An Analysis of the Influence of Organisational Culture on TQM Implementation in an Era of Global Marketing: The Mediating Role of Individual Readiness for Change

A Thesis Submitted for the Degree of Doctor of Philosophy

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Abstract

This study investigates the mediating role of Individual Readiness for Change (IRFC) in the relationship between Organisational Culture (OC) and Total Quality Management (TQM) implementation. Despite the substantial body of literature examining the influence of OC on TQM implementation, there has been limited research investigating the mechanics of the link between OC and TQM implementation. In particular, an extensive review of the literature revealed that a contribution to knowledge would be derived from the investigation of the role of IRFC as one possible mechanism through which an organisation's culture comes to have an impact on TQM implementation. However, there is a gap in the TQM literature in not investigating the mediating role of IRFC on the relationship between OC and TQM implementation. The aim of this research study is to examine the influence of OC on TQM implementation and the mediating role of IRFC in the OC-TQM implementation relationship in Syrian Manufacturing Organisations (SMOs).

The research methodology began with conducting a systematic review of the relevant literature, which led to the development of a theoretical framework. In the present study, an integrative framework was developed to combine the direct effect of OC on TQM implementation and the mediating role of IRFC in the OC-TQM relationship within a single framework. To validate this framework, empirical research was conducted. The empirical study was carried out in a new cultural context: Syria, and more specifically amongst SMOs. Following a hypothetico- deductive approach, primary data was collected through questionnaires from 350 middle managers in SMOs.

The findings of this study indicate that the characteristics and values of group culture and adhocracy culture positively affect the implementation of TQM, however, IRFC was found to act as a mediator and possible mechanism to attenuate these positive relationships. This in turn highlights the critical role of IRFC in the formation of OC-TQM implementation link. Therefore, this study provides a refined and deeper understanding of the relationships between OC types and TQM implementation. With an improved comprehension of the relationship between OC and TQM, organisational leaders and managers can implement TQM more effectively and efficiently in their organisations. Consequently, this would assist SMOs in achieving higher levels of global marketing effectiveness.

This research contributes to knowledge in several ways. Most importantly, it extends the existing literature on the link between OC and TQM implementation. Unlike previous studies about the direct influence of OC on TQM implementation, this research is one of the few empirical studies that examine the mediating role of IRFC as one of the mechanisms through which an organisation's culture comes to have an impact on TQM implementation. This research makes a further innovative contribution by providing empirical evidence leading to advancement of the understanding of the relationship between all four OC types of the Competing Values Framework (CVF) and IRFC. Furthermore, this research study adds value via its contextual originality. It is believed that this study is one of the few studies that examine the Syrian cultural context empirically. Hence, it contributes to the scarce body of literature on the relationship between OC, IRFC, and TQM implementation specifically in developing countries.

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Declarations

I declare that, to the best of my knowledge, neither this thesis, nor any part of it is currently submitted, in candidature for any degree at any other University. Materials from this manuscript have appeared in, or about to appear in the following publications.

Journal Articles:

Haffar, M., Al-Karaghouli, W. and Ghoneim, A. (2012) "An analysis of the influence of organisational culture on TQM implementation in an era of global marketing: The case of Syrian manufacturing organisations". *International Journal of Productivity and Quality Management*

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Conference Papers:

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Chapter One

Introduction and Overview

1.1 Introduction and Background to the Research Problem

In today's era of intense global competition, the pace of change influencing businesses is ever-increasing. Many new changes and transformational initiatives have been developed in order to improve organisational performance and achieve sustainable competitive advantages (Wanberg & Banas, 2000; By, 2007; Shah, 2011; Fuentes-Henríquez & Del Sol, 2012). Successful manufacturing organisations all over the world are under great pressure to be prepared to cope with these pressing changes in order to survive in the competitive global marketplace (Lawson & Price 2003; Fuentes-Henríquez & Del Sol, 2012). The sustainable development and success of industry and manufacturing organisations has a positive impact on economic development around the world (Srinivasan & Nist, 2009).

Total quality management (TQM) is one of new transformational initiatives, and one of the most important evolutions of management practices (Arumugam et al., 2009). TQM complements other acknowledged strategic drivers in supporting organisations to achieve constant success and sustainable competitive advantages (Zakuan et al., 2010; Kristianto et al., 2012; Dahlgaard-Park, 2011; Duh et al., 2012). TQM is a philosophy, management approach and culture of managing the organisation, which emphasises mutual co-operation, involving everybody in the organisation at each level and improvement in all aspects of the organisation (Al-Shobaki et al., 2010; Shahin & Dabestani, 2011). It is worth mentioning that TQM aims to achieve customer satisfaction not only by producing products and services that fulfil customer needs and requirements, but also by exceeding those requirements through continuous improvements (Dale, 2003).

The special interest in quality and the successful implementation of Total Quality Management practices and principles has been one of the most important causes of the economic development and manufacturing dominance of Japanese and other

developed counties industries during the 1980s (Basu, 2004). In contrast, the low performance of manufacturing organisations in developing countries, managed by traditional management approach, has decreased their contribution to the gross domestic product (GDP) and the manufacturing value added per capita (Lakhe & Mohanty, 1994; Tybout, 2000; Söderbom & Teal, 2002).

TQM has been one of the popular business strategies in many leading manufacturing industries, such as Honda and Toyota, over the last three decades (Sohal & Terzivski, 2000; Khalid et al., 2011). In today's era of global marketing, many manufacturing organisations in different parts of the world have adopted and implemented the principles and practices of TQM (Youssef & Zairi, 1995; Talib & Rhman, 2010; Montgomery et al., 2011; Lam et al., 2011). This is due to their recognition of TQM as a means to achieve business performance, competitive advantage and continuous success in international marketing competition (Kaynak & Hartley, 2008; Bou-Llusar et al., 2009; Martinez-Costa et al., 2009; Kuo & Kuo, 2010; Kristianto et al., 2012; Lam et al., 2011).

Despite the claimed benefits of TQM, the relevant literature points to many research studies that indicate a high rate of problems and failures involved in the process of implementing TQM practices, due to barriers that hinder its implementation (Sila, 2007; Ali et al., 2008; Soltani & Wilkinson, 2010; Abdolshah & Abdolshah, 2011). Some authors, such as Mann and Kehoe (1995), have focused on the management style barrier for TQM implementation such as the lack of involvement of top, middle and junior management in TQM. While other authors have argued that unsuitable systems within an organisational environment and context, such as a dictatorial management style (Whalen & Rahim, 1994), and also, a rigid and very routine bureaucratic organisational structure (Tata & Prasad, 1998) as the main obstacles for TQM implementation. In addition, according to Oakland (2003), failure to implement TQM in many organisations occurs due to many reasons, such as: inefficient top management commitment and leadership, inexistence of company vision and strategic planning, lack of creativity and innovation, lack of employee interaction, and inadequate business measurement.

Many scholars have concluded that the constraining effect of organisational culture (OC) is one of the main barriers which contribute to the failure in the implementation of TQM (McNabb & Sepic, 1995; Mosadeghrad, 2006; Al-Khalifa & Aspinwall, 2001). Therefore, a better understanding of the role that the culture of an organisation plays in implementing TQM is needed. A low level of organisational members' readiness for change is considered by others as a major reason for TQM failure (Weeks et al., 1995; McNabb & Sepic, 1995; Shea & Howell, 1998; Meirovich et al., 2006).

The aim of this study is to examine the influence of OC on TQM implementation success and the mediating role of IRFC in the OC-TQM implementation relationship in SMOs. This chapter provides a brief outline of the study, with an overview of the research problem. It will define the aim and the objectives of this research. This chapter will conclude with a description of the structure of the thesis.

1.2 Research Problem and Questions

Recent literature in the field of TQM has shown that there is increasing recognition of the influence of organisational culture (OC) on the success or failure of TQM implementation (Al-Kalifa & Aspinwall, 2001; Zu et al., 2010; Baird et al., 2011; Gimenez-Espin et al., 2012; Green, 2012). Many previous research studies have examined the influence of OC on TQM in developed countries. However, research testing the impact of OC on TQM implementation in developing and Arab countries, particularly in Syria, has been relatively scarce. This constitutes the first gap that this study will address.

Moreover, the direct-influences arguments for the effects of OC on the implementing of TQM, as a model of organisational change, are convincing and persuasive. However, a deeper inspection suggests that the arguments implicitly presume a mediating role for IRFC in the relationship between OC and TQM implementation. However, studies concerning the indirect effect of OC on TQM implementation through IRFC have been scant. Given the aforementioned, it is clear that there is a gap

in the TQM literature in not investigating the mediating role of IRFC on the relationship between OC and TQM implementation.

This study attempts to fill the identified gaps in the literature by examining the relationships between organisational culture, individual readiness for change and TQM implementation in Syrian manufacturing organisations (SMOs). With the need to study the relationships among OC, IRFC and TQM in SMOs, the research questions of this study are formulated as follows:

- What influence do organisational culture types have on the level of TQM implementation success in SMOs?
- Does individual readiness for change play a mediating role in the relationships between organisational culture types and the TQM implementation success in SMOs?

1.3 Aim and Objectives

The aim of this study is to establish an integrative conceptual framework that explains the influence of organisational culture on TQM implementation and the mediating role of IRFC in the OC-TQM implementation relationship in SMOs. Accordingly, the objectives of the study supporting this aim are as follows:

- To conduct a comprehensive review of the existing literature of the relevant fields of organisational culture, Total Quality Management and individual readiness for change.
- To formulate the research hypotheses derived from the literature review and to develop a theoretical framework regarding the relationships between OC types, IRFC and TQM implementation.
- To collect primary data in order to test the research hypotheses and to validate the theoretical framework.
- To investigate the OC profiles, the level of IRFC and the level of implementation of TQM in SMOs.

- To examine the impact of the IRFC on TQM implementation, and to investigate the influences of OC types on TQM implementation and on the level of IRFC in SMOs.
- To develop and validate an integrative theoretical framework regarding the relationships between OC types, IRFC and TQM implementation.
- To provide recommendations and guidelines to improve the level of TQM implementation for SMOs, in order to enhance their competitiveness in the international marketing environment and to achieve higher levels of global marketing effectiveness.

1.4 Motivation, Justification and Rationale for the Research Study

Despite the substantial body of literature examining the influence of OC on TQM implementation, very limited research has investigated the mechanics of the connection between OC types and TQM. In particular, an extensive review of the literature revealed that a contribution to knowledge would be derived from the investigation of the role of IRFC as one possible mechanism through which an organisation's culture comes to have an impact on TQM implementation for two reasons. Firstly, recent studies have paid attention to the influence of OC on IRFC (Eby et al., 2000; Abdul Rashid et al., 2004; Jones et al., 2005). Secondly, there has been an increasing recognition of the influence of individual readiness for change (IRFC) on the success or failure of TQM implementation (Weeks et al., 1995; McNabb & Sepic, 1995; Shea & Howell, 1998; Meirovich et al., 2006). However, there is a gap in the TQM literature in not investigating the mediating role of IRFC on the relationship between OC and TQM implementation. Therefore, there is a need to develop an integrative conceptual framework that explains the influence of organisational culture on TQM implementation and the mediating role of IRFC in the OC-TQM implementation relationship. This novel theoretical model would be developed by combining the direct effect of OC on TQM implementation and the indirect effect of OC (through IRFC) on TQM implementation in a single model. In other words, this model would integrate the direct effect of OC and the mediating role of IRFC in the OC-TQM implementation in order to provide explanations of the

mechanism through which an organisation's culture comes to have an impact on TQM implementation. Therefore, this model would make a novel contribution by giving a more refined comprehension of the relationships between OC types and TQM implementation.

The recent literature in the change management area has established that Individual Readiness for Change (IRFC) is one of the most significant factors for successful implementation of organizational change (Armenakis et al., 1993; Weeks et al., 1995; Clegg & Walsh, 2004; Jones et al., 2005; Holt et al., 2007; Sikh, 2011). According to scholars, ignoring the vital role of individuals in the change process as well as the low level of IRFC, causes difficulties and in some cases failures in implementing many change initiatives such as total quality management (Meirovich et al., 2006).

Organisational Culture (OC) has been recognised to be one of the most important factors that could either foster or decrease IRFC (Armenakis et al., 1993; Weiner, 2009; Jones et al., 2005; Choi & Ruona, 2011). Therefore, there is a need of a better understanding of which types of culture more favorably foster IRFC. Few recent research studies and mostly conceptual in nature have paid attention to the relationship between OC and IRFC. In addition, there are limited empirical studies that have examined the impact of some of OC types on IRFC. For example, Jones et al. (2005) have investigated the influence of two types only of OC types namely, human relations; group and adhocracy culture types on IRFC. Surprisingly enough, there is a lack of empirical studies investigating the influence of all OC types on IRFC. Therefore, this study is proposed to empirically examine the influence of all the four organizational culture types of the CVF model, namely group, developmental, hierarchical and market/rational, on IRFC, in order to give a holistic perspective, rather than focusing on the influence of some of the OC types on IRFC.

Furthermore, research testing the relationship between OC, IRFC and TQM implementation in developing countries has generally been limited, specifically in Syria. Thus, the current study would bring empirical evidence from a relatively new cultural context. It is anticipated that the outcomes of this research will add to the body of knowledge concerning the OC- IRFC- TQM relationship in developing countries with particular interest on Syria. This study should therefore provide executives in

manufacturing industries with useful suggestions for implementing TQM more effectively and efficiently.

1.6 Overview of Thesis Structure

Based on the research questions and in order to reflect the research aim and objectives, the thesis is organised into seven chapters (see Figure 1.1). The thesis's anticipated chapters are summarised briefly in this section.

Chapter 1: Introduction and Overview

This chapter provides an introduction to the study, and contains general information outlining the background of the study. It presents an overview of the research problem, followed by the aim and objectives of the study. In addition, this chapter presents the significance of this study along with the structure of this thesis.

Chapter 2: A Review of the Literature

This chapter provides a comprehensive literature review of previous efforts in the three fields of TQM, OC and IRFC. It reviews the literature about the history and development of quality and TQM. It describes the concept of TQM based on the literature from quality leaders, empirical studies, quality awards and models of excellence, then proceeds to describe the most common TQM elements. It discusses the positive influences of TQM on product quality performance, competitive advantage and business performance. It presents the barriers that hinder successful implementation of TQM. In addition, this chapter presents a review of the literature about organisational culture, including its meanings, concepts, types, the different instruments to measure it, and its relationship with TQM. It also provides a literature review about individual readiness for change, including its definition, importance, measures, its relationship with organisational culture, and its influence on TQM

implementation. This chapter ends by identifying and discussing gaps in the existing research.

Chapter 3: Conceptual Framework and Research Hypotheses

This chapter discusses the relationship between TQM, organisational culture and individual readiness for change in full detail. Additionally, this chapter presents the different research hypotheses which have been developed and the proposed theoretical framework that aggregates the formulated hypotheses.

Chapter 4: Research Design and Methodology

The purpose of this chapter is to explain, rationalise and justify the research philosophy, approach and design followed in the present study. In addition, it justifies the sampling and data collection methods employed in the present study. Finally, this chapter gives an overview and background about Syrian culture, its manufacturing industry, and quality management in Syrian organisations.

Chapter 5: Data Analysis and Findings

This chapter analyses the data collected from the questionnaire surveys using Statistical Package for Social Sciences (SPSS) version 16. The analysis includes: reliability and validity testing, descriptive statistical analysis, bivariate statistical analysis tests and multivariate statistical analysis tests. This chapter reports the descriptive findings and hypotheses testing findings.

Chapter 6: Discussion of Findings

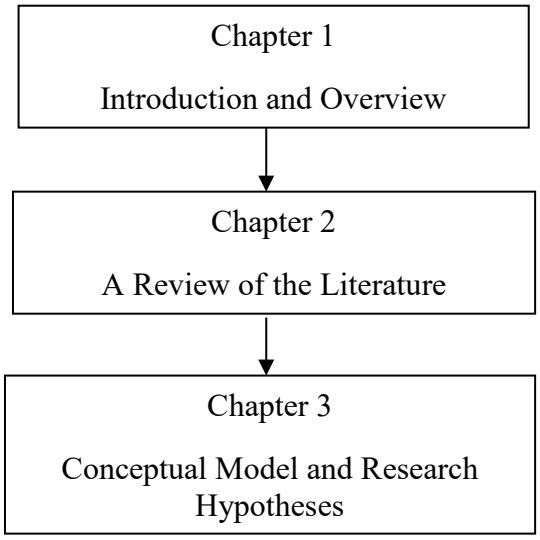
This chapter provides discussion on the descriptive findings as well as of hypotheses testing in full details.

Chapter 7: Implications, Contributions and Conclusion

This chapter summarises the whole thesis and presents the conclusions from the research findings. This chapter presents the contributions of this study as well as the practical implications. In addition, this concluding chapter discusses the limitations of the current research and possible directions for further research.

1.7 Summary

This chapter has provided an overview of the thesis. It has served as a general introduction and a as a plan of the thesis. It has highlighted the background of this study and discussed the research problem. Also, it has provided a discussion of the research questions and introduced the research aims and objectives. It has underlined, discussed, and emphasised the significance of this study. Lastly, it has presented and outlined the structure of the thesis.



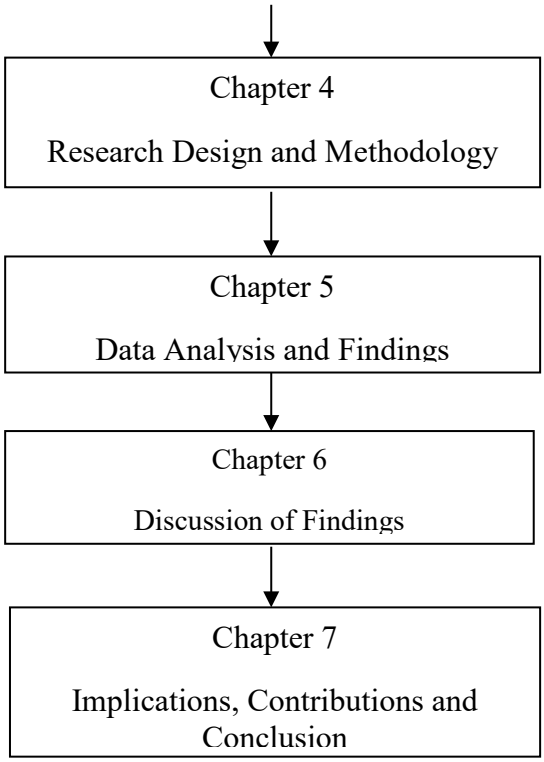


Figure 1.1 Thesis Outline and Structure

Chapter Two

A Review of the Literature

2.1 Introduction

The literature review is a “critical analysis that demonstrates a clear understanding of the research topic” (Hart, 1998). It identifies the “main studies related to the research area, the different points of views on the research topic, and gaps in the existing research” (Hart, 1998).

The previous chapter briefly outlined the setting and background of the current study. The research questions were specified, and the aim and objectives were stated. The aim of this chapter is to explore and discuss critically the combined literature which is relevant to the topic under study and relates to its aim and objectives. The area of this study consists of the integration of three areas of research, namely total quality management (TQM), organisational culture (OC), and individual readiness for change (IRFC). This chapter is divided into four main parts.

The first part of this chapter will provide a comprehensive literature review of previous efforts in the field of TQM. This will cover the history and developments of TQM. It will describe the concept of TQM based on literature from quality leaders, empirical studies, quality awards, and models of excellence, and will then proceed to describe the most common TQM practices. Also, it will discuss the positive influence of TQM on business performance and international marketing competitiveness. Lastly, it will present the barriers and that hinder the successful implementation of TQM. The second part of this chapter will present a review of literature about organisational culture, including its meanings, concepts, types, different instruments with which to measure it, and its relationship with TQM. The third part of this chapter will provide a literature review about individual readiness for organisational change, including its definition, importance, measures, its relationship with organisational culture, and its influence on TQM implementation. The research gaps found in the combined literature will be identified and discussed in the last part of this chapter (section 2.13).

2.2 Defining Quality

The word 'quality' is derived from the Latin '*qualitas*' meaning 'of what kind or sort'" (Karwowski, 2006, p. 2264). Quality is difficult to define because it is an ambiguous term. Therefore, there is no single definition of quality accepted by all. This is because the concept of quality is a construct that is subjective and context-dependent (Harvey & Newton, 2004). After having conducted an extensive review of the literature, the researcher has concluded that there are several different definitions for the term. Many researchers have tried to express their ideas and views about quality based on their thoughts, fields, contexts, and experiences. For example, according to Leffler (1982, p. 965), "quality refers to the amount of the unpriced attributes contained in each unit of the priced attribute". Crosby (1984) defines quality as "conformance to requirements". Juran (1989) defines quality as "fitness for purpose or use", while the International Standard ISO 8402 suggests that: "Quality is the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs" (ISO 8402, 1986). This definition matches Juran's definition of quality as basically being fitness for use.

After a thorough analysis of its concept, Oakland (2003) defined quality simply as the degree of fitness for purpose and function. Dahlgaard et al. (1998) and Dale (2003) focused on the shift towards what the customer wants, and the creation of customer loyalty. Therefore they defined quality as "delighting the customer by fully meeting their needs and expectations". Overall, it can be said that definitions of quality have touched upon several areas such as customer satisfaction appearance, performance, maintainability, cost effectiveness and price. In summary, most definitions of quality have different meanings to different scholars, as mentioned above. However, these definitions share one main common factor: satisfying customers by offering and providing them with products and services which meet their needs and conform to their expectations.

2.3 The Evolution of Total Quality Management

Many people think that the notion of quality was invented in the last century (the twentieth century) by gurus. However, the researcher supports the opinion of Dahlgaard et al. (1998) who have argued that quality has been marked in different human actions since the old ages. Juran (1995) has argued that that there is a false assumption that particular twentieth century gurus — Shewhart, Deming, Ishikawa, or others — invented quality. The history of quality can be traced back to the time of the ancient Egyptians, who implemented strict quality procedures and controls during the construction of the pyramids (Mass & Hoogendijk, 1997). In addition, the concept of quality was firmly rooted in the belief system of early and widespread religions (Al-Zamany et al., 2002).

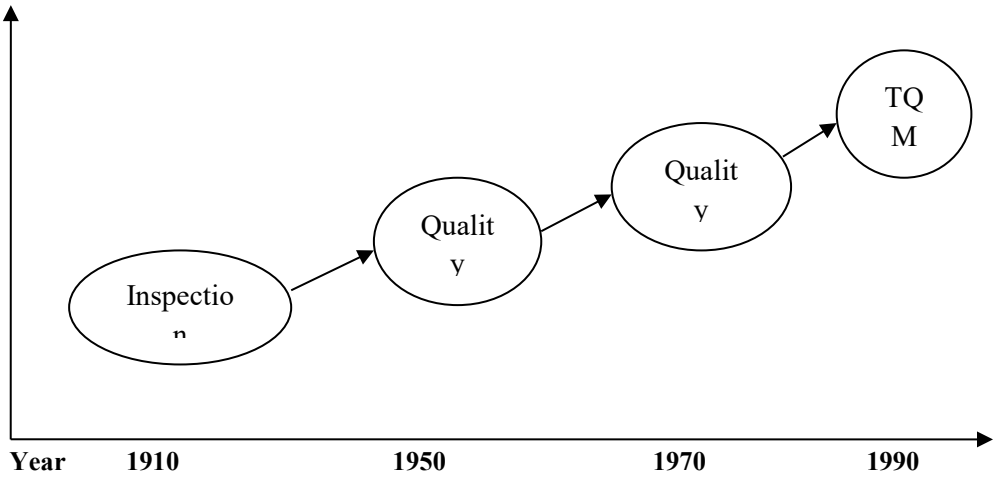


Figure 2.1 The Four Stages in the Evolution of Total Quality Management

Source Dale: (2003)

The development and evolution of TQM from a historical perspective can be summarised in a series of events which indicate the gradual emergence of TQM. These are given in Appendix A1. The development of TQM gathered force from 1950 onwards. This could be ascribed to the work and writings of many quality gurus. Among them are Deming (1982), Juran (1993), Feigenbaum (1961), Ishikawa (1985 & 1993), and Crosby (1984), who have shaped the evolution of TQM and contributed significantly towards the continuous development of the subject (Dahlgaard et al.,

1998). More details about the contributions of the founding fathers of TQM can be found in Appendix A2.

Deming has played a major role in the development of the concept of quality, making it popular in Japan and then later on in the US (Ross, 1994). Japanese managers listened seriously to his ideas and tried their best to understand them. They then began to implement his ideas and principles, as well as the ideas of other American experts (Juran & Feigenbaum) along with ideas expressed by Japanese scholars (e.g. Ishikawa). This practice began as early as the 1970s and 1980s, and as a result of implementing Deming's principles, the Japanese products have had a huge impact on the European, US, and other national markets. In order to compete with Japanese products, the US government and American companies have begun to take the concept of quality seriously. The US government established a board in 1985 to set up the National Quality Award, and in 1987 it introduced the Malcolm Baldrige National Quality Award (MBNQA), which in turn led to a significant interest in quality amongst American companies (Vokurka et al., 2000).

In the 1980s many western European countries such as the UK and France took a serious interest in adopting TQM (Lakhe & Mohanty, 1994). In order to promote TQM implementation, they established many quality awards, such as the European Quality Award (EQA). Nowadays, due to the intensive competition in the global markets, there is a global quality revolution taking place (Youssef & Zairi, 1995). In the Middle East, for instance, the number of organisations adopting the TQM philosophy and the number of registrations of ISO 9000 are rapidly increasing (Youssef & Zairi, 1995; Zairi, 1996). Except for a few countries, such as the United Arab Emirates (UAE), the implementation of TQM in most Arab countries and other developing countries is still in its very early stages when compared with its implementation in developed countries (Youssef & Zairi, 1995; Al-Khalifa & Aspinwall, 2000; Al-Omem, 2002; Al-Zamany et al., 2002).

The majority of Arab countries are still falling far behind developed countries in terms of the implementation of TQM. In addition, although many Arab organisations have

implemented various ISO standards and obtained several ISO certifications, there is still a lack of quality awards in these countries. Recently there have been a few Arab countries that have developed and implemented their own quality awards, such as the King Abdullah II Award for Excellence (KAIIAE) in Jordan (Rawabdeh, 2008). However, the most well known quality award in Arab countries is the Dubai Quality Award (DQA) in the UAE. A few years ago, and in particular during 2006, Dubai became officially recognised as the fifth quality hub of the world, as the headquarters of the Middle East Quality Association (ETQM, 2008).

2.4 Definitions of TQM

Even though TQM is broadly practiced, there is no precise definition for it and there is little agreement between academic scholars, practitioners and gurus on what it really means. The literature on TQM shows that there is a strong consensus among academic authors, experts and professionals on the importance of applying various quality management practices, but there has been no consensus on the proper definition of what quality management actually is (Hill & Wilkinson, 1995). Many definitions of TQM depend upon the author's field of interest. Some approaches have focused on subjects such as human resources (Wilkinson et al., 1998), culture (Schein, 1992), or leadership (Peters & Waterman, 1982). Boaden (1997) reviewed the literature related to different TQM definitions and concluded that TQM become more and more "fuzzy in meaning". Hill and Wilkinson (1995) have suggested that TQM has been a very ambiguous term because the majority of practitioners and professionals who adopt TQM actually use it as an umbrella term to cover a variety of practices.

Ho (1999, p. 30) regarded the meaning of each component of TQM as:

"*Total - everyone associated with the company is involved in continuous improvement (including its customers and suppliers if feasible),*

Quality - customers' expressed and implied requirements are met fully,

Management - executives are fully committed".

It is worth meaning that Al- Nofal et al. (2005) discussed TQM by analysing the three words: total, quality and management. They concluded that quality means meeting customers' needs constantly, and that total quality means accomplishing quality at low cost. They also considered that total quality management seeks to achieve total quality by involving members' daily commitment (Al-Nofal et al., 2005). This supports the opinion of many authors such as Prajogo and McDermott (2005) and Mohrman et al. (1995) who define TQM as a 'culture' and a 'management approach' rather than merely a technique or system.

More recently, Dale (2003, p.9) has defined TQM as:

"A management approach that ensures mutual co-operation of everyone in an organisation and associated business processes to produce products and services that meet and, hopefully, exceed the needs and expectations of customers".

Oakland (2003) has described TQM as a means to increasing an organisation's competitiveness, having defined it as:

"*A comprehensive approach for improving competitiveness and flexibility through planning, organising and understanding each activity, and involving everyone at each level. TQM ensures that the management adopts a strategic overview of quality and focus on prevention rather than inspection*".

(Oakland, 2003: p. 41)

In summary, it can be concluded that although there are some differences between the above TQM definitions, they meet on many points, such as internal and external customer satisfaction, and continuous improvement. Based on the above discussion, the following definition of TQM is formulated and used for this research:

TQM is a philosophy, a management approach, and a culture of organisation management. It emphasises mutual co-operation, the involvement of everybody in the organisation at each level, and improvement within all aspects of the organisation in order to achieve customer satisfaction. It does this not only by producing products and services that fulfil customer needs and requirements, but also by exceeding them and continuously improving the quality of products and services.

The definition of TQM was not developed through academic work, nor through the systematic analysis of organisational and management theory (Grandzol & Gershon, 1997). Originally, the development of quality management was based on the work and study of Ishikawa (1985), Deming (1986) and Juran (1989) who provided the primary definition and explanation of quality management. They were the primary authors who provided the foundations for the modern understanding of TQM. However, their initiatives were prescriptive and managerial, and failed to provide a theoretically or empirically sound framework for understanding TQM. In recent years, several academic studies have redefined TQM and highlighted its practices, which has formed the foundation for the implementation of TQM through empirical findings. In addition, a number of new initiatives such as quality certifications and quality award models have been started in order to understand the TQM approach better and to provide new models and practical frameworks for implementing TQM practices.

2.5 Total Quality Management Practices

TQM is not only a management philosophy, but also a set of practices consisting of many indicators. According to Talib et al. (2011, p. 270): "TQM is a set of management practices applicable throughout the organisation and geared to ensure the organisation consistently meets or exceeds customer requirement". Many research studies have been performed to investigate the TQM practices which are critical for the successful implementation of TQM. According to Karlsson (2008), the degree of TQM implementation "is an empirical and numerical based measure of how extensive the implementation of TQM is or how committed the organisation is to TQM".

The concept of TQM was considered merely a quantitative aim to achieve customer satisfaction via quantitative statistical quality control and measurement (Lewis, 1999). However, the concept of TQM has been expanded to include new qualitative values, such as interest in human resources development and employee empowerment (Jung et al., 2008). Research has shown that, like the quantitative aspect, the qualitative aspect of TQM also aims to improve quality and therefore achieve customer

satisfaction (Chio & Eboch, 1998). These aspects of TQM can be found in the relevant literature through discussions of the soft, social, and hard technical quality factors which influence the implementation of TQM (Bou-Llusar et al., 2009; Awan et al., 2007; Arumugam et al., 2009; Wilkinson, 1992). The soft quality factors are intangible; not easy to quantify and/or measure but could influence the TQM's tangible effect (Powell, 1995). Lau and Idris (2001, p.52) considered that soft quality factors such as "teamwork, training, continuous improvement, employee involvement and customer satisfaction", have a significant effect on the tangible effects of TQM, which they describe as "growth, profitability, productivity, quality, finished product inspection, market competitiveness delivery date, safety, human resource development". On another hand, many authors have argued that hard TQM factors are primarily related to techniques, tools and systems (Awan et al., 2007; Thiagarajan & Zairi, 1997; Fotopoulos & Psomas, 2009). Some of these factors influence external effectiveness (e.g. "benchmarking and customer satisfaction surveys") and some of them influence internal efficiency (e.g. "statistical process, cost of quality, and quality management system") (Thiagarajan and Zairi, 1997: 415). In addition, Rahman and Bullock (2004) conducted an empirical investigation of the relationships between TQM soft elements, TQM hard elements, and organisational performance. They concluded that TQM soft elements (e.g. human factors such as teamwork or commitment) have a positive indirect influence on various organisational performance measurements, such as productivity and customer satisfaction. The soft elements have this effect through their influence on TQM hard elements (such as continuous improvement or technology employment) by creating conditions and a climate that help to employ TQM hard elements effectively (Rahman & Bullock, 2004).

Originally, the development of quality management was based on the work of Ishikawa (1985), Deming (1986) and Juran (1989), who offered the primary definition and explanation of quality management (see section 2.3). These authors provided the foundations for understanding modern; existing TQM and how to put it into practice. In recent years, several academic studies have redefined TQM and used empirical findings to highlight the essential elements of the practices which form the foundation for the implementation of TQM. In addition, a number of new initiatives such as quality certifications, standardised frameworks such as the ISO 9000 series, and

quality award models have been started in order to understand the TQM approach better, and to provide new models and practical frameworks for implementing TQM practices.

2.5.1 Models Based on Research Studies

Many research studies have redefined TQM through their empirical findings (Dean & Bowen, 1994; Black & Porter, 1996; Flynn et al 1994; Powell, 1995; Saraph et al., 1989; Sila, 2002; Sila, 2007). These studies have attempted to use statistical analyses of quality management practices in order to reveal the most important TQM practices, to identify the components of the dimensions that represent and characterise TQM practices, and to develop instrument to measure the level of TQM practices. Motwani (2001) considers that most of these studies have a higher level of validity than the non-empirical TQM studies. There is no consensus about TQM practices. However, the aforementioned literature shows more similarities than differences amongst TQM practices found by different authors. It is concluded that researchers have produced more or less the same factors, but there remains a problem regarding the best method of grouping and characterising TQM practices. Most of these approaches define TQM without referring to different theoretical levels within the discipline. The lack of a comprehensible theoretical framework has proven a hindrance to developing a precise definition of TQM, and consequently obstructs a clear understanding of this initiative and how it could most efficiently be applied (Kujala, 2002). Therefore, a number of new initiatives, such as quality certifications, standardised frameworks such as the ISO 9000 series, and quality award models, have been started in order to understand the TQM approach better, and to provide new models and practical frameworks for implementing TQM practices.

2.5.2 Practical Frameworks of TQM Based on Contemporary Initiatives

Quality initiative' refers to the different quality certifications, awards and the many programmes used to improve quality in an organisation. Quality initiatives have been

described as one of the most significant events of the last 70 years (Uyar, 2008). They have provided suitable tools that have helped to significantly improve the quality of goods and services provided by organisations, and thus have become popular. They have been so helpful that even non-profit organisations such as governmental institutions, schools and hospitals have adopted them to improve their own quality. This is because the end goal of any quality initiative is to gain customer satisfaction (Uyar, 2008).

Quality initiatives have tried to promote quality understanding or consciousness in general, and to help various institutions in many countries to implement TQM. They do this by shedding light on the main success factors that form the basis of implementing TQM practices (Uyar, 2008). They have also helped by providing new models for implementing TQM practices. Such initiatives, therefore, aid companies and institutions to implement TQM practices.

