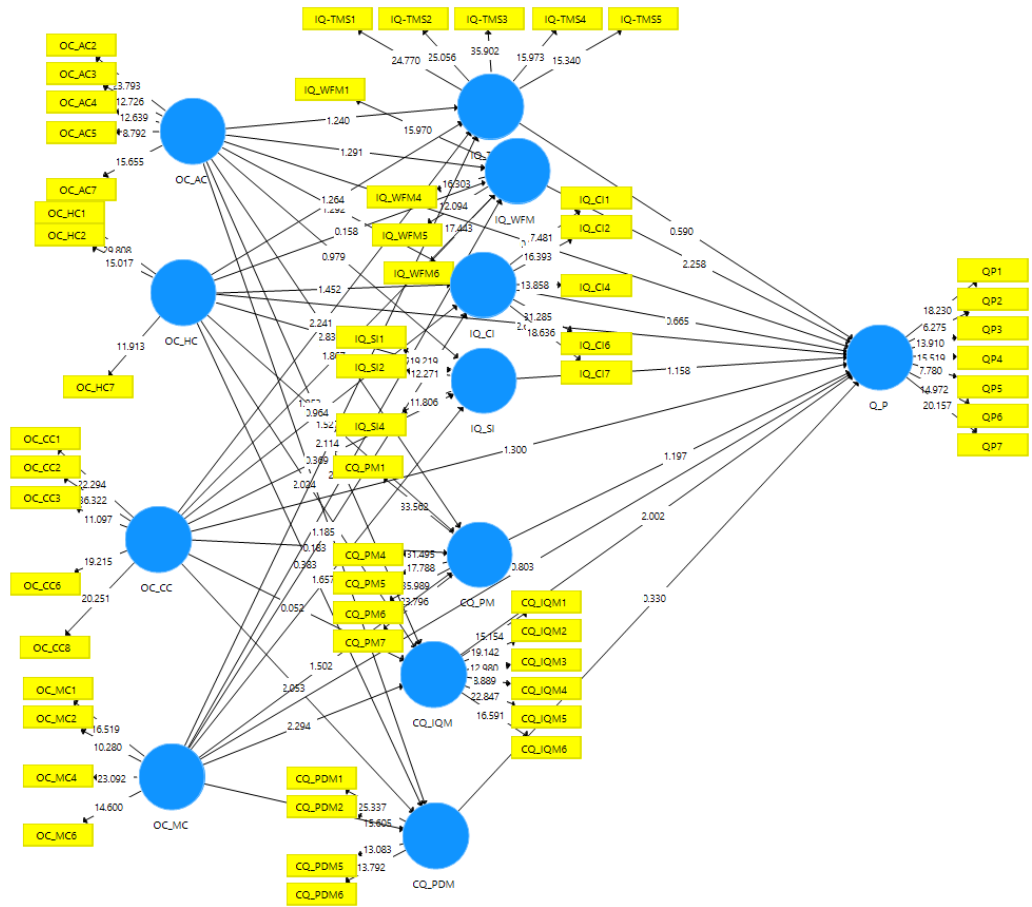


Figure (4.17): Model fit employing PLS-bootstrapping procedure

For the purpose of studying the effects of OC on the core and infrastructure QM practices, as one unit for each of them with all its components, in addition to the impact of both QM practices on performance quality management, a second-order model was constructed using a repeated indicators approach via Smart-PLS 3.3.2 package for validation and testing of both the measurement and the structural model.

For assessing the second order model, the estimation of measurement model was retested for convergent validity, discriminate validity, and internal consistency using

composite reliability, individual indicator reliability and average variance extracted (AVE) procedures concerning convergent validity. Further, the discriminate validity of the model constructs was determined using the Fornell-Larcker and Heterotrait-Monotrait ratio of correlations (HTMT) criteria. Collinearity across constructs was assessed based on the variance inflation factor (VIF). The calculated values of VIF (shown in Table 4-10) were all below 5. The results indicate no critical levels of collinearity are apparent, as suggested by (Hair Jr et al., 2016).

Table (4. 10): Construct Assessment VIF (Model-2)

Second-order construct	First-order constructs	VIF
Infrastructure practices	IQ_CI	2.684
	IQ_SI	1.593
	IQ_TMS	2.502
	IQ_WFM	2.533
Core practices	CQ_IQM	2.359
	CQ_PDM	2.009
	CQ_PM	2.765

The structural model was estimated using the same statistical measures followed in the previous model. In which, the R^2 values are (0.716, 0.714, 0.736) for core, infrastructure QM and quality performance which considered to have substantial effects as shown in Table (4-11). The f^2 values show moderate effects of most of the constructs; in addition, Q^2 values were all above the threshold for acceptance as shown in Table (4-12). With a weight of 0.595, the GoF is considered to be large. All of the statistical indications mentioned above are shown in Tables (4-13 and 4-14).

Table (4. 11): R² of the endogenous latent variables(model-2)

Construct	R²	R² Adjusted
Q_P	0.716	0.689
core_quality	0.714	0.696
infrastructure_quailty	0.736	0.72

Table 4. 12: The effect size, and cross validity redundancy (model-2)

Construct	f ²			Q ² (=1-SSE/SSO)
	Q_P	core_quality	infrastructure_quailty	
OC_AC	0.00	0.091	0.07	
OC_CC	0.030	0.002	0.101	
OC_HC	0.144	0.095	0.034	
OC_MC	0.02	0.125	0.107	
core_quality	0.128			0.505
infrastructure_quailty	0.078			0.456
Q_P				0.393

Regarding the estimation of the hypotheses test the path coefficient of determination the results indicated that market culture has a significant positive effect on both infrastructure and core QM practices with value of P (0.043,0.028). Clan culture has a positive impact also on infrastructure practices only with value (0.013), besides that adhocracy culture positively influence core practices.

Both core QM and infrastructure practices affects positively the performance quality as the p values estimate (0.003,0.024). As a result, Figure (4-18) illustrates the fitted proposed model for the study model for the second order construct.