There are two major, generally accepted models for TQM: the Quality Awards and the new 2000 version of the ISO 9000 quality standards. The older versions of the ISO 9000 standards, (1987-1994), took a very limited approach to TQM and focused instead on the sale-delivery process. All the criteria of the ISO standards are compatible with the Quality Awards. However, the 1994 version of the ISO standards can be considered to be part of the Quality Awards, as the latter has a broader scope and is far more comprehensive, while the new 2000 version is more in accordance with the practices and philosophy of various quality awards. The two frameworks provide a solid, consistent, comprehensive and a broadly accepted definition of TQM, in contrast to the definitions offered by quality gurus. These frameworks have provided a definition of TQM that is easy for organisations and management to understand, and at the same time have provided the tools for implementing a TQM strategy and a model of quality management (Wiele, 2000). TQM did not develop into a set of comprehensive practices before the acceptance of ISO 9001 as a quality management system and a quality awards framework (Wiele, 2000).

A. ISO 9000 Quality Management System (ISO 9000 QMS)

Magd (2006, p.132) stated that, "the International Organisation of Standardization (ISO), a global federation of 130 national standard bodies, seeks to promote standardization and the development of related activities worldwide in order to help organisations in the international exchange of goods and services through the introduction of the ISO 9000 series of standards" .

This organisation (ISO) released the 9000 Quality Standard Series in 1987, and these standards went through a major revision in 1994 (Sroufe & Curkovic, 2008). The ISO 9000 quality management system and its various certifications have been widely recognised and have captured a lot of attention in recent years throughout the world (Gotzamani, 2005; Koc, 2007). ISO 9000 quality practices and principles have been used by many organisations worldwide as a tool for improving business performance and a means to assuring their customers that they follow procedures that are internationally recognised as satisfactory (Najmi & Kehoe, 2001; Wiele et al., 2005; Rusjan & Alic, 2010). A few studies, such as those by Koc (2007) and Lafuente et al. (2009) have found that certified companies achieved better operational performance and better quality compared with non–certified companies as a result of implementing ISO standards.

However, this version has many weak points and problems which make its standards fall behind the standards of TQM and famous international quality awards such as the European excellence model (Lee et al., 1999). The old version of ISO, issued in 1994, was not compatible with TQM. Instead it concentrated mainly on quality assurance, and its main aim was to ensure that standardised processes inside the firm were maintained, so that that products and services could be delivered according to pre set requirements and standards. In addition, unlike the ISO 9000 which is only concerned with systems and procedures relating to the design and production of products and services, TQM applies to all activities in the organisation. It gets everybody in the organisation from every level, top to bottom, to commit to continuous improvement (Goetsch & Davis, 1998). In addition, ISO 9000 does not include any performance

requirements, business results, or indicators, although the latter is very necessary for determining how to make improvements (Lee et al., 1999).

In order to simplify the ISO 9000 standards (version: 1994), to minimise the problems found in them, to help give ISO 9000 a better standing in the world and to make it more acceptable, the International Organisation for Standardisation published the ISO 9000:2000 family of standards to replace the ISO 9000 version 1994 family. The main purpose of ISO 9001-2000 is to help organisations to implement quality management systems, to improve internal and external customer satisfaction, and to achieve continuous improvement by providing an organised management system (Jaffery, 2004). However, Sroufe and Curkovic (2008) have argued that even though ISO 9000:2000 tried to fix previous problems, it still comes with its own uncertainties. These uncertainties are related to the fact that, like the previous version, this standard is perceived to be weak at delivering any real (Sroufe & Curkovic, 2008). In addition, the original and revised versions of ISO 9000 have some common weak points and have been criticised by many authors. The results of many empirical studies have shown that organisations have not significantly improved their performance by adopting ISO 9000 (Johnson, 2002), and that the ISO 9000 certifications have no direct effect on operational performance (Lai & Cheng, 2005). Furthermore, Iverson (2002) considered that ISO 9000 in the original and revised versions makes companies waste their resources on the large amount of paperwork related to these standards, without significant return. Another criticism points out that many companies adopt the ISO standard just because of pressure from the customers, rather than to be more efficient and improve their internal operations and make their quality better (Willem, 2004). Moreover, Sroufe and Curkovic (2008) have suggested that ISO 9000 wastes company time because of its emphasis on documentation and bureaucratic procedures for document revision, which do not have any positive effect on companies' operations (although the revised standard reduced these documents).

However, despite the above criticism of both versions of the standards, many authors, such as Sun (2000), believe that using ISO 9000:2000 standards helps to make the system more efficient. This provides a basis for making the system more effective, and

helps in the continuous improvement of quality, which in turn sets the tone for developing a TQM culture (Sun, 2000). It has also been noted in recent studies, such as Gotzamani and Tsiotras (2002), that when companies sought ISO certification for reasons other than customers' requirements the end result was much better. This was because the companies saw that implementing and working according to these standards was an opportunity to make themselves more efficient, to improve their internal operations, and to improve their quality by focusing on employee involvement, continuous improvement, customer requirements, and therefore customer satisfaction. As a result, they gained the ability to implement total quality management (Gotzamani & Tsiotras, 2002).

Companies which seek to sustain and improve their position and market share in the international market should consider ISO 9000 registration or certification as just the first step (Kujala, 2002; Youssef & Zairi, 1995). For the next critical step, they should aim to induce a culture of TQM and to implement the Quality Award Model criteria, for an operational framework to implement the constructs of TQM (Youssef & Zairi, 1995). The basic difference between the Quality Awards and the ISO 9000 quality management system and its various certifications exists in the significantly broader scope of the applications of the Quality Awards models (Kujala, 2002).

B. Quality Awards Models

This literature review has shown that there is no consensus between authors, gurus, and practitioners worldwide with regards to the definition of TQM and its basic underlying principles. Following Japan, which established quality awards as early as the 1950s (Vokurka et al., 2000), quality practices became more popular in the late 1980s and early 1990s, as many countries initiated different quality incentives after the success in Japan. The countries that developed different quality awards did so to encourage their organisations to adopt and implement TQM principles.

There are now many quality awards. The three major ones are the Deming Prize (DP) in Japan, the Malcolm Baldrige National Quality Award (MBNQA) in the USA, and

European Quality Award (EQA) in Europe (Mavroidis et al., 2007). Kujala (2002) considers that the basic difference between quality awards and the ISO 9000 quality management system and its various certifications exists in the scope of their applications, which is significantly broader in quality award models. This broader scope, wider acceptance, and the existing literature justify and rationalise the Quality Award model as being a kind of proxy and substitute for TQM (Kujala, 2002). These awards have a great impact on the development and implementation of quality performance standards and total quality management. These awards are considered incentives for companies to achieve superior levels in the implementation of TQM principles (Rawabdeh, 2008). A number of authors have argued that international quality awards models are operational frameworks for implementing the constructs of TQM (Curkovic et al., 2000; Flynn & Saladin, 2006).

Ghobadian and Woo (1996, p. 11) consider that the broad aims and objectives of quality awards are:

• "To increase awareness of the importance of the 'quality of offerings' and interest in 'quality management' because of their important contribution to superior competitiveness".

• "To encourage systematic self-assessment simultaneously against established criteria and market awareness".

• "To prompt co-operation between organisations on a wide range of non commercially sensitive issues".

• "To stimulate the sharing and dissemination of information on successfully deployed quality strategies, and on the benefits derived from implementing these strategies".

• "To promote understanding of the requirements for the attainment of "quality excellence" and successful deployment of quality management".

• "To stimulate organisations to introduce quality management improvement processes".

Ghobadian and Woo's (1996) opinion implied that the awards could probably be an avenue or paradigm for illuminating both tangible and intangible processes which affect companies' total quality and their outcomes. Furthermore, these awards provide companies with a device to weigh their position against international criteria and standards, which is considered a useful catalyst for improvement. Although every award has its own characteristics, they have a commonality in their basic philosophy. According to Ghobadian and Woo, these include "acceptance of responsibility for quality by the top management; customer orientation; high level of employee participation; open and effective communication; fact-based management; and strategic quality planning" (1996, p. 43). Vokurka et al. (2000) conducted an empirical analysis of the major quality awards and found that these programmes have many common objectives and criteria. However, they found that the definitions and approaches used differ from award to award.

C. Malcolm Bridge National Quality Award (MBNQA) Criteria as a TQM Measurement Model

In order to assess the extent to which organisations have implemented and committed themselves to TQM, and to measure accurately the true level of the implementation and practice of TQM-related activities in this research (that is, the level of TQM implementation, or lack of it, in Syrian manufacturing organisations), the researcher conducted a comprehensive review of the various TQM constructs identified by different authors and the major quality awards criteria. As a result, this study replicates and uses the widely cited MBNQA criteria and categories. This decision was made for many reasons:

- Many different studies and approaches have attempted to identify TQM critical success factors; practices. Amongst them, the quality awards, and particularly

the MBNQA have made significant advances by providing criteria and standards that best represent the TQM elements. Therefore these help to measure the level of quality management practices.

- Even though the level to which TQM practices are implemented is hard to measure and assess, quality awards criteria in general, and the criteria of MBNQA in particular, present one standard for measurement.
- The researcher preferred a widely used model and constructs because this study was not aiming to develop and validate a new TQM construct to measure the level of implementation of TQM practices.
- Many authors have argued for quality awards models as operational frameworks for implementing the constructs of TQM (Curkovic et al., 2000; Flynn & Saladin, 2006). Quality awards criteria have been used in several studies as a basis for representing TQM constructs empirically, to measure the implementation of TQM practices (Dean & Bowen, 1994; Black & Porter, 1996).
- Over the last seventy years, MBNQA has become the most influential means of promoting quality awareness and broadly acknowledged models of performance excellence (Flynn & Saladin, 2006).
- Many authors consider that quality awards, particularly MBNQA, best express the philosophies behind TQM practices (Ford 2000; Dean & Bowen 1996). It is easily to suppose that companies which have won one of the quality awards have really adopted and implemented all TQM practices (Hackman & Wageman, 1995). Additionally, many researchers and scholars, such as Dean and Bowen (1994), confirmed empirically the assumption that MBNQA criteria and categories extensively capture, represent, and articulate the main dimensions and contents of TQM constructs and practices. Also, Curkovic et al., (2000) conducted an empirical study to validate the MBNQA framework. They found that the internal structure of MBNQA corresponds with the TQM definition, and that there is a match between the criteria of MBNQA and the main TQM concepts and components. In other words, the criteria of this model capture the core concepts and main components and dimensions of the TQM system. Therefore, they concluded that the MBNQA framework could be considered a valid framework for TQM.

The MBNQA consists of seven criteria. Six of them are organisational practices criteria, namely leadership, customer focus, strategic planning, information and analysis, human resource development and management, and process management. The last criterion of this award is related to organisational performance, namely business results. The TQM practices are embodied in the six criteria of organisational practices, shown in Table 2.1.

Table 2.1 TQM Practices and Their Explanations

TQM Practices	**Explanations**
Leadership and Top Management Support	Many quality scholars such as Samson and Tersoviski (1999) agree that senior executives' leadership acts as the main driver for TQM implementation. Hoang et al. (2006) considered that the degree of visibility and support that top management provides in implementing a total quality environment is significant in the success of TQM implementation. An organisations' senior leader must create a system which leads to achieving individual development and improving organisational performance (Ahire et al., 1996). This includes

	planning for change, allocating the resources and budget needed for different activities, managing through visibility, and controlling progress (Agus, 2005).
Customer Focus	Customer focus is crucial for success in today's competitive global economy (Arif, 2008). In order to build customer loyalty and retain profitable customers, organisations must aim to meet and satisfy the needs and the future expectations of customers better than competitors (Thiragarajan & Zairi, 1997; Kotler & Armstrong, 2010). Deming (1982) suggests that organisations should continually measure customer satisfaction. In addition, organisations must assess customer requirements and proactively respond to their needs (Oakland, 2003).
Strategic Planning	In order to achieve successful TQM implementation, companies have to have a clear vision, mission, long-term plan, and quality policy (Tamimi & Sebastianelli, 1998; Hoang et al., 2006). A number of authors have suggested that strategic planning and operational processes are related and associated (e.g. Juran, 1989). Therefore, there should be a correspondence between them in order to achieve high organisational performance. Moreover, in TQM organisation, plans must concentrate on the achievement of 'best practice' (Samson & Tersoviski, 1999).

Information and Analysis	Data and information can be collected and analysed with the aim of quality improvement (Hoang et al. 2006). According to Samson and Tersoviski (1999) "the TQM philosophy emphasises decision making based on fact involving analysis of information about customer needs, operational problems" (p. 397). Fact-based management is very important, as it provides an integrated approach to assessing and measuring performance (NIST, 1999). Many types of data and information are required to measure performance, such as "customer, product, and service; operations, market, and competitive comparisons, supplier, employee, and cost and financial" (NIST, 1999, p. 3). Nist (1999) considered that analysing the data mentioned above and other indicators provides organisations with reliable information which helps them to measure organisational performance, to identify errors for correction, to align resources, to improve productivity, and to make effective decisions to improve quality. In addition, organisations must conduct benchmarking. This is a process that provides a management tool to organisations to constantly compare and measures itself against the best and business leaders in both the local and international marketplaces. Therefore, organisations must review the information relating to other firms' product quality, procedures, human resource practices and policies, and customer service, and compares them with those within their own organisation. This helps the organisation to learn from business leaders with the aim of quality

	improvement on a continuous basis (Boone & Wilkins, 1995).
Process Management	Process management is more technical, and therefore many authors regarded it as a sort of 'hard TQM' (Samson & Terziovski, 1999; Jung et al., 2008). An organisation must design a work system and processes for executing its system in order to meet and exceed their customers' needs, and to achieve organisational success (NIST, 1999). Companies must have standardised and documented operating procedures, as well as methods to measure the quality of their products (Samson & Terziovski, 1999). In addition, this principle concerns the way that companies organise and manage their work with their supplier. A number of scholars such as Crosby (1979) and Deming (1986) consider that the materials that companies receive from suppliers have a direct influence on the companies' products in terms of cost and quality. This, in turn, has an impact on customer satisfaction and profitability. Therefore, organisations and their suppliers must work closely together to improve their processes and develop their products.
People Management	A number of authors argue that human resources are the most important resource that any organisation has (Samson & Tersoviski, 1999). Many researchers

	consider that customers are both the people to whom organisations sell products and services (external customers), and the employees within the organisation (internal customers). Therefore, organisations must understand that they have two types of customers, internal and external, and they must fulfil and satisfy the needs and expectations of both of them (Samson & Tersoviski, 1999). Barnes and Morris (2000) have argued that satisfying internal customers ultimately leads to satisfying and maintaining external customers. In other words, internal customer focus and effective human resource management have a positive influence on the overall organisational performance and business outcomes.

2.6 Total Quality Management Implementation in Manufacturing Industries

Pino (2008) defined manufacturing organisations as organisations that produce chiefly tangible goods, and dedicate a major part of their operations to the production of such products. The success of manufacturing organisations has a direct positive influence on economic development in emerging and developing countries (Munizu, 2011; Bayazit & Karpak, 2007). Manufacturing organisations have capability in generating new jobs. Thus, they have a vital role to decrease unemployment (Munizu, 2011).

Despite the important role of the industrial sector and manufacturing organisations, the performance of manufacturing organisations is still low in the majority of developing countries (Sukkar, 2004; Abu-Sekkeh, 2004). This is due to many problems faced by the industrial sector in these countries such as: "(1) poor work organisation and inflexibility and lack of creativity of middle management, (2) poor management and labour skills and practices, which are caused, in part, by the lack of suitable management training programmes and courses, (3) the low efficiency of enterprises, (4) the absence of product innovation, (5) the low use of new technology also explain the low efficiency and productivity of enterprises, (6) bureaucratic and infrastructural constraints, (7) the complete lack of predictability in the application of bureaucratic procedures and approvals" (Calcopietro et al., 2008, p. 28).

Furthermore, manufacturing industries in developing countries are managed by traditional management which adopts hierarchical and vertical organisational structure (Lakhe & Mohanty, 1994). This management is governed by individual managers who dictate to their workers through rules and procedures. Traditional management is "result-oriented" philosophy compared to the "process-oriented" philosophy of the new management approaches such as TQM. Traditional managers prefer a "short span" of control (vertical) and many layers of authority (centralisation) based on control (Lakhe & Mohanty, 1994). Those managers interested in one-time breakthrough improvement rather than focusing on continuous improvement. Lastly, the responsibility for quality in such manufacturing industries is delegated to a few subordinates (i.e. the quality control department) (Lakhe & Mohanty, 1994). The above mentioned reasons have contributed to their poor growth, low productivity, and little manufacturing added value of manufacturing industries. This in turn has decreased their contribution to the gross domestic product (GDP) and the manufacturing value added per capita (Lakhe & Mohanty, 1994; Tybout, 2000; Söderbom & Teal, 2002).

In today's competitive global economy, successful manufacturing industries are continuously faced with the need to adopt and employ forms of best management practices in operation management, such as Just In Time (JIT) systems, Six Sigma,

and TQM, that have been successful all over the world (Munizu, 2011; Choi & Ruona, 2011).

The gurus of quality have developed TQM principles based on their knowledge of manufacturing organisations (Pino, 2008; Woon, 2000). While many manufacturing organisations managed by traditional management have quality control departments to supply technical support, successful manufacturing organisations have found that quality must be incorporated all over the organisation (Garvin, 1988; Dale, 2003). Integrating quality throughout all organisations functions is one of the main principles of TQM (Garvin, 1988; Dale, 2003). This represents the major difference between TQM philosophy and traditional management approach. Additionally, "TQM is a process oriented approach as against the traditional result oriented approach" (Lakhe & Mohanty, 1994, p12). Manufacturing industries managed by TQM approach adopts a "flatter organisational structure" while in organisations using traditional management, "vertical organisational structure" is adopted (Lakhe & Mohanty, 1994). Unlike manufacturing industries managed by traditional management which value physical assets such as plant equipment and machinery to produce mass quantities of goods, TQM organisations view human factor as the most important assets to produce high quality products and improve organisational operational performance (Samson & Tersoviski, 1999; Meirovich et al., 2006).

TQM has been one of the popular business strategies in numerous leading manufacturing industries over the last three decades (Sohal and Terzivski, 2000; Khalid et al., 2011). The successful implementation of TQM is one of the most important causes of economic development and manufacturing dominance of Japanese industries in the 1980s (Basu, 2004). The common belief of many authors, practitioners and gurus is that TQM as a management philosophy is a means by which manufacturing organisations can improve operational performance, overall organisational effectiveness, and competitive advantage in local and global markets (Hendricks & Singhal, 2001; Easton, 1993; Anderson et al., 1994; Kanji & Tambi, 1999; Quazi et al., 1998; Kumar et al., 2009; Jafar et al., 2010; Yang, 2006). This is because TQM implementation leads to a reduction in defects and rework, a reduction in costs, increased internal improvement in productivity, efficiency and overall

business performance, and increased customer satisfaction and sales. These in turn lead to increased market share and profit (Reed, 2000; Khan, 2003; Al-Nofel et al., 2005; Salegna & Fazel, 2000; Youssef et al., 1996; Gunasekaran, 1999; Fotopoulos & Psomas, 2010; Yang, 2006; Kumar et al., 2009).

Mersha (1997) considers that the successful implementation of excellence programmes such as TQM in manufacturing organisations in developing countries would assist industries in enhancing their productivity and the quality of their products. This would then enable developing countries to buy capital products, increase employment levels and become economically developed (Leonidou & Katsikeas, 1996; Mersha, 1997).

2.7 The Influence of TQM on International Marketing Effectiveness and Business Performance

There is an agreement among quality gurus such as Crosby (1979), Deming (1986), Feigenbaum (1983), Ishikawa (1985) and Juran, (1982) that the purpose of quality management is to reduce costs and improve customer satisfaction. Deming (1986) considers that increasing the competitiveness and market share of business organisations can be achieved by improving quality and productivity. He argues that having a low quality of business management practices means that a firm will incur a lot of costs in the long run which will have a negative effective on the organisation's market position.

After conducting an extensive literature review, the author found that research studies on the effect of TQM implementation on business performance have been increasing since 1990. TQM has been extensively implemented in the world because it has become an important competitive strategy (Mosadeghrad, 2006; Jafar et al., 2010; Corredor & Goni, 2010; Albaum & Duerr, 2008). The common belief of many authors, practitioners and gurus is that TQM as a management philosophy is a means by which companies can improve operational performance, overall organisational effectiveness,

and competitive advantage in local and global markets (Hendricks & Singhal, 2001; Easton, 1993; Anderson et al., 1994; Kanji & Tambi, 1999; Quazi et al., 1998; Kumar et al., 2009; Jafar et al., 2010; Yang, 2006). This is because TQM implementation leads to a reduction in defects and rework, a reduction in costs, increased internal improvement in productivity, efficiency and overall business performance, and increased customer satisfaction and sales. These in turn lead to increased market share and profit (Reed, 2000; Khan, 2003; Al-Nofel et al., 2005; Salegna & Fazel, 2000; Youssef et al., 1996; Gunasekaran, 1999; Fotopoulos & Psomas, 2010; Yang, 2006; Kumar et al., 2009).

The findings of many research studies have provided evidence that the implementation of TQM programmes improves performance at different levels in organisations, either directly or indirectly (Samson & Terziovski, 1999; Khan, 2003; Kaynak, 2003; Sharma & Gadenne, 2010; Easton & Jarrell, 1998; Lemak et al., 1997; Fening et al., 2008; Kuo & Kuo, 2010, Fotopoulos & Psomas, 2010; Sadikoglu & Zehir, 2010; Arumugam et al., 2009; Sharma & Gadenne, 2008; Martínez-Costa & Jiménez-Jiménez, 2009; Agus, 2005; Waliand Boujelbene, 2010). In addition, Hendricks and Singal (1997) stated that organisations that have won quality awards do better on sales growth than other organisations. Some authors found that implementing TQM effectively leads to higher customer satisfaction (Choi & Eboch, 1998; Saraph et al. 1989; Flynn et al. 1994; Ahire et al.; 1996; Yang, 2006; Kumar et al., 2009). Powell (1995) has raised many issues concerning the relationship between TQM and business performance. According to his findings, organisations that implemented TQM outperformed their competitors because there was a strong correlation between TQM, competitive advantage and business performance. Agus et al. (2009) found that high levels of TQM implementation practices led to high levels of productivity, which in turn generated higher profit. As a result of his empirical study conducted on organisations in Malaysia, Agus (2005) concluded that there was a strong positive influence of TQM on competitive advantage and customer satisfaction, which led to the improvement and enhancement of the financial performance of these organisations. Although not all TQM components and practices have a direct impact on business performance (e.g. sales growth and market share), they have an indirect influence by improving product quality, which in turn leads to improved business

performance. For example, as result of their empirical study in UAE manufacturing, Jabnoun and Sedarani (2005) found that training did not correlate and directly link with business performance, but did correlated with quality performance.

In addition, TQM has a positive influence on the level of marketing effectiveness (Mohr-Jackson, 1998; Morris et al., 1999). TQM and marketing are intimately and undoubtedly interlinked (Kumbar, 2004; Mohr-Jackson, 1998). Customer focus and profits are two of the pillars of both marketing and of TQM concepts (Mohr-Jackson, 1998). Many authors have argued that TQM is significant for a marketing concept to be implemented successfully and to achieve its objectives. In other words, organisations can achieve a high level of marketing effectiveness through the successful implementation of TQM (Mohr-Jackson, 1998; Morris et al., 1999). One way TQM benefits marketing in that it guarantees the production of more innovative and higher quality products with lower costs. This is likely to achieve greater customer satisfaction and loyalty, as demonstrated by repeated buying practices (Thorne, 1998).

In today's economy, the globalisation of business and the marketplace have increased. Many free trade agreements, such as the World Trade Organisation (WTO) and other trade organisations have recently been established (Denis, 2003). This evolution has contributed to the creation of a competitive global environment (Denis, 2003; Saghaei & Didehkhani, 2011), which has had significant consequences on international marketing (De Ruyter & Semeijn, 2002). One of these consequences is the increase in international trade and competition (De Ruyter & Semeijn, 2002).

A number of organisations have tried to increase their degree of international marketing effectiveness in order to increase their profit and market share in global competitive markets (Albaum & Duerr, 2008). Quality has become a strategic tool in the international marketing environment (Albaum & Duerr, 2008). Products holding and displaying an international quality award and/or certificate marking are perceived as having a 'quality passport'. This enables international exporters to gain access and compete successfully in international markets, particularly in European markets (Halpaus & Gardio, 2007). Many organisations around the world have implemented

TQM as a tool for producing higher quality products which conform to international quality awards criteria and standards. They have done so in order to achieve a higher level of global marketing effectiveness and competitive advantage in the international marketing environment (Sin & Tse, 2000; Albaum & Duerr, 2008). As such, TQM complements other acknowledged strategic drivers in supporting organisations to achieve constant success in international marketing competition and sustainable global marketing competitiveness (Sin & Tse, 2000; Mehra et al., 2001). This results in an increased market share, profit and financial performance (Hendricks & Singhal, 1997; Gunasekaran, 1999). However, Sin & Tse (2000) have found that marketing effectiveness has a positive influence on market share and business profitability. Therefore, this study considers that TQM implementation influences business performance, market share, and profit via its influence on international marketing effectiveness.

2.8 The Demand and Importance for TQM in Developing Countries

Nowadays, quality is considered one of the significant requirements for businesses to survive, prosper, and to improve their overall effectiveness and competitive advantage in both local and global markets (Hendricks & Singhal, 2001; Easton, 1993; Anderson et al., 1994; Kanji & Tambi, 1999; Quazi et al., 1998). Therefore, leading companies from the developed world which have successfully implemented excellence programmes such as TQM, have achieved a greater market share by providing their customers with quality products, which have in turn increase their customer satisfaction. This has led to achieving the economic growth of those countries. This is because the expansion of a country's exports has a positive influence on the total growth of the economy on a macro level, and on individual organisations (Cavusgil & Nevin, 1981). It is stated by Leonidou and Katsikeas (1996, p. 519) that:

"From a macroeconomic perspective, exporting can enable national economies to enrich their foreign exchange reserves, provide employment, create backward and forward linkages, and, ultimately, lead to a higher standard of living. In microeconomic terms, exporting can give individual firms a competitive advantage, improve their financial position, increase capacity utilization, and raise technological standards".

Many researchers have argued that exports increase profitability and foreign exchange revenues, improve trade balances, increase capacity utilization, and enhance the level of employment (Ahmad et al., 2006; Barker & Kaynak, 1992). This in turn leads to a decrease in poverty and achieves economical and societal prosperity. Mersha (1997) considers that the successful implementation of excellence programmes such as TQM in developing countries would assist industries in enhancing their productivity and the quality of their products and services, as well as introducing comparable products in price and quality. This would then enable these products to conform with international quality standards and improve organisational performance, which may raise the marketability, competitiveness and demand for their products in international markets. Increasing the competitiveness of their products would increase foreign currency earnings for developing countries, enabling them to buy capital products, increase employment levels and become economically developed (Leonidou & Katsikeas, 1996; Mersha, 1997). This would in turn prevent these countries from experiencing the negative consequences of high levels of unemployment. These negative consequences occur because unemployment increases poverty levels, which may lead to various illegal, criminal and terrorist activities (Krueger & Maleckova, 2003).

2.9 TQM Failure

Over the past decade, many research studies have supported the benefits of adopting TQM in different kinds of companies and in different countries, because they have found TQM to have a positive impact on quality performance, competitive advantage, financial and business performance. However, some researchers, such as Powell (1995), have found that TQM has no influence on the financial outcome whatsoever. According to a number of authors, TQM is different from the current economic models prevalent in organisations, which makes the implementation of customer-focused

TQM approaches very hard (Knights & McCabe, 1999). Most supporters of TQM do not see financial performance, on the one hand, and external and internal customer satisfaction as TQM aims, on the other hand, as being contradictory to each other. Also, they consider that achieving external and internal customer satisfaction leads to the achievement of greater financial results (Harari, 1993; Reed, 2000; Hendricks & Singhal, 2001). In addition, the literature points to several researches and case studies that have indicated a high ratio of failure among many companies implementing TQM to improve their performance (Eskildson, 1994; Hubiak & O'Donnel, 1996). They found that TQM had a negative effect on company performance. More recent studies on the ill-effects of TQM have reported that the TQM programme has not had a lack of positive influence on overall organisational performance (Krumwiede et al., 1998). Eskildson (1994) reported that many companies, such as the Wallace Company (one of the winners of the MBNQA), have made a loss after obtaining a quality award.

However, Krishman et al. (1993) have observed that, regardless of the criticism of TQM, academics and practitioners do not disagree with the fact that, in recent decades, TQM had been the most powerful and dominant of all management development programmes. Kujala (2002) has argued that TQM is not a rapidly disappearing and dying management fashion or fad. Evans and Lindsay (2001) stated in their study that organisations that resist and oppose various TQM practices might gradually lose their market share and, furthermore, that they might be out of business in the near future. The study reported that companies have attained success through concentrating on 'total quality', because of the increasing interest in quality in the global market. As the editor of Quality Digest put it, "TQM is not dead. TQM failure just proves that bad management is still alive and kicking" (cited in Thomson Learning, 2003, p. 8).

2.10 TQM Barriers

A number of authors have attributed TQM failures to errors in or obstacles to its implementation, rather than to its principles (Sila & Ebrahimpour, 2002; Mosadeghrad, 2006). Many organisations have faced significant barriers to the achievement of their TQM goals. Many authors have focused their studies on general

barriers to TQM implementation (e.g. Salegna & Fazel, 2000; Nagi et al., 1997). However, a number of researchers have focused on particular obstacles to TQM. Some authors, such as Mann and Kehoe (1995), have focused on the "management style barrier (the lack of total commitment and lack of involvement of top, middle and junior management in TQM, as well as an authoritative style of management"), while other authors have argued that organisational culture is the main barrier for TQM implementation (e.g. Kuei et al., 1997). Based on a review of relevant literature, Mellahi and Eyuboglu (2001) identified two types of barriers for TQM implementation: cultural barriers and unsuitable systems within an organisational environment and context, such as a dictatorial management style (Whalen & Rahim, 1994), and also, a rigid and very routine bureaucratic organisational structure (Tata & Prasad, 1998). In addition, according to Oakland (2003), failure to implement TQM in many organisations occurs due to many reasons, such as: inefficient top management commitment and leadership; inexistence of company vision and strategic planning; lack of creativity and innovation; lack of employee interaction, and inadequate business measurement. Van Allen (1994) considered that failure in TQM implementation is due to inadequate company leadership rather than any innate problems within the TQM model. Moreover, Sila and Ebrahimpour (2002) have suggested that the fact that the time range or period required to realise these advantages is slightly long (approximately 5 years) has deterred several organisations from following, supporting and maintaining the long-term view needed by the TQM philosophy of continuous improvement.

2.10.1 TQM Implementation Barriers in Developed Countries

Many studies show that TQM implementations fail in organisations in developed countries. Mersha (1997) summarised the most important factors, identified by Doyle (1992) and Chang (1993), which lead to the failure of the TQM effort in developed countries. The major factors identified were:

- Not using the TQM programme in all activities and aspects throughout the organisation, but only selectively choosing activities.

- The managers, owners and employees assuming that they will achieve quick positive results from TQM implementation.
- Rejection and resistance to the culture change which is needed for TQM implementation.
- A low level of participation and contribution in the TQM effort by senior executives.
- A low level of employee empowerment and involvement.
- Not committing to, or not being able to afford, adequate resources

As a result of an extensive review of the literature, Sebastianl and Tamimi (2003) identified many obstacles that hinder TQM efforts in USA organisations. These obstacles were: "poor communication, lack of employee empowerment, inadequate resources, employee resistance to change, inadequate performance evaluation and reward systems" (Sebastianl & Tamimi 2003, p. 49). In addition, Jun et al. (2004, p. 65) summarised the major reasons for the failure of TQM implementation efforts based on literature review. The primary reasons for failure that were uncovered in their study included:

(1) "The lack of top management commitment, (2) lack of customer focus, (3) erroneous measures or no measures to track progress of quality performance, (4) unrealistic expectations about the time frame and cost of TQM implementation, and (5) the inability to develop and sustain a quality oriented culture".

2.10.2 TQM Implementation Barriers in Developing Countries

There are many factors that hinder TQM implementation efforts in developing countries. Some of these factors are similar to the above mentioned factors experienced in industrialised countries. However, the special conditions of most of the developing countries lead to many other factors that hinder the introduction of TQM philosophy and its implementation in some developing countries. According to Lakhe and Mohanty (1994, p. 15), the majority of organisations in developing countries are suffering from one or more of the following problems:

- "A lack of employee involvement and participation in quality improvement efforts".

- “A lack of management commitment and motivation”.

- “A perception that quality is an optional extra and not a necessity for development”.

- “A traditional belief that quality costs money”.

- “A Lack of communication and trust between suppliers, dealers, management and trade unions”.

- “A lack of political support”.

- “A lack of established quality standards and inadequate test facilities”.

- “Obsolete technologies”.

- “Low levels of education”.

- “Negligible capital investment in technologies, research and development, and employees’ education, etc”.

- “Disrespect for people’s quality of life”.

Juran (1988) stated that several factors adversely influence the quality management implementation in developing countries. Some of these factors are:

- Insufficient infrastructure (such as transportation or communication).
- Inadequate knowledge and/or poor education.
- Foreign exchange constraints leading to limited availability. This forces companies to buy poor quality raw materials and outdated machinery from domestic sources.
- Scarcity of goods and lack of competition.

Mersha (1997) considers that low levels of competition in developing countries are due to protective tariffs raising the price of imports. In addition to the above mentioned factors, Juran and Godfrey (1999) added inadequate leadership as one of the major factors that impedes the successful implementation of TQM in developing countries. Mersha (1997) found that there are many factors which negatively affect the quality management in SSA countries which could be generalised to most developing and LCD countries. These factors are:

(1) “Strong government involvement in economic activities.

(2) Unwieldy and corrupt bureaucracy.

(3) Shortage of local capital".

Lakhe and Mohanty (1994, p. 27) consider that organisations in the majority in developing countries have faced similar hindrances for successful TQM implementation as follows:

- "Insufficient knowledge and information about TQM".
- "Failure of management to maintain its interest and commitment over a long period of time".
- "Difficulty in assessing TQM's effectiveness".
- "Low level of readiness for change at different levels".
- "Lack of strong commitment from all senior managers".
- "Inadequate education and training resources".
- "Difficulty in measuring customer needs and satisfaction".
- "Poor internal communication".