Table (4. 13): Path coefficient of the research hypotheses (Model-2)

Path	hypotheses	(p-value)	std. Error	T-value	P Values	result
core_quality -> Q_P	Hqp8	0.462	0.157	2.948	0.003	Supported
infrastructure -> Q_P	Hqp9	0.385	0.171	2.257	0.024	Supported
OC_AC -> core_quality	Hb8	0.265	0.13	2.043	0.041	Supported
OC_AC -> infrastructure_quailty	Hb9	0.112	0.132	0.847	0.397	Not supported
OC_CC -> core_quality	Ha8	0.127	0.117	1.086	0.278	Not supported
OC_CC -> infrastructure_quailty	Ha9	0.28	0.112	2.491	0.013	Supported
OC_HC -> core_quality	Hc8	0.227	0.138	1.645	0.1	Not supported
OC_HC -> infrastructure_quailty	Hc9	0.141	0.128	1.101	0.271	Not supported
OC_MC -> core_quality	Hd8	0.368	0.168	2.194	0.028	Supported
OC_MC -> infrastructure_quailty	Hd9	0.325	0.16	2.026	0.043	Supported

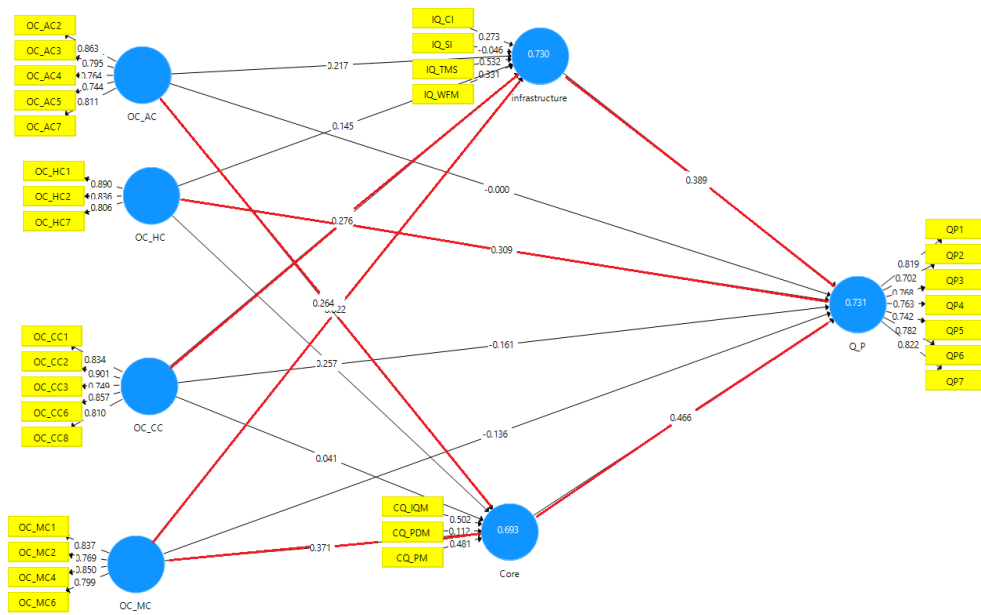


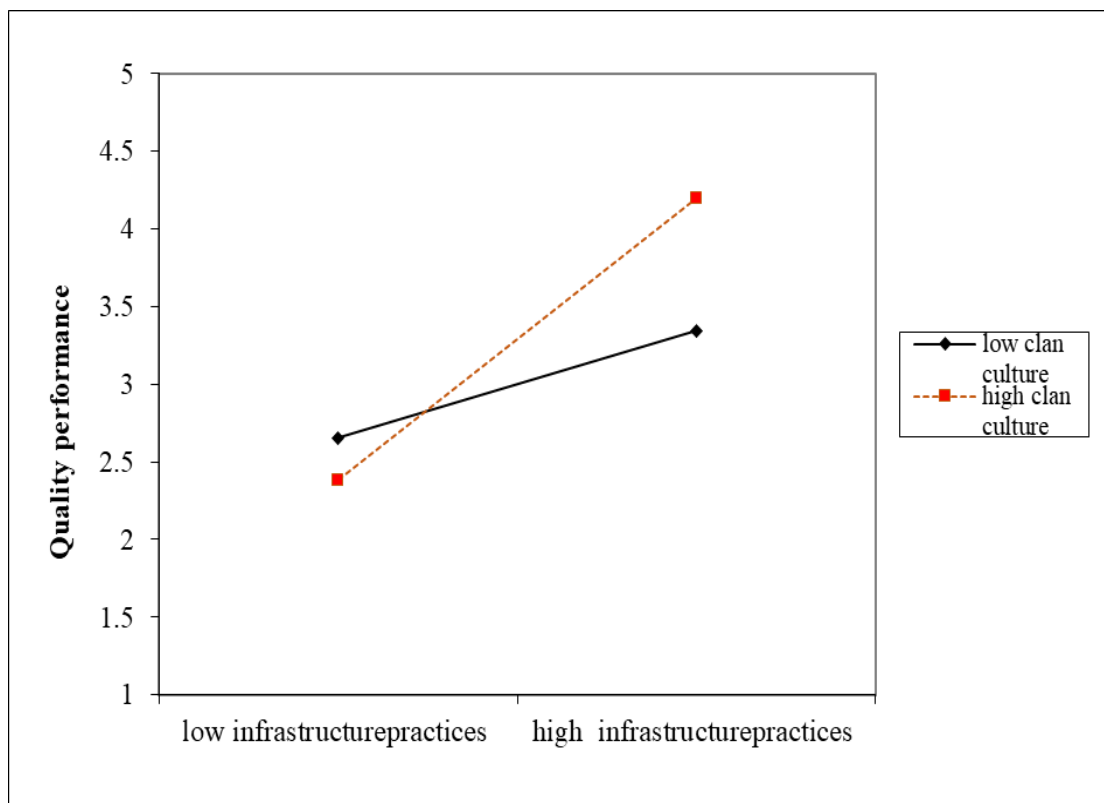
Figure (4. 18): Model of the second-order construct

The last part of the analysis chapter is to explore whether the four types of OC have a moderating effect between OC and QP; however, according to Baron and Kenny (1986), the moderator is defined as a variable that influences the strength and/or direction of the relationship between independent and dependent variables. Table (4-14) demonstrates that the existence of the clan culture increases positively the infrastructure QM practices on quality performance between infrastructure QM practices and quality performance hence P_value is significant (0.014). Besides Figure (4-19) confirms the same result on the other hand, none of the three other OC have moderating effects on QM practices.

Table (4. 14): Hypotheses test for moderating effect

Path	hypotheses	(p-value)	std. Error	T-value	P Values	Result
AC_CORE -> Q_P	Hm1	-0.127	0.373	0.341	0.733	Not supported
AC_infrastructure -> Q_P	Hm2	0.026	0.333	0.077	0.938	Not supported

CC_CORE -> Q_P	Hm5	-0.598	0.406	1.472	0.141	Not supported
CC_infrastructure -> Q_P	Hm6	0.98	0.482	2.034	0.042	supported
HC_CORE -> Q_P	Hm7	0.561	0.376	1.492	0.136	Not supported
HC_infrastructure -> Q_P	Hm8	-0.646	0.422	1.531	0.126	Not supported
MC_CORE -> Q_P	Hm3	0.08	0.368	0.216	0.829	Not supported
MC_infrastructure -> Q_P	Hm4	-0.291	0.371	0.785	0.433	Not supported



Chapter Five

Discussion

5.1 Overview

Throughout this chapter, the conceptual model analysis findings are discussed in the first section, and the hypotheses testing results are discussed in the second, followed by the theoretical implications of the research in the third section, ensued by the study limitations and anticipated future research in the fourth section.

5.2 Discussion of Results

In light of the importance of enhancing the competitive advantage of Palestinian products in the food sector to compete locally, regionally, and internationally, this thesis examines the impact of the four OCs in the application of the two types of QM practices and the effects of both OC and QM on the performance quality of products produced in Palestine.

5.2.1 OC Status in Palestine

A result of analyzing the data collected by this thesis reveals that factories consciously or unconsciously adopt the four forms of organizational culture (market, clan, adhocracy, and hierarchy). Yet, the degree of adoption varies between them. It is found that most factories assign great importance to the market culture and its promotion in the work environment and the adhocracy culture; however, this result is realistic. Since this is a profitable sector, the market result and achieving a return are crucial drivers for improving its performance and adopting initiatives and means that help achieve that target. Yet, the hierarchical culture was less noticeable in the workplace.

In spite of the effect of clan culture in fostering belonging, sincerity, and motivation to work professionally among employees, the study shows that there were remarkably diverse answers about the degree of adoption of this culture within factories, even though most of the firms are family-owned.

5.2.2 QM Practices Status in Palestine

In recent years, there has been a growing interest in investment in quality management practices in Palestine across all sectors, especially in the food industries sector, to improve the quality and efficiency of the products and services. The employment of specialists in quality and the acquiring of different quality certificates in many factories targeted in the study demonstrate this concern.

In light of the fact that quality practices encompass both the core and infrastructure aspects, the core factors are considered hard ones and pertain to the techniques and methods applied to improve performance. In contrast, infrastructure is a soft factor due to its emphasis on human factors such as leadership, participation, and empowerment.

The study attempted to identify whether these practices are applied equally or whether there are disparities between them; the data revealed that not all quality dimensions had the same degree of adoption as the result One-Way ANOVA test showed in appendix (C. 1).

The bottom line turns out that process management and product design regarding applying quality in the work environment are the most noticeable QM practices, and a similar conclusion was reached for quality practices related to customer involvement. Even so, there was a high variation in the interest in customer participation. The result can be explained that the first two practices concerning products that generate profit for

the enterprise, as for the third, it involves acquiring customers' satisfaction and finding out what their expectations are.

Supplier participation, however, did not receive the same priority and level of attention from firm management. This might be due to the fact that suppliers work with competitors, and firms place a high value on confidentiality. Another relevant conclusion is that paying attention to data quality and its use is the least applied practice in the workplace, considering that data analysis and visualization are sciences and tools that are not widely used in Palestine however, there has been a recent emergence of interest in it in all sectors.

5.2.3 The Four Types of OC and the Seven QM Practices

The main objective of this research is to explore the impact of OC on each of the seven chosen QM practices. The study found that each of the four types of organizational culture has an effect on at least one QM practice. For clarification, the model testing has confirmed that clan culture positively affects top management support to implement quality initiatives in the workplace. Furthermore, the impact of this culture on product design management and the employee involvement the researcher believes this result is due to clan culture is related to human factors influence, teamwork, commitment, and participation.

It is also noteworthy that factory profitability argues that top management support to adopt initiatives. This fact could explain why there is a positive correlation between top management support, which is one of the factors of soft QM practices, and market culture, which is profitability, targets achievement-oriented. The workforce involvement and empowerment also affected positivity by market culture as in order to achieve the

goals; it is necessary to empower workers and improve their performance by developing them and providing them with the knowledge and skills required to carry out the tasks.

In addition, market culture positively influences the quality of information, both as a tangible measure of the organization's output and as a performance measurement that identifies problems and helps us make more strategic planning decisions.

Yet, the study clarifies that hierarchy culture impacts quality information practices and supplier involvement. This culture is concerned with ensuring that the organization's work is stable, that it has access to accurate, timely information, and has control over its inputs and factors.

It is noteworthy to mention that although customer satisfaction is one of the goals of a successful organization, the study found that none of the OCs had any influence on the level of promoting customers involvement. The most likely explanation is that food manufacturing products primarily consist of specific and known varieties, and the probability of new diversity is somehow limited in the Palestinian market, but as shown previously, customer involvement was one of the most.

This thread's last conclusion is that adhocracy culture positively impacts process management. Results like these can be explained by the fact that this culture is linked to innovation, change, and responsiveness, and these characteristics may influence the way operations are managed.

5.2.4 The Four Types of OC and Core and Infrastructure QM

A further contribution of this study is the assessment of the impact of each type of OC on the core as well as infrastructure QM practice in holistic form for each. While each type of culture has an influence on at least one of the seven QA practices, the market

culture is the only type that simultaneously affects the core and infrastructure QM practices. When each of the two groups was examined as a whole and not each element individually, the effect became stronger. This result confirms once again that market results and profitability drive the Palestinian food manufacturing industry. While the ultimate objective of any profit organization is to acquire an adequate level of profitability as well as maintain a leadership position in the market. Besides that, when infrastructure QM items were treated as a one unit, the results showed that the clan culture positively impacts infrastructure QM. In light of the fact that both the clan culture and the infrastructure practices of quality are related to the human factor in empowerment and participation. Clan culture strengthens the feeling of belonging to the company and the family-like atmosphere that enables employees to work as a team, cooperate, and share knowledge; The result is consistent with Patyal et al. (2018), who found that clan (group) culture is more strongly related to infrastructure QM.

Whereas adhocracy culture positively impacts core QM when it deals with core practices dimensions as one solid entity rather than as individual items. This result is in line with the characteristics of this culture, which incorporates innovation and the use of advanced modern work tools. These results partially agreed with Patyal et al. (2018) that a culture of adhocracy positively affects core quality practices. At the same time, their study conflicted with those in the current research regarding market culture and clan culture. The present study revealed that core quality practices are linked to market culture. However, the culture of the clan does not affect it; the results of their research indicated the opposite.

On the other hand, another important finding is that the hierarchy cultures do not promote or affect either type of the main QMs in a holistic view.