Except for a few countries, such as the UAE, the implementation of TQM in most Arab countries is still in its very early stages. The majority of Arab countries are still falling far behind developed countries in terms of the implementation of TQM (Youssef & Zairi, 1995; Al-Omem, 2002; Al-Khalifa & Aspinwall, 2000; Al-Zamany et al., 2002). Moreover, most companies in these regions are not yet ready to accept this. A number of authors have indicated the level of quality performance in Arab countries as very low, for which they have identified several reasons. For example, Ali (1990) found that most Arabic countries rushed toward industrialisation in the 1960s without proper planning and preparation of suitable infrastructures (such as ports, educations, and transportation, etc.), and without fulfilling the requirements of modern institutions. This has resulted in levels of quality performance which are still very weak because of the absence of environments suitable for facilitating the implementation of various excellence programmes and the production of high quality goods.

Knowledge of TQM in the Arab world is very poor (e-TQM College 2008). In addition, the majority of the Arab countries are inadequately equipped to compete internationally (e-TQM College 2008). The results of Youssef and Zairi's (1995) study indicated that the major obstacles for TQM implementation in these countries is related to the top management of their organisations, and they identified some problems related to this (e.g. a lack of leadership, top management failing to appreciate the potential of TQM). Additionally, Daliala (2000) mentioned that in most Arabic countries, such as Syria, governmental control and interference are prevalent in the majority of organisations in a variety of ways, and have followed a protectionist policy for some time in order to protect local companies from international and global competition through high import tariffs and various kinds of trade obstacles. Local companies have found a ready local market to which they are able to sell their products, regardless of their products' quality. This weak competitive environment results in a lack of incentive for organisational improvement.

Nowadays, however, with the globalisation of markets occurring all over, most countries having signed various free trade agreements. Arab companies are now facing intense commercial pressure and real international competition, which could put them out of business (Madu, 1997). A review of the literature turned up several studies concerned with TQM implementation in Arabic countries (Youssef & Zairi, 1995; Al-Omem, 2002; Al-Khalifa & Aspinwall, 2000; Al-Zamany et al., 2002). The findings of most of these studies showed that the majority of the Arab countries are still behind in terms of TQM implementation, and they are at best in the early stages of its implementation. The above studies indicate that there are many common constraints on the implementation of new management programmes, particularly TQM, as follows:

- The high degree of resistance to anything which is new and unclear.
- The main reason for trying to obtain certification by most organisations in Arab countries has been to fulfil the requirements of foreign partners and respond to pressures from competitors and customers.
- Low levels of education.
- Low levels of awareness and understanding of TQM.

- Managers direct most of their time and efforts towards dealing with urgent matters and issues that arise during the working day, and give just a little attention to strategic planning.
- Lack of skill and insufficiency in the quality management field at both middle and top management levels.
- Lack of management commitment, vision and planning.
- Insufficient funds and lack of resources.
- Insufficient basic infrastructure.
- Inadequate information systems within the organisations, and lack of MIS implementation.
- Unsupportive organisational culture.
- Low level of organisational members' readiness for change.

2.11 Organisational Culture

The theory of organisational culture comes from a union of "organisational psychology, social psychology, and social anthropology" (Scott et al., 2003). The term 'organisational culture' first appeared in the relevant literature in an article in *Administrative Science Quarterly* by Pettigrew in 1979 (Scott et al., 2003). This term became popular after the publication of two books: Deal and Kennedy (1982), and Peters and Waterman (1982). Since the publication of these two books the study of different aspects of organisational culture, particularly within the business field, has gained momentum and grown with great speed in the literature (Schein, 1992; Cooper & Quinn, 1993; Hofstede, 2005; Trompenaars & Hampden-Turner, 1998; Denison & Mishra, 1995; Cameron & Quinn, 1999; Dolan & Garcia, 2002; Alvesson, 2002; Kwantes & Boglarsky, 2007).

Nowadays, organisational culture has become very important (Van den Boshet al., 1999; Cameron & Quinn, 1999; Sun, 2008). This is due to the growing role of multinational co-operation in international business, the rapid rate of change within both local economies and the global economy, and the increasing influence of globalisation (Wilkins & Ouchi, 1983). Therefore, interest in studying organisational culture and its relationship with many issues has recently increased. In addition, a numbers of researchers have studied the relationship between organisational culture

and effectiveness (Kwantes & Boglarsky, 2007; Dolan & Garcia, 2002; Denison & Mishra, 1995; Kuo & Kuo, 2010; Naor et al., 2010; Prajogo & McDermott, 2011). The results of most of the studies mentioned above showed that organisational culture influences the productivity of the organisation. Furthermore, a number of authors, such as Khalifa and Aspinwall (2001) and Tata and Prasad (1998), have argued that there are some characteristics and types of organisational culture that lead to increased productivity, overall performance, and profits, as well as improving the competitiveness of organisations.

Organisational culture also has an impact on the motivation, morale, and attitude of organisational members (Campbell & Stonehouse, 1999). Wilkins and Ouchi (1983) consider that organisational culture has a critical and fundamental impact upon the ability of an organisation to adopt and implement new initiatives and changes successfully. Further, it has been argued by Van den Bosh et al. (1999) that to achieve any successful change, organisational culture must be considered as a moderating factor. On the other hand, Cameron and Quinn (1999) consider that ignoring the impact of organisational culture is one of the largest and most common barriers to the effective implementation of many new important organisational changes, programmes, philosophies (such as management information systems) (Beekhuyzen et al., 2005) and total quality management (Mellahi & Eyuboglu, 2001; Tata & Prasad, 1998; Al-Khalifa & Aspinwall, 2001). Taking these reasons into consideration, it is very important for managers of organisations to identify and measure their organisational culture in order to implement TQM and other new changes successfully within their organisations.

2.11.1 The Definition and Meaning of Organisational Culture

Dahlgaard et al. (1998) have suggested that the concept of organisational culture has been used in many recent studies in order to understand the term ‘culture’ in the context of organisations. After an extensive review of the literature, it was found that there are many definitions of organisational culture. Some examples include:

- "A core set of assumptions, understandings, and implicit rules that govern day-today behaviour in the workplace" (Deal & Kennedy, 1982, p.4).
- "A set of commonly held values, and beliefs that guide the behaviour of an organisation's members" (Martin, 1985, p.148).

White (1998) considered that organisational culture can better be defined as organisational values (cited in Van den Berge & Wilderom, 2004), while Van den Berge and Wilderom (2004, p. 571) argue that "organisational culture can better be defined by organisational practices. Thus, organisational practices are central to their definitions of organisational culture. They studied Hofestede's work and found that values are obtained early in one's life, mainly within the family. In addition, they assumed that organisational values are expressed in organisational practices, and that values are typically not directly visible to employees.

It is concluded that the concept of organisational culture has been identified by many authors using different meanings and inferred meanings. This is because different scholars and authors have different areas of interest (Verbeke et al., 1998). In addition, Borman et al. (2003) added another reason: different authors use different methods to study organisational culture, as well as coming from varied disciplines, such as psychology and sociology. Despite the fact that there are various different definitions of the term 'organisational culture', the majority of these definitions include the idea of a mixture of beliefs, values and practices that are shared and perceived by organisational members as a guide for suitable actions in day-to-day work. Schein (2004) has argued that the shared meanings in any organisation are a means to distinguish its culture from other organisations' cultures.

2.11.2 Measures of Organisational Culture

This section will attempt to summarise the available ways of measuring OC, in order to justify the use of the measure chosen in this research. After an extensive review of

the literature, it was found that that some authors, such as Martin (2002), have depended on qualitative approaches to measure and understand OC, while others, such as O' Reilly (1991), have favoured quantitative approaches to measuring OC. There are many possible approaches to measuring organisational culture which have been identified by many researchers according to their fields of study and based on different conceptual frameworks.

Hofstede (1991, p. 187) introduced six dimensions, namely: "process oriented versus results oriented, employee oriented versus job oriented, parochial versus professional, open system versus closed system, loose versus tight control, and normative versus pragmatic". However, it is difficult to measure organisational culture according to the dimensions he developed, which were influenced by his conceptualisation of national culture.

Trompenaars and Hampden-Turner (1993, p.8) developed seven dimensions, similar to those introduced by Hofstede, in order to measure organisational culture. These dimensions are: "communitarianism versus individualism; particularism versus universalism; emotional versus neutral; ascription achievement; diffuse versus specific; attitudes toward the external environment, and attitudes towards time". However, Trompenaars and Hampden-Turners (1993) used surveys which did not differentiate between national and organisational culture. Their dimensions were a mixture of measuring national and organisational cultures. Therefore, it is difficult to measure organisational culture according to their dimensions.

Based on an extensive review of the many empirical studies related to the dimensions of organisational culture, Van den Berg and Wilderom (2004) proposed these dimensions: "autonomy, external orientation, interdepartmental coordination, human resource orientation and improvement orientation" (Van den Berg & Wilderom, 2004, p. 574). In addition, based on the competing values framework (CVF), Cameron and Quinn (1999) developed the Organisational Culture Assessment Instrument (OCAI). Quinn and Cameron (1983) argued that organisational culture is an interdependent, comprehensive, complex and unclear set of factors. Therefore, there is no possibility

of including all relevant and related factors when examining, diagnosing and measuring organisational culture. However, corporate culture relates to common beliefs and shared perceptions in both corporate processes and practices (Sirmon & Lane, 2004).

Several studies have proved the reliability and validity of the CVF and its matched scale: OCAI (Yu & Wu, 2009; Cheng & Liu 2007; Twati & Gammack, 2006; Al-Khalifa & Aspinwall, 2000). Thus, this research study employs the OCAI to identify the cultural profiles and characteristics of SMOs. The CVF and its matched scale, OCAI, will be discussed in detail in section 2.11.3.

2.11.3 The Competing Values Framework and the Organisational Culture Assessment Instrument

Since its initiation in the early 1980s, the competing values framework (CVF) has attracted attention from many scholars. It is concluded by Cameron and Quinn (1999) that CVF is a suitable framework for organising and recognising different organisational phenomena for many reasons, as follows:

- It matches with a well-known classification system that organises the ways people think, the ways they deal with information, and their values and beliefs about what makes a good organisation.

- It classifies the majority of the dimensions being considered.

- It is based on empirical evidence.

- It is valid and summarises the reality being depicted precisely.

According to Denison and Spreitzer (1991, p. 3) this framework “connects the strategic, political, interpersonal, and institutional aspects of organisational life by organising the different patterns of shared values, assumptions, and interpretations that define an organisation's culture”. The main idea of the CVF is that organisational effectiveness, efficiency and productivity depend on an organisation’s capability to

meet various performance criteria based on four value sets (Cameron & Quinn 1999). Therefore, they have considered that competing values framework could be used as a common framework for organisational research studies (Dastmalchian et al., 2000). The CVF theory suggests three value dimensions identified by Quinn and Rohrbaugh (1981) for understanding organisational effectiveness. Firstly, the means-ends range concerns with the different types of objectives that an organisation seeks to achieve. In addition, this dimension emphasises the methods an organisation uses to achieve its objectives. Secondly, the dimension of organisational structure is related to preferences about structure and distinguishes between values and activities that emphasise an organisation's flexibility and adaptability, and those that emphasise control and stability. Thirdly, the dimension of organisational focus distinguishes between an emphasis on external issues, such as the development and growth of the organisation, and an emphasis on internal issues, such as employee development.

This framework was originally made to understand the effectiveness of an organisation. It tries to focus on the tensions and conflicts within an organisation which are inherited and mostly visible (Al-Khalifa & Aspinwall 2001). These conflicting tensions consist of differing organisational focuses (i.e. "emphasis on internal vs. external"), preferences about the structure of the organisation ("stability and control vs. change and flexibility"), and differences between organisational processes and outcomes ("means and ends") (Al-Khalifa & Aspinwall, 2001). This model has been called the competing values framework because the criteria seem to convey conflicting messages (Lamond, 2003).

"*We want our organisations to be adaptable and flexible, but we also want them to be stable and controlled. We want growth, resource acquisition, and external support, but we also want tight information and formal communication. We want an emphasis on the value of human resource but we also want an emphasis on planning and goal setting*". That "*we see them as mutually exclusive is because they reflect assumptions that are oppositions in our minds*" (Quinn 1988, p. 50). Therefore, Quinn (1988) has recommended and suggested a balance among competing values, striving simultaneously for apparently opposed objectives.

As shown in Figure 2.3, the CVF is built upon two axes to reflect different value orientations (Denison & Spreitzer, 1991). The horizontal axis expresses the level to which an organisation concentrates on its external or internal operation and functioning, while the vertical axis expresses the level to which a company has a tendency towards control or flexibility (Denison & Spreitzer, 1991). Four types or quadrants of OC result from these two dimensions: group, developmental, hierarchical and rational cultures. Dastmalchian et al. (2000) found that every quarter is competing with, or is oppposed to, the quadrant on the diagonal/ axis. These four quadrants make up the characteristics of competing values. These dimensions relate to flexibility and discretion versus stability and control, and internal focus and integration versus external focus and differentiation (see Figure 2.3).

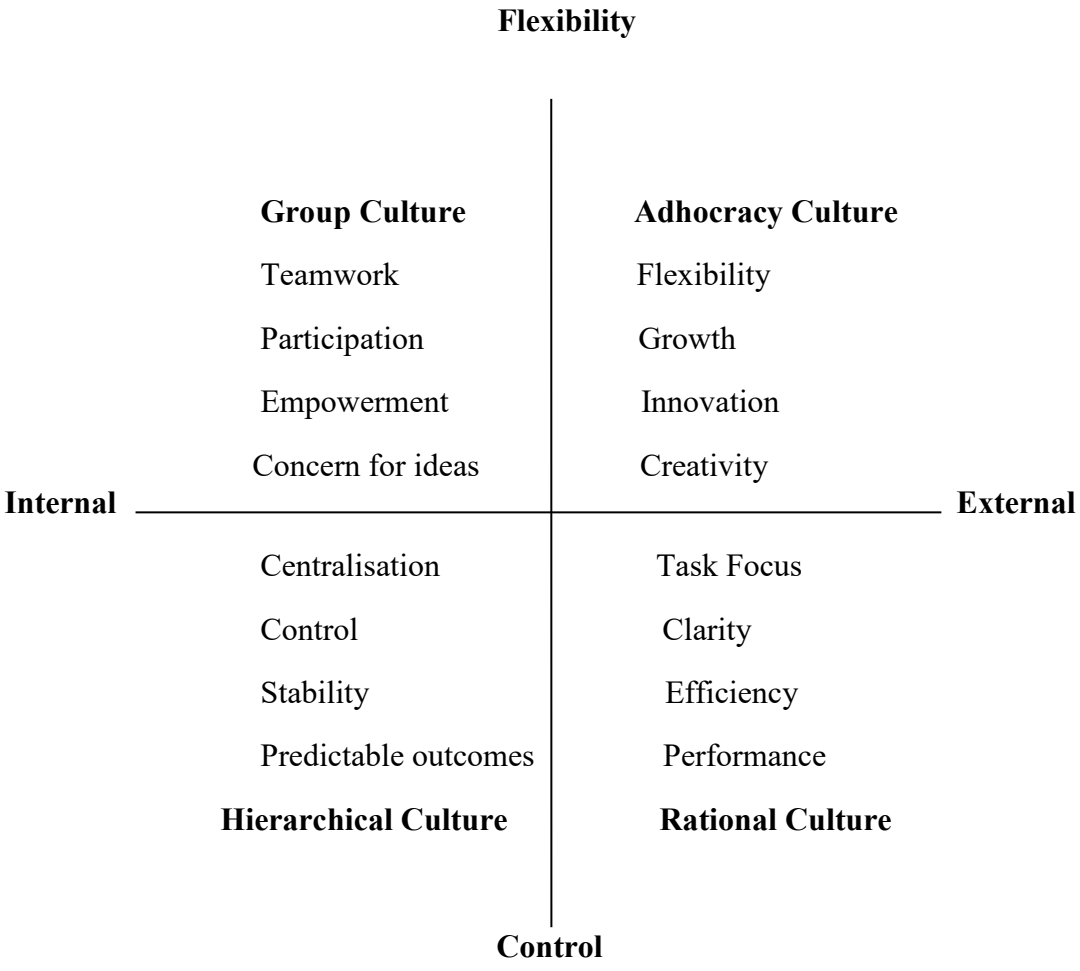


Figure 2.3 The Competing Values Framework of Organisational Culture

Adopted from Quinn & Rohrbaugh (1981) and Denison & Spreitzer (1991)

These dimensions create quadrants that are also conflicting or opposing on the diagonal. The lower left quadrant (the Internal Process Model) includes hierarchy culture (which values control and internal maintenance), whereas the opposing quadrant, the upper right quadrant (the Open Systems Model) includes adhocracy/entrepreneurial culture or development culture (which values an outward-looking direction with a high degree of individuality and flexibility) (Dastmalchian et al., 2000). Likewise, the lower right quadrant, (the Rational Goal Model) includes the market result-focused culture (which values that are external and have a high degree of control and stability) (Dastmalchian et al., 2000), whereas the opposing quadrant, the upper left quadrant (the human Relation Mode) includes the group employee-focused culture (which values emphasis on and concern for employees). Also, the values identified in this model are flexible. The above-mentioned types of culture are conflicting and competing; group employee-focused culture competes with market result-focused culture, and adhocracy (developmental) culture competes with hierarchy culture.

Cameron and Quinn (1999) developed the organisational culture assessment instrument (OCAI) based on the competing values framework (CVF). This model has six dimensions, namely: “dominant characteristics; leadership style; management of employees; organisational glue; strategic emphasis, and criteria for success”. Analysing these six dimensions has produced four types of organisational culture. These are adhocracy culture, group culture, market culture and hierarchy culture. Table 2.2 illustrates the characteristics of these organisational culture types as stated by Cameron and Quinn (1999, p.96).

Table 2.2: The Characteristics of Organisational Culture Types

Organisational Culture Types	Characteristics
The Group Culture	"A very friendly place to work where people share a lot of themselves. It is like an extended family. The leaders, or the heads of the organisation, are considered to be mentors and perhaps even parent figures. The organisation is held together by loyalty of tradition. Commitment is high. The organisation emphasizes the long term benefit of human resources development and attaches great importance to cohesion and morale. Success is defined in terms of sensitivity to customers and concern for people. The organisation places a premium on teamwork, participation, and consensus".
The Adhocracy Culture	"A dynamic, entrepreneurial, and creative place to work. People stick their necks out and take risks. The leaders are considered innovators and risk takers. The glue that holds the organisation together is commitment to experimentation and innovation. The emphasis is on being on the leading edge. The organisation's long- term emphasis is on growth and acquiring new resources. Success means gaining unique and new products or services. Being a product or service leader is important. The organisation encourages individual initiative and freedom".
The Market/Results Oriented Culture	"A result oriented organisation whose major concern is with getting the job done. People are competitive and goal oriented. The leaders are hard drivers, producers and competitors. They are tough and demanding. The glue that holds the organisations together is an emphasis on wining. Reputation and success are common concerns. The long-term focus is on competitive actions and achievement of measurable goals and targets. Success is defined in terms of market share and penetration. Competitive pricing and

	market leadership are important. The organisational style is hard- driving competitiveness".
The Hierarchy Culture	"A very formalised and structured place to work. Procedures govern what people do. The leaders pride themselves on being good coordinators and organisers who are efficiency-minded. Maintaining a smooth- running organisations is most critical. Formal rules and polices hold the organisation together. The long- term concern is on stability and performance with efficient, smooth operations. Success is defined in terms of dependable delivery, smooth scheduling, and low cost. The management of employees is concerned with secure employment and predictability".

Source: Cameron and Quinn (1999, p. 96).

The aforementioned culture styles are dominant and not mutually exclusive. Quinn and Kimberly considered that "no organisation is likely to reflect only one [value system], instead …, we would expect to find combinations of values, with some being more dominant than other" (Quinn and Kimberly, 1984, p. 300 cited in Dellana and Hauser, 1999). It has been argued by Denison and Spreitzer (1991) that organisations often comprise a mix of the four culture types rather than comprising only one exclusive culture; however, one type of culture may emerge as the dominant one.

This instrument is helpful in increasing the effectiveness of an organisation by diagnosing its culture and determining the required changes (Cameron & Quinn, 1999). A number of researchers have utilised OCAI based on CVF to examine the effect of organisational culture on TQM implementation (Cheng & Liu, 2007, Al-Khalifa & Aspinwall, 2001). The CVF has been used in many improvement approaches, and has been employed for organisational change processes. Hooijberg and Petrock (1993) have written that this framework provides a diagnostic tool for profiling the culture of an organisation. This framework is helpful for preparing and conducting different changes in order to increase organisational effectiveness (Al-Khalifa & Aspinwall, 2001). In addition, Denison and Spreitzer (1991) have argued that the method of presenting data as an organisational or individual profile is very inventive. Moreover, Al-Khalifa and Aspinwall (2001) have claimed that organisations are able to depict the gap between the existing culture and the desired

organisational culture (i.e. between light outline and dark outline), by using the graphical representation adopted **(**Cameron & Quinn, 1999), as shown in Figure 2.4.

Based on the identified gap, an organisation can attain the desired culture and close the gap through establishing suitable strategies (Al-Khalifa & Aspinwall, 2001). Therefore, these attributes and characteristics support consideration of the competing values framework as an appraisal tool for culture within an organisation, which helps to determine the changes required to create an ideal organisational culture that supports and facilitates TQM implementation.

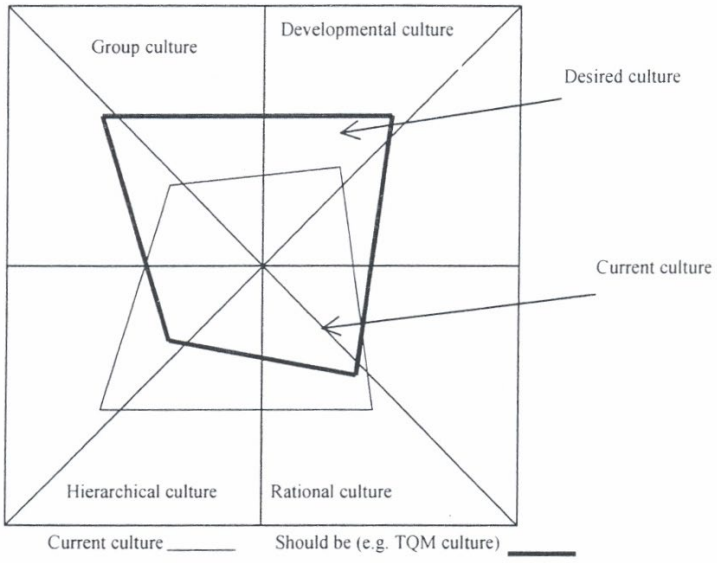


Figure 2.4 The CVF Culture Chart

Source: Al-Khalifa and Aspinwall (2001)

2.11.4 The Distinction between Organisational Culture and Total Quality Management

It has been argued by a number of scholars that ignoring cultural factors leads to unsuccessful TQM implementation, and, as such, can hinder companies from attaining its potential benefits (Oakland, 2003; Van Donk & Sanders, 1993). Moreover, some

authors, such as Hackman and Wageman (1995), have argued that TQM may be a means for organisations to achieve and sustain a competitive position in domestic and global markets, when properly implemented and combined with suitable organisational variables. The concern for culture in TQM literature has also been increased by many researchers, such as Mak (1999), who consider that cultural factors are the major reason for the lack of successful TQM application in developed countries. Therefore, many studies about TQM have changed their focus from the 'hard' aspects of TQM, such as "tools, techniques, and systems", to 'softer' behavioural and cultural aspects of TQM, which are more difficult to change (Prajogo & McDermott, 2005).

Many scholars have expressed different viewpoints on the relationship between TQM and culture. These differences in opinion stem from an inability to determine clearly whether TQM is a set of managerial practices or an organisational culture (Kanji, 1997). Zeitz et al. (1997) have stressed that organisational culture and TQM practices, even though closely related, are distinguishable. They considered organisational culture to refer to beliefs and situational interactions, while defining TQM practices as behavioural. It can be concluded that their opinion is consistent with those of theorists and scholars in the field of organisational culture. For example, Schein (1985) has argued that even though practice can be a reflection of organisational culture, it can only capture the surface level. In addition, he has asserted that organisational culture is concerned with something deeper (cited in Prajogo & McDermott 2005). Moreover, Powell (1995) has suggested that for TQM practices to be implemented successfully in any organisation, a suitable culture must exist in that organisation. Many authors have considered that successful TQM implementation in any organisation must involve effective cultural change. Hames (1991) has suggested that the current culture in an organisation should be investigated, in order to determine whether it offers an environment that promotes TQM, before beginning the transformation towards it. Therefore, the researcher agrees with the opinion of the many authors, such as Al-Khalifa and Aspinwall (2001), who consider that it is important to understand both the existing culture and the culture that is needed to support successful TQM implementation, in order to close the gap between them to apply and sustain quality culture.

2.11.5 The Relationship between Organisational Culture and TQM Implementation

Much of the literature on organisational culture has concentrated on the common nature of culture and has not clearly been linked to TQM philosophy and practice. More recently, there have been several studies investigating the relationship between TQM and organisational culture (Sousa-Poza et al., 2001; Jabnoun, 2001; Yong & Pheng, 2008). Many authors, such as Jabnoun and Sedrani (2005), have argued that the implementation of TQM and its factors, dimensions and components take place within the organisational context, not in a vacuum. In addition, a number of researchers have considered that organisational culture directly impacts on the implementation of TQM practices (Jabnoun, 2001; Hyland et al., 2000). Organisational culture is a pattern of shared assumptions and a characteristic of an organisation that is reflected in the attitudes and descriptions that managers and employees make of policies, practices and conditions that exist in the work environment. Also, TQM is embedded with its own set of cultural practices, attitudes, values and assumptions (Roney, 1997).

The existing literature shows that different scholars have different opinions on the nature of the relationship between TQM practices and OC. Some authors, such as Baird et al. (2011), have claimed that OC affects TQM and the outcome of its implementation, while others, such as Jenner et al. (1998), have argued that TQM practices cause cultural change. In essence, the nature of this argument relates to the causal direction of the relationship between TQM and organisational culture, and which is the antecedent of the other (Prajogo & McDermott, 2005). Researchers including Hackman and Wageman (1995) and Juran (1989) have argued that TQM implementation is essentially a means for organisational change. They have contended that TQM can have an impressive influence on the culture of an organisation. In addition, Mosadeghrad (2006) has maintained that TQM involves a complete change in an organisation's culture and the way people behave at work. Moreover, some authors such as Jenner et al. (1998) have suggested that the application of TQM

practices is a tool for cultural transformation and involves a chief cultural change within the organisation.

While many authors consider that TQM implementation leads to a change in corporate culture, it has been argued by many scholars such as Prajogo and McDermott (2005), Maull et al. (2001), Zu et al. (2010) and Baird et al. (2011), that the implementation of TQM is affected by the OC, rather than the other way around. Cicmil and Kekäle (1997) and Peters and Waterman (1982) have suggested that corporate culture is an essential factor in understanding the capability of any organisation to succeed in implementing a TQM programme and compete in the global marketplace. Dellana and Hauser (1999) examined the TQM-culture relationship, and found that TQM practices are influenced by organisational culture. Many authors have considered that, in any organisation, a suitable culture allows for the success of TQM (Kujala & Lillrank, 2004; Mosadeghrad, 2006; Kaluarachchi, 2010; Katz et al., 1998; Tata & Prasad, 1998; Dean & Bowen, 1994; Hackman & Wageman, 1995; Powell, 1995). Also, Mosadeghrad (2006) has stressed that the success of TQM as an organisational change depends greatly on the existing OC. Many authors, such as Shea and Howell (1998), have argued that a supportive organisational structure is needed to enhance the effectiveness of TQM implementation. The conclusion of Westbrook's study was that "If an organisation wants to adopt TQM as a guiding principle, it begins with an effort by management to make the culture supportive" (Westbrook 1993, p. 3). In addition, Kujala and Lillrank (2004) have argued that TQM programmes are more likely to succeed if the existing organisational culture fits with the culture, values and fundamental assumptions proposed by the TQM programme. In order to make the TQM programme successful, it has been said that the current culture of any organisation should be well-matched with the values and primary assumptions proposed by the TQM programme (Kujala & Lillrank, 2004).

A number of authors, such as Bowen and Lawler (1992), blame TQM implementation failures in any organisation on unsuitable organisational culture. Also, Kekale and Kekale (1995) have asserted that a mismatch between organisational culture and TQM implementation principles is one of the main barriers to successful TQM

implementation. Thus, creating a significant culture change within an organisation to match the TQM culture is one of the major requirements for the successful implementation of TQM (Kanji & Yui, 1997; Okland & Porter, 1995; Mosadeghrad, 2006; Dahlgaard et al. 1998; Bhat & Rajashekhar, 2009; Green, 2012). Therefore, organisations that aim to implement TQM successfully have to understand the need for cultural change to match the TQM culture (Bhat & Rajashekhar, 2009). Cameron and Quinn (1999) have pointed out that a number of organisations that did not recognise that TQM implementation involves establishing an essential change in the culture of their organisations failed in implementing TQM. Lakhe and Mohanty (1994) have considered that adopting TQM and a total quality-oriented culture succeeds only through cultural change. This can be achieved by focusing on cultural traits and behaviour within the organisation. Lakhe and Mohanty (1994, p. 29) have mentioned several important measures for achieving cultural change, as follows:

- " The operating policy, procedure and processes of the business must all reflect an emphasis on quality".
- "Everyone in the organisation must have a clear understanding of the importance of quality in achieving their business objectives".
- "People at every level must be aware of the requirements and needs of the customer".
- "The structure of the organisation should allow for continuous improvement".
- "There should be integration of internal and external customer requirements in the business plan".
- "The use of customer-based performance measures is important".
- "There is a need to develop strong communication lines".
- "Customer commitment should be fostered".
- "Emphasis on customer-oriented values and beliefs must be supported by top management ".

It has been argued by Pike and Barnes (1994) that many changes need to be applied in a company in order to implement TQM successfully. They consider that supervisors will have to transform themselves from bosses to coaches. In addition, managers must

change from authoritarian and remote to participative and accessible. Table 2.3 shows the areas of cultural change implied by the TQM strategy.

Table 2.3 Areas of Cultural Change Implied by TQM Strategy

From	***To***
"Secrecy	*Open communication*
Control of staff	*Empowerment*
Inspection and fire-fighting	*Prevention*
Internal focus on rules	*External focus on customer*
Cost and schedule	*Quality of Conformance*
Stability seeking	*Continuous change and improve*
Adverbial relations	*Co- operative relations"*

Source: Pike and Barnes (1994, p.105)

From the above, this research concludes that successful TQM implementation requires a fundamental change in organisational practices and culture. However, Reger et al. (1994) has noted that organisational change is very difficult because attempts to replace the organisational identity with a new one are met with resistance. This is particularly true if there is a clash between the underlying assumptions of the new approach being implemented and an organisation's original cultural assumptions (Kekale & Kekale 1995). This is particularly the case if the new organisational identity supports the implementation of TQM because it is related to many changes. Therefore, Kekale and Kekale (1995) have suggested that it is important to understand the phrase

introduced by Reger et al. (1994), the “change acceptance zone”. They argued that the possibility of an organisational member accepting essential change increases when the difference between existence and ideal identity falls within the change acceptance zone. In contrast, they will show more resistance if the previous difference is bigger; i.e., not within the “change acceptance zone”. Robinson (1997) pointed out that in order to achieve and apply successful change management and new system with minimum resistance, it is about “where you are, deciding where you want to be, then finding the best means of making the transition between the two states”.

This research study supports the opinion expressed by Sousa-Poza et al. (2001), that both arguments are valid regarding the issue of TQM culture and organisational culture. While TQM practices, such as training and employees’ involvement and empowerment, have an impact on the existing corporate culture and can modify it, the existing organisational culture can also have a great influence on an organisation’s activities and quality practices. In other words, a suitable organisational culture is essential in order to introduce and implement TQM successfully. Therefore, if an organisation could assess its current cultural practices and try to generate a supporting culture, environment and climate before implementing a TQM strategy, it would help it to improve the success of TQM.

2.11.6 Organisational Culture as a Predictor of TQM Implementation

This study takes the viewpoint that OC precedes and influences TQM practices and that OC can function as a driver ‘fertile soil’ or a barrier to the implementation of TQM. Many studies have tested the impact of the four culture types of the CVF model, namely group, developmental, hierarchical and market/rational, on the implementation of TQM practices in order to determine the most supportive OC types for TQM implementation (Chang & Wiebe, 1996; Dellana & Hauser, 1999; Al-Khalifa & Aspinwall, 2001; Prajogo & McDermott, 2005) (see Table 2.4). Many researchers have found that TQM practices were correlated with different OC types (Kekäle &Kekäle, 1995; Al-Khalifa & Aspinwall, 2000; Dellana & Hauser, 1999; Naor et al., 2008; Zu et al., 2010).

The CVF model was used by Al-Khalifa and Aspinwall (2000) to understand the best cultural profile and characteristics which suit and facilitate TQM philosophy and its implementation. They prepared questionnaires based on the CVF framework and sent them to 'quality experts' in the UK, who were asked to describe the best and ideal cultural traits, according to them, which would support and assist TQM philosophy and its implementation. The findings of their study indicated that all types of OC are correlated with TQM; however, the ideal cultural characteristics in the context of TQM could be classified as group and adhocracy culture types.

In order to examine the relationship between TQM and OC, Dellana and Hauser (1999) developed a questionnaire based on the MBNQA criteria to measure and represent TQM practices, and the competing values framework (CVF) to determine the OC profile. They found that higher Baldrige scores tended to be associated with adhocracy and group culture types and were positively correlated with them. In addition, they found that hierarchy and market culture types were negatively correlated with TQM practices.

Chang and Wiebe (1996) used the MBNQA criteria and competing values model to conduct an empirical study. They interviewed a group of TQM experts and asked them to explain and identify the suitable cultural characteristics that would support the implementation of TQM. They found that all four culture types of the CVF model were associated with the elements of MBNQA criteria, even though two of these cultural dimensions seemed to be dominant and associated with high MBNQA scores, namely adhocracy and group cultures, i.e., adhocracy and group culture were the most supportive of the implementation of TQM practices. It is clear that the findings of Dellana and Hauser (1999) are in harmony with those of Chang and Wiebe (1996), who found that both group culture and developmental culture were associated with high MBNQA scores and positively correlated with them.

Jabnoun and Sedrani (2005) surveyed some UAE manufacturing companies. They found that although most TQM practices and factors such as customer focus and

continuous improvement were significantly correlated with all cultural dimensions, these practices had their strongest correlation coefficient with the dimensions of group and adhocracy culture types. The results of their study provide support for the results of the study by Dellana and Hausser (1999). The influence of OC types on TQM implementation will be discussed in more detail in chapter 3.