5.2.5 The Four Types of OC and QM Practices and Quality Performance

Study findings revealed that both infrastructure and core QM practices positively affect quality performance this shows that when the different dimension are combined together their effects become stronger. moreover, this illustrates the importance of integrating hard, tangible factors with soft factors in managing a work environment for the best results without neglecting any aspects.

In terms of OC, the results confirmed hypothesis 1, which indicates that hierarchical culture positively impacts the quality of work performed. From the researcher's viewpoint, it may well be because the nature of this culture is closely related to internal efficiency, coordination, and evaluation of work as well as its stability, making it aligned with the follow-up and assessment of work mechanisms on a regular basis, in accordance with Douglas and Judge (2001), who mentioned that a strong emphasis on controlling procedures, operations, and activities improved performance. Organizations that run on hierarchical cultures use a clear structure and communicate effectively to ensure consistency and reliability.

In relation to the moderating role of OC between QM practices and quality performance, the only hypothesis supported is Hm6. This shows that clan culture acts as a catalyst for strengthening the relationship between soft quality practices and quality performance. This emphasizes the importance of having an enabling work environment for employees that enhances their skills and capabilities. This is in addition to involvement in setting work instructions and procedures, which is positively correlated with performance improvement and a higher standard of work output. In some ways, this result is consistent with what the Naro et al. (2008) study states that OC has a positive moderation role between infrastructure practices and performance quality, and

it does not have the same effect with core practices, taking into account that the cited study did not allocate a specific culture.

5.3 Theoretical and Practical Implications

This thesis contributes to the support of theory and practice. From a theory standpoint, studies that addressed the same subject were bolstered, given that this is one of the few studies to have addressed the subject in Palestine, especially in the food industry. Additionally, this thesis developed and empirically tested a model that illustrates the relationships between organizational culture, quality management, and quality performance. According to the results of the tests, each of the four organizational culture types impacts a different type of quality management practice. A study concluded that both Core and Infrastructure Quality Management practices affect performance.

In line with previous studies, the results of this study confirm the impact and importance of organizational culture on the promotion and success of quality practices. In terms of practice, this thesis contributes to evaluating the current state of the food industry in terms of the types of quality practices applied and types of organizational culture that influence the work environment.

Finally, the proposed model for second-order shown in Figure (4-18) illustrated in the previous chapter represents a good ground for senior management in factories to assess the organization's current condition related to organizational culture and quality practices. Moreover, employing OC correctly and in accordance with the type of quality practices that need improvement or application.

Chapter Six

Conclusions and Recommendations

6.1 Overview

This chapter reports the research outcomes, which reflect the researcher's recommendations arising from in-depth analysis of the result. In addition, further suggestions that could be implemented in the future are presented.

6.2 Conclusions

The food manufacturing sector is one of the fastest-growing economic sectors in Palestine, which has an annual market of about \$35 million for Palestinian food products (Smirata

& Shariff, 2016). In view of the importance of this promising sector, which supports the Palestinian economy as a whole, it was chosen to be the study population and to discuss the OC types that contribute to supporting quality practices to improve the quality of products and enhance the quality of performance, which results in an increase in the share of Palestinian products from the market.

A model was developed that examines the impact of each of the four types of OC on the factors of quality practices individually and collectively. Additionally, to determine whether any of them is a moderating factor between quality practices and quality performance. The study concludes that although all four cultures influence habits and attitudes in the work environment, there is a difference in the degree of adoption of each of them. The two cultures of market and adhocracy were the most obvious.

Secondly, there was also a discrepancy in applying the seven quality practices selected in the study. The interest in supplier involvement and information quality was lowest among all types of QM practices. Also, there is a discrepancy between factories in the degree of customer involvement.

Thirdly, the study showed that each culture impacts the practice of one or more quality practices. Overall, the market culture generally had the most significant impact, as it is often considered a motivator to practice each of the two pillars of quality. On the other hand, adhocracy culture was associated with soft infrastructure practices, while clan culture was associated with core practices. In addition, the study clarified the importance of applying both types of practices in achieving institutional quality and improving the efficiency and effectiveness of performance.

In summary, any institution must not neglect the importance of the role and impact of organizational culture in strengthening and enhancing the work environment. To achieve its objectives, the organization should employ OC containing (behaviors, ethics, and practices) that reflect its hidden forces and help crystallize its personality.

6.3 Recommendations

The plethora of choices and the heightened competition in the market have inevitably increased customers' expectations and compelled factories to offer more quality, lower prices, and more diverse products. In Palestine, the situation is becoming more complicated as Palestinian producers are being forced to rival imported and Israeli products. On top of this, the complex export and import restrictions that the Palestinian manufacturing sector is exposed to for both production and export activities. One of the keys to overcoming these obstacles is to constantly improve the quality of products.

The shift towards quality practices is indeed a long-term process, and the thesis highlights how OC affects the implementation of these practices; Therefore, factory leaders should know the cultural values that are prevailing in their organization then support or create a stimulating culture to facilitate effective implementation of QM practices both for core and infrastructure. More specifically, the top management in this sector should pay attention to the impact of culture on creating a work environment enabling performance improvement and innovation.

Even though the study found that market culture was the strongest incentive for factories to implement quality practices, the managers should not pay attention to only one cultural type but should focus on all four cultures (market, clan, hierarchy, and adhocracy) to form a well-balanced culture to achieve the success of business systems in a holistic term.

An organization's competitive edge depends heavily on its human factor as one of the most important success factors. Hence; organizations are strongly encouraged to foster an environment that sustains teamwork, facilitates improvements in employee performance, rewards employees for contributing towards quality improvements extends employees' competencies, and increases the sense of necessity for their participation and involvement in the decision-making. As we found out that although most of the factories are family factories, the clan culture and the sense of belonging were less clear than other cultures.

Additionally, companies are strongly advised to incorporate a customer-oriented quality management system in order to generate innovation and creativity. To that end, companies should enhance customer participation and involvement through clear channels in order to stay on top of customers' needs, suggestions, expectations, and

complaints. Unfortunately, the study showed that the four cultures did not contribute to enhancing customer involvement.

Finally, with the data revolution currently sweeping the world, factories should attach greater importance to data-driven decision-making and reinforce this trend by employing the required tools and expertise in this area in order to become more resilient and prepared for future changes.

6.4 Research Limitations and Future Researches

In the thesis, the researcher should pay special attention to the factors that hindered the work and the ideas not covered that would create an incentive for those interested in developing further research on the same topic.