2.12 Individual Readiness for Organisational Change

Organisational change concerns with the implementation of new structures, business strategies, cultures, and practices throughout the organisation (Chonko 2004). There are many reasons for change, such as technological, political, economic, or market changes (Chonko 2004; Shah 2011). In today's competitive global economy, the pace of change influencing business continues to speed up, and many new change initiatives are developed to increase organisational effectiveness in order to survive and remain competitive (Wanberg & Banas, 2000; Susanto, 2008; By, 2007; Shah, 2011). Successful organisations are continuously faced with the need to adopt various change initiatives (Lawson & Price, 2003). They must endeavour to implement such changes in order to improve their performance and achieve sustainable competitive advantages (Lawson & Price, 2003).

Significant attention has recently been paid to the individual readiness for change (IRFC) construct in organisational change literature. Many authors have begun stressing the concept of individual readiness for change (Jones et al., 2005; Holt et al., 2007; Choi & Ruona, 2011; Goksoy, 2012). A number of scholars such as Armenakis et al. (1993), Jones et al. (2005) and Holt et al. (2007) have highlighted the importance of psychological factors or human factors in change implementation efforts. According to the researchers, ignoring the vital role of individuals in the change process may cause failure or difficulty in implementing many change initiatives such as total quality management (Meirovich et al., 2006), knowledge management (Rusly et al., 2012) and management information systems (Jones et al., 2005). Jones et al. (2005) have reasoned that organisational members' negative attitudes towards change initiatives is one of the biggest obstacles that leads to the failure of intended organisational change. Researchers in the field of organisational change have started

to concentrate on a number of factors that might encourage change readiness among managers and employees, as well as assessing the level to which readiness for change causes change implementation success (Jones et al., 2005).

Armenakis et al. (1993) has defined IRFC as "the cognitive precursor to the behaviours of either resistance to, or support of, a change effort" (p. 298). Jones et al. (2005) developed this concept and described readiness for change as "the extent to which employees hold positive views about the need for organisational change (i.e. change acceptance), as well as the extent to which employees believe that such changes are likely to have positive implications for themselves and the wider organisation" (p. 362). Holt et al. (2007) conceptualised organisational members' readiness for change as an individuals' attitude toward a particular change (p. 326). It "reflects the extent to which an individual or individuals are cognitively and emotionally inclined to accept, embrace, and adopt a particular plan to purposefully alter the status quo" (Holt et al., 2007, p. 235). In addition, they have suggested that IRFC reflects the extent to which organisational members believe that "they are capable of implementing a proposed change and feel confident that they would perform well and be successful (i.e., change-specific efficacy), the proposed change is appropriate and would be beneficial for the organisation (i.e., appropriateness), the leaders are committed and support the change (i.e., management support), and that the proposed change is beneficial to organisational members (i.e., personal valence)" (Holt et al., 2007, p. 232). It is concluded that individual readiness for change involves organisational members' evaluation of the benefits that members and their wider organisation may achieve from implementing the change, as well as the individual and organisational ability to performing change, and the need for organisational change (Armenakis et al., 1993; Eby et al., 2000; Holt et al., 2007).

The members of organisations can either be the key to accomplishing change implementation successfully, or its greatest hindrance (Smith, 2005). Convincing senior executives, other managers and employees in some developing countries about the benefits of implementing a new management system such as TQM and its related activities is a significant problem facing governments in these countries. In

organisational change literature, there are a number of studies which have investigated employee resistance factors to organisational change (Armenakis et al., 1993, Armenakis et al., 1999; Wanberg & Banas, 2000). Organisational members' negative attitude towards change initiatives is one of the biggest obstacles which leads to the failure of intended organisational change (Jones et al., 2005). Schein (1987) has addressed the failure of organisational change programmes by arguing that the reason so many change efforts run into resistance or complete failure is traceable back to the organisation's incapacity to successfully unfreeze and create individual readiness for change prior to trying to introduce a change. Jones et al. (2005) concluded that organisations which implement change before preparing their members to be psychologically ready may not achieve change implementation success. Armenakis et al. (1993) have argued that a low level of change readiness is the major reason that organisations fail in their attempts to implement change successfully. This is confirmed in other studies, such as By (2007), who found that there is a relationship between the level of IRFC and the successful management of change. Therefore, change management specialists have stressed the significance of creating IRFC in order to increase the probability of change implementation success (Armenakis et al., 1993; Jones et al., 2005; By, 2007; Weiner, 2009; Sikh, 2011).

Social cognitive theory proposes that when individuals' readiness for organisational change is high, organisational members have a stronger and more positive attitude towards change. They are then more likely to implement change (e.g. new practices), exert more effort in support of change, and show higher persistence in the face of barriers or hindrances throughout the implementation process (Weiner**,** 2009; Gist & Mitchell, 1992).

It has been argued by a number of authors that the level of IRFC in an organisation is influenced and predicted by the contextual factors present within that organisation (Weiner, 2009; Armenakis et al., 1993; Choi & Ruona, 2011, Jones et al., 2005). These factors may have positive or negative influence on IRFC. Choi & Ruona (2011) stated that several factors adversely influence IRFC as follows:

- Organisational members have less control and autonomy over their work.

- A centralised decision-making process.
- Employees are not empowered to contribute to decision-making process.
- Unsupportive organisational culture.
- Insufficient learning and training opportunities.

Jones at al. (2005) found that there are many factors which negatively affect the level of IRFC. Some of these factors are:

- A lack of management commitment and motivation.
- Insufficient resources.
- Mechanistic organisations characterised by inflexibility and control.

Weiner (2009) considered that IRFC is negatively affected by the following factors:

- Negative past experience about previous changes.
- Inadequate funds and lack of resources.
- Unsupportive organisational policies and procedures.

Amongst other contextual factors, organisational culture OC was recognised to be one of the most important factors that could either foster or decrease IRFC (Armenakis et al., 1993; Weiner, 2009; Jones et al., 2005; Choi & Ruona, 2011). Therefore, there is a need of a better understanding of which types of culture more favorably foster IRFC. The influence of different OC types on IRFC will be discussed in full detail in sections 2.12.3 and 3.3.3.

2.12.1 Measuring Individual Readiness for Change

Measuring IRFC is very significant in determining how ready for change organisational members are before organisational changes are implemented (Holt et al. 2007). This assessment makes it possible for leaders to identify gaps that may exist between their own expectations about the change initiative and those of other members. Therefore, measuring of IRFC before the introduction of change has been encouraged, and several instruments have been developed to fulfil that purpose (Cunningham et al., 2002; Jones et al., 2005; Holt et al., 2007). If considerable gaps

are found and no action is taken to bridge them, resistance would be expected, and as a consequence, change implementation would be threatened (Holt et al., 2007). Holt et al. (2007) have argued that the assessment of readiness must occur at an individual level, as change practices are launched and performed by individuals within companies. In other words, even the most collective activities that occur within companies are often a combination of the activities of individual organisational members. As a consequence, companies accept or refuse change through the actions of their members (Armenakis et al., 1993; Armenakis et al., 1999).

Even though readiness for change is an individual-level construct, it requires consideration of the organisational context (Jansen 2000). Eby et al. (2000) have mentioned that individuals have advance ideas or preliminary feelings about the level to which their company is prepared for change. They stressed that beyond members' attitudes toward the job and their organisation, an individual's perception of readiness for change expresses the company's capability to make the required changes successfully (e.g., that systems are in place and resources are available.

Holt et al. (2007) reviewed 32 instruments that measured readiness quantitatively. They surmised that these instruments had collectively suggested a comprehensive measurement model. This model is comprised of four factors grounded in the measurement perspectives observed in the existing instruments, namely, the change content, change process, internal context, and individual characteristics. In turn, readiness for change was defined as a comprehensive attitude that is influenced simultaneously by the content, the process, the context and the individuals' characteristics. The first perspective is the change content (i.e., what is being changed) which refers to the particular initiative that is being introduced (and its characteristics). Content is typically directed towards the administrative, procedural, technological, or structural characteristics of the organisation). The second perspective of the change process (i.e., how the change is being implemented) refers to the steps followed during implementation. One dimension of the change process can be the extent to which employee participation is permitted. The third perspective is the organisational context (i.e., the circumstances under which the change is occurring), which consists of the conditions and environment within which employees function. For example, a learning

organisation is one in which employees are likely to embrace continuous change. The fourth and final perspective is the individual attributes of the employees involved (i.e., the characteristics of those being asked to change). Because of the differences between individuals, some employees are more inclined than others to favour organisational changes (Holt et al., 2007). Holt's et al. (2007) concluded that individual readiness for change is the extent to which organisational members believe that they are capable of implementing new organisational change successfully, that the organisational change is appropriate and benefits their organisation, that the leaders of their organisation are committed and support the change, and that the change is beneficial to the organisation's members.

2.12.2. The Influence of Individual Readiness for Change on TQM Implementation

TQM is one of the most important evolutions of management practices in today's era of global marketing (Prajogo & Sohal, 2003; Arumugam et al., 2009). TQM is a change initiative and a model of organisational change that offers a new way of operating within an organisation (Schneider et al., 1996). Individual readiness for change is probably one of the most fundamental factors involved in organisational members' initial support for change initiatives (e.g. TQM implementation) (Armenakis et al., 1993; Weeks et al., 1995; Armenakis et al., 1999). Many authors have concluded that the level of readiness for change has a significant impact on the successful implementation of organisational change (Armenakis et al., 1993; By, 2007). They have argued that a low level of readiness for organisational change is one of the major reasons for failure to implement organisational change successfully.

It has been concluded by Zadry &Yusof (2006) and Soltani et al. (2005) that resistance to change is one of the highest barrier to TQM implementation. The impact of the level of individual readiness for change on the success of TQM programmes has been highlighted by many authors (e.g. Weeks et al., 1995; McNabb & Sepic, 1995) (see Table 2.4). They have argued that IRFC has a positive influence on engagement in the implementation of TQM practices. In other words, organisational members who feel

positive about the impending TQM demonstrate higher levels of involvement in TQM implementation efforts. More details on the effect of IRFC on TQM implementation will be provided in chapter 3.

2.12.3 Effects of Organisational Culture on Individual Readiness for Change

Organisational culture impacts the motivation, morale and attitudes of organisational members (Campbell & Stonehouse, 1999). Many scholars have developed various theoretical frameworks where readiness for change was used as a dependent variable affected by OC. It has been argued by a number of authors that the level of readiness for change in an organisation is influenced and predicted by the culture types present within that organisation (Weiner, 2009; Armenakis et al., 1993; Choi & Ruona, 2011). Weiner (2009) has stated that OC is one of the most important contextual factors that increase or decrease the level of readiness for change.

However, few recent research studies and mostly conceptual in nature have paid attention to the relationship between OC and IRFC. In addition, there are limited empirical studies that have examined the impact of some of OC types on IRFC (Eby et al., 2000; Jones et al., 2005; Abdul Rashid et al., 2004; Al-Zu'bi, 2011) (see Table 2.4). They consider that certain types of OC have a positive influence on organisational members' readiness for organisational change i.e. their attitudes towards change. Thus, particular types of OC facilitate change becoming more acceptable. The influence of different OC types on IRFC will be discussed in full detail in chapter 3.

2.13 Critical Observations from the Literature Review and Identification of Research Gaps

The purpose of this section is to provide a brief yet thorough review of the current literature focusing on the area of this research study, and to identify the research gaps. Table 2.4 summaries a representative sample of various studies on the relationship between the research constructs showing the main focus and research approach, methodologies and key findings.

Table 2.4 Summary of Studies about the Relationship between the Key Constructs

Author	Main Findings	Limitation
Jones et al. (2005)	• Group culture has positive influence on change implementation success. • Human relations culture has positive effect on the level of readiness for change. • Individual readiness for change impact change implementation success; the higher the readiness for change the higher the change implementation success. • Individual readiness for change mediates the relationship between organisational culture and change implementation success.	• The sample size is relatively small. This might constrain the generalisability of the findings and conclusions. • As the authors measured the levels of individual readiness for change by using seven items adapted from items developed by Miller et al., (1994) which "did not fully capture existing definitions of individual readiness for change, hence, a more up-to-date comprehensive instrument to measure readiness for change should be considered".
Jabnoun & Sedrani (2005)	TQM practices correlate with all OC types, but they however, have their strongest correlation coefficient with the dimension of group and adhocracy culture types.	• The sample size is relatively small compared to the total number of manufacturing concerns in UAE. This might constrain the generalisability of the findings and conclusions. • As their study focused on direct influence of organisational culture on TQM implementation, the role of factors that may mediate the relationship between OC and TQM implementation should be considered.
Chang & Wiebe (1996)	TQM practices are associated with different OC types of the CVF but would be best implemented in organisations where adhocracy and group culture types dominant. I.e. adhocracy and group culture are the most supportive for the implementation of TQM practices.	As their study focused on direct influence of organisational culture on TQM implementation, a mediating mechanism through which organisational culture types influence the implementation of TQM practices should be considered
Tata & Prasad (1998)	Various TQM practices such as employee empowerment and involvement associated with different types of organisational culture but would be best implemented in organisations where adhocracy and group culture types dominant because these types of cultures are more supportive for the implementation of TQM practices	The authors developed a model outlining the influence of organisational culture on TQM implementation, but they did not test this relationship empirically.
Dellana & Hauser (1999)	• Group and adhocracy culture types have strong and positive influences on TQM practices. • Hierarchy and market culture types have strong and negative influences on the level of implementation of TQM practices.	As their study focused on direct influence of organisational culture on TQM implementation, the role of factors that may mediate the relationship between organisational culture and TQM implementation should be considered

Al-Khalifa & Aspinwall (2000),	The adhocracy and group culture are the ideal culture types that provide the most supportive environment for the implementation of TQM practices	As the study focused on direct influence of organisational culture on TQM implementation, a mediating mechanism through which organisational culture types influence the implementation of TQM practices should be considered
Yong and Pheng (2008)	Amendments of organisational culture should take place before the implementation of TQM practices since cultural change is the prerequisite of TQM implementation	• As their study focused on direct influence of organisational culture on TQM implementation, a mediating mechanism through which organisational culture types influence the implementation of TQM practices should be considered
Zu et al. (2010)	Different organisational culture types have different impacts on the implementation of TQM practices. The group, rational and adhocracy culture types are found to be important culture types for overall TQM implementation	As their study focused on direct influence of organisational culture on TQM implementation, the role of factors that may mediate the relationship between organisational culture and TQM implementation should be considered
Kuo and Kuo (2010)	• Organisational culture influence TQM implementation. • Organisational culture has positive impact on project performance via TQM.	The authors conducted their study in Taiwan firms; the characteristics of these firms surveyed may be quite different from those in other countries. Therefore, their results should not be assumed to present the general case
Armenakis et al. (1993)	The level of readiness for change has a significant impact on the successful implementation of organisational change	Empirical research is required to test the influence of readiness for change on change implementation success
Weeks et al. (1995)	Higher level of readiness for change increases the probability of TQM implementation success.	The authors highlighted the importance of measuring readiness for change, but they did not develop a comprehensive instrument to measure it. Thus, a systematic item-development framework should be used to develop and evaluate an instrument that can be used to measure readiness for organisational change.
BY (2007)	There is a correlation between the level of change readiness and change implementation success	As the author conducted only few interviews, a quantitative empirical research on larger scale is needed to prove the influence of readiness for change on change implementation success
Abdul Rashid et al. (2004)	• There is a correlation between organisational culture and attitude toward organisational change. • Different types of OC have different levels of acceptance of attitudes toward organisational change	The sample size is relatively small compared to the total number of manufacturing concerns in Malaysia. This might constrain the generalisability of the findings and conclusions. Further, organisational culture was measured in a nominal scale instead of the Likert or interval scale. This inhibits the

		application of more advanced statistical techniques in the analysis.
Choi and Ruona, (2011)	• There is an association between organisational culture and readiness for organisational change. • In particular, an organisation's emphasis on the learning culture will be positively associated with the level of readiness for change.	The authors developed prepositions regarding the relationship between organisational culture and readiness for change. However, they did not test and verified these prepositions empirically
Al-Zu'bi (2011)	Organisational culture influence IRFC.	Their study focused on Employees in insurance companies in Amman City, Jordan. This limit the possibility of generalizing from the study findings.
Weiner **(**2009)	• Organisational culture is one of the most important contextual factors that increase or decrease the level of readiness for change. • Higher readiness for change leads to more successful change implementation.	The author developed a theory about the influence of contextual factors such as organisational culture on the level of RFC and the influence of readiness for change on change implementation success, but they did not conduct empirical study to see whether or not the theory developed finds empirical support

The review and analysis of current literature related to the research issues under consideration (TQM, OC, and IRFC) illustrated in Table 2.4 have highlighted a number of gaps that this thesis aims to tackle.

Firstly, as shown in Table 2.4, many studies have tested the influence of OC types on the implementation of TQM practices in developed countries. However, research testing the impact of OC on TQM implementation in developing countries has generally been relatively limited, specifically in Syria. This study examines the influence of OC on TQM implementation in Syrian Manufacturing Organisations (SMOs). Thus, this thesis presents new data and empirical insights into the relationship between OC types and TQM implementation in SMOs. Secondly, while individual readiness for change (IRFC) has been recognised as critical for TQM implementation, there is a lack of systematic and empirical studies regarding the relationship between IRFC and TQM implementation. This study fills this gap by empirically examining the influence of IRFC on TQM implementation in SMOs.

Thirdly, although few recent studies have paid attention to the relationship between OC and IRFC, there are limited empirical studies that have examined the impact of some of OC types on IRFC. For example, Jones et al. (2005) investigated the influence of only two types of OC, namely, human relations, and group and adhocracy culture types, on IRFC. Surprisingly enough, there has been a lack of empirical studies investigating the influence of all OC types on IRFC. This study fills this gap by empirically examining the influence of all four organisational culture types of the CVF model, namely group, developmental, hierarchical and market/rational cultures, on IRFC. In doing so, this study provides a holistic perspective rather than focusing on the influence of just some of the OC types on IRFC.

Lastly, despite the substantial body of literature examining the influence of OC on TQM implementation, the mechanism through which an organisation's culture comes to have an impact on TQM implementation has not been adequately addressed. A thorough analysis and discussion of the relevant literature has established that OC types may influence TQM implementation indirectly through their impact on IRFC for two reasons. Firstly, recent studies have paid attention to the influence of OC on IRFC (Eby et al., 2000; Abdul Rashid et al., 2004; Jones et al., 2005). Secondly, there has been an increasing recognition of the influence of individual readiness for change (IRFC) on the success or failure of TQM implementation (Weeks et al., 1995; McNabb & Sepic, 1995; Shea & Howell, 1998; Meirovich et al., 2006). However, there have been scant studies concerning the indirect effect of OC on TQM implementation through IRFC. Given the above, it is clear that a there is a gap in the TQM literature in not investigating the mediating role of IRFC on the relationship between OC and TQM implementation.

To this effect, the purpose of this research is to dig deeper into the relationship between OC and TQM implementation by exploring both direct and indirect effects. In particular, this study examines the mediating role of readiness for change as one possible mechanism through which an organisation's culture comes to have an impact on TQM implementation. This study is believed to be one of the first empirical studies that aim to test the mediating role of IRFC in the influence of OC on TQM

implementation success, i.e., the indirect effect of OC types on TQM practices via their influence on the level of IRFC.

The majority of previous studies have used questionnaires to study the influence of organisational culture on TQM practices (Al-Khalifa & Aspinwall, 2001; Jabnoun & Seadrani, 2005). In addition, many researchers such as Eby et al. (2000) and Jones et al. (2005) have used questionnaire surveys to measure organisational members' readiness for change. Therefore, this research will use quantitative questionnaires to study the relationship between the research's constructs. Moreover, this survey method lends itself better to this research because it is cheap, quick and more suitable for a Syrian context (more details will be provided in chapter 4).

2.14 Summary

This chapter has reviewed the relevant literature on TQM, including its concepts, historical evolution, and the contributions of the founding fathers of TQM. A literature review of research papers on the practices of TQM published from 1996 to 2012 was conducted. The literature review has concluded that there is no consensus about TQM practices. However, previous researchers were found to have produced more or less the same factors, although there remains a problem regarding the best method for grouping and characterising TQM practices.

In addition, this chapter addressed the importance of TQM and its positive influence on business performance and international marketing competitiveness. This was followed by a discussion of TQM failure; barriers to successful TQM implementation were presented for both developed and developing countries, with particular reference to Arab countries, in order to evaluate how far they have progressed in the quality movement. This literature review has concluded that the constraining effects of organisational culture are some of the main barriers which contribute to failure in implementing TQM (Mosadeghrad, 2006; Al-Khalifa & Aspinwall, 2001). A low

level of organisational members' readiness for change has also been considered by others as a major reason for TQM failure (Weeks et al. 1995; Mersha, 1997).

This chapter has reviewed the relevant literature on organisational culture, including its meanings, concepts, types, different instruments available for measuring it, the integration between them, and their relationship with the implementation of TQM. The literature review has concluded that different organisational culture types have different positive and negative influences on TQM implementation. Additionally, this chapter reviewed the literature available on the issue of individuals' readiness for change, and discussed its relation with organisational culture and with TQM implementation. This literature review has concluded that organisational members' readiness for change is influenced by organisational culture. Additionally, IRFC has been found to have a positive influence on TQM implementation success.

In the next chapter, the relationships between the research constructs will be discussed in full, detail and the research hypotheses derived from the literature review will be formulated. In addition, the theoretical framework which presents the relationships between the organisational culture types, individual readiness for change and TQM implementation will be developed.

Chapter Three

Conceptual Framework and Research Hypotheses

3.1 Introduction

In the previous chapter, relevant literature in the three fields of TQM, OC and IRFC was reviewed. In addition, the research gaps found in the combined literature were identified and discussed (see section 2.13). This chapter reviews two appropriate and relevant theories that may underpin the current research in relation to the OC-IRFC-TQM implementation linkages (section 3.2). These two theories are: the social cognitive theory (SCT) and contingency theory (CT).

Once those theories are reviewed and discussed, the relationship between OC, IRFC and TQM implementation will be discussed in full detail in section 3.3. In this regard, this chapter presents the different research hypotheses that relate OC, IRFC and TQM implementation, showing the causality process to determine which variable is independent, dependent or mediating.

Lastly, from reviewing the relevant literature, the theoretical framework has been developed and will be presented in section 3.4.

3.2 Contingency Theory (CT) and Social Cognitive Theory (SCT)

This study incorporated two appropriate and suitable theories that explicitly explain the relationship between OC, IRFC and TQM implementation. These included the social cognitive theory and contingency theory.

3.2.1 Contingency Theory (CT)

A number of authors and quality experts consider that TQM principles and practices are universally applicable to any organisation (Crosby, 1979; Deming, 1986; Juran, 1986) regardless of organisational contextual factors (e.g. size, technology, culture or external environment) (Zhao et al., 2004). However, as discussed in the previous chapter (section 2.9), many research studies have indicated a high rate of failures or teething problems in the process of implementing TQM (e.g. Mosadeghrad, 2006; Sila & Ebrahimpour, 2002). Some reasons for failures in implementing TQM are organisational contingent, situational or contextual factors such as unsupportive organisational culture, resistance for change, lack of resources, or uncommitted leadership (Zhao et al., 2004; Sadikoqlu & Zeihr, 2008; Melan, 1998). It can be concluded that there is a significant variance in the success of TQM implementation which could be explained by differences in organisational contexts (Kujala, 2002). The concern for TQM failure has led some of the organisational researchers to debate whether TQM is contingent is contingent or universal (Soltani et al., 2005). Contingency theory challenges the universal applicability of total quality management and argues that whether TQM implementation would or would not be successful is dependent on the organisational context (Zhao et al., 2004). Watson and Korukonda (1995) also stated that there was no empirical evidence to support the universal applicability of TQM. A number of studies have found that the implementation of TQM is influenced by contextual factors, and that particular contingent factors cause failure in TQM implementation (Sousa & Voss, 2001; Melan, 1998; Soltania et al., 2008). Many authors such as Sadikoqlu and Zeihr (2008) found that while TQM is universally applicable to any organisation, its degree and intensity of implementation is context dependent. To this effect, such studies provide support for a contingency approach to TQM, and suggest that a contingency theory of change is a suitable way to address TQM implementation.

CT represents a departure from the classical and human relations schools of management. It teaches that the structure and behaviour of any organisation is based on certain situational factors (contingency variables) (Melan, 1998). It claims that the design of the organisation is contingent upon environmental factors, and there is no single best way to manage an organisation (Lawrence and Lorch, 1967; Kujala, 2002). This theory concentrates its interest mainly on the structure of the organisation and on the organisational environment, and affirms that organisations

are heterogeneous and have different organisational contexts. The context's heterogeneity generates variability in performance across organisations (Zhao et al., 2004**;** Sadikoqlu & Zeihr, 2008).

A CT approach has been adopted by various researchers to investigate the influence of contingent factors upon the implementation of TQM (e.g. Zhao et al., 2004; Sadikoqlu & Zeihr, 2008; Melan, 1998; Al-Swidi & Mahmood, 2012). This study addresses the implementation of TQM in terms of contingency theory. In particular, this study investigates contingent effects of organisational culture on TQM implementation success or failure.

3.2.2 Social Cognitive Theory (SCT)

According to Armenakis et al. (1993), readiness for change is perceived as "the cognitive precursor to the behaviours of either resistance to, or support for, a change effort" (p. 298). Many authors argue that the higher the readiness for change, which is the extent to which organisational members hold positive beliefs and attitudes toward organisational change (e.g. TQM implementation), the higher the likelihood for successful TQM implementation (Weeks et al., 1995; BY, 2007; Jones et al., 2005). Therefore, organisational members' beliefs influence the cognitive process in which individuals engage to decide whether or not to implement TQM practices. Such cognitive processes have been the subject of a widely supported theory of self-regulated individual behaviour labelled social cognitive theory (Bandura, 1986). SCT proposes that when organisational members' readiness for organisational change is high, i.e. possessing a strong positive attitude towards change, they are more likely to implement change (e.g. new practices). They are also more likely to exert more effort in support of change, and to show higher persistence in the face of barriers or hindrances throughout implementation (Weiner**,** 2009; Gist & Mitchell, 1992). Moreover, Shea and Howell (1998) consider that there is a cognitive, self-regulatory mechanism which mediates the influence of situational factors on TQM consistent behaviours and TQM related outcomes. This mediator is an internal and not directly observable psychological

process, which transmits an effect from antecedent to a consequence (James & Brett, 1984). Therefore, social cognitive theory is an appropriate way to study the influence of readiness for change on TQM implementation and to examine the mediating role of readiness for change in the relationship between organisational culture, and TQM implementation success. Thus, the main theoretical sources for this research are contingency theory and social cognitive theory.

3.3 The Development of the Research Hypotheses

This section discusses the hypotheses about the relationships between TQM implementation, IRFC and four culture types of CVF.

3.3.1 The Effect of Organisational Culture Types on TQM Implementation

Many studies have tested the impact of the four culture types of the CVF model, namely group, adhocracy, hierarchical and market/rational, on the implementation of TQM in order to determine the most supportive OC types for TQM implementation (Chang & Wiebe, 1996; Dellana & Hauser, 1999; Al-Khalifa & Aspinwall, 2001; Prajogo & McDermott, 2005; Gimenez-Espin et al., 2012).

An organisation dominated by group culture stresses the importance of morale and strives to achieve long term profit from focusing on personnel development (Cameron & Quinn, 1999). These organisations give organisational members "a voice in the product design and process management, as well as responsibility for the results" (Naor et al., 2008, p.676). Accordingly, members in such organisations are expected to be more likely to implement TQM practices and to behave in a manner consistent with TQM principles. As discussed in the literature revfiew chapter, the findings of many research studies suggest that hierarchy culture has negative influence on TQM implementation (Dellana & Hauser, 1999; Chang & Wiebe, 1996; Al-Khalifa & Aspinwall, 2001). According to the contingency theory premises, group culture is significant for successful implementation of TQM.

Based on the contingency theory assumptions and the empirical studies on the relationship between group culture and TQM implementation, this study proposes the following hypothesis:

H1a: An organisation's emphasis on the group culture will be positively associated with the level of implementation of TQM.

Bureaucracy, complex rules and processes with low flexibility are considered to be characteristics of hierarchy culture (Cameron & Quinn, 1999). Corporations dominated by hierarchy culture fail to encourage innovation and creativity among their employees (Zammuto et al., 2000). A reluctance to change or to adopt anything new is freely evidenced in such corporations (Zammuto et al., 2000). Thus, members work in such organisations, are expected to be less likely to apply TQM. According to the contingency theory premises, the mismatch between the values and primary assumptions proposed by the TQM programme and current culture of any organisation is one of the main barriers to successful TQM implementation (Al-Swidi & Mahmood, 2012). The findings of many research studies suggest that hierarchy culture has a negative influence on TQM implementation (Dellana & Hauser, 1994; Chang & Wiebe, 1996; Al-Khalifa & Aspinwall, 2001; Gimenez-Espin et al., 2012). The above discussion suggests that:

H1b: An organisation's emphasis on the hierarchy culture will be negatively associated with the level of implementation of TQM.

It is argued by Cameron and Quinn (1999) that corporations dominated by the adhocracy culture type are characterised by vibrant, innovative and flexible tendencies. These organisations stimulate individual initiatives and the utilisation of new systems, such as TQM, which improves the efficiency of the organisation. This, in turn, fosters individuals' involvement in the implementation of TQM, and increases the probability of TQM success. TQM requires organisations to constantly seek methods of improving working processes so as to increase their ability to deliver products/services of high quality. Therefore, organisations that are more innovative are more likely to use TQM practices to a larger extent. The findings of many research studies suggest that adhocracy culture has a positive

influence on TQM implementation (Dellana & Hauser, 1994; Chang & Wiebe, 1996; Al-Khalifa & Aspinwall, 2001; Prajogo & McDermott, 2005; Naor et al., 2008; Gimenez-Espin et al., 2012). According to the contingency theory premises, successful implementation of TQM is contingent on the presence of adhocracy culture. Based on the contingency theory assumptions and the empirical studies on the relationship between adhocracy culture and TQM implementation, this study proposes the following hypothesis:

H1c: An organisation's emphasis on the adhocracy culture will be positively associated with the level of implementation of TQM.

It is argued by Cameron and Quinn (1999) that organisations dominated by the market culture have a result-driven ethos. The question of morale and personnel development tends to be less important to the leaders, who are more single-minded about getting the job done and increasing the profits (Cameron & Quinn, 1999; Zammuto et al., 2000). Consequently, the members of this kind of organisation are less likely to implement TQM. As discussed in the literature review chapter, the findings of many research studies suggest that market culture has negative influence on TQM implementation (Dellana & Hauser, 1994; Chang & Wiebe, 1996; Gimenez-Espin et al., 2012). Based on the contingency theory assumptions and the empirical studies on the relationship between market culture and TQM implementation, this study proposes the following hypothesis:

H1d: An organisation's emphasis on the market culture will be negatively associated with the level of implementation of TQM.

3.3.2 Individual Readiness for Change as a Predictor of TQM Implementation

The influence of the level of IRFC on the success of TQM programmes has been highlighted by many authors (e.g. Weeks et al., 1995; McNabb and Sepic, 1995; Shea and Howell, 1998; Meirovich et al., 2006). They argue that organisational

members' readiness for change has a positive influence on their engagement with the implementation of TQM. In other words, organisational members who have a positive attitude towards TQM are more likely to change their behaviours in order to support the implementation of TQM. Similarly, a low level of employee eagerness to accept TQM increases the likelihood of TQM failure (Meirovich et al., 2006).

Organisational members who believe that they will gain something as a result of their participation in achieving TQM implementation success, such as promotional opportunities or rewards, are generally more willing to accept the implementation of TQM practices (Shea and Howell, 1998). This, in turn, leads them to behave in a manner consistent with TQM principles (Weeks et al., 1995; Shea and Howell, 1998). When employees believe that they will not lose some of their status and their jobs will not be limited because of TQM implementation, their readiness to accept a new a managerial approach such as TQM is more likely to be high (Whetten & Cameron, 1991; Weeks et al., 1995; Whetten et al., 2000). Weeks et al. (1995) consider that, in order to enhance the likelihood of TQM success, the concept must be accepted and driven by all organisational members. Organisational members who have received adequate training on TQM implementation will have more confidence in their ability to cope with TQM practices effectively and their eagerness to accept TQM should be high (Weeks et al., 1995; Shea & Howell, 1998). This will, in turn, foster individuals' involvement in the implementation of TQM and increase the probability of TQM success (Ciampa, 1992; Shea & Howell, 1998). Social cognitive theory proposes that when individuals' readiness for organisational change is high, organisational members have a stronger and more positive attitude towards change. They are then more likely to implement change (e.g. new practices), exert more effort in support of change, and show higher persistence in the face of barriers or hindrances throughout the implementation process (Weiner**,** 2009; Gist & Mitchell, 1992). Therefore, social cognitive theory is an appropriate way to study the influence of IRFC on TQM implementation. It is therefore, reasonable to suggest the following hypothesis which suggests an association between the level of IRFC and the level of TQM implementation success.

H2: The level of IRFC has a positive influence on the level of implementation of TQM.

3.3.3 Linking Organisational Culture to Individual Readiness for Change

Many scholars consider that OC types influence the level of readiness for organisational change (Armenakis et al., 1993; Weiner**,** 2009; Choi and Ruona, 2011). However, few studies have addressed the impact of all OC types on IRFC (Eby et al., 2000; Abdul Rashid et al., 2004; Jones et al., 2005). These studies found that certain types of OC have a positive influence on IRFC (i.e. attitudes towards change) and facilitate an improved acceptability of change.

A number of authors such as Zammuto & Krakower (1991), Zammuto & O'Connor (1992), Eby et al. (2000) and Jones et al. (2005) .have argued that the characteristics of group and adhocracy culture types are associated with higher levels of readiness for change, and the characteristics of market and hierarchy culture types are associated with lower levels of readiness for change.

According to Cameron and Quinn (1999, p.58): "an organisation dominated by group culture emphasises the long term benefit of human resources development (e.g. training) and attaches great importance to cohesion and morale". They add that "this organisation places a premium on teamwork, participation, and consensus". As a result, the members of this kind of organisation are more likely to have higher levels of readiness for organisational change (e.g. TQM implementation) due to their beliefs that they are capable of implementing a proposed change, and to feel confident that they would perform well and be successful. This is due to the adequate training they receive and their awareness of the proposed change initiative, which enables them to have the abilities and skills to make the new practices work (Holt et al., 2007). In addition, members of such organisations are more likely to have positive attitude towards the proposed changes because they believe that their organisation will not introduce and

implement any changes that might result in negative effects on its members. This is due to the organisation being internal-customer focused; emphasising the long-term benefits of human resources, and attaching great importance on morale. In addition, the members of organisations dominated by the values of group culture believe that they will gain benefits as a result of their participation in achieving a successful change implementation, such as promotional opportunities or rewards. Consequently, organisational members are more likely to have higher levels of readiness for change when they perceive their work environment to have the characteristics associated with a group culture (Eby et al., 2000; Jones et al., 2005).

Organisations dominated by the market culture, are result-orientated organisations whose major concern is with getting the job done (Cameron and Quinn, 1999). The leaders focus on achieving the biggest market share with less confederating and care for the morale and development of the human resources within the organisation (Cameron & Quinn, 1999; Zammuto et al, 2000). Consequently, the members of this kind of organisation are more likely to have low levels of readiness for organisational change. Thus, the organisations dominated by group culture rather than market/rational culture offer higher levels of IRFC.

It is concluded that organisational members who rate their OC as being high in group values rather than market culture values are more likely to have higher levels of readiness for change. By emphasising the group culture values, organisational members are more likely to be psychologically ready and willing to implement change initiatives. Based on the contingency theory, high level of IRFC is contingent upon the presence of values and characteristics of group culture. Therefore, based on the discussion thus far, the following hypotheses were formulated:

H3a: An organisation's emphasis on the group culture will be positively associated with the level of individual readiness for change

H3b: An organisation's emphasis on the market culture will be negatively associated with the level of individual readiness for change.

Cameron and Quinn (1999) consider that the hierarchy culture is associated with bureaucracy and formal and high complex rules, policies and procedures. It is argued by Zammuto et al. (2000) that organisations dominated by the hierarchy culture do not encourage innovation and creativity. In these organisations, the leaders give directions from a centralised decision-making process (Cameron and Quinn, 1999). In addition, these organisations resist the implementation of new change initiatives and ignore or minimise environmental influences (Zammuto et al., 2000). Interpersonal relations tend to demonstrate lower levels of trust and morale with higher levels of conflict and resistance to change (Zammuto et al., 2000). Consequently, the members of this kind of organisation are more likely to have a negative attitude towards the organisational change. Thus, organisations dominated by the hierarchy culture rather than adhocracy culture offer a lower level of IRFC.

In contrast, organisations dominated by the adhocracy culture type pose an active, energetic, innovative nature and tend to be flexible. These organisations encourage an individual initiative and the implementation of new ideas, models and programmes such as TQM to increase the efficiency of their organisation (Cameron and Quinn, 1999). As a result, organisational members who perceive their work environment to have characteristics associated with the adhocracy culture are more likely to have higher levels of IRFC (Zammuto & Krakower, 1991; Zammuto & O'Connor, 1992).

It is concluded that organisational members who rate their OC as being high in adhocracy culture values rather than hierarchy culture values perceive higher levels of readiness for change (i.e., are more likely to possess positive attitudes towards organisational change). Based on the contingency theory, high level of IRFC is contingent upon the presence of values and characteristics of adhocracy culture. Therefore, the following hypotheses were developed:

H3c: An organisation's emphasis on the hierarchy culture will be negatively associated with the level of individual readiness for change.

H3d: An organisation's emphasis on the adhocracy culture will be positively associated with the level of individual readiness for change.

3.3.4 The Mediating Role of Individual Readiness for Change

The direct-influences arguments for the effects of OC on the implementing of TQM, as a model of organisational change, are convincing and persuasive. However, a deeper inspection suggests that the arguments implicitly presume a role for IRFC. The previous nine hypotheses, stated in previous sections 3.3.1, 3.3.2, and 3.3.3, show the relationships amongst OC, IRFC and TQM implementation. Implicitly, the discussion suggests that OC types influence TQM implementation through their impact on IRFC. That is, OC has an impact on the level of IRFC, which, in turn, influences the level of implementation of TQM. However, most studies have considered IRFC and utilised it as a dependent variable in both theoretical and empirical studies (e.g. Armenakis et al., 1993; Eby et al., 2000). IRFC has rarely been regarded as a mediating variable between OC and change implementation success, and only a few researchers have tested the mediating role of IRFC. For example, Jones et al. (2005) studied the mediating role of readiness for change in the context of the implementation of a new information system.

The present study will use the context of TQM implementation to study the relationships between OC, readiness for change, and TQM implementation success. Shea and Howell (1998) consider that there is a cognitive, self-regulatory mechanism which mediates the influence of situational factors on TQM consistent behaviours and TQM related outcomes. This mediator is an internal and not directly observable psychological process, which transmits an effect from antecedent to a consequence (James & Brett, 1984). Therefore, social cognitive theory is an appropriate way to study the influence of individual readiness for change on TQM implementation and to examine the mediating role of readiness for change in the relationship between organisational culture, and TQM implementation success. Based on social cognitive theory, the current study proposes that IRFC mediates

the effects of OC types (hierarchy culture, group culture, adhocracy culture and market culture) on the level of TQM implementation. This leads to the formulation of the following hypotheses:

H4a: IRFC mediates the effect of group culture on TQM implementation.

H4b: IRFC mediates the effect of hierarchy culture on TQM implementation.

H4c: IRFC mediates the effect of adhocracy culture on TQM implementation.

H4d: IRFC mediates the effect of market culture on TQM implementation.

3.4 Summary of Research Hypotheses

Based upon the gaps in the literature, the following research hypotheses were developed and considered in formulating the model for this study. These hypotheses are aggregated and explained below as follows:

H1a: An organisation's emphasis on the group culture will be positively associated with the level of implementation of TQM.

H1b: An organisation's emphasis on the hierarchy culture will be negatively associated with the level of implementation of TQM.

H1c: An organisation's emphasis on the adhocracy culture will be positively associated with the level of implementation of TQM.
H1d: An organisation's emphasis on the market culture will be negatively associated with the level of implementation of TQM.

H2. The level of IRFC has positive influence on the level of implementation of TQM.

H3a: An organisation's emphasis on the group culture will be positively associated with the level of individual readiness for change.

H3b: An organisation's emphasis on the market culture will be negatively associated with the level of individual readiness for change.

H3c: An organisation's emphasis on the hierarchy culture will be negatively associated with the level of individual readiness for change.

H3d: An organisation's emphasis on the adhocracy culture will be positively associated with the level of individual readiness for change.

H4a: IRFC mediates the effect of group culture on TQM implementation.

H4b: IRFC mediates the effect of hierarchy culture on TQM implementation.

H4c: IRFC mediates the effect of adhocracy culture on TQM implementation.

H4d: IRFC mediates the effect of market culture on TQM implementation.

3.5 Theoretical Framework

In order to test the two research questions and describe the research problem outlined in chapter one (see section 1.2), the conceptual model depicted in Figure 3.1 was developed. The development of this framework is based on the literature in the three fields of TQM, organisational culture, and individual readiness for organisational change. The conceptual framework of this study is constructed on two theories namely, contingency theory and social cognitive theory, to explain and examine the relationships between OC, IRFC and TQM implementation.

Organisational Culture Types

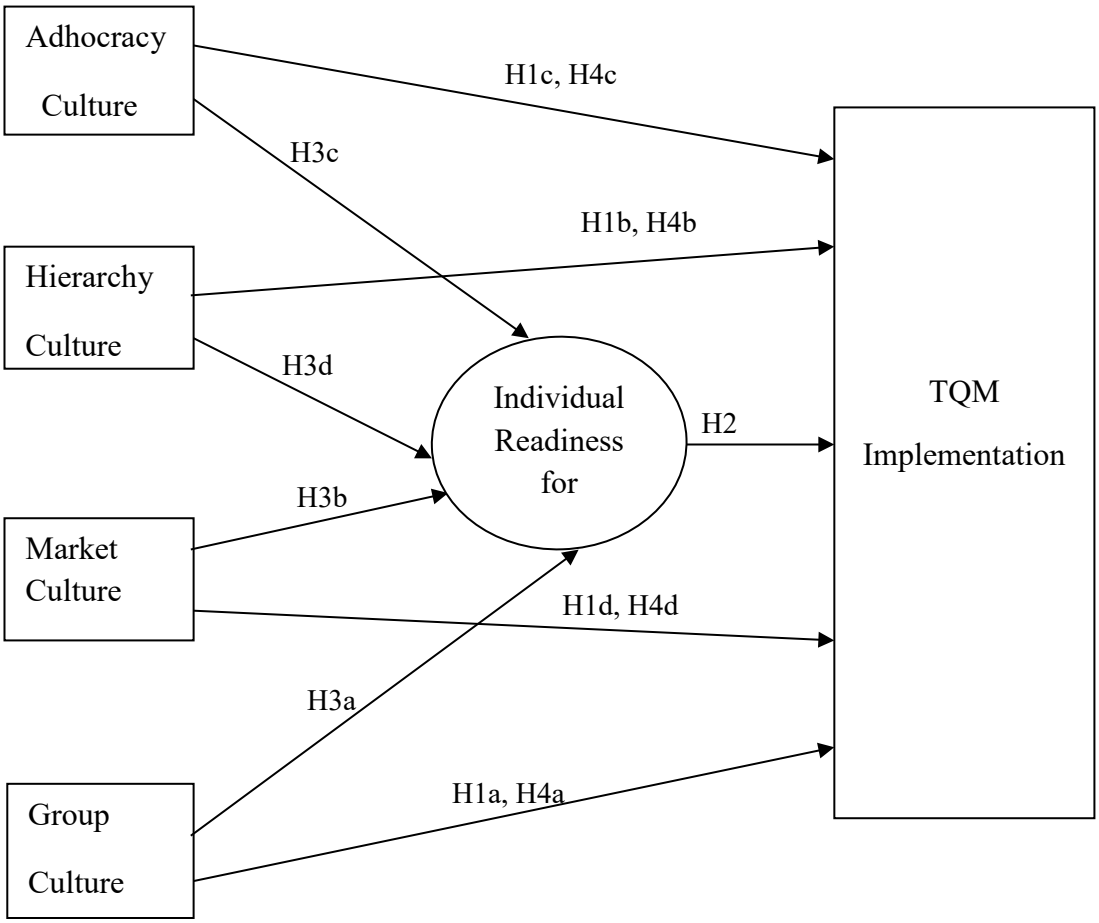


Figure 3.1 Proposed Conceptual Framework Showing Relationships among Organisational Culture Types, Individual Readiness for Change and TQM Implementation

The framework shown in figure 3.1 above aggregates and brings the aforementioned research hypotheses together. Firstly, the model postulates that, based on the contingency theory premises which states that while TQM is universally applicable to any organisation, its degree and intensity of implementation is context dependent, group culture and adhocracy culture types are positively related to TQM , while hierarchy and market culture types are negatively related to TQM implementation. Similarly, underneath contingency theory premises is the assumption that group and adhocracy culture types are positively related to IRFC, and that hierarchy and market culture types are negatively related to IRFC. Thirdly, the model postulates that, based on the social cognitive theory which state that a high level of employee readiness to accept new changes increases the likelihood of change implementation success, IRFC

is positively related to TQM implementation. Finally, based on the social cognitive theory which considers that there is a cognitive, self-regulatory mechanism mediates the influence of situational factors on TQM implementation, the model postulates that IRFC mediates the relationship between organisational culture types and TQM implementation.

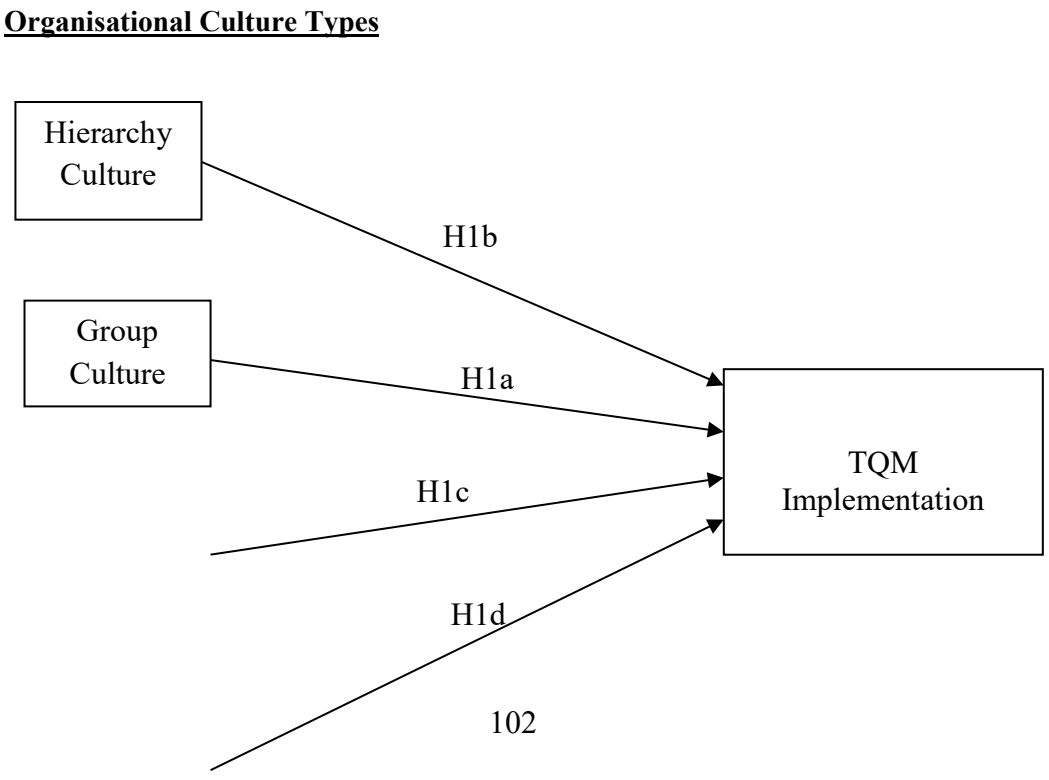
The proposed model integrates factors identified separately in previous studies as influencing the implementation of TQM, namely: organisational culture (OC) and individual readiness for change (IRFC). Additionally, this integrative theoretical model is offered as an extension to the work of many authors, such as Dellna and Hauser (1994), Chang and Wiebe (1996), Jabnoun and Sedrani (2005), and Zu et al. (2010) regarding the influence of organisational culture on the implementation of TQM. This novel theoretical model was developed by combining the direct effect of OC on TQM implementation and the indirect effect of OC (through IRFC) on TQM implementation in a single model. In other words, this model integrates the direct effect of OC and the mediating role of IRFC in the OC-TQM implementation. The theoretical framework departs from existing theory with regard to the influence of OC on TQM, in that it seeks to provide explanations of the mechanism through which an organisation's culture comes to have an impact on TQM implementation. Therefore, this model would make a novel contribution by giving a more refined comprehension of the relationships between OC types and TQM implementation.

It is worth mentioning that a comprehensive review of the existing literature has revealed a notable lack of empirical studies on the relationship between OC, IRFC and TQM implementation in Syrian context, specifically in SMOs. Therefore, this study is proposed to examine empirically the relationship between OC, IRFC and TQM implementation amongst Syrian Manufacturing Organisations (SMOs). This study should therefore provide executives in Syrian manufacturing industries with useful suggestions for implementing TQM more effectively and efficiently.

3.5.1 Hypothesised Theoretical Framework

As a result of the complication and size of the conceptual framework presented in figure 3.1, the primary theoretical framework was separated into sub-figures in order to illustrate the interrelationships between the constructs, and to test the hypothesised relationships. The aim of designing divided figures is to give a clearer comprehension of the proposed hypotheses.

Figure 3.2 (below) presents the relationships between organisational culture types and the level of TQM implementation. In particular, research hypotheses H1a, H1b, H1c, and H1d examine the direct influence of organisational culture types (hierarchy, group, adhocracy, and market cultures) on the level of implementation of TQM.



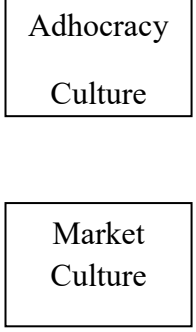


Figure 3.2 Hypothesised Research Model between Organisational Culture Types and TQM Implementation

The second hypothesis presented in Figure 3.3 is developed to examine the direct influence of IRFC on the level of implementation of TQM.

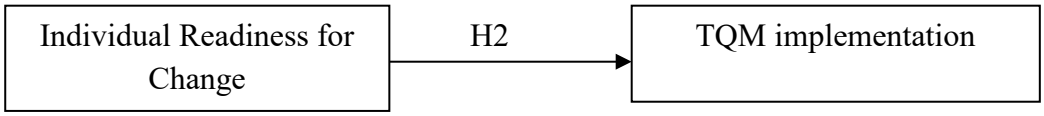


Figure 3.3 Hypothesised Research Model between IRFC and TQM Implementation

Figure 3.4 (below) shows the relationships between organisational culture types and the level of IRFC. Especially, research hypotheses H3a, H3b, H3c and H4 examine the direct influences of organisational culture types on IRFC.

Organisational Culture Types

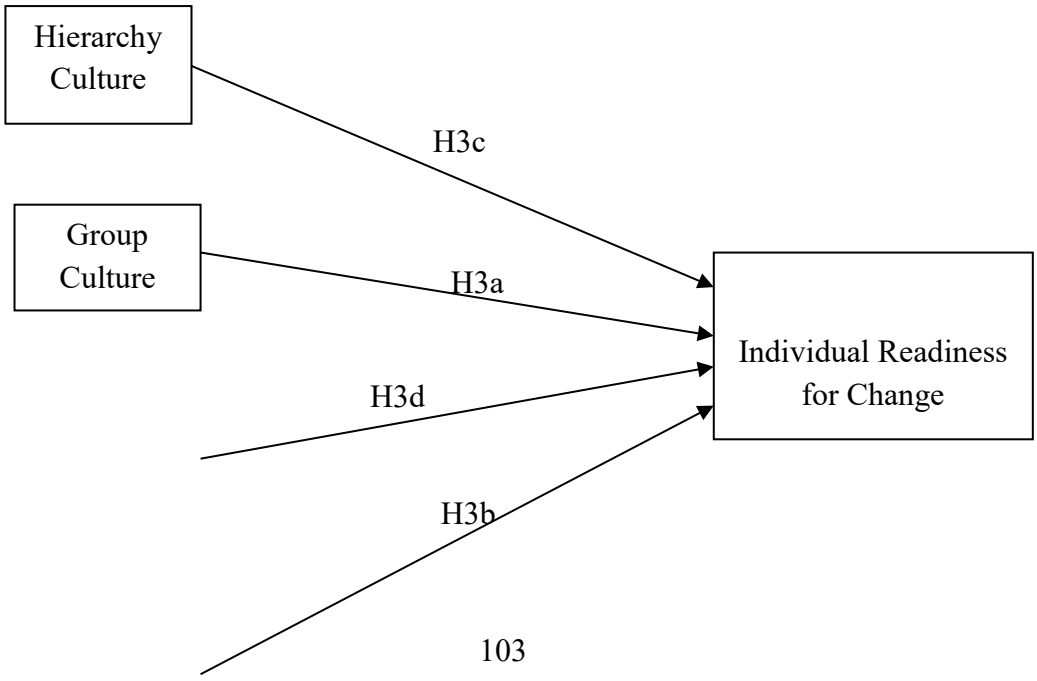


Figure 3.4 Hypothesised Research Model Organisational Culture Types and IRFC

Figure 3.5 represents the indirect relationships between the group culture and the level of implementation of TQM. In particular, research hypothesis H4a examines the indirect influence of group culture on the TQM implementation via its influence on IRFC.

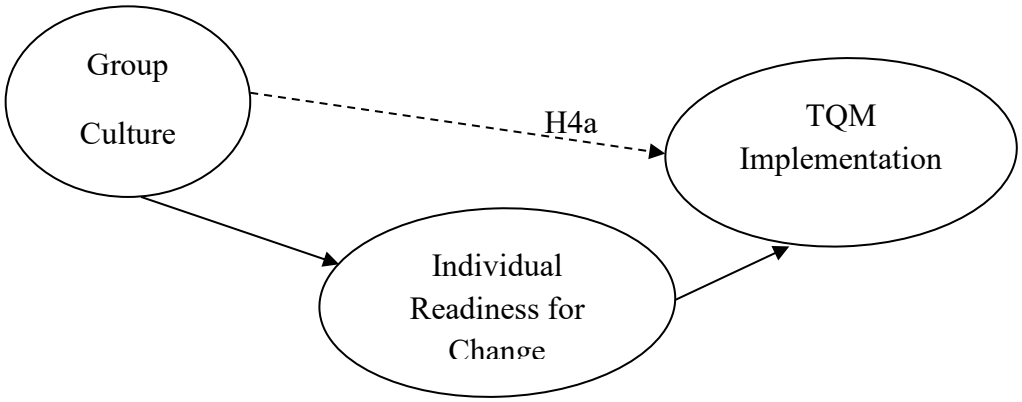


Figure 3.5 Hypothesised Research Model of the Mediating Role of IRFC between Group Culture and TQM Implementation

Figure 3.6 presents the indirect relationships between hierarchy culture and the level of implementation of TQM practices. In particular, research hypothesis H4b examines the indirect influence of hierarchy culture on the level of implementation of TQM via its influence on IRFC.

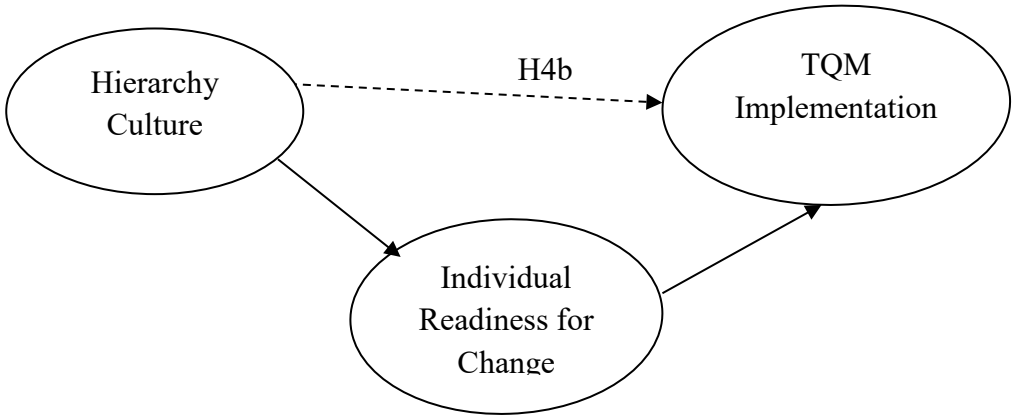


Figure 3.6 Hypothesised Research Model of the Mediating Role of IRFC between Hierarchy Culture and TQM Implementation

Figure 3.7 (below) presents the indirect relationships between adhocracy culture and the level of implementation of TQM practices. In particular, research hypothesis H4c examines the indirect influence of adhocracy culture on the level of implementation of TQM practices via its influence on IRFC.

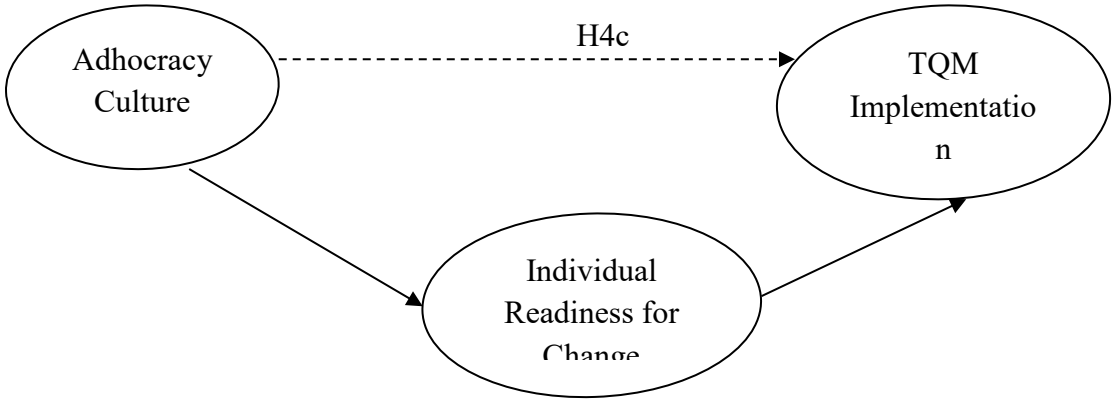


Figure 3.7 Hypothesised Research Model of the Mediating Role of IRFC between Adhocracy Culture and TQM Implementation

Figure 3.8 (below) presents the indirect relationships between market culture and the level of implementation of TQM practices. In particular, research hypothesis H4d examines the indirect influence of market culture on the implementation of TQM via its influence on IRFC.

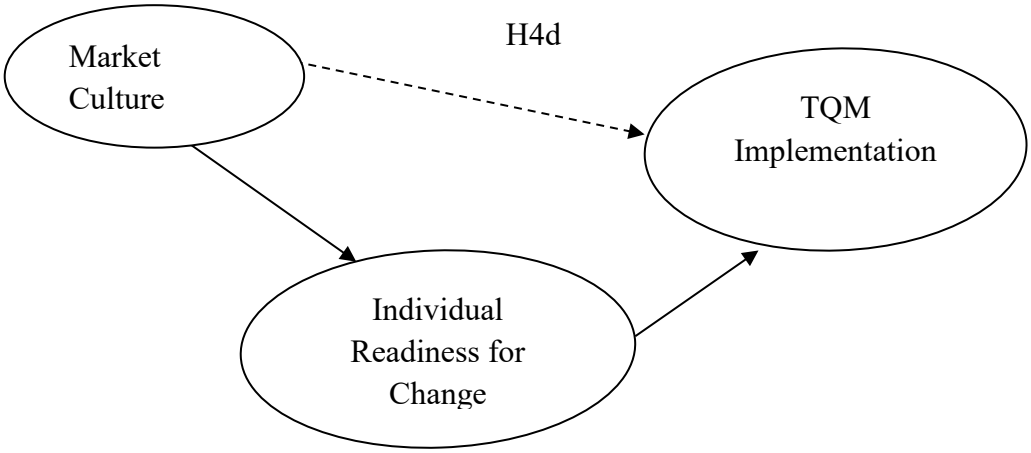


Figure 3.8 Hypothesised Research Model of the Mediating Role of IRFC between Market Culture and TQM Implementation

In the aforementioned sub-figures (Figures 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, and 3.8), the solid arrows signify hypothesised direct relationships, while dotted arrows exhibit hypothesised indirect relationships. Therefore, the mediating influences of the IRFC are represented by the dotted arrows.

3.6 Conclusion

The first objective of this chapter was to identify and discuss the main theories that may underpin the current research in relation to the OC- IRFC- TQM implementation linkages. These theories were: social cognitive theory and contingency theory.

The second objective of this chapter was to discuss the relationship between OC types, IRFC and TQM implementation in full details. The research hypotheses derived from the literature review were defined and an integrative conceptual framework which presents the relationships between the organisational culture types, individual readiness for change and TQM implementation was developed

and presented in Figure 3.1. This novel theoretical framework combines the direct effect of OC on TQM implementation and the mediating role of IRFC in the OC-TQM relationship in a single framework. Thus, this theoretical framework is offered as an extension to the work of many authors such as Dellna & Hauser (1994) and Zu et al. (2010) in relation to the influence of OC on the implementation of TQM.

To validate the above mentioned hypotheses and conceptual framework, empirical research followed. The next chapter describes the research design and methodology.

Chapter Four

Research Design and Methodology

4.1 Introduction

In the previous chapter, the research hypotheses and theoretical framework for this study were developed. This chapter explains, rationalises and justifies the research philosophy, approach and design followed in the present study. The chapter also attempts to explain and justify the use of the particular data collection methods

chosen. In addition, sampling and the data collection procedure are defined and justified. Lastly, this chapter provides the reader with relevant information about the Syrian context within which this study is set. This includes an overview of the economy, manufacturing industry, cultural elements and business environment which are expected to influence quality management in Syrian organisations.

4.2 Research Philosophy

The research methodology that researchers adopt is affected by the paradigm which they have selected. That is their way of thinking about the development of knowledge (Saunders et al., 2012). The term ‘paradigm’ indicates basic beliefs about the world. It provides a guide for how to conduct research and defines the ideal methods and techniques to be used in performing this process. Researchers’ beliefs about the world and their perception of phenomena have an impact on the way in which the research is designed, on the methods used in collecting the data, and on how the research should be written (Hussey & Hussey, 1997). There are many paradigms identified in the literature. The most common paradigms are interpretivism and positivism.

The view point of the interpretive perspective does not assume any pre-existing reality and the attention is given to the use of language between people and how they create their own meanings (i.e. the application of the interpretive philosophy stems from the view that 'reality' is determined by people; by the observer rather than by objective and external factors (Easterby-Smith et al., 2008). The type of research that follows the principles of interpretivism aims to capture the rich complexity of social situations, and interpretivists argue that generalisation is not important (Saunders et al., 2012).

One the other hand, research that follows the principles of positivist philosophy will probably adopt the philosophical stance of the natural sciences (Saunders et al.,

2012). Advocates of positivist philosophy argue that reality can be captured (Denzin & Lincoln, 2008) and "an apprehendable reality is assumed to exist, driven by immutable natural laws and mechanisms" (Alvesson & Deetz 1996, p. 109 cited in Cox & Hassard 2005, p. 113). The follower of positivist philosophy will prefer "working with an observable social reality and the end product of such research can be law-like generalisations similar to those produced by the physical and natural scientists" (Remenyi et al. 1998, p. 32).

Discontent with the principles of positivism had become very common in the social and behavioural sciences, which paved the way for post-positivism (Tashakkori & Teddlie, 2003). Post-positivism is a contemporary philosophy, which discards the principle that knowledge evolves on constants (Phillips & Burbules, 2000) and considers that social science investigations cannot be based on principles offered by natural sciences and that reality cannot be totally captured in any way (Muijs, 2004). Under post-positivist philosophy, reality is imperfect and can be reached on a probabilistic level (Guba & Lincoln, 1994). To this effect, all observations are not foolproof, have mistakes and all theories are emendable and can be changed through time (Muijs, 2004). The post-positivist uses data triangulation (but depends primarily on quantitative data). Triangulation is used by post- positivists as it helps to attain a higher reality (Denzin & Lincoln, 2008). Guba and Lincoln (1994) assert that reality must be critically examined.

4.3 Research Approach

There are two main research approaches in business and management studies; hypothetico-deduction and induction. With the inductive approach, data are collected and theory is developed as a result of the data analysis (Saunders et al., 2012; Easterby-Smith et al., 2008). This approach is less concerned with the need to generalise, and small samples might be more suitable (Saunders et al., 2012).

With the hypothetico-deductive approach, a theory and testable hypotheses (about causal relationship between variables) are developed, and a research strategy is designed to test the hypotheses and as a result to confirm or disconfirm them

(Sekaran, 2006). One of the main characteristics of this approach is expressing the hypotheses in operational terms and collecting the quantitative data primarily to test the hypotheses. Another characteristic of the hypothetico-deductive approach is the generalisation of conclusions statistically by selecting appropriate samples.

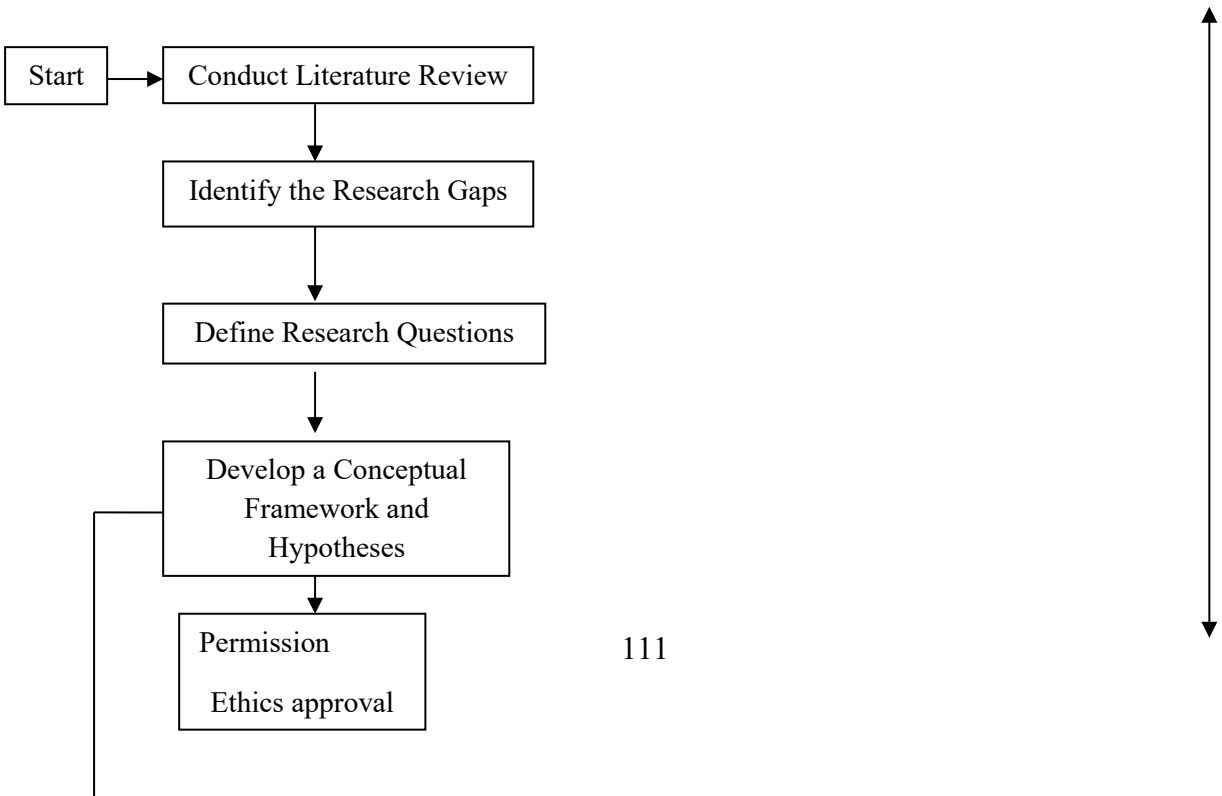
This study followed a post-positivist philosophy and hypothetico-deductive approach. This research did not build and formulate theory from the data that was collected. Rather the researcher formulated hypotheses between variables based on theory after conducting a literature review. Then, those hypotheses were tested empirically to confirm or disconfirm them. In this research study, the hypothesised relationships between the three research variables (TQM, organisational culture and individual readiness for change) were identified by comprehensive literature review. This study tested theory by investigating the direct and indirect effects of organisational culture on the level of implementation of TQM. This study also aimed to describe the cause-effect associations between variables, i.e. between organisational culture (independent variable), individual readiness for change (mediating variable), and TQM implementation (dependent variable). Additionally, in this research study, the researcher used data triangulation (primarily quantitative) in order to increase the validity and reliability of the findings and to decrease the degree of bias. Moreover, this study aimed to generalise the results and findings of the research sample to the whole population of SMOs. Therefore, a big and representative sample of 350 middle managers in SMOs was chosen and targeted (for more details, see section 4.7.2).