Firstly, the inadequacy of studies that deal with the impact of organizational culture on the successful implementation of quality in the food sector in general and Palestine in particular. Nevertheless, the study targeted the food manufacturing sector through predetermined criteria, limiting the results' generalization; thus, future research may examine other sectors and industries.

Secondly, an organizational culture measurement framework based on competing values is utilized in this study. Despite the widespread use of competing values frameworks in empirical research, we may need to use other cultural frameworks in future research to enhance our understanding of the relationship between culture and quality management practices and their effect on performance quality.

Thirdly, quality and production staff, as well as senior management, were the ones who participated in the survey; consequently, the identification of OC climate and its impact

on quality management was conducted from their perspectives. Future research may be performed to evaluate these standards from the standpoint of all workers.

Fourthly, the Corona pandemic and lockdown outbreak that accompanied the distribution of the questionnaire, combined with the geographical separation between Gaza and the West Bank, kept a greater number of factories in the Gaza Strip from participating.

Finally, this thesis utilized a quantitative research approach; a mixed-research approach (quantitative and qualitative data) is encouraged in future research to enlarge the findings further.

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Appendixes

Appendix (A)



الجامعة العربية الأمريكية
ARAB AMERICAN UNIVERSITY
FACULTY OF GRADUATE STUDIES

Assessing the Effect of Organizational Culture on Quality Management Practices in Palestinian Food Industries

Dear Participant,

This study aims to know the extent of the impact of organizational culture on the application of quality management practices and both effects on the performance quality.

This questionnaire encompasses four sections: The first part covers the firm's general information, the second is outlined to collect data on the organizational culture emphasized, the third part is intended to gather data about the firm's quality management practices, the last part is formulated to assess the performance quality measurement.

Since the opinion of employees in this sector is of great importance, and in order to enrich the study, I would appreciate your cooperation in answering the questions objectively and accurately. Therefore, it is expected that this questionnaire will take you approximately 10-15 minutes to complete.

Thank you in advance for your valuable contribution and cooperation in filling out the questionnaire. All data will be treated confidentially and will only be used for scientific research purposes.

If you have any inquiries or questions, don't hesitate to contact me through the following contact details.

Researcher: Nabeela AbuEngelah
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Email:n.engelah@student.aaup.edu
Supervisor :Dr.Yahay Salahat

7. Number of employees in your firm:

- From 1 to 10
 From 11 to 49
 From 50 to 100
 From 100-200
 More than 200

8. Your firm Food industry subsector:

- Meat-poultry products
 Fruit and Vegetable-pickling, freezing and canning
 Oils and fats products
 Dairy products
 Grain mills and starch products
 Bakery products
 Sugar, confectionery and chocolate products
 Animal feeds products
 Drinks and **mineral** water
 Agri-Products & Dates & Makrona
 Other food products

9. Where is your corporate headquarters located? West Ban Gaza
 Strip

10. In which city is your factory located?

- | | |
|------------------------------------|--|
| <input type="checkbox"/> Jenin | <input type="checkbox"/> Jerusalem |
| <input type="checkbox"/> Tubas | <input type="checkbox"/> Bethlehem |
| <input type="checkbox"/> Tulkarm | <input type="checkbox"/> Hebron |
| <input type="checkbox"/> Nablus | <input type="checkbox"/> North Gaza |
| <input type="checkbox"/> Qalqiliya | <input type="checkbox"/> Gaza |
| <input type="checkbox"/> Salfit | <input type="checkbox"/> Deir al Balah |
| <input type="checkbox"/> Ramallah | <input type="checkbox"/> Khan Yunis |
| <input type="checkbox"/> Jericho | <input type="checkbox"/> Rafah |

11. Does your firm export products to external markets? Yes No

12. Which of the following is considered your firms targeted markets?

- Local Market
 Regional Markets
 International Market

13. Does your firm's possess Quality certifications? Yes No

If the answer is yes, please Specify.....

Part 2: Organizational Culture

To assess the OC practices employed by the Palestinian food industry, please specify the extent to which the sentence matches the established culture (5-point scale anchored by “strongly disagree” and “strongly agree”).

	Adhocracy culture	Level				
		1	2	3	4	5
		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
Q.1	Factory management is characterized as risk of trying new experiences					
Q.2	Management at the factory is committed to permanent change and development					
Q.3	The glue that binds the departments together is a commitment to innovation and development					
Q.4	success in our factory is based on being pioneers and innovative					
Q.5	Factory management finds challenges an important part of work					
Q.6	Our management considers adaptability and flexibility to be the foundation of our business					
Q.7	Management is focusing on using new technologies and methods at the factory					
Hierarchy Culture						
Q.1	Our factory is a highly organized that governed by formal procedures					
Q.2	Compliance with work regulations and					

	policies is constantly followed up among employees.					
Q.3	Managers set business rules and policies.					
Q.4	The priority of the factory is to maintain stability.					
Q.5	Every decision should be referred to someone in a higher responsible					
Q.6	Workers find strict factory procedures					
Q.7	The glue that connects the departments is policies and instructions					
Clan Culture						
Q.1	The management style of the factory is characterized by teamwork.					
Q.2	The glue that binds factory workers together is mutual loyalty.					
Q.3	Our factory's managers care about the well-being of the employees.					
Q.4	out factory forms teams to solve the problems					
Q.5	workers consider the factory members part of their family					
Q.6	Employees are participating in decision making					
Q.7	Our factory is interested in developing the skills of its employees as a measure of its success					
Market culture						
Q.1	The factory's style of work is centered on setting goals and achieving results					
Q.2	Focusing on getting things done is the hallmark of factory work					
Q.3	Factory attention is focused on market results					
Q.4	The factory develops measurable goals					
Q.5	Our factory is driven by competitiveness and					

	market dominance					
Q.6	Employees are rewarded based on their contribution by achieving factory goals					
Q.7	Profitability and competitiveness are considered success criteria at the factory					

Part 3: quality management practices

To investigate the extent to which the quality management practices for both core and infrastructure are deployed in the Palestinian food industry, please specify to what degree the following sentences correspond to your factory current situation.

	Infrastructure QM practice	Level				
		1	2	3	4	5
	Top Management Support	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
Q.1	Top management strongly supports a clear plan to implement quality					
Q.2	Top management prioritizes the quality practices implantation					
Q.3	Top management promotes a quality culture among employees					
Q.4	Top Management participates in quality projects implementing					
Q.5	Different department heads participate in quality management projects					
	Customer involvement					
Q.1	Our factory strives for close customer contact					
Q.2	we seek to obtain the opinion of our customers about the quality of our products					
Q.3	We consider customer suggestions when introducing new products					

Q.4	We have an effective system for receiving customer complaints					
Q.5	we consider customer requirements as the basis for measuring the quality of products					
Q.6	The factory has an effective method of measuring customer satisfaction					
Q.7	Customer satisfaction is measured on a regular basis					
Workforce Management						
Q.1	applying quality is the responsibility of everyone in the factory					
Q.2	Factory workers participate in making decisions related to their work					
Q.3	Problems at work are solved with a participatory approach					
Q.4	All employees are held accountable for the implementation of quality					
Q.5	We train our employees in quality practices					
Q.6	Factory is eager to be trained and developed workers in core functions					
Supplier Involvement						
Q.1	Our factory involves suppliers in the product development process					
Q.2	Our factory engages suppliers in quality improvement processes					
Q.3	We evaluate and classify suppliers according to (quality of raw materials, cost, speed of supply)					
Q.4	In the factory, we provide assistance to suppliers to improve the quality of raw materials					

	Core QM practice	Level				
		1	2	3	4	5
	Process Management	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
Q.1	Our processes are designed in a way mistake proof					
Q.2	we halte Production line to address quality issues					
Q.3	We keep our factory clean and tidy					
Q.4	we perform preventive maintenance on the equipment On a routine basis					
Q.5						
Customer involvement						
Q.1	Our factory strives for close customer contact					
Q.2	we seek to obtain the opinion of our customers about the quality of our products					
Q.3	We consider customer suggestions when introducing new products					
Q.4	We have an effective system for receiving customer complaints					

Thank you for your Cooperation.

Appendix (B)



الجامعة العربية الأمريكية
ARAB AMERICAN UNIVERSITY
FACULTY OF GRADUATE STUDIES

عزيزي/عزيزتي

في إطار اعداد رسالة بحث ماجستير بعنوان " تقييم تأثير الثقافة المؤسسية على تطبيق ممارسات ادارة الجودة في الصناعات الغذائية الفلسطينية: دراسة استكشافية " ونظراً لأهمية رأيكم في اثراء الدراسة ارجو تعاونكم بالإجابة على الاسئلة الواردة بالاستبيان بدقة وموضوعية، علما بان الاجابة على فقرات الاستبيان يستغرق حوالي 10 دقائق.

شكراً مقدماً على مساهمتك القيمة وتعاونك في تعبئة الاستبيان وسيتم التعامل مع جميع البيانات بسرية تامة ولن يتم استخدامها إلا لأغراض البحث العلمي.

في حالة وجود اي استفسارات او تساؤلات يرجى التواصل من خلال بيانات الاتصال التالية

الطالبة /نبيلة سمير محمود ابونجيل

جوال رقم: 0592960163

بريد الكتروني: n.engelah@student.aaup.edu

اشراف : دكتور يحيي صالح

الجزء الاول: بيانات عامة

1-الجنس؟			
<input type="checkbox"/> ذكر		<input type="checkbox"/> انثى	
2- أي مما يلي يصف بشكل أفضل هيكل ملكية المصنع؟			
<input type="checkbox"/> شركة مساهمة عامة محدودة		<input type="checkbox"/> شركة مساهمة خصوصية محدودة	
<input type="checkbox"/> شركة عادية عامة (شركة تضامن)		<input type="checkbox"/> شركة عادية محدودة	
3- هل المصنع هو شركة عائلية؟			
<input type="checkbox"/> نعم		<input type="checkbox"/> لا	
4- يرجى تحديد الوظيفة التي تشغلها في المصنع؟			
<input type="checkbox"/> رئيس مجلس ادارة	<input type="checkbox"/> مدير تنفيذي	<input type="checkbox"/> مدير جودة	<input type="checkbox"/> أخرى (يرجى تحديد الوظيفة)
<input type="checkbox"/> مهندس جودة	<input type="checkbox"/> مدير موارد بشرية	<input type="checkbox"/> اخري (اذكرها)	-----
5- عدد سنوات عملك داخل المصنع؟			
<input type="checkbox"/> 0-5 سنوات	<input type="checkbox"/> 6-10 سنوات	<input type="checkbox"/> 11-15 سنة	<input type="checkbox"/> أكثر من 15 سنة
6- عدد سنوات عمل المصنع في قطاع الصناعات الغذائية؟			
<input type="checkbox"/> 0-5 سنوات	<input type="checkbox"/> 6-10 سنوات	<input type="checkbox"/> 11-15 سنوات	<input type="checkbox"/> 16-20 سنوات
<input type="checkbox"/> أكثر من 20 سنة			
7- عدد العاملين في المصنع؟			
<input type="checkbox"/> 1-10	<input type="checkbox"/> 11-49	<input type="checkbox"/> 50-100	<input type="checkbox"/> 150-200
<input type="checkbox"/> أكثر من 200			
8- نوع المنتجات الغذائية التي ينتجها المصنع؟			
<input type="checkbox"/> إنتاج وحفظ اللحوم ومنتجاتها		<input type="checkbox"/> منتجات طواحين الحبوب وصنع النشاء	
<input type="checkbox"/> جهيز وحفظ الفواكه والخضروات		<input type="checkbox"/> الكاكاو، والشوكولاتة والحلويات السكرية	
<input type="checkbox"/> الزيوت والدهون النباتية والحيوانية		<input type="checkbox"/> المعكرونة والشعيرية	
<input type="checkbox"/> منتجات الحليب والألبان		<input type="checkbox"/> أعلاف حيوانيه محضرة	
<input type="checkbox"/> منتجات المخابز		<input type="checkbox"/> منتجات الأغذية الأخرى غير المصنفة	
<input type="checkbox"/> المشروبات الخفيفة والمياه المعدنية			
9- يقع المقر الرئيسي للمصنع؟			
<input type="checkbox"/> الضفة الغربية		<input type="checkbox"/> قطاع غزة	

10- في اي مدينة يقع المصنع الذي تعمل ؟	
<input type="checkbox"/> الخليل	<input type="checkbox"/> نابلس
<input type="checkbox"/> بيت لحم	<input type="checkbox"/> طولكرم
<input type="checkbox"/> اريحا	<input type="checkbox"/> القدس
<input type="checkbox"/> رام الله	<input type="checkbox"/> غزة
<input type="checkbox"/> سلفيت	<input type="checkbox"/> شمال غزة
<input type="checkbox"/> طوباس	<input type="checkbox"/> دير البلح
<input type="checkbox"/> قلقيلية	<input type="checkbox"/> خان يونس
<input type="checkbox"/> جنين	<input type="checkbox"/> رفح
11- هل يقوم المصنع بتصدير منتجاته للخارج؟	
<input type="checkbox"/> نعم	<input type="checkbox"/> لا
12- ما هو السوق الاهم لبيع منتجات المصنع؟	
<input type="checkbox"/> المحلي	<input type="checkbox"/> الاقليمي
<input type="checkbox"/>	<input type="checkbox"/> الدولي
13- هل لدي المصنع شهادات ورخص الجودة؟	
<input type="checkbox"/> لا	<input type="checkbox"/> نعم (يرجى تحديد هذه الشهادات).....