4.4 Research Design

Research design is “an action plan for getting from here to there”, where “here” may be defined as the initial set of questions to be answered and “there” is a set of conclusions (answers) about these questions (Yin, 2003, p. 20). Therefore, research design is “a set of guidelines and instructions to be followed in addressing the research questions” (Mouton, 1996, p.107). The research design implemented for

this research is based on the hypothetico-deductive approach. Thus, the research process started with a literature review to identify the gaps in the research. Based upon the gaps in the literature, the research hypotheses and conceptual framework were developed (see sections 3.3 and 3.4). Then, mainly by conducting a quantitative questionnaire survey, data were collected to test the hypotheses and the theoretical model. The collected data were analysed and logical deductions from the findings of the study were produced. The study ended by providing the managerial implications of the study's findings. Figure 4.1 presents the design of the current research study.

The research design adopted in collecting the data was the cross-sectional design. It has been argued that "cross-sectional design is the most recognisable research design in social research" (David & Sutton, 2004, p. 135). In such design, data is collected at one point in time (Burton, 2000). As such "the researcher has to gain sufficient knowledge about the topic through an extensive literature review and his experience" (David & Sutton 2004, p. 135). The selection of this design was also affected by the time and resource limitations, because the longitudinal research design, which relies on studying the change and the development of a phenomenon over time, is resource demanding and time consuming (Saunders et al., 2012).



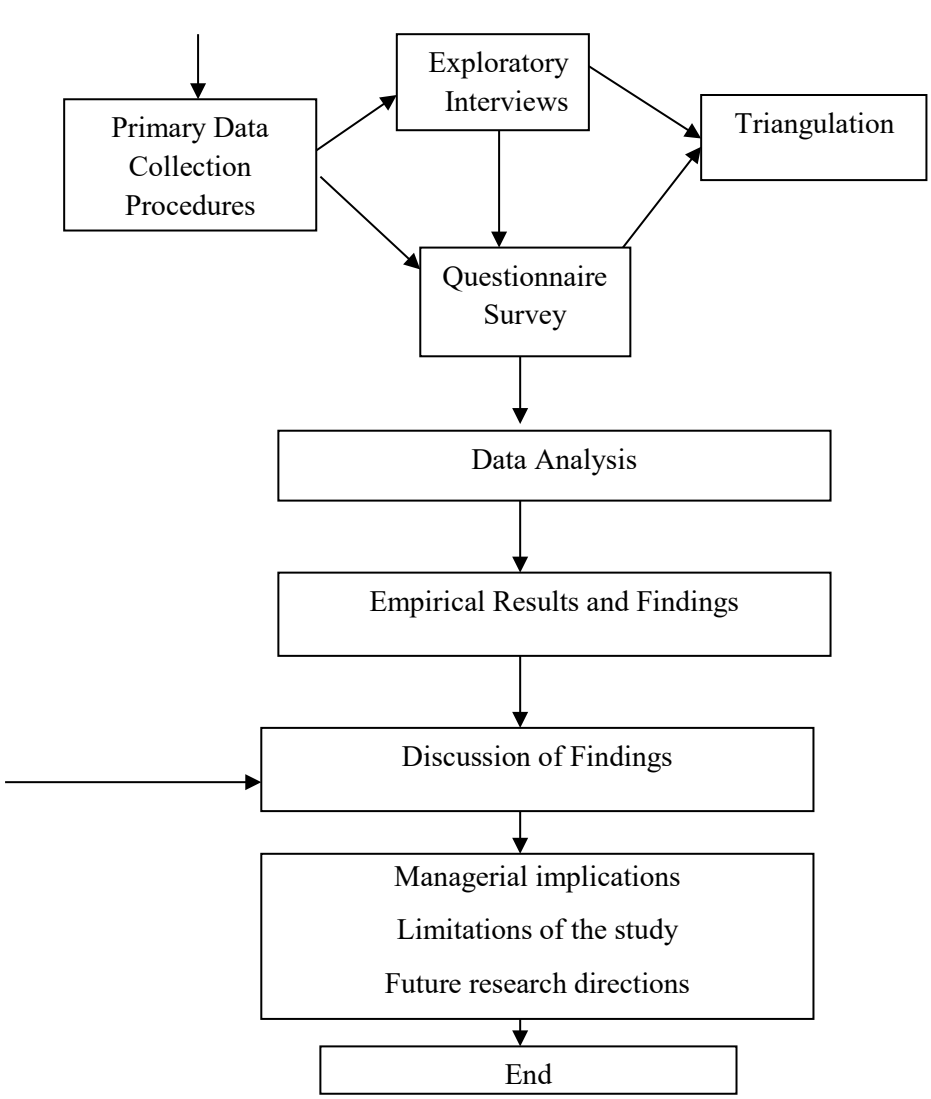


Figure 4.1 Research Methodology: Road Map of the PhD Process

4.5 Primary Data Collection

The choice of data collection methods depends on many factors such as: the research objectives, the facilities available, the degree of accuracy required, the time span of the study (Sekaran, 2003). Primary data is the data collected firsthand specifically for the research being undertaken and relevant to the research question(s) and objectives (Saunders et al., 2012). Primary data can be collected in a variety of ways and from different sources. Within business and management research, there is a range of primary data collection methods, such as: unstructured interviews; semi-structured

interviews; unstructured or in-depth interviews; questionnaires that are either personally administered, sent through the mail, or electronically administrated, and participant and structured observation of individuals and events (Zikmund, 2003; Hussey & Hussey, 1997).

4.5.1 Triangulation

The use of different research approaches, methods and techniques in the same study is known as triangulation (Hussy & Hussy, 2003). Denzin (1970, p. 297) defines triangulation as "the combination of methodologies in the study of the same phenomenon". Mixed or hybrid research methods, by using quantitative and qualitative data collection techniques and analysis procedures either at the same time or one after the other, is increasingly advocated within business research (Saunders et al., 2012; Jogulu & Pansiri, 2011).

Quantitative or qualitative data collection techniques and analysis procedures each have their own strengths and weaknesses. Triangulation allows minimising the weaknesses of qualitative and quantitative data (Miles & Huberman, 1994). Triangulation can overcome the potential bias and sterility of a single-method approach (Hussy & Hussy, 2003). Denzin (1970) argues that the use of different method by a number of researchers studying the phenomenon should, if their conclusions are the same, lead to greater validity and reliability than a single methodological approach. Triangulation methods provide more viewpoints and perspective as well as deeper and broader information on the phenomenon being studied (Cooper & Schindler, 2003; Creswell, 2009; Zikmund, 2003) and to increase the quality, validity and reliability of the findings and decrease the degree of bias (Bouma, 1996).

In order to meet the aim of this study, primary data used in this study was gathered to a lesser degree through 12 semi-structured exploratory interviews in the initial stage, and mainly through questionnaire surveys of a reasonably large sample of 350

SMOs at a subsequent stage. Thus, this research study follows a sequential less dominant-dominant qualitative-quantitative methodology (qual / QUAN) (as shown in Figure 4.2) where the quantitative part of the research is the dominant (Tashakkori & Teddlie, 1998; Bryman & Bell, 2011; Jogulu & Pansiri, 2011).

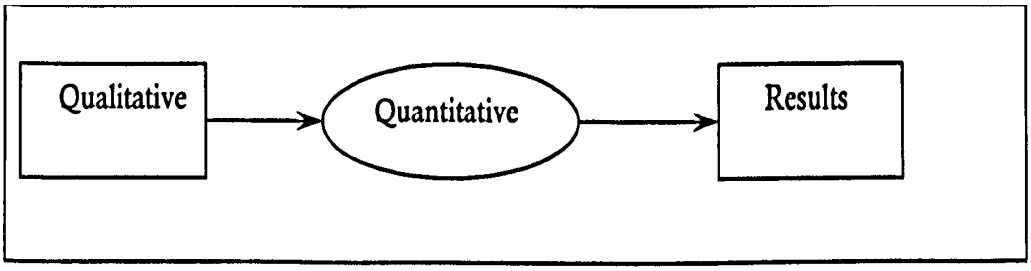


Figure 4.2 The Mixed Methods Design in the Current Research Study

Source: Tashakkori & Teddlie (1998)

4.6 Initial Pilot Study

This research mainly used quantitative data which was extracted from surveys (questionnaire based). However, before designing and conducting large-scale questionnaire surveys, the researcher conducted 12 semi-structured exploratory interviews as an initial pilot study and supporting method. This helped to make sure that the research problem exists and the research questions were worth investigating in a Syrian context. This is because it is strongly advisable not to rush into detailed surveys before less expensive and more readily available sources of information have been exhausted (Zikmund, 2000).

Half of the interviewees (6) were academics, from two Syrian Universities, who have experience and have done research in various management and business areas in Syria. Six interviewees were middle managers from some Syrian manufacturing organisations. Most of the interviewed managers have an academic background and members of the Syrian academic community and are well acquainted with management issues, including TQM.

Exploratory interviews help to get detailed and in-depth information about the research constructs and the relationship between them within the research context (Mehndiratta et al., 2001). This helped to ascertain that the literature review findings are applicable to the Syrian context and to avoid any pitfalls in understanding the major constructs by Syrian participants. It also helped to make sure that the research questions were worth investigating in a Syrian context. The exploratory research can help the researchers to validate and support or refine their initial hypotheses and conceptual framework before conducting large-scale surveys and statistical validation (Mehndiratta et al., 2001). Also, it helps to ensure the suitability of the study and framework in a Syrian context. Saunders et al. (2012) considered that utilising exploratory interviews provides useful data that could be used in designing the questionnaire. Also, the interviews could identify missing issues that the study could address.

The interviews were conducted over a period of one month in March 2010. Each interview lasted between one and two hours. An interview guide based on the literature (conceptual framework and hypotheses) was used in order to ensure that all the main issues, relating to the study under investigation, were discussed. Respondents were asked open-ended questions to get their overall reactions to the constructs of the initial conceptual framework. This captured the relationships between TQM, OC, and IRFC. The researcher aimed to explore how the respondents perceive the relationship between the constructs in order to validate the initial conceptual framework and hypotheses that have already been developed after reviewing the existing literature.

Two prominent findings were identified from the qualitative exploratory interviews. These were the validation of the hypotheses and the design of the quantitative questionnaire survey.

- **Validation of Research Hypotheses and Conceptual Framework**

The outcome of these interviews revealed that the interviewees had a good knowledge and showed an understanding of TQM, IRFC and organisational culture

constructs. In addition, the majority of the academic informants believed that managers in SMOs are aware of these constructs.

The findings of these interviews reveal that interviewees believed that there are different positive and negative influences of organisational culture types on the implementation of TQM. Most of the respondents believed that adhocracy culture and group culture have positive influence on TQM implementation. The interviewees believed that the hierarchy and market culture types, which are prevalent in Syrian manufacturing organisations, may lead to low level of implementation of TQM in these organisations. The outcome of the interviews carried out revealed that interviewees believed that IRFC affects TQM implementation positively. Most of the respondents indicated that the low level of IRFC in relation to TQM; negative attitude towards TQM implementation; is one of the main reasons for the low level of implementation of TQM in the majority of Syrian organisations.

The findings of the exploratory interviews show that interviewees believed that different organisational culture types have different influences on IRFC; attitude towards new change initiatives. Most of them believe that the level of readiness for change and acceptance of TQM implementation will be high in organisations dominated by a group and adhocracy culture types and low in organisations dominated by a hierarchy and market culture types. In addition, respondents indicated that the organisational members in Syrian organisations, which are dominated by hierarchy and market culture types, have negative attitudes towards TQM implementation.

Therefore, the findings of exploratory interviews with respondents, in addition to informal discussions with other practitioners, validated and supported the initial framework and hypotheses as formulated. This convinced the researcher that the theoretical framework adopted, after studying the literature, is topical, acceptable and there is no need for altering it.

- **The Design of Quantitative Questionnaire Surveys**

There are many issues raised by the interviewees which were considered during the design of the quantitative questionnaire in the nest phase. The findings of the exploratory interviews revealed that the level of IRFC and TQM implementation in SMOs is low. However, some of the respondents mentioned that the level of TQM implementation and IRFC is slightly higher in the private sector, especially within ISO certified companies, than it is in organisations belong to the public sector. Therefore, the researcher decided to include some questions in the questionnaire which allow for comparison between the public/private manufacturing organisations and between ISO certified SMOs/non- ISO SMOs.

In addition, some of the participants advised that, in order to increase the response rate, the questions or statements in the questionnaire should be in the same format, preferably using the 5-point Likert-type scale (strongly disagree, disagree, not sure/neutral, agree, strongly agree). The above feedback and suggestions were taken into account during the design of the questionnaire in the second stage (section 4.7).

4.7 The Quantitative Survey Questionnaire

A questionnaire is "a method for collecting data in which a selected group of participants are asked to complete written set of structured questions to find out what they do, think or feel" (Hussey & Hussey 1997, p. 183). Questionnaires can be used for descriptive and explanatory/analytical research (Saunderds et al., 2010). In explanatory research, questionnaires can be used to examine and explain relationships between variables in particular cause and effect relationships (Saunderds et al., 2010). According to Baruch and Holtom (2008, p. 1140), "questionnaires can provide insight into individual perceptions and attitudes as well as organisational policies and practices".

Questionnaires have been widely used to study the influence of organisational culture on TQM practices (e.g. Al-Khalifa & Aspinwall, 2001; Jabnoun & Seadrani, 2005). In addition, many researchers such as Eby et al. (2000) and Jones et al. (2005) have used questionnaire surveys to measure organisational members' readiness for change; i.e. their attitudes towards change.

4.7.1 Questionnaire Structure and Validation

In order to achieve the aim and objectives of this study, a questionnaire based survey was developed. This questionnaire was accompanied by a cover letter, which discussed the aims of the research, explained the usefulness of the questionnaire, and assured the confidentiality of the information provided by participants. The questionnaire was divided into four main parts, namely:

- TQM instrument.
- OC instrument.
- IRFC instrument.
- Personal and organisational information.

The first three parts consisted of three instruments to measure the level of implementation of TQM, level of individual readiness for change and to identify an organisational culture profile. The author held personal reservations on the applicability of Western-based models and scales due to cultural considerations. However, the use of Western-developed instruments was necessary as there is no Syrian or Arabian validated and reliable instrument available. The study did not aim to validate or develop new instruments to measure the level of implementation of TQM practices, OC profiles and levels of readiness for change. Therefore, this research adopted and translated three widely used, valid and reliable Western-developed instruments which fitted and served the aim and objectives of the current study. These valid and reliable instruments are useful scientific tools that have the twin advantages of reliability and predictability, which are capable of clarifying the concepts under consideration in this research. This position is backed up by the view

of Fink (2006) that replicating standard questionnaires is very useful because they have been checked for validity and reliability. He has mentioned another justification for using a valid established instrument or questionnaire, which someone else has prepared, in that it will be easy for future research to compare new findings with others that have utilised similar instruments (Fink, 2006).

The last part of the questionnaire aimed to collect general information and background details about the survey respondents and the organisations that they work for. Part one aimed to identify the OC profile, the second part aimed to measure the level of implementation of TQM practices and the third part aimed to measure the level of readiness for change in SMOs. The respondents were asked to indicate the extent to which each statement in the questionnaire describes the current position of their organisation using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Likert scale was used due to the bigger range of answers permitted to respondents and because the reliability of Likert scales tend to be good (Oppenheim, 1992, p. 200), and to maintain the uniformity, consistency, and clarity of coding (Saunders et al., 2012).

- **TQM Instrument**

Many authors such as Curkovic et al. (2000) and Bou-Llusar et al. (2009) confirmed empirically that the Malcolm Baldrige National Quality Award (MBNQA) criteria and categories extensively capture and represent the main dimensions and contents of TQM practices. The findings of many empirical studies such as Ahire et al. (1996) have demonstrated that TQM practices are strongly correlated with one another, supporting the synergy among the practices. Like many previous studies such as Gimenez-Espi et al. (2012), the current study views TQM as a unidimensional set (or package) of practices. TQM is modelled as a single latent variable that is measured by six first-order latent variables, namely strategic planning, information and analysis, people management, customer focus, process management and leadership.

In order to measure the level of implementation of TQM in SMOs, the valid and reliable instrument developed by Samson and Terziovski (1999, p. 405- 406) was utilised and adopted. In this instrument the empirical constructs are guided by and based on the principle criteria of the MBNQA. The following items were used to measure the level of TQM implementation:

- "Our senior managers have implemented a culture of trust, involvement and commitment in order to achieve 'Best Practices'".
- "Top management involves major department heads and managers in determining long-term objectives".
- "At this site we proactively pursue continuous improvement rather than reacting to crises".
- " Senior management have achieved a high degree of unified purpose throughout our organisation".
- "Our organisation has eliminated barriers between individuals and/or departments".
- "Ideas from production managers and operators are actively used in assisting management".
- "Employee satisfaction is formally and regularly measured".
- "Quality of teamwork participation is an essential part of performance evaluation at this organisation".
- "Our site has effective 'top–down' and 'bottom–up' communication processes"
- "Our occupational health and safety practices are excellent"
- "All employees believe that quality is their responsibility"
- " Our company uses employee evaluation procedures which are fair and accurate".
- "These customer requirements are effectively disseminated and understood throughout the workforce".
- "In designing new products and services we use the requirements of domestic customers".
- "We have an effective process for resolving external customers' complaints".
- "Customer complaints are used as a method to initiate improvements in our current processes".
- "We systematically and regularly measure external customer satisfaction".
- "We involve customers' input in making company decisions".
- "We have a comprehensive and structured planning process which regularly sets and reviews short and long-term goals".
- "Our plans focus on the achievement of 'best practice'".
- "We have a written statement of strategy covering all manufacturing operations, which is clearly articulated and agreed to by our senior managers".
- "Our site's manufacturing operations are effectively aligned with the central business mission"
- "Our company has a strategic plan for the next five years".

- "Our suppliers work closely with us in product development".

- "We work in teams, with members from a variety of areas (marketing, production,) to introduce new products". Samson and

- "Our organisation is reviewing the information relating to other firms' product quality and procedures and comparing them with our product quality and procedures".

- "Our organisation is reviewing the information relating to other firms' human resource practices and policies and comparing them with our human resource practices and policies".

- "We are using scientific methods based on information whilst make decisions in the organisation".

- "The organisation uses information and performance measurements in the improvement of its processes and services".

- "We use statistical techniques to reduce variance in processes".
- "We work closely with our suppliers to improve each others' processes".

- "We have an effective system for measuring the quality of our products and services".

Terziovski (1999, p. 405- 406)

- **Organisational Culture Instrument**

Cameron and Quinn (1999, p. 96) developed the organisational culture assessment instrument (OCAI) based on the CVF. This model has six dimensions, namely "dominant characteristics, leadership style, management of employees, organisational glue, strategic emphasis and criteria of success". Analysing these six dimensions produced four types of OC. These are adhocracy culture, group culture, market culture and hierarchy culture. Many research studies have confirmed the reliability and validity of the competing values framework (CVF) and its matched scale, organisational culture assessment instrument (OCAI) (Cheng & Wu, 2007; Yu & Wu, 2009). Also, a number of researchers have utilised OCAI based on CVF to examine the effect of organisational culture on TQM implementation (Cheng & Liu, 2007, Al-Khalifa & Aspinwall, 2001). This is due to their recognition of CVF being a means to determine the changes required to create an ideal organisational culture that supports and facilitates TQM implementation. Thus, the current research has employed the OCAI to identify the cultural profiles and characteristics for SMOs and to determine the dominant OC types (hierarchy culture, market culture, adhocracy culture or group culture) in the SMOs. Based on the OCAI developed by Cameron and Quinn (1999, p. 96), group culture was assessed by using the following items:

- "The leadership in the organisation is generally considered to exemplify mentoring, facilitating, or nurturing".

- "The management style in the organisation is characterised by teamwork, consensus, and participation".

- "Our organisation is a very personal place. It is like an extended family. People seem to share a lot of themselves".

- "The glue that holds the organisation together is loyalty and mutual trust. Commitment to this organisation runs high".

- "The organisation emphasises human development. High trust, openness, and participation persist".

- "The organisation defines success on the basis of the development of human resources, teamwork, employee commitment, and concern for people".

While market culture was assessed by using the following statements:

- "The organisation is very results oriented. A major concern is with getting the job done. People are very competitive and achievement oriented". - "The leadership in the organisation is generally considered to exemplify a no-nonsense, a no-nonsense, aggressive, results-oriented focus".

- "The management style in the organisation is characterised by hard driving competitiveness, high demands, and achievement".

- "The glue that holds the organisation together is the emphasis on achievement and goal accomplishment. Aggressiveness and winning are common themes".

- "The organisation emphasises competitive actions and achievement. Hitting stretch targets and winning in the marketplace are dominant".

- "The organisation defines success on the basis of the winning in the marketplace and outpacing the competition. Competitive market leadership is key".

Cameron and Quinn (1999, p. 96)

Based on the OCAI developed by Cameron and Quinn (1999, p. 96) adhocracy culture was assessed by using the following 6 statements:

-"The organisation is a very dynamic and entrepreneurial place. People are willing to stick their necks out and take risks".

- "The leadership in the organisation is generally considered to exemplify entrepreneurship, innovation, or risk taking".

- "The management style in the organisation is characterised by individual risk-taking, innovation, freedom, and uniqueness".

- "The glue that holds the organisation together is commitment to innovation and development. There is an emphasis on being on the cutting edge".

- "The organisation defines success on the basis of having the most unique or newest products. It is a product leader and innovator".

- "The organisation emphasises acquiring new resources and creating new challenges. Trying new things and prospecting for opportunities are valued".

While hierarchy culture was assessed by using the following items:

- "The organisation is very controlled and structured place. Formal procedures generally govern what people do".

- "The leadership in the organisation is generally considered to exemplify coordinating, organising, or smooth-running efficiency".

- "The management style in the organisation is characterised by security of employment, conformity, predictability, and stability in relationships".

- "The glue that holds the organisation together is formal rules and policies. Maintaining a smooth-running organisation is important".

- "The organisation emphasises permanence and stability. Efficiency, control and smooth operations are important".

Cameron and Quinn (1999, p. 96)

- **Individual Readiness for Change Instrument**

Holt et al. (2007) have argued that the assessment of readiness must occur at an individual level, as change practices are launched and performed by individuals within companies. The instrument developed by Holt et al. (2007, p. 242- 243) was used and adopted to measure the mediating variable: level of organisational members' readiness for change. This instrument consists of 24 items designed to assess the extent to which organisational members feel positive about TQM as a new change initiative. The respondents were asked about their perception and evaluation regarding the benefits that members and the wider organisation may achieve from a change implementation, the individual and organisational capacity for performing change, and the need for organisational change. The following statements were used to measure the level of IRFC in relation to TQM:

- I think that the organisation benefits with the implementation of TQM

- It makes sense for us to implement TQM.

- I think that there are legitimate reasons for us to implement TQM.

- I feel that implementing TQM improves our organisation's overall efficiency

- I believe that there are a number of rational reasons for TQM implementation.

- I believe that the time we spend on TQM implementation is feasible
- I believe that TQM implementation matches the priorities of our organisation
- The top management of our organisation has stressed the importance of TQM implementation
- I feel that our organisation's general manager is committed to TQM implementation
- Our management made it clear that our organisation was going to implement TQM
- There are some tasks that are required with TQM implementation that I think I can do well
- I feel that I can handle TQM practices with ease when our organisation implements it
- I have the skills that are needed to make TQM practices work.
- I have the necessary training and skills that are needed to implement TQM
- I believe I could learn everything that is required for the implementation of TQM.
- My past experiences make me confident that I can perform successfully with TQM implementation
- I believe that my job is not limited by TQM implementation.
- I do not feel I lose any of my standing in the organisation with the implementation of TQM.
- I do not feel TQM implementation has disrupted my personal work-related relationships.
- I believe there are personal benefits for me to gain from TQM implementation.
- TQM implementation is making my job easier.

Adopted from: Holt et al. (2007, p. 242- 243)

Content validity was checked using experts and academics from Syrian universities. All the experts agreed that the questionnaire was appropriate, would achieve the aim of the study and needed only a little editing. Most of the respondents suggested that two items in the questionnaire must be omitted because these items were difficult to be fully understood by the Syrian managers and were not suitable to a Syrian organisational context. The proposed questionnaire was then adjusted and amended according to the feedback and comments of the experts.

4.7.2 Sampling Issues

According to Protector (2000, p. 86), "once the researcher has decided the primary data is to be collected, the next task is to obtain a sample that is representative of the target population of interest". Target population refers to the entire group of people or things of interest that the researcher wishes to investigate (Sekran, 2000). There are two major types of sampling designs: probability and non probability sampling.

In non probability; non random sampling designs, the elements in the population have no probabilities attached to their being chosen as sample subjects (Hussey & Hussey, 1997). This means that the findings from the study of that sample cannot be confidently generalised to the population (Hussey & Hussey, 1997). In probability sampling, or random representative sampling technique, the elements in the population have some known chance or probability of being selected as sample subjects (Hussey & Hussey, 1997). Probability sampling is most commonly associated with survey-based research, and it is used when the representativeness of the sample is of importance in interests of wider generalisability (Hussey & Hussey, 1997). A representative sample can be achieved through the random selection of cases, which in turn indicates that "each element has an equal chance of selection independent of any other event in the selection process" (Babbie, 2001: p.186). Random sampling is, therefore, recommended in quantitative research as many of the statistical tests assume that data was gathered using random sampling (Bryman & Cramer, 2005; Creswell, 2009).

The target population of this research consists of all the public and private Syrian manufacturing organisations (SMOs) involved in implementing quality initiatives. The population of SMOs is concentrated mostly in 10 cities. However, 60% are based in two cities, which are Damascus and Aleppo. Contacting and distributing the questionnaires to all the relevant companies was difficult due to the geographical spread, the time factor and the financial limitation of this research. The researcher chose to adopt a random sampling technique and selected a representative sample consisting of 350 SMOs in Aleppo and Damascus. The sample covers a wide cross section of manufacturing industries including, food, clothing and textiles, electronics and pharmaceuticals. Thus, the researcher aimed at selecting a random sample, as it is more likely to be representative of the population from which it has been selected. This in turn would enable the use of some statistical techniques to test the research hypotheses and enhance the generalisability of the findings.

A personal distribution of the final version of the questionnaire to one participant (operation, production or quality manager) for each organisation was adopted as it

was considered the most efficient method of data collection in the Syrian context. The researcher approached the manager who is the most familiar with this topic in each organisation to complete the questionnaire. It is worth indicating that this methodological approach has been used in previous studies (Goll & Rasheed, 1997; Hart & Banbury, 1994). The middle managers were considered the key participants in this research. Bower (1970) considered that middle managers are the key agents of change. In addition, middle managers perform the critical task of championing transformation proposals within the company (Schnider et al., 1996). Independently, they set up and launch the practices and incentives that are needed to maintain the change in their departments. TQM will not work if these middle managers do not have comprehension of and commitment to TQM (Schnider et al., 1996). Their full understanding and commitment is very important in order for the required change to be adopted. Therefore, their perception of the internal environment, and in turn their readiness for TQM implementation as a model of organisational change, is more important in the facilitation and adoption of TQM. Moreover, Madu el al. (1996) report that middle managers can provide good information related to quality because;

- "They initiate the top management decisions,
- They are 'sandwiched' between the two extremes of the organisation and are able to grasp information from both ends, i.e. from top managers and general workers. They can determine the level of implementation of TQM by top management and floor workers,
- They have the ability to appreciate concerns about quality in the company, and
- They possess the information to accurately answer quality related questions".

4.7.3 Questionnaire Response Rates

One general drawback in using questionnaires is the poor completion rates (Bryman & Bell, 2011). For example, the respondent may refuse to answer a sensitive question, or the response may not be captured because of the difficulty of finding respondents.

The following methods suggested by Bryman and Bell (2011) and Collis and Hussey (2003) are continuously employed by researchers to improve response rates to questionnaires:

- A covering letter explaining the background of the research including reason(s) for the research, the importance of the research, and the reason why the respondent has been selected. Confidentiality and sponsorship (if any), are two more aspects that need to be addressed clearly.
- Better response rates are achieved for short questionnaires compared to longer ones.
- An incentive (e.g. monetary) is another helpful way to ensure better response rates. However, it is very unlikely for students to be able to provide such incentives.
- Following up on non-responsive respondent via letters and telephone calls after the first enquiry.

In the current study, the researcher tried to increase the response rate by employing the following methods:

- To ensure that the questions were comprehended completely by the participants, the original questionnaire in English was translated into Arabic (the respondents' native language) by using back translation technique (for more details, see section 4.7.4).
- A letter from the researcher sponsor (Damascus University) was included with the questionnaire. This letter helped to convince the potential respondents of the usefulness of the questionnaire (see Appendix B).
- The respondents' data protection and privacy was guaranteed (for more details, see section 4.7.5).
- The format the layout, fonts size, and presentation were made more interesting,
- The participants were encouraged to complete the questionnaire by offering a copy of the findings if they required, without a charge.
- A pilot study was conducted before distributing the final version of the questionnaire (for more details, see section 4.7.6).
- A self-administered questionnaire was used (paper based), delivered personally to collect the data and following up on non-responsive respondents by using follow-up letters, and telephone calls in order to re-engage and motivate the participants to complete the questionnaire (for more details, see section 4.7.7).

4.7.4 Questionnaire Translation

According to Saunders et al. (2012, p. 383), "translation questions and related instructions into another language require care if your translated or targeted questionnaire is to be decoded and answered by respondents in the way you intended".

The respondents' native language is Arabic and the original questionnaire was in English. Therefore, the researcher translated the questionnaire by using back translation technique in order to make sure the questions would be fully understood by the respondents, and thus improve the response rate. Firstly, the source questionnaire was translated from the source language (English) to the target language (Arabic). Then the Arabic version was sent to a bilingual academic who has a proficiency in both languages to translate it back from Arabic (target) into English (source). Following that, the researcher compared the two versions of items in the source language (English), and found that they were consistent. Additionally, two other bilingual academic experts in various management and business issues in Syria confirmed the consistency between versions and that the language translation was adequate.

4.7.5 Ethical Issues

On the cover sheet of the questionnaire, respondents were informed that taking part in the study was voluntary and that they had the right to withdraw from completing the questionnaire at any time, or to not answer any particular questions if they did not wish to answer them. The researcher guaranteed that their anonymity would be protected, and that their names, organisations, and any information that could lead to exposing their identity would not be publicised. Moreover, the researcher guaranteed confidentiality for the respondents, and ensured that their information and responses provided in this questionnaire would be known only to the researcher, would be used

in a confidential way to achieve the aim of this research, and would not be exploited for commercial purposes. Also, participants were assured that their organisations would not be given any information on what each participant answered, and that their responses would be given a serial number and that only the collective outcomes would be reported. Moreover, the participants were informed that a summary of the findings of this research (which could be useful to their organisations) would be available for free if requested.

4.7.6 Pre-Testing and Validating Survey Instruments

Prior to using a questionnaire to collect data, it should be pilot tested (Saunders et al., 2012). The purpose of the pilot test is to refine the questionnaire in order to improve the reliability and validity of responses, and the response rates (Saunders et al., 2012). It helps to obtain the respondents' views and recommendations and suggestions regarding the questions of the proposed questionnaire. In addition, it helps the researcher to ensure appropriate wording has been used, to check the time horizon to complete the survey, to ensure the accuracy of the language, and to estimate the response rate (Ticehurst & Veal, 2000).

In May 2010, the researcher conducted a pilot study with middle managers from representative SMOs who represent the targeted sample. Most of those respondents were members of the Syrian academic community from relevant disciplines who have knowledge and experience of management issues in Syria. Through the pilot study, the researcher ensured that the questions measured what they were supposed to and that the questions were interpreted in the same way by all participants. In addition, the questionnaire completion time was estimated, the accuracy of language was ensured and misconceptions were removed. For example, most of the respondents considered that many Syrian managers might not understand one of the words used in the questionnaire which is translated into English (organisation); therefore, they suggested adding a note in the cover letter which, when translated into English, read 'organisation in this survey could also refer to a company, factory, firm, etc'.

A few amendments were made to the first version of the proposed questionnaire following these pre-tests, in order to enhance and clarify the questionnaire. After these changes were done, the adjusted questionnaire was submitted again to the academic respondents. They collectively recommended the use of the adjusted questionnaire for the current study. The final version of the questionnaire is presented in appendix B (Arabic version) and appendix C (English version).

4.7.7 Distribution and Collection of the Questionnaire

In the previous stages, the initial questionnaire designed, pilot tested and adjusted. In the final stage, which is called administering the questionnaire, the final version of the questionnaire was distributed to 350 middle managers, i.e. to include people from operation, production and quality managers, working in both private and public Syrian manufacturing organisations.

Questionnaires can be administered personally or mailed to respondents, via online questionnaires, telephone questionnaires and structured interviews (Saunders et al., 2012). The researcher disregarded the telephone interviews because it requires high budget due to the high rate of international phone calls, and long time due to the length of the questionnaire. In addition, based on the researcher's experience, and the opinions and experiences of Syrian academic experts, there is a risk of low response rate using of the mail and e-mail questionnaire in Syrian context. Most of the employees in Syrian organisations refuse to complete or ignore questionnaires sent through the mail or electronically administrated.

The author found that delivering the questionnaires personally to the participants and collecting the completed ones was the most efficient method of data collection in the Syrian context. This method is relatively cheaper than other methods (Fowler, 2002) and faster too in a Syrian context. Moreover, this method allows the researcher to

provide a background and introduction to the problem under study to encourage participants to be truthful and frank in their answers.

A covering letter was attached with the last version of the questionnaire (see appendix C). It explained the aim of the questionnaire and the intended use of the survey data. The respondents were guaranteed confidentiality and were asked to read carefully the questionnaire and the instructions before filling it in. If they experienced any difficulty they were asked to contact the researcher on the telephone number shown on the questionnaire. Additionally, they were requested to participate objectively by submitting their honest and impartial responses. Another appointment after 3 weeks was then made with each respondent to allow the collection of questionnaires.

4.8 Reliability and Validity

The current research has adopted and translated three widely used Western-developed instruments which fit and serve the aim and objectives of the current study. Many previous research studies have checked and confirmed the reliability and validity of these instruments. However, as these instruments are going to be used in different country (Syria) using a different language (Arabic), the validity and reliability of these instruments needs to be tested and confirmed again.

4.8.1 Questionnaire Validity

Validity is the extent to which the questionnaire measures what it was intended to measure (Oppenheim, 1992). There are many ways to determine the validity of a measuring instrument. This study checked the content validity and the construct validity of the questionnaire. More details about the findings of validity test can be found in chapter 5 (see section 5.3.1).

4.8.2 Questionnaire Reliability

Reliability refers to the consistency of the measurement (Bryman & Bell, 2011). Internal consistency method, which is a commonly used approach to conduct reliability analysis, assesses the degree to which items in a scale are homogeneous (Saunders et al., 2012, Bryman & Cramer, 2005). Cronbach's coefficient alpha is one of the most frequently used measures of internal consistency (Bryman & Bell, 2011, Saunders et al., 2012). The majority of authors consider that Cronbach's alpha should not drop below 0.7, and that an alpha value of 0.7 or more signifies reliable measures (de Vaus, 2002; Pallant, 2005). Some researchers, however, refer to values as low as (0.5) as acceptable (Cagwin & Bouwman, 2002). Cronbach's coefficient alpha measure was used to estimate the degree of the internal consistency of each construct. The results of the reliability analysis will be discussed in detail in section 5.3.2.