الجزء الثاني: الثقافة المؤسسية:

يرجى وضع دائرة (X) داخل المربع الذي يعبر عن درجة موافقتك على كل من العبارات التالية من واقع خبرتك في عملك

ثقافة الريادة والابداع Adhocracy culture					
الرقم	السؤال	اوافق بشدة	اوافق	محايد	غير موافق بشدة
1	تتميز ادارة المصنع بالمجازفة بخوض تجارب جديدة				
2	تهتم ادارة المصنع بالتطوير والتغيير الدائم				
3	الغراء الذي يربط المصنع معاً هو الالتزام بالابتكار والتطوير				
4	يحدد النجاح في مصنعنا على أساس إن نكون اصحاب ريادة وابتكار				
5	تجد ادارة المصنع التحديات جزء مهم من طبيعة العمل				
6	تعتبر ادارة المصنع ان المرونة والتكيف مع المتغيرات من اساس عملنا				

					تسعى ادارة المصنع لاستخدام اساليب عمل متطورة وحديثة	7
الثقافة الهرمية Hierarchy Culture						
					المصنع هو مكان منظم للغاية تحكمه الاجراءات الرسمية بشكل عام	1
					يتم متابعة الموظفين بشكل دائم للتأكد من الالتزام بأنظمة وسياسات العمل	2
					يتم وضع قواعد وسياسات العمل من قبل المدراء فقط.	3
					اولوية المصنع هي الحفاظ على استقرار المصنع	4
					لا بد من الرجوع للمسؤول الاعلى في جميع القرارات	5
					يجد العاملين إجراءات المصنع صارمة	6
					الغراء الذي يربط المصنع هو القوانين والسياسات	7
ثقافة الفريق والعائلة Clan culture						
					يتميز أسلوب الإدارة في المصنع بالعمل الجماعي والإجماع والمشاركة.	1
					الغراء الذي يربط العاملين بالمصنع معًا هو الولاء المتبادل.	2
					المدراء في مصنعنا يهتمون بالعاملين انسانيًا.	3
					يوجد مجموعة من التقاليد والقيم التي تحكم عمل المصنع	4
					يقوم المصنع بتشكيل فرق العمل لمعالجة المشاكل	5
					يشعر العاملون بان المصنع جزء من عائلتهم	6
					يتم مشاركة العاملين في اتخاذ القرارات	7
					يعتبر المصنع الاهتمام بتطوير مهارات العاملين هو عنوان النجاح	8
ثقافة الاهداف والتنافسية Market culture						
					يتميز اسلوب العمل في المصنع بالتركيز على الأهداف والنتائج	1
					اساس عمل المصنع قائم على التركيز على انجاز المهام	2
					تهتم ادارة المصنع بوضع الخطط الاستراتيجية والتنفيذية	3
					يطور المصنع اهداف قابلة للقياس	4
					التنافسية والهيمنة على السوق هي اساس عملنا	5
					يتم مكافأة الموظفين بناء على مساهمتهم بتحقيق أهداف المصنع	6
					يعتبر المصنع الاهتمام بالربحية والتنافسية هو عنوان النجاح	7

الجزء الثالث: ممارسات ادارة الجودة

عناصر البنية التحتية لإدارة الجودة						
دعم القيادة العليا						
الرقم	السؤال	اوافق بشدة	اوافق	محايد	غير موافق	غير موافق بشدة
1	تدعم الادارة العليا وجود خطه واضحة حول تطبيق الجودة					
2	تعطي الادارة العليا اولوية لتطبيق ممارسات الجودة					
3	تدعم الادارة العليا تعزيز ثقافة الجودة بين الموظفين					
4	تشارك الادارة العليا في تنفيذ مشاريع الجودة					
5	يشارك رؤساء الاقسام الرئيسية في مشاريع ادارة الجودة					
الرقم	تمكين القوى العاملة					
1	نؤمن ان تطبيق الجودة مسؤولية كل فرد في المصنع					
2	يشارك العاملون في المصنع باتخاذ القرارات المرتبطة بعملهم					
3	يعتمد التشاكر في معالجة الاشكاليات في العمل					
4	يتم مساءلة جميع العاملين عن تطبيق الجودة					
5	يتم تدريب العاملين على ممارسات الجودة					
6	يحرص المصنع على تدريب وتطوير مهارات العاملين					
الرقم	التركيز على الزبائن					
1	نهتم في المصنع بالاتصال الوثيق مع الزبائن					
2	نسعى لأخذ رأي زبائننا حول جودة منتجاتنا					
3	يتم مشاركة الزبائن في عملية تطوير المنتجات					
4	لدينا نظام فعال لتلقي شكاوى الزبائن					
5	نعتبر في المصنع متطلبات العملاء أساس لجودة المنتجات					
6	لدي المصنع منهجية فعالة لقياس رضا الزبائن					
7	يتم قياس رضا الزبائن بشكل دوري ومستمر					
الرقم	العلاقة مع الموردين					
1	يشارك المصنع الموردين في عملية تطوير المنتجات					
2	تشارك الموردين في عمليات تحسين الجودة					
3	نقوم بتقييم وتصنيف الموردين حسب (جودة المواد الخام، التكلفة، سرعة التوريد)					
4	نقوم في المصنع بتقديم المساعدة الفنية للموردين لتحسين جودة المواد الخام					