4.9 Syrian Context

According to the Syrian Presidency of the Council of Ministers, State Planning Commission (2005, p. 8): *"*Syrian Arab Republic is one of the developing Arab countries. Syria is located on the east coast of the Mediterranean".

4.9.1 Economic Background

The Syrian economy is dependent upon oil, agriculture, industry and tourism (U.S. Department of State, 2010).The Ministry of Industry is "responsible for strategy and policy formulation for the industrial sector. Its main activities are company

registration and licensing, monitoring of the private sector and supervising public companies" (Calcopietro et al., 2008: p.13).

The 1970s saw great interest by the government in developing the public sector and giving it priority in the development process (Dalilla, 2000). The government's interest in prioritising the role of the public sector in leading the development process meant this sector dominated the main industries (Dalilla, 2000). In the 1980s, government policy towards the private sector changed and the new policy aimed to encourage the involvement of this sector in the development process.

The role of the private sector has increased since the mid-1980s, particularly following the endorsement of investment law 10 (Dahlia, 2000). Despite the increasing role of the private sector, its structure is still distorted and weak (Sukkar, 2004, p. 6). The performance of the public and private Syrian manufacturing organisations (SMOs) has recently been under intensive criticism by many commentators (Sukkar, 2004; Abu-Sekkeh, 2004). There are many problems faced by the Syrian industrial sector as follows:

- "Bureaucratic and infrastructural constraints".
- "The slow pace and stop-start nature of economic reforms".
- "The complete lack of predictability in the application of bureaucratic procedures and approvals, and the high hidden costs due to the administration's inefficiency".
- "The absence of co-ordination between industrial and agricultural policies".
- "The low efficiency of enterprises. The absence of product innovation and the low use of new technology also explain the low efficiency and productivity of enterprises".
- "Poor work organisation and inflexibility and lack of creativity of middle management".

- "Poor management and labour skills and practices, which are caused, in part, by the lack of suitable management training programmes and courses". (Calcopietro et al., 2008, p. 28).

The Human Development Index ranks Syria 107th out of 182 nations (The European Training Foundation, 2010). In addition, the majority of Syrian manufacturing organisations allocate minimum resources for research and development (Oxford Analytica, 2004). Businesses do not appreciate and realise the advantages of information and communication technology (ICT) and hence the use of ICT is very limited and restricted at the organisational level (Oxford Analytica, 2004). Additionally, the closed economy has restricted the development of marketing aptitude and contemporary management methods (Albaladejo & Lall, 2004). The above mentioned reasons have contributed to their poor growth, low productivity, and little manufacturing added value (Calcopietro et al., 2008).

Syrian manufactured products are primarily orientated towards national consumption (Albaladejo & Lall, 2004). Manufactured exports from Syria have decreased gradually since the 1990s with the collapse of the Union of Soviet Socialist Republics (USSR), Syria's main export market (Albaladejo & Lall, 2004). This is due to the low quality of Syrian products (Albaladejo & Lall, 2004; Bizri, 2002) and low degree of conformity between the specifications of the majority of the Syrian products and international standards and specifications (ENPI, 2006). According to the Total Competitive Index 2009-10, Syria is placed 94th out of 134 nations (European Training Foundation, 2010).

Most of the Syrian products have stuck in domestic markets and are not able to pass over into the international marketplace, while the imports of manufactured products into the Syrian market have increased and thus the trade balance of industrial products is decreasing (Naser et al., 2006; SEBC, 2008). The manufacturing sector in Syria consequently makes a very small contribution to the gross domestic product (GDP). The Syrian non-extractive industry contributes to only 15% of the GDP

(SEBC, 2008). Syria relies on crude petroleum as the primary channel to acquire 'hard' currency (Albaladejo & Lall, 2004). In 2007, 86% of all Syria's exports to the EU consisted of crude oil and petroleum products (SEBC, 2008). However, Syrian oil reserves are falling. Oil as a natural resource will eventually run out (European Training Foundation, 2010). The dependence on oil exports does not help in achieving sustainable development and is a major threat to the longer-term Syrian economy and national security.

Prior to the uprising, Syria has recently witnessed an integration in the world economy as evidenced by the free trade area with Arab states (Tyara et al., 2004; Calcopietro et al., 2008). There is also evidence of further integration with the global economy such as the Euro-Med partnership (Calcopietro et al., 2008). The protocols that would make Syria an associate of the EU and a member of the WTO, respectively, are reaching an acceptable stage (ENPI, 2006; Huitfeldt & Kabbani, 2006). These agreements break traditional barriers and provide Syrian domestic industries with the opportunity to enter new international markets in the same way as it allows organisations from other countries free access to Syrian domestic markets (Kezaran, 2008). Therefore, the Syrian government will no longer be in a position to maintain protectionist policies such as import restrictions, tariffs and different types of subsidies for local industries (Tayara et al., 2007; Saheer, 2004).

Syrian organisations and products therefore face the challenge of sharp international competition (ENPI, 2006). In this era, it is not possible for SMOs to export their products to international markets if they do not conform to the high international standards (SEBC, 2008). This change has produced major problems for the SMOs because they are not ready to deal with these challenges. Therefore, it is mandatory for them to be prepared: to modernise and use contemporary management and industrial production methods; to step up productivity, and to ensure quality. This would enable them to remain viable in a free trade market and to satisfy customers worldwide and as a result, to achieve a higher level of global marketing effectiveness and to compete in the international marketing environment (Calcopietro et al., 2008).

4.9.2 Quality Management Implementation in Syria

The Syrian government and many other civil institutions such as the Syrian Association for Quality have recently begun to realise the significance of quality as a strategic choice because it leads to enhancing the competitiveness of Syrian local products in the international markets, and in turn the competitiveness of the Syrian economy (Syria Steps, 2007; Fraj, 2007; Calcopietro et al., 2008). Therefore, they encourage all organisations in the public and private sectors to set different quality standards and achieve ISO certificates as well as international quality awards by implementing TQM. In direct consequence of this, many Syrian organisations have now adopted different international standards and assess the level of assurance in their quality systems in accordance with the ISO standards (Tayara et al., 2007, Draj, 2007).

Additionally, some of them have made the decision to implement TQM whilst others have already implemented it (Tayara et al., 2007). However, some Syrian experts have argued that the level of implementation of TQM practices in the majority of Syrian organisations is still low (Naser et al., 2006; Zaher, 2006). Based on the experience of the author and the findings of exploratory interviews with Syrian experts, it was indicated that some organisations pretend to have adopted TQM, while in reality they have not. The reason for this is simply image-building and to take advantage of this position. Thus, a limited number of Syrian organisations have been awarded ISO certificates and international quality awards (Albaladejo & Lall, 2004). Most of the Syrian organisations who are involved in implementing quality initiatives have faced significant obstacles which decrease the level of TQM implementation (Al-Ather, 2010; Zaher, 2006).

Research is very fragmented and mostly conceptual regarding the obstacles that hinder TQM implementation in Syrian organisations. According to these small scale and conceptual studies, an unsupportive OC is the major obstacle of TQM implementation in Syria (Zaher, 2006; Tyara et al., 2004). Moreover, a number of

authors found that OC is one of the most significant barriers that contributes to low levels of TQM implementation in some other Arab countries (Youssef & Zairi, 1995; Al-Khalifa & Aspinwall, 2001).

4.9.3 Syrian Culture

Many authors have report that the employee and managerial behaviour and practices in the majority of Arab organisations such as those in Syria are highly influenced by many factors, values, norms and traditions of Arabic culture (Ali, 1989; Abbas, 2005; Branine & Pollard, 2010). There are many factors that influence and shape Syrian culture and influence people's behaviour and practices in general life, and in the workplace and business field. These factors include tribalism; the 'value' system of the nomadic Bedouins of the Arabian Peninsula, which has continued from the pre-Islam period and still persists today (Baali, 2004); Bedouin values and practices; fanaticism (Abbas, 2005), and the Islamic religion (Tayeb, 1997). Al-Zamaney et al. (2002) concluded that quality is a natural consequence of Islamic teaching, and found that there is congruence between the principles of quality management and Islamic values teaching. In addition, many authors and politicians such as Mahathir bin Mohamad consider that there is no conflict between modernisation and Islam **(**Fuller, 2000). However, the real reason for the poor record of modernisation within most Arab countries at the present time is not due to Islam, but due to non-Islamic values and traditions caused by internal and external factors (Abbas, 2005; Baali, 2004; Branine & Pollard, 2010). These norms and values, which are different from Islamic values, have influenced the managerial behaviour and practice of people in the majority of Arab business organisations at the present time (Branine & Pollard, 2010; Rice, 2003).

One of the most important forces that are influencing Arabic culture at the present time is the tribalism and 'value' system of the nomadic Bedouins of the Arabian Peninsula, which has continued from the pre-Islamic period until today (Baali, 2004). This led to a decrease in democratic behaviour and an increase in dictatorship and autocracy in business and organisations (Abbas, 2005). This system is still affecting

people's behaviour at their work place and organisations in most Arab countries. Rice (2003) considers that people in Arabic countries display strong cohesive bonding and commitment to their group. They also place their group, which may include family, the extended family or friends on a higher priority level (Hofstede, 2005). It is reported by many authors such as Kabasakal & Bodur (2002) and Metcalfe (2007) that nepotism is practiced in Arab organisations and institutions.

Additionally, Hofstede (2005) considers that most people in Arab organisations feel uncomfortable without the clearly controlled structure of policies, procedures, and clear rules controlling their behaviour and practices. This results in companies with control-oriented value systems and mechanistic structures. In these organisations, managers and employees most probably refuse any changes because they tend to be afraid of the negative results from the implementing of any new approach, techniques, or models, such as TQM (Hofstede, 2005). Hofestde (2001) found that organisations in Arab countries are highly centralised and bureaucratic and have control-oriented cultures and mechanistic structures, and are more likely to have centralised control over decision-making; managers often make many decisions without consulting their employees, and the employees in these companies are less participative in decision making process and they may feel uncomfortable with making decisions without managerial approval. Therefore, these companies, which have control-oriented cultures and mechanistic structures, are more likely to fail or experience difficulties in the implementation of new management systems such as TQM which require that companies have an organic structure and flexibility-oriented cultures (Tata & Prasad, 1998; Branine & Pollard, 2010).

4.10 Summary

This chapter has explained and justified the research philosophy, approach, and design used in this study. In addition, it has justified sampling and data collection methods employed in the present study. In order to meet the aim and objectives of this study, the current research followed a post- positivist philosophy and hypothetico-deductive approach. The research design adopted in collecting the data

was the cross-sectional design. The current research used semi-structured interviews and questionnaires to collect the primary data. The research questionnaire was pilot tested and then the researcher adopted a probability or random representative sampling technique and delivered the final version of the questionnaire personally to 350 middle managers in SMOs.

Finally, this chapter has given an overview and background information about Syrian culture, the Syrian manufacturing industry, and quality management in Syrian organisations. Based on this information from a Syrian context, this research postulates that the current OC and low level of organisational members' readiness for change may hinder the implementation of TQM in SMOs. However, a comprehensive review of the literature reveals a serious lack of empirical studies on the relationship between OC, IRFC and TQM implementation in the Syrian context. Thus, this study is proposed to examine the influence of OC on TQM implementation and the mediating role of IRFC in the OC-TQM implementation relationship in SMOs.

The next chapter will present the different statistical analysis methods of the collected quantitative data and reports the findings of this analysis.

Chapter Five

Data Analysis and Findings

5.1 Introduction

Chapter four provided a detailed discussion and analysis of the research design and methodology used in this research study. The objective of this chapter is to validate and test the proposed conceptual model and hypotheses presented in chapter 3, in which the researcher proposed to examine the relationships between the dependent variables, independent variables and mediation variables discussed in the previous chapters. In this chapter, the data collected from the questionnaire surveys will be

analysed using Statistical Package for Social Sciences (SPSS) version 16. The analysis will include: reliability and validity testing, descriptive statistical analysis, bivariate statistical analysis tests and multivariate statistical analysis tests.

This chapter is structured as follows: section 5.1 presents a brief introduction to this chapter. The response rate of the questionnaires is presented in section 5.2. The reliability and validity of the questionnaire is tested in the third section. Section 5.4 presents and discusses the descriptive findings for the sample of SMOs in the following order: general information of the survey respondents and their respective organisations; the extent of implementation of TQM practices; the organisational culture profiles for SMOs, and the level of organisational members' readiness of change. Section 5.5 presents the results of the correlation analysis. In section 5.6 multiple regression analysis is used to test the research hypotheses.

5.2 Response Rate

The questionnaire was distributed to 350 middle managers in SMOs. According to the collected data, a total of 204 completed questionnaires were returned from the 350 questionnaires that were distributed. The raw data was recorded with coding and cleaned before the main analysis was conducted and the findings were inferred. This study found only 8 cases of missing data out of 204 samples, which is 2.28% of the total data. Thus, this study found that all missing data was less than 5% of the total data and did not cause problems or make any difference to the outcome of the analysis. Consequently, 8 samples out of 204 were excluded and 196 of 204 questionnaires were deemed usable. This translates into an overall response rate of 58.28%, and the usable response rate was 56%. Table 5.1 (below) presents the response rate.

Table 5.1 The Response Rate

Total questionnaires distributed	350	100%
Total returned questionnaires	204	58.28%
Invalid questionnaires	8	2.28%
Valid questionnaires	196	56%

5.3 Questionnaire Reliability and Validity

5.3.1 Questionnaire Validity

This study checked the content validity and the construct validity of the questionnaire.

- **Content Validity**

Content validity is a judgement, by experts, of the degree to which a question actually measures the concept it was supposed to measure (Karim, 2007). In this study, content validity was checked by (1) determining the variables which have been defined and utilised in the existing literature (Churchill & Iacobucci, 2004). In the current research study, the dimensions of variables were identified from organisational culture, TQM and change management literature; hence, all items were obtained from a previous literature review.

(2) Content validity was checked using 6 experts and academics from Syrian universities. All the experts considered that the questionnaire was appropriate, would achieve the aim of the study, and needed only a little editing. Most of the respondents suggested that two items in the questionnaire must be omitted because these items would be difficult for Syrian managers to understand fully, and were not suitable for

a Syrian organisational context. The proposed questionnaire was then amended according to the feedback and comments from these experts.

(3) A pilot study was conducted with a group of subjects similar to the target population. The researcher conducted a pilot study with middle managers from representative SMOs which resembled the targeted sample. Through the pilot study, the researcher ensured that the questions measured what they were supposed to, and that the questions were interpreted in the same way by all participants. In addition, the questionnaire completion time was estimated, the accuracy of the language used was ensured, and ambiguous statements were removed. A few amendments were made to the first version of the proposed questionnaire following these pre-tests, in order to enhance and make the questionnaire clearer (see chapter 4).

- **Construct Validity**

The validity of each construct was assessed by using Principal Components Factor Analysis (Hair et al., 2006). "A measure has construct validity if it measures the theoretical construct that it was designed to measure" (Samson & Terziovski, 1999, p. 403).

Factor loading designates the strength of the association between the item and the latent construct (Hair et al., 2006). In terms of the value of variable loading for which the variable can be considered a significant maker of the latent factor, there was no agreement in the literature about the appropriate loading value (Field, 2005, Hair, et al., 2006). Nunnally (1978) considers that items with loadings higher than 0.50 on one factor are retained for further analysis, while many other studies such as Gorsuch (1983) and Abdul-Halim & Che-Ha (2009) posit that items with loadings of 0.4 indicates a reasonable and adequate loading and should be retained for consequent analysis.

Field (2005), however, inferred a rule of thumb based on consideration the research sample size for determining the most appropriate loading value. The essence of this rule is as follows: “a research with sample size of 50 needs variable loading of 0.77 or to be considered a significant variable; for 100 samples size needs factor loading of 0.5 or more. For 200 sample size needs loading of 0.364 or more. For 300 sample size needs loading of 0.228”.

In addition, Hair et al. (2010, p. 117) formulated guidelines for identifying the required factor loadings based on sample size. Based on these guidelines, “in sample of 50 respondents, factor loadings of 0.75 or more are needed, while in sample of 100 respondents, factor loadings of 0.55 or more are needed. However, in sample of 150 respondents, factor loadings of 0.54 or more are needed. For 200 sample size needs loading of 0.40 or more”. (For more details see Table I below).

Table I Guidelines for identifying required Factor Loadings Based on Sample Size

Factor Loading	Sample Size Needed
.30	350
.35	250
.40	200
.45	150
.50	120
.55	100
.60	85
.65	70
.70	60
.75	50

Source: Hair et al. (2010, p. 117)

Given the sample size and observations of the current research were 196, the accepted loading value for considering the variable a significant maker of the factor was set at

0.40 or more (Hair, et al., 2010; Field, 2005, Abdul-Halim & Che-Ha, 2009). Thus, it has been decided that items with loadings of less than 0.40 on any factor to be dropped from subsequent analysis.

The results presented in Table 5.2 show that, for each construct (factor), the individual items were well loaded, exceeding 0.45 on their respective construct. All items related robustly to their respective factor. The percentage of total variance explained by all items under each construct factor was above 50%. Therefore, this study concludes that all measures exhibited construct validity and had a unifactorial nature. Similar to the theoretical categorisation, each measure formed a 'solid' single construct and exhibited strong unidimensionality from a statistical perspective.

For example, the loading values for the six items selected to measure TQM were all high ranging, from 0.678-0.874, and they can collectively explain 60.86% of the variance. The findings suggest that TQM shows a strong convergence as measured by its six practices, meaning that TQM practices are implemented in an integrated approach. The lowest loading of 0.455 of the variable "senior management have achieved a high degree of unified purpose throughout our organisation", and thus, it is the least important responsibility of the leaders and top management in Syrian organisations. However, this variable seems to be meaningful as it contributes with other items to form a 'solid' single construct and to explain more than 56% of the variance of "leadership" construct.

Table 5.2 Factor Analysis

	Number of items	Factor loadings	% variance explained
Leadership (led)	7	0.455 - 0.892	56.128
Customer focus (cust)	7	0.593 - 0.830	57.115

People Management (peop)	9	0.540 - 0.913	59.670
Strategic Planning (plan)	7	0.532 - 0.884	56.294
Process Management (proc)	6	0.586 – 0.776	51.116
Information and Analysis (info)	6	0.538 - 0.863	51.661
Total quality management (tqm)	6	0.678- 0.874	60.865
Individual readiness for change (Irfc)	24	0.620 - 0.898	56.279
Group culture (group)	6	0.783 – 0.887	69.244
Adhocracy culture (adhocracy)	6	0.646 - 0.771	50.006
Market culture (market)	6	0.640 - 0.867	61.596
Hierarchy culture (hierarchy)	6	0.601- 0.815	52.709

5.3.2 Questionnaire Reliability

Cronbach's coefficient alpha is one of the most frequently used measures of internal consistency (Bryman & Bell, 2011, Saunders et al., 2012). The majority of authors consider that Cronbach's alpha should not drop below 0.7, and that an alpha value of 0.7 or more signifies reliable measures (de Vaus, 2002; Pallant, 2005). Cronbach's coefficient alpha measure was used to estimate the degree of the internal consistency of each construct.

Table 5.3 Cronbach's Coefficient Alpha Test Results

Scale	Number of scale items	Items for Deletion	Cronbach Alpha value
Leadership	7	-	.820
People Management	9	-	.790
Customer Focus	7	-	.768

Strategic Planning	7	-	.808
Process management	6	-	.717
Information and Analysis	6	-	.787
TQM	6	-	.847
Group culture	6	-	.839
Adhocracy culture	6	-	.759
Market culture	6	-	.831
Hierarchy culture	6	-	.706
Individual readiness for change	24	-	0.959

The results of the analysis in Table 5.3 show that all the scales have a high reliability, and the values of Cronbach's alpha derived for the constructs range from 0.706 to 0.959. Therefore, the instrument developed for measuring organisational culture types, level of readiness for change, and level of implementation of TQM practices was considered to be reliable. Overall, the scales used in this study were found to have adequate reliability and validity, and were consequently employed in the hypotheses testing.

5.4 Descriptive Statistics

This section presents a descriptive analysis of the survey questionnaire. It aims, therefore, to achieve the first, second and third objectives of this study, namely to document the level of implementation of TQM practices, the level of readiness for change, and the organisational culture profiles for SMOs. In addition, it provides some background information about the individual respondents who filled in the questionnaires, and their respective organisations (see Table 5.4).

Table 5.4 Background Information about the Companies and Respondents

Profiles of respondents and organisations	Frequency	Percent
Respondents' age		
<20 years	-	0%
(20-30) years	51	26 %
(31-40) years	82	41.83%
(41-50) years	40	20.4%
>50 years	23	11.7%
The highest education level of the respondents		
Below secondary school	16	8.16
Secondary school	58	29.59
Bachelor's degree/ Undergraduate degree	94	47.95
Diploma degree	14	7.14
Master's degree	10	5.10
Doctorate	4	2.04
Respondents' work experience		
(1-5) years	12	6.1%
(6-10) years	18	9.18%
(11-15) years	45	23%
(16-20) years	79	40.3%
(21-26) years	27	13.77%
(26-30) years	9	4.59%
>30 years	6	3.06%

The respondents' work positions		
Production managers	153	78.57%
Operations managers	12	6.1%
Quality managers	17	9.1%
Other work positions	14	7.6%
The ownership of the organisations		
Public	38	19.4%
Private	158	80.6%
Holding ISO certification		
ISO certified companies	32	16.32%
Non- ISO companies	164	83.67%

5.4.1 Profiles of Respondents and Companies

The characteristics of the sample are summarised in Table 5.4. With regard to respondents' work positions, 78.57% of the respondents were production managers, 6.1% were operations managers, 9.1% were quality managers, and 7.6% of the respondents held other work positions, as shown in Figure 5.1 and Table 5.4.

Figure 5.1: The respondents' work positions

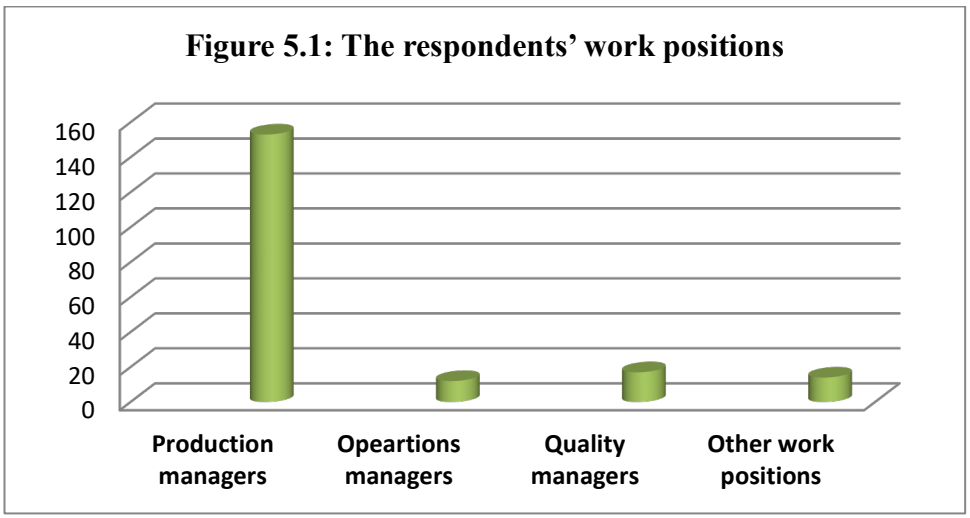
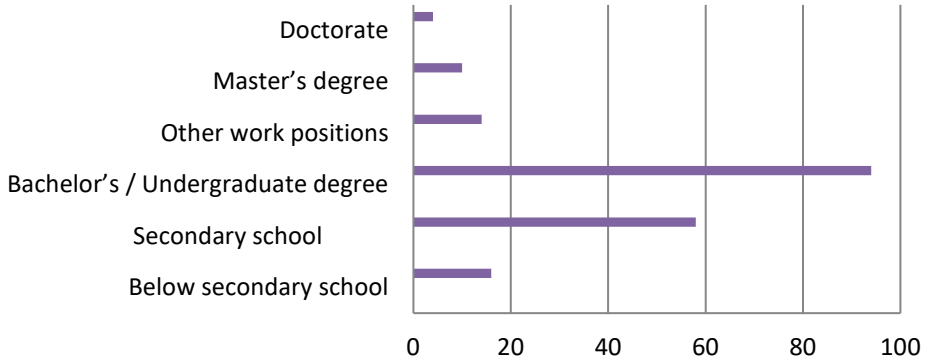


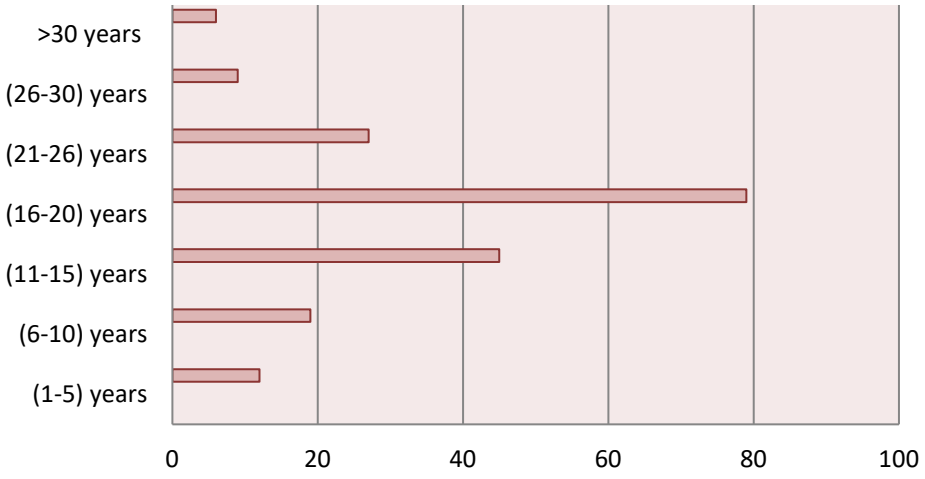
Table 5.4 and Figure 5.2 show that the educational level of the respondents is classified into fife categories: (1) secondary school certificate (29.59%), (2) undergraduate certificate (47.95 %), (3) postgraduate diploma certificate (7.14 %), (4) Master's degree certificate (5.10 %) and (5) doctorate degree (2.04 %). It was concluded that 62.24% of the participants had at least a bachelor's degree, supporting the credibility of the collected data.

Figure 4.2: The highest education level of the respondents



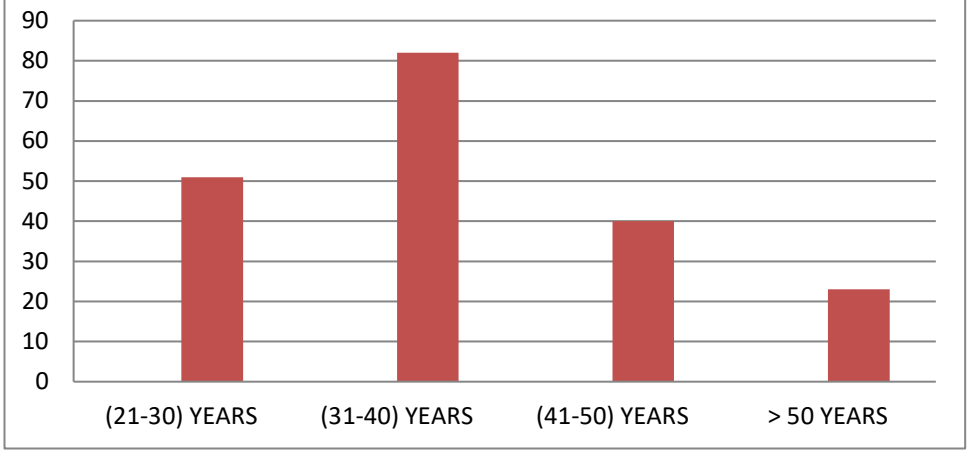
Regarding the respondents' experience, Figure 5.3 and Table 5.4 illustrate that 93.9% of the respondents had more than 10 years of experience, 84.72% of the respondents had more than 10 years of experience, while 61% had more than 15 years work experience, which supports the reliability of the collected data.

Figure 5.3: Respondents' work experience



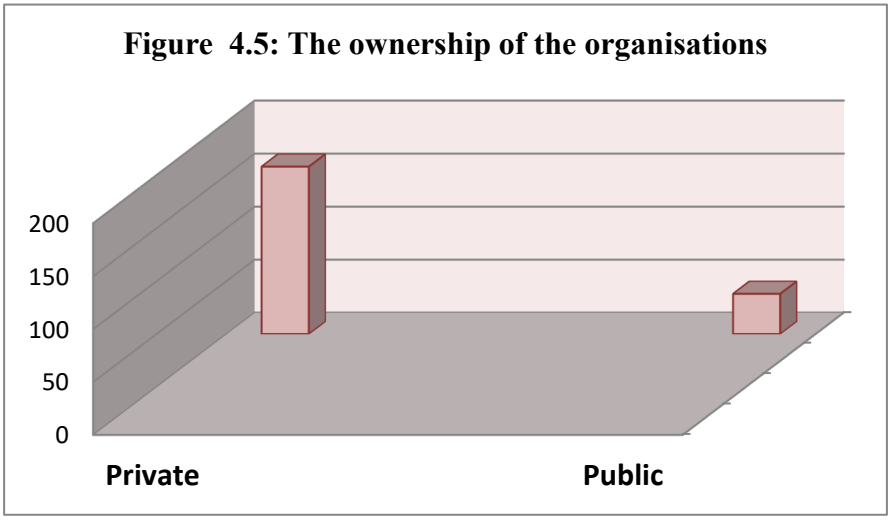
With regard to the respondents' ages, 26% were aged between 20 and 30 years old, 41.83% were aged between 30 and 40 years old, 20.4% were aged between 40 and 50 years old and only 11.7% were aged 50 years or above, as shown in Figure 5.4 and Table 5.4.

Figure 5.4: Respondents' age



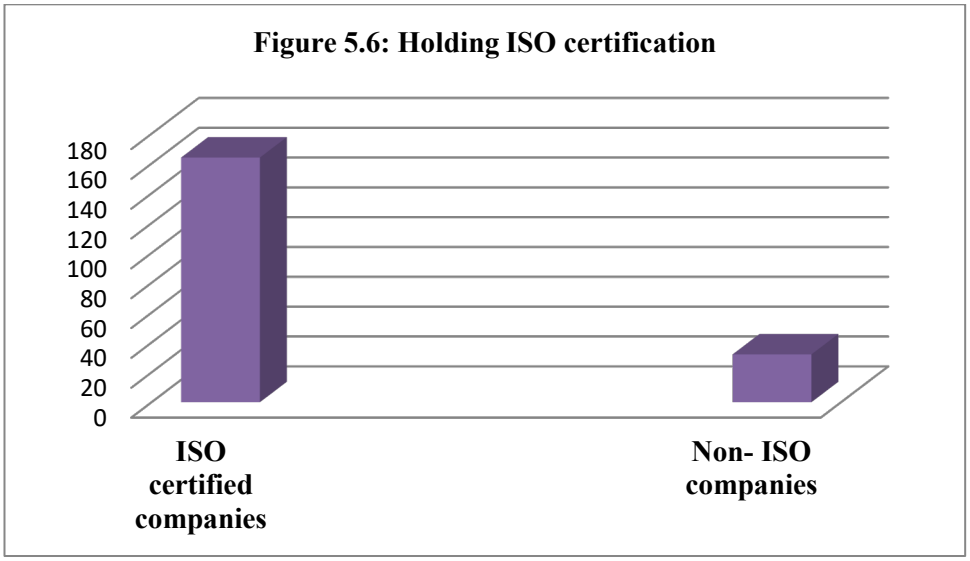
In relation to the ownership of the organisations, the majority of the respondents (80.6%) were from private organisations, and the remainder were from public organisations, as shown in Figure 5.5 and Table 5.4.

Figure 4.5: The ownership of the organisations



Of the 196 respondent participants, only 16.32% said that their organisations were certified for ISO 9000, as illustrated in Table 5.4 and Figure 5.6. This result seems to be consistent with the conclusions of many research studies such as Albaladejo and Lall (2004) who found that a limited number of SMOs have been awarded ISO certificates.

Figure 5.6: Holding ISO certification



5.4.2 The Organisational Culture Profiles

The completion of OCAI provided a picture of the organisational culture profiles of the SMOs. Table 5.5 shows the current dominant culture types of the SMOs. It is evident that the OCs in the majority of SMOs tended to have a mixture of the four culture types of the CVF instrument. However, hierarchy culture and market culture were the dominant OC types in the SMOs studied.

Table 5.5 The Overall Organisational Culture Profile for SMOs

Organisational culture dimensions	Organisational culture types			
	Group	Adhocracy	Market	Hierarchy

Dominant characteristics of the organisation	2.26	2.30	2.86	3.00
Leadership style	2.09	1.99	2.75	2.83
Management of employees	2.39	2.44	2.98	2.87
Organisational glue	2.23	1.98	2.89	3.01
Strategic emphasis	2.33	2.15	2.65	2.75
Criteria of success	2.45	2.12	2.75	3.26
Overall organisational culture profile (average of the six dimensions)	2.29	2.16	2.81	2.95

A t-test was conducted to investigate whether there were any differences across sectors and between ISO and non-ISO organisations in relation to the organisational culture profiles. Table 5.6 presents t-test analyses for differences in the score of organisational culture types across sectors, while table 5.7 presents t-test analyses for differences in relation to cultural profile between ISO and non-ISO organisations.

Table 5.6 T-Test for Public and Private Organisations in Relation to Cultural Profile

	Organisation	Means	SD	T value	P
Group	Public	2.0614	.51759	-2.209	.006

	Private	2.3534	.77340	-2.805	
Market	Public	3.4167	.78150	4.803	.000
	Private	2.6762	.86944	5.128	
Adhocracy	Public	2.0702	.53501	-1.017	.237
	Private	2.1930	.69665	-1.193	
Hierarchy	Public	3.3509	.66980	3.695	.000
	Private	2.8608	.74840	3.956	

From tables 5.6 and 5.7, the results of the t-tests show that there were significant differences for both the group culture and hierarchy culture scores in terms of ownership and ISO registration. Companies in public sector had higher scores in hierarchy culture; i.e. this type of culture was more dominant in the public sector than in the private one. This was expected, since the characteristics of hierarchy culture lean more towards formal rules and an emphasis on stability, which is more common in public organisations than private organisations. This may be due to the level of government involvement, which has more emphasis on the hierarchical type of culture. However, although the scores of hierarchy culture types differ, they were still rated relatively highly in all SMOs.

Companies in the public sector had higher scores in market/rational culture; i.e. this type of culture was more dominant in the public sector than in the private one. In contradiction, the group culture type was more dominant in private organisations, especially ISO-certified companies. However, although the scores of the market culture type differ, they were still rated relatively high in all SMOs. Additionally, even though the scores of the group culture type differ in terms of ownership and ISO registration, they were still rated as relatively low in both public and private sector organisations. This was expected, since the characteristics of rational/market culture, such as being more concerned with getting the job done with less confederating and cares for the morale and development of the human resources, is more common in all SMOs.

Table 5.7 T-Test for ISO and Non ISO Organisations in Relation to Cultural Profile

	Organisation	Means	SD	T value	P
Group	Non ISO	2.2480	.76843	-2.112	.007
	ISO	2.5469	.50131	-2.793	
Market	Non ISO	2.8699	.90632	1.777	.067
	ISO	2.5625	.83575	1.877	
Adhocracy	Non ISO	2.1372	.68555	-1.522	.086
	ISO	2.3333	.55681	-1.751	
Hierarchy	Non ISO	3.0041	.76431	2.036	.032
	ISO	2.7083	.67997	2.204	

5.4.3 The level of Individual Readiness for Change in SMOs

The mean score for IRFC was 2.36, thus, it is clear that organisational members in SMOs reported low levels of readiness for change, and that they held a negative attitude towards TQM implementation. In order to determine whether the level of readiness for change varied between public and private organisations, and between ISO and non-ISO organisations, a t-test was conducted. Table 5.8 presents t-test analyses for differences in the level of readiness for change across sectors, while Table 5.9 presents t-test analyses for differences in the level of readiness for change between ISO and non-ISO organisations.

Table 5.8 T-Test for ISO and Non ISO Organisations in Relation to the Level of IRFC

	Organisation	Means	SD	T value	P
IRFC	Non ISO	2.3351	.78092	-1.989	.020
	ISO	2.6250	.59240	-2.392	

Table 5.9 T-Test for Public and Private Organisations in Relation to the Level of IRFC

	Organisation	Means	SD	T value	P
IRFC	Public	2.0968	.49031	-2.620	.001
	Private	2.4511	.79725	-3.483	

The t-test shows that there is a significant difference in the level of readiness for change between public and private organisations on one side, and between ISO and non-ISO organisations on the other side. Although the level of IRFC appears to be low in all types of organisations, however, as Tables 5.8 and 5.9 show, there is a relatively higher level of IRFC in the private sector, particularly amongst ISO organisations. This means that the level of readiness for change is slightly higher in the private sector, especially amongst ISO-certified companies, than it is in organisations belonging to the public sector.

5.4.4 The Level of TQM Implementation

Black and Porter (1996) considered that the overall level of implementation of TQM in an organisation is drawn from the average scores for all the constructs and practices in the measurement instrument. In relation to the level of implementation of TQM practices in SMOs, Table 5.10 illustrates the mean score of each TQM practice and the average score of all the practices, which represents the overall level of the implementation of TQM practices. It shows that all six practices have a mean range from 2.36 to 2.41 on a 5 point Likert scale. Human resource focus and management gave the highest overall mean rating of 2.41 on the 1-5 scale, with customer focus (2.36) and information and analysis (2.36) being the lowest. All the other factors

scored in the low range of implementation. These were: leadership (2.39), strategic planning (2.40), and process management (2.37). The overall mean of all of the TQM practices achieved was 2.38. Since the rating scale used ranged from 1-5, it was concluded that the average score of TQM implementation in SMOs fell within the low level of TQM implementation.

Table 5.10: The Level of Implementation of TQM in SMOs

TQM practices	Mean	SD
Leadership	2.39	0.69
People management	2.41	0.58
Customer focus	2.36	0.61
Strategic planning	2.40	0.63
Process management	2.37	0.61
Information and analysis	2.36	0.65
Overall level of TQM implementation	2.38	0.49

In order to determine whether the level of implementation of TQM practices varied between public and private organisations on the one side, and between ISO and non-ISO organisations on the other side, a t-test was conducted on the individual elements. Table 5.11 presents the analysis of the t-test for differences in the level of TQM implementation across sectors. Table 5.12 presents t-test analyses for differences in the level of TQM implementation between ISO and non-ISO organisations.

Table 5.11 T-Test for Public and Private Organisations in Relation to the Level of TQM Implementation

	Organisation	Means	SD	T value	P
Leadership	Public	2.1466	.42076	-2.525	.001
	Private	2.4584	.73182	-3.475	

People Management	Public	2.1257	.53889	-3.484	.001
	Private	2.4824	.57301	-3.618	
Customer Focus	Public	2.1504	.48240	-2.474	.005
	Private	2.4213	.63188	-2.913	
Strategic Planning	Public	2.0338	.25171	-4.215	.000
	Private	2.4946	.66140	-6.918	
Process Management	Public	2.1667	.50374	-2.334	.010
	Private	2.4219	.62691	-2.666	
Information and Analysis	Public	2.1316	.46201	-2.540	.002
	Private	2.4272	.68018	-3.198	
Overall level of TQM implementation	Public	2.1258	0.2849	-3.743	.000
	Private	2.4510	0.5162	-5.259	

In general, the results of t-test showed that there was a significant difference in most of the TQM practices between public and private organisations on one side, and between ISO and non-ISO organisations on the other side. Although the level of TQM implementation appeared to be low in all types of organisations, however, as Tables 5.11 and 5.12 show, there was a relatively higher level of implementation of TQM practices in private sector organisations, and particularly ISO organisations. This means that the level of TQM implementation was slightly higher in the private sector, and especially organisations with ISO 9000 registration, than it was in organisations belonging to the public sector and those not registered for ISO 9000. However, it should be noted, that although these scores differ, they still rated relatively low.

Table 5.12 T-Test for ISO and Non ISO Organisations in Relation to the Level of TQM Implementation

	Organisation	Means	SD	T value	P

Leadership	Non ISO	2.3510	.68619	-2.166	.036
	ISO	2.6384	.68750	-2.163	
People Management	Non ISO	2.3747	.58305	-2.119	.032
	ISO	2.6111	.54725	-2.211	
Customer Focus	Non ISO	2.3240	.62161	-2.336	.012
	ISO	2.5982	.52513	-2.617	
Strategic Planning	Non ISO	2.3659	.63321	-1.995	.041
	ISO	2.6071	.58509	-2.105	
Process Management	Non ISO	2.3120	.57916	-3.203	.007
	ISO	2.6823	.68960	-2.848	
Information and Analysis	Non ISO	2.3201	.56360	-2.446	.093
	ISO	2.6250	.96628	-1.728	
Overall level of TQM implementation	Non ISO	2.341	0.474	-3.040	.003
	ISO	2.627	0.543	-2.774	

5.5 Correlation Analysis

A correlation analysis procedure was conducted with the use of Pearson correlation. Correlation analysis is used to describe the "strength and direction of the linear relationship between two variables" (Pallant, 2005, p.121). It provides an initial evaluation to see if the variables are related to one another. Table 5.13 presents the correlation coefficients between organisational culture types, IRFC and TQM implementation. The Pearson correlation coefficients indicate that all constructs are significantly related to each other at 0.05 and 0.01 significance level.

The correlation coefficients show that IRFC had a strong and positive influence on TQM implementation, which is in accordance with the H2 hypothesis. In addition, the

Pearson correlation coefficients show that IRFC was significantly and positively correlated with group and adhocracy culture types. The results indicate that the hypotheses H3a and H3d are supported with significant positive correlations. In contrast, market culture and hierarchy culture were found to have negative and significant influences on IRFC, which is in accordance with the H3b and H3c hypotheses. In the same manner, a strong and positive correlations coefficient has been found between TQM and two of the OC types, namely group culture and adhocracy culture. The results indicate that the hypotheses H1a and H1c are supported with significant positive correlations. In contrast, hierarchy culture and market culture types were found to have a negative influence on TQM implementation, which is in accordance with the H1b and H1d hypotheses. The results of the analysis have further indicated that the highest correlations coefficients have been found between adhocracy culture and TQM implementation constructs in which the value of the correlation coefficient (r) is 0.428 ($p < 0.001$).

Table 5.13 Correlation between Constructs

	hierarchy	market	adhocracy	group	IRFC	tqm
hierarchy	1					
market	.684**	1				
adhocracy	-.157*	-.175**	1			
group	-.182**	-.154*	.099	1		
IRFC	-.122*	-.181**	.183**	.308**	1	
tqm	-0.237**	-0.233**	0.428**	0.310**	0.557**	1

* Correlation is significant at the 0.05 level

** Correlation is significant at the 0.01 level

Although correlation is a very useful research tool, it tells us nothing about the predictive power of variables (Field, 2009). In addition, a series of such correlation analysis could overstate and exaggerate the apparent overall explanatory power of a group of independent variables. Thus, this study conducted more sophisticated and advanced analysis using multiple regressions to overcome the aforementioned weaknesses. A series of multiple regressions were carried out to seek additional evidence, and to examine in greater depth the influence of OC types on IRFC/TQM implementation. This helped to determine the most important variables (culture values) that organisations should emphasise in order to increase the level of IRFC and TQM implementation.

5.6 Multiple Regression

Multiple regression analysis is a multivariate statistical technique which examines the association between a single dependent variable and a set of independent variables simultaneously (Hair et al., 2006). Implementing multiple regression analysis decreases the likelihood of overstating the apparent overall explanatory power of a set of independent variables which may occur using a series of correlation analyses (Patton & Zelenka, 1997). Multiple regression models are used to predict the value of the dependent variable from one or more independent variables (Field, 2009). This helps to determine the individual contribution of each independent variable, and whether or not its contribution is significant in explaining the variance in the dependent variable. In addition, it enables the researcher to find out which are the variables that have the highest predictive and explanatory power over the dependent variable.

Many authors such as pallent (2005) consider multiple linear regression as the best analytical tool when dealing with continuous variables, while logistic regression is the best analysis when dealing with dichotomous variables. Due to the nature of the survey research study, which comprised continuous dependent variables (scale) along with continuous independent variables and continuous mediating variables, it was found that multiple linear regression analysis would best suit the current research.

A series of regression analyses were performed to investigate the proposed relationships among organisational culture, individual readiness for change, and TQM implementation. Table 5.14 summarises the results of these analyses. Appendix D presents in detail the empirical findings that were derived from regression analysis. All the regression models tested have met validity requirements and no problems were detected. Thus, the models that were derived from the sample could be accurately applied to the population of interest (Field, 2006). Regarding multicollinearity statistics, the variance inflation factor (VIF) values of the independent variables for all models was less than the maximum level of 10, and the Tolerance (TOL) value in all models was higher than the minimum level of 0.2. These statistics indicated no multicollinearity problem existed among the independent variables in all the models.

Thus, multicollinearity was not a problem (Myers, 1990; Hair et al., 2006; Meyers et al., 2006; Callaghan & Chen, 2008).

Another important requirement was to ensure the linearity of the regression models. The linearity of the relationship between dependent and independent variables represents the degree to which the change in the dependent variable is associated with the independent variables (Hair et al., 2006). In this study, Pearson's correlations were employed to measure the linearity. The findings of this showed that all the dependent variables significantly correlated with the independent variables, and that all the variables were linear with each other. Thus, the linearity test supported the appropriateness of the regression models.

The maximum number of variables used in the models (each model) was 5 variables with a sample size of 196 respondents. As a result, the ratio of cases to variables was 39.2 to 1. This ratio is above the minimum level of 5 to 1 and the desired level of 20 to 1 (Bryman & Cramer, 2009). Thus, this ratio had a positive influence on the appropriateness and the statistical power of multiple regressions, and was also considered suitable for achieving generalisability of the findings. In addition, the overall models tested were highly statistically significant (F-value significant on a 1 % level), which means all the reported models were reliable. Consequently, the regression models provided an acceptable prediction of the dependent variables.

5.6.1 The Direct Influence of Organisational Culture Types on TQM Implementation

In chapter three, four hypotheses were proposed to assess the effect of organisational culture types on TQM implementation.

H1a: An organisation's emphasis on the group culture will be positively associated with the level of implementation of TQM.

H1b: An organisation's emphasis on the hierarchy culture will be negatively associated with the level of implementation of TQM.

H1c: An organisation's emphasis on the adhocracy culture will be positively associated with the level of implementation of TQM.

H1d: An organisation's emphasis on the market culture will be negatively associated with the level of implementation of TQM.

The researcher used multiple regression analysis to test the direct effects of OC types on TQM implementation. As Table 5.14 (Model 1) shows, adhocracy culture (β= 0.378, $p< 0.001$) and group culture (β= 0.246, $p< 0.001$) were found to have a positive and significant effect on TQM implementation. These results strongly support the research hypotheses numbers H1a and H1c. However, the effect of market culture and hierarchy culture were not found to be significant; thus, H1b and H1d are not supported. These findings show that adhocracy and group culture types were the most influential culture types in TQM implementation. They made the most important contribution to explaining the variation in TQM implementation. Of the two significant independent variables, adhocracy culture was the more important variable in explaining the variation in TQM implementation, as it had the highest Beta value, followed by group culture. Thus, the regression analysis supported the correlation analysis results of a significant positive association between adhocracy culture/group culture and TQM implementation.

However, the regression analysis indicated that market culture and adhocracy culture, reported by correlation analysis to have a significant negative association with TQM, were not significantly associated with TQM implementation. This finding may have been due to the fact that bivariate statistics are not as accurate as multivariate statistics. It appears that in the presence of group and adhocracy culture types, which have a strong impact on TQM implementation, hierarchy and market culture types lose their effect and become relatively less significant. Thus, they are the least influential culture types in TQM as compared to the other OC types, i.e., group and adhocracy culture types.

Lastly, the model explained about 27.5% of the variance in TQM implementation. In other words, 27.5% of TQM implementation was explained by the combined effect of organisational culture types. It is normal to have such a low value of adjusted R squared in regression analysis (Abdel-Maksoud, 2003, Sharma, 2006). Like the findings of Sahrma (2006), a low value of R squared and adjusted R-square (0.275) in Model 1 is may be due to the low level of TQM implementation in SMOs and unsupportive OC. Moreover, this small R squared indicates that other factors are involved in explaining the variation in TQM implementation (Hutaibat, 2005). For example, the inclusion of the IRFC variable in model 3 increased the adjusted R-square (0.451), and thus, 45% of TQM implementation was explained by the combined effect of organisational culture types and IRFC. In other words, the inclusion of the IRFC variable added good value to the explanation of TQM implementation.

5.6.2 The Direct Influence of Organisational Culture Types on IRFC

As mentioned in chapter three, four hypotheses were proposed to assess the effect of organisational culture on IRFC.

H3a: An organisation's emphasis on the group culture will be positively associated with the level of individual readiness for change

H3b: An organisation's emphasis on the market culture will be negatively associated with the level of individual readiness for change.

H3c: An organisation's emphasis on the hierarchy culture will be negatively associated with the level of individual readiness for change.

H3d: An organisation's emphasis on the adhocracy culture will be positively associated with the level of individual readiness for change.

Multiple regression analysis was conducted to examine the influence of organisational culture types on IRFC. The results in Table 5.14 (Model 2) show that adhocracy culture ($\beta = 0.142$, $p < 0.05$) and group culture ($\beta = 0.288$, $p < 0.001$) had a positive and

significant effect on IRFC, whereas market culture had a negative and significant effect on IRFC (β= -0.190, p< 0.05). These results support hypotheses H3a, H3b and H3d. The effect of hierarchy culture on IRFC was not found to be significant; thus, H3c is not supported. Thus, unlike the correlation analysis, the regression analysis did not report a significant negative association between hierarchy culture and IRFC. However, the regression analysis supported the correlation analysis result of a significant positive association between group culture/adhocracy culture and IRFC, as well as a significant negative association between market culture and IRFC. The variables in Model 2 explain 14% of the total variance in IRFC.

5.6.3 The Influence of IRFC on TQM Implementation

In chapter three, one hypothesis was proposed to assess the effect of individual readiness for change on TQM implementation:

H2. The level of IRFC has a positive influence on the level of implementation of TQM.

The results in Table 5.14 (Model 3) show that IRFC (β= 0.557, p< 0.001) had a positive and significant effect on TQM implementation. This result supports H2.

5.6.4 The Mediating Effect of IRFC

Four hypotheses were proposed in chapter three to assess the mediating role of individual readiness for change in the relationship between OC and TQM implementation.

H4a: IRFC mediates the effect of group culture on TQM implementation.

H4b: IRFC mediates the effect of hierarchy culture on TQM implementation.

H4c: IRFC mediates the effect of adhocracy culture on TQM implementation.

H4d: IRFC mediates the effect of market culture on TQM implementation.

This study followed Baron and Kenny's (1986) procedure to examine the mediating role of IRFC between OC and TQM. The first step was to test the direct relationship between the independent variable (OC) and the dependent variable (TQM) in order to establish that there was an effect that may be mediated. The preceding analysis demonstrated that only adhocracy and group culture types affect TQM significantly (see the results of Model 1 in Table 5.14). Thus, the test of the indirect effects of group and adhocracy culture types met Baron and Kenny's (1986) first test condition. Recall that hierarchy culture and market culture were found not to be significantly related to TQM implementation. Testing for mediation for these variables would violate Baron and Kenny's (1986) first test condition.

The second step was to ensure that the independent variable (OC) influenced the mediator (IRFC). The preceding analysis showed that adhocracy and group culture types affected IRFC significantly (see the results of Model 2 in Table 5.14). Thus, the condition for Step 2 was met.

The third step was to ensure that the mediator variable had an impact on the dependent variable. When IRFC was entered into Model 3 (Table 5.14), it showed a positive and significant effect on TQM implementation. Thus, the condition for step 3 was met.

The fourth step was to conduct multiple regression analysis to include the mediator in the model in order to assess the mediating role of IRFC in the relationship between group culture/adhocracy culture and TQM implementation. The inclusion of IRFC into Model 3 led to a decrease in the effect size (i.e. strength) of group culture (from $\beta = 0.246$ to $\beta = 0.114$) and of adhocracy culture (from $\beta = 0.378$ to $\beta = 0.312$) on TQM implementation, but both remained significant, suggesting partial mediation. The influence of group culture and adhocracy culture on TQM implementation was merely reduced, and not eliminated, when the mediator (IRFC) was included in the model. These results are consistent with Baron and Kenny's (1986) partial meditational conditions.

Thus, in this study, IRFC can be described as having been a partial mediator in the relationship between group culture/adhocracy culture and TQM implementation. These results indicate that group culture and adhocracy culture affected TQM implementation indirectly through their effects on IRFC, in support of H4a and H4c but not of H4b and H4d. Thus, group culture and adhocracy culture exerted some of their influences on TQM implementation via IRFC (mediating variable), and they exerted some of their influence directly and not via IRFC.

Recall that market culture and hierarchy culture were found to be unrelated to TQM implementation. Testing for mediation for these variables would have violated Baron and Kenny's (1986) first test condition. However, many recent studies have considered that this limitation may be relaxed without obstructing the validity of the mediation analysis (see Preacher & Hayes, 2004, p. 719). In particular, Sobel's (1982) test facilitates the investigation of indirect influence for independent variables, regardless of the significance of their total influence on the dependent variable. After conducting the Sobel test, the results were not found to support an indirect effect of hierarchy culture on TQM implementation via IRFC, thus, H4b was not supported. However, Sobel's test indicated significant, indirect effects of market culture on TQM implementation via IRFC ($Z=-1.97$, $P<0.05$), in support of H4d.

In Model (3), the three variables accounted for 45.1% of the total variance in TQM implementation. The adjusted R-square (0.451) was higher than the 0.275 of Model 1 indicating that the inclusion of the IRFC variable added good value to the explanation of TQM implementation. In addition, the overall models tested were statistically significant (F-value significant on 1% level).

Table 5.14 Summary of the Results of the Regression Models

		Unstandardized Coefficients		Standardized Coefficients	T- test	Sig	TOL	VIF	Model Summery
		B	S.E	Beta					
Model 1: Dependent Variable: TQM	group	.246	.063	.246	3.918	.000	.961	1.04	Sig of F= .000
	adhocracy	.378	.063	.378	6.020	.000	.962	1.03	
	hierarchy	-.083	.085	-.083	-.976	.330	.525	1.90	Adjusted R^2 = .275
	market	-.072	.085	-.072	-.853	.395	.527	1.89	
Model 2: Dependent Variable: IRFC	group	.302	.072	.288	4.181	.000	.959	1.04	
	adhocracy	.149	.072	.142	2.070	.040	.961	1.04	Sig of F= .000
	hierarchy	.121	.097	.115	1.236	.218	.524	1.91	
	market	-.198	.097	-.190	-2.045	.042	.527	1.89	Adjusted R^2= .138
Model 3: Dependent Variable: TQM	group	.115	.058	.114	1.990	.048	.878	1.13	
	adhocracy	.313	.056	.312	5.610	.000	.940	1.06	Sig of F= .000
	hierarchy	-.136	.075	-.136	-1.814	.071	.519	1.92	
	market	.014	.075	.014	.185	.853	.516	1.93	Adjusted R^2 = .451
	Irfc	.435	.056	.455	7.835	.000	.862	1.16	

5.7 Conclusion

In conclusion, the second part of this chapter has documented descriptive information about the sample of SMOs. The results reported in this chapter have revealed that the hierarchy culture and market culture types were the dominant OC types in SMOs. The findings further indicated that organisational members in SMOs reported low levels of readiness for change, and that they held a negative attitude towards TQM implementation. Additionally, the findings of this study showed that the level of successful implementation of TQM in SMOs was low.

The scales used in this study were found to have adequate reliability and validity and were consequently employed in the hypotheses testing. This chapter has reported the hypotheses testing findings using multiple regression analysis and Baron and Kenny's (1986) procedure. The findings of this study indicated that the level of IRFC had a direct influence on the level of implementation of TQM. In addition, the findings of this study showed that the level of IRFC was positively influenced by the group and adhocracy culture types. It was also found that the group and adhocracy culture types positively influenced the implementation of TQM, and that they were the most supportive culture types for TQM implementation.

Moreover, the findings showed support for the mediating effect of IRFC on the relationship between OC types and TQM implementation. Thus, the results strongly supported most of the research hypotheses developed in chapter three. The following chapter will present a more detailed discussion of the findings.

Chapter Six

Discussion of Findings

6.1 Introduction

While the findings of the data analysis in relation to the research questions, aims and objectives were presented in the previous chapter, in this chapter the findings will be discussed in more detail. The discussion of this chapter proceeds by, firstly, a discussion of descriptive findings will be presented in section 6.2. Secondly, an in-depth discussion of the hypotheses testing findings will be provided sequentially, in accordance with the framework presented in chapter three. It starts with a discussion of the findings related to the direct influence of the OC on TQM implementation in section 6.3.1. Section 6.3.2 continues with the discussion of the findings related to the effect of OC on individual readiness for change. This is followed by a discussion of findings related to the influence of Individual Readiness for Change (IRFC) on TQM implementation in section 6.3.3. In addition, in section 6.3.4, the findings related to the mediating role of IRFC in the OC-TQM implementation relationship will be discussed. Section 6.4 will present a summary of hypotheses testing results, and a reflection on the hypotheses in relation to the proposed conceptual framework. The chapter will conclude with a summary in section 6.5.

6.2 Discussion of Descriptive Findings

The findings of this study have shown that the level of implementation of TQM practices in the Syrian Manufacturing Organisations (SMOs) is very low. This result supports the previous argument in section 2.5.2, which showed that some organisations pretend to have adopted and implemented TQM, while in reality they have not done so (Van der Wiele and Brown, 1998).

The level of TQM implementation is slightly higher in the private sector, especially amongst organisations with ISO 9000 registration, compared with public sector organisations and those not registered for ISO 9000. However, it should be noted that although these scores differed, they still rated relatively low. This finding is consistent with the argument and findings of many studies which have stated that TQM has a broader scope than ISO 9000 certification. That is, ISO is not considered a proxy and substitute for TQM, but rather is the first step towards TQM (Kujala, 2002; Youssef & Zairi, 1995). According to Zairi (1996, p. 420), "ISO 9000 is only a licence to practice and only represents one pillar of the TQM philosophy. It is an essential element but not sufficient on its own". Nevertheless, the majority of SMOs seek certification and introduce ISO 9000 to their organisation mainly for marketing purposes, not as a useful stepping stone towards TQM (Tayara et al., 2007).

It was found that the OCs in the majority of SMOs tended to have a mixture of the four culture types of the CVF instrument. However, hierarchy culture and market culture were the dominant OC types in SMOs. This supports the argument of Quinn and Kimberly, who found that 'no organisation is likely to reflect only one (value system). Instead 'we would expect to find combinations of values, with some being more dominant than others' (Quinn and Kimberly, 1984, cited in Dellana and Hauser, 1999). The characteristics and values of hierarchical and market culture types are overemphasised in SMOs. In these organisations, there are formal and highly complex rules, policies, procedures and relationships, which members of the organisations must follow. In addition, these organisations do not encourage innovation and creativity. The organisation's members work according to fixed rules. They do not have the opportunity to change and innovate, in order to achieve continuous improvement and thereby achieve improved customer satisfaction, which is embodied in TQM. A large number of senior managers support this hierarchy culture in the majority of SMOs. The hierarchy culture gives them authority and power over the other employees in the organisations; thus, the organisational members do not query the aptitude and methodology adopted by the organisation's leaders.

The major focus of the managers of these organisations is to get the work done and to achieve the biggest market share and profit in the shortest time, with less confederating and caring about the morale and development of the human resources in the organisation.

Therefore, the majority of SMOs were biased towards hierarchy and market/rational culture types, rather than adhocracy and group ones which formed the ideal culture types for TQM implementation, as identified by the quality experts (Al-Khalifa & Aspinwall, 2001; Chang & Wiebe, 1996). Therefore, there is an indication that the existing organisational culture in SMOs is one of the main barriers which decreases the likelihood of successful implementation of TQM.

6.3 Discussion of the Hypotheses Testing Findings

6.3.1 The Direct Influence of OC on TQM Implementation

This section provides a discussion of the empirical findings relating to the impact of OC on TQM implementation in comparison with the established literature in this area. The results of this study, derived from multiple regression analysis, show that group and adhocracy culture types have a positive and significant impact on the successful implementation of TQM in SMOs. Thus, the following hypotheses were supported in this study:

- *H1a:* An organisation's emphasis on the group culture will be positively associated with the level of implementation of TQM.
- *H1c:* An organisation's emphasis on the adhocracy culture will be positively associated with the level of implementation of TQM.

Thus, the results of this study show that, in comparison with other CVF culture types, group culture and adhocracy culture are the most supportive culture types for TQM implementation. This aligns with the findings of many other research studies, such as

Chang and Wiebe (1996), Dellana and Hauser (1999) and Al-Khalifa and Aspinwall (2001), by verifying the significance of group and adhocracy culture types, as they offer a more conducive setting for a successful TQM implementation. This indicates that organisations dominated by group and adhocracy culture types enable a higher likelihood of successful TQM implementation. In other words, by emphasising the adhocracy culture and group culture values, the organisation is more likely to develop a supportive environment for TQM implementation. These findings provide support for the notion that organisations that value teamwork, cohesion, employee involvement, human resource development, flexibility, creativity and innovation are able to implement TQM practices better than organisations that do not focus on these values (Chang & Wiebe 1996; Dellana & Hauser 1999; Al-Khalifa & Aspinwall 2001; Gimenez-Espin et al., 2012).

The findings of this study did not report a significant negative influence of hierarchy culture on TQM implementation. Thus, the following hypothesis was not supported:

- *H1b. An organisation's emphasis on the hierarchy culture will be negatively associated with the level of implementation of TQM.*

The above findings indicate the lack of significance of hierarchical culture for TQM implementation success. This provides support for the conclusions of many studies that the hierarchy culture type is the least influential culture type for TQM implementation (e.g. Zu et al., 2010; Dellana and Hauser, 1994; Chang and Wiebe 1996; ZU et al., 2006; Gimenez-Espin et al., 2012). Therefore, the values of the hierarchical culture must not be overemphasized in SMOs. These values might necessitate working with other cultural types in order to contribute to the effectiveness of TQM implementation.

In addition, the results of this study show that market/ rational culture has a less significant effect on successful TQM implementation. Thus, the following hypothesis was not supported*:*

H1d. An organisation's emphasis on the market culture will be negatively associated with the level of implementation of TQM.

This result seems to be inconsistent with the findings obtained in a few other studies such as Zu et al. (2010) and Prajogo and McDermott (2005) which suggest that market/rational culture significantly influences TQM implementation. A possible explanation is offered for this inconsistency in that market/ rational culture values are overemphasised in SMOs. The values of market culture may need to work with other cultural types in order to contribute to the effectiveness of TQM implementation.

Thus, the results of this study show that in comparison with other CVF culture types, group culture and adhocracy culture are the most supportive culture types for TQM implementation. The regression analysis indicated that market culture and adhocracy culture, reported by correlation analysis to have a significant negative association with TQM, were not significantly associated with TQM implementation. This finding may be due to the fact that bivariate statistics are not as accurate as multivariate statistics. It appears that in the presence of group and adhocracy culture types, which have a strong impact on TQM implementation, hierarchy and market culture types lose their effect and become relatively less significant. Thus, they are the least influential culture types in TQM as compared to the other OC types, i.e., group and adhocracy culture types.

However, hierarchy culture and market culture were the dominant OC types in SMOs. The characteristics and values of hierarchical and market culture types are overemphasised in these organisations. Also, the findings of this study have shown that the level of implementation of TQM in SMOs is very low (see section in chapter 5). It can be concluded that the dominant OC in SMOs (hierarchy and market culture types) is one of the major contextual obstacles causing the low level of implementation of TQM in these organisations.

Therefore, organisational culture types are contingencies influencing the implementation of TQM. It is evident from these findings that the ability to implement TQM successfully is contingent upon the presence of particular cultural elements (values and characteristics of the group and adhocracy cultures) that will facilitate TQM execution. The findings provide empirical support for the conclusions of many research studies such as Sadikoqlu and Zeihr (2008) who found that the degree and intensity of the implementation of TQM is context dependent. Thus, SMOs should change their existing culture and move their emphasis towards the values and characteristics of the group and adhocracy cultures in order to offer a conducive environment for TQM implementation and to benefit from its impact on performance and competitiveness.

6.3.2. The Influence of Individual Readiness for Change on TQM Implementation

This section discusses the empirical findings relating to the impact of IRFC on TQM implementation in comparison with other studies in this area. The findings of this study, suggest that the level of IRFC has a direct and positive influence on the level of implementation of TQM. Based on social cognitive theory, it is concluded that organisational members who felt positive about TQM as a new change initiative reported higher levels of implementation of TQM. This provides support for the arguments of many authors such as Weeks et al. (1995), McNabb & Sepicb (1995) and Shea & Howell (1998) by verifying the significance and positive influence of IRFC on the implementation of TQM. Thus, the following hypothesis was supported in this study:

- *H2. The level of IRFC has a positive influence on the level of implementation of TQM.*

The above findings indicate that when organisational members' readiness for change is high and they possess a strong positive attitude towards TQM, they are more willing to accept the implementation of TQM. This, in turn, leads them to behave in a manner consistent with TQM principles. In other words, organisational members who feel

positive about the impending TQM initiative show higher levels of involvement in TQM execution efforts.

However, the majority of SMOs have not prepared their employees to be psychologically ready. The senior leaders and decision makers in SMOs have not encouraged their employees to commit themselves to TQM. Most of the organisational members in SMOs have not received the necessary training and skills that are required to implement TQM. They believe that they are not able to perform successfully with the implementation of TQM, and that they will not get any personal benefits from TQM implementation. In addition, organisational members in SMOs feel that the implementation of TQM does not benefit, and improve the overall efficiency of their organisations.

The results of this study indicate that organisational members in SMOs reported low levels of IRFC and held a negative attitude towards TQM implementation. Consequently, they demonstrated a low level of involvement in TQM implementation, and did not take an active part in the execution of TQM. It can be concluded that the low level of organisational members' readiness for change is an important hindrance for TQM implementation in SMOs. This aligns with the findings of Jones et al. (2005) by verifying the importance of preparing organisational members to be psychologically ready in order to achieve change implementation success.

In order to increase the likelihood of TQM implementation success, the leaders of SMOs should create readiness for change among employees, and develop individuals' positive attitudes towards TQM implementation. They should assist organisational members in being motivated and prepared for change.

6.3.3. The Influence of Organisational Culture on Individual Readiness for Change

This section discusses the empirical findings relating to the impact of OC types on IRFC implementation in comparison with other studies in this area. The results from this study, derived from multiple regression analysis, show that the market culture type negatively influenced the level of organisational members' readiness for change (i.e. their attitudes towards TQM). In addition, it has been found that that the level of IRFC was influenced positively by group and adhocracy culture types. Thus, the following hypotheses were supported in this study:

- *H3a: An organisation's emphasis on the group culture will be positively associated with the level of individual readiness for change.*
- *H3b: An organisation's emphasis on the market culture will be negatively associated with the level of individual readiness for change.*
- *H3d: An organisation's emphasis on the adhocracy culture will be positively associated with the level of individual readiness for change.*

However, the effect of hierarchy culture on IRFC is not significant; thus, the following hypothesis is not supported:

- *H3c: An organisation's emphasis on the hierarchy culture will be negatively associated with the level of individual readiness for change.*

The above findings indicate that organisational culture has a significant influence on IRFC. This provides support for the findings of many authors that OC is an important contextual factor that increases or decreases the level of IRFC (Weiner**,** 2009; Eby et al., 2000). Also, a number of authors have found that the characteristics of group and adhocracy culture types are associated with higher levels of IRFC, and that the characteristics of market culture are associated with lower levels of IRFC (Eby et al., 2000; Jones et al., 2005; Zammuto and O'Connor, 1992; Zammuto and Krakower, 1991). Similar findings have been found in SMOs where market culture was associated

with lower levels of IRFC. It appears that in the presence of group and adhocracy culture types, which have a strong impact on TQM implementation, hierarchy culture loses its impact and become relatively less significant. Thus, hierarchy culture is the least influential culture type in TQM compared to the other OC types, i.e., group, adhocracy, and market culture types.

It is evident from these findings that a high level of IRFC is contingent upon the presence of particular cultural elements (values and characteristics of group and adhocracy cultures) which will encourage organisational members to be more willing to accept TQM and to take an active part in its implementation.

However, SMOs which are dominated by hierarchy culture and market culture, rather than adhocracy and group culture types, offer a lower level of IRFC. Therefore, organisational members in SMOs, who rate their OC as being high in hierarchy and market culture values rather than group and adhocracy culture values, are less willing to accept the implementation of TQM (i.e. they are more likely to possess negative attitudes towards TQM implementation).

It can be concluded that the dominant OC in SMOs (hierarchy and market culture types) is one of the major contextual obstacles causing