العناصر الرئيسية لإدارة الجودة						
ادارة العمليات						
الرقم	السؤال	اوافق بشدة	اوافق	محايد	غير موافق	غير موافق بشدة
1	العمليات لدينا مصممة بطريقة تمنع وقوع الاخطاء "mistake-proof"					
	يتم ايقاف خط الانتاج لمعالجة مشاكل الجودة					
2	نحرص على ان يكون مصنعنا نظيفاً ومرتباً					
3	نقوم المصنع بعمل اجراءات صيانة وقائية للمعدات بشكل دوري					
4	يتم قياس مطابقة المنتجات مع المعايير عند التصميم					
5	يتم تقييم اداء وقدرة العمليات بشكل دوري					
6	اجراءات وتعليمات العمل واضحة لجميع العاملين					
جودة المعلومات						
1	نستخدم الإحصائيات لتقليل التباين في العمليات					
2	نستخدم الرسوم البيانية للتأكد من استقرار وثبات العمليات					
3	نقوم بمراقبة عملياتنا باستخدام البيانات الاحصائية					
4	يعتمد مصنعنا على قراءة البيانات لإدارة الجودة					
5	ينتج المصنع البيانات المتعلقة بالجودة لتحديد (معدل الخطأ، معدلات العيوب، التالف، تكلفة الجودة. الخ) في المنتجات					
6	نستخدم بيانات الجودة لتقييم اداء العمل					
تصميم المنتجات						
1	يتم مراجعة تصاميم المنتجات بشكل تفصيلي قبل اعتمادها					
2	يتم تحديد المواصفات بشكل واضح عند تطوير منتجات جديدة					
3	يتم مشاركة عمال خط الانتاج قبل ادخال اي تعديلات على المنتجات					
4	يتم مشاركة مهندسي التصنيع قبل انتاج اي منتجات جديدة					
5	يشارك طاقم الجودة في مراحل التصميم الاولى للمنتجات					
6	يتم تشكيل فريق عمل من مجالات مختلفة عند تصميم وادخال منتجات جديدة					

الجزء الرابع قياس جودة الاداء

الرقم	السؤال	اوافق بشدة	اوافق	محايد	غير موافق	غير موافق بشدة
1	ساعدت ممارسات الجودة في تحسين جودة المنتجات					
2	انخفض معدل تباين العملية في مصنعنا بفضل ممارسات الجودة					
3	عزز تطبيق برامج وممارسات الجودة من رضى الزبائن					
4	ساعدت الجودة في زيادة الارباح					
5	قلت تكلفة اعادة التصنيع وهدر التالف بسبب ممارسات الجودة					
6	وقت تعطل المعدات في مصنعنا منخفض بفضل تطبيق ممارسات الجودة					
7	تدعم ممارسة الجودة لدينا اتخاذ قرارات مبنية على الحقائق والبيانات					

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Appendix C: Correlation Coefficient

Table (C.1): table comparing QM practices means using Ona-Way ANOVA

Factor Information

Factor	Levels	Values
Factor	7	IQTMS_ALL, IQWFM_ALL, IQCSR_All, IQSSR_ALL, CQPM_ALL, CQIQM_ALL, CQPDM_all

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Factor	6	8.537	1.4228	3.66	0.001
Error	483	187.867	0.3890		
Total	489	196.404			



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تقييم تأثير الثقافة المؤسسية على تطبيق ممارسات ادارة الجودة في الصناعات
الغذائية الفلسطينية

إعداد

نبيلة سمير ابونجيلة

إشراف

د. يحيى صالح

تم تقديم هذه الرسالة استكمالاً لمتطلبات درجة الماجستير في ادارة الجودة بكلية

2/2022

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الملخص

لقد عرّضت العولمة والتجارة الإلكترونية المنتجات المحلية لمنافسة شرسة، سواء مع المنتجين المحليين الآخرين أو مع المنتجات المستوردة. وبالتالي، وقد دفع هذا المصانع للحفاظ على مكانتها في السوق إلى تبني ممارسات إدارة الجودة (QM) في مكان العمل، وذلك من أجل زيادة رضا العملاء، وزيادة الأرباح وتحسين جودة أدائها.

إن التحول نحو ممارسات الجودة عملية طويلة الأجل. وقد أشارت بعض الأدبيات إلى أن الثقافة المؤسسية يمكن أن تكون عامل مؤثر في نجاح برامج إدارة الجودة. هذه الدراسات بالرغم من أهميتها إلا أن عددها قليل نسبياً حول هذا الموضوع، خاصة في البلدان النامية وتكاد تكون نادرة في فلسطين بالخاص في مجال صناعة المواد الغذائية.

تهدف هذه الرسالة إلى فحص مدى تأثير الثقافة المؤسسية (OC) على تطبيق كل من نوعي ممارسات الجودة الناعمة (infrastructure) والاساسية (core)، ثانياً استكشاف نوع الثقافة المؤسسية المتبع في قطاع التصنيع. إلى جانب التحقق من درجة التبني كل بعد من الأبعاد السبعة لممارسات الجودة. أخيراً، هناك مساهمة أخرى ذات صلة من هذه الدراسة وهي تقييم تأثير كل من الثقافة المؤسسية وممارسات الجودة على جودة الاداء .

في هذا الصدد، أجريت هذه الدراسة باستخدام باستخدام نهج البحث الكمي. تم جمع البيانات اللازمة من خلال استبيان إلكتروني أرسل إلى الشركات المستهدفة في قطاع الصناعات الغذائية نظراً لكونه أحد أكبر قطاعات التصنيع في فلسطين حيث تم توزيع 82 استبياناً عبر البريد الإلكتروني أو تم إجراؤها شخصياً على مجتمع البحث.

على الرغم من حقيقة أن حجم العينة كان 68 مشاركاً، كان العدد الفعلي للمستجيبين 70، باستخدام حزمة برامج SMART_PLS وبالاعتماد على نموذج المعادله الهيكلية لطريقة المربعات الصغرى الجزئية The partial least squares structural equation modeling تم تحليل البيانات الكمية التي تم جمعها.

تشير نتائج التحليل إلى أن كل نوع من أنواع الثقافة المؤسسية الأربعة (clan ، market ، hierarchy ، adhocracy) قادر على التأثير على جانب واحد أو أكثر من ممارسات إدارة الجودة.

علاوة على ذلك ، يبدو أن النتيجة تشير إلى أنه ، على عكس الثقافات الأخرى ، يبدو أن ثقافة السوق أكثر قدرة على الحث على تطبيق كل من البنية التحتية وممارسات الجودة الأساسية في وقت واحد. بينما ثقافة العشيرة لها تأثير كبير على جوانب ممارسات إدارة الجودة المتعلقة بالممارسات الناعمة. فيما اظهرت الثقافة التنموية تأثير على ممارسات الجودة الأساسية لم يكن للثقافة الهرمية تأثير على اي منهما ، من المخرجات الهامة بالدراسة ايضا ان كلا من نوعي ممارسات الجودة يؤثر على جودة الاداء. علاوة على ذلك فان ثقافة العشيرة تعمل على تقوية العلاقة بين ممارسات الجودة الناعمة وجودة الاداء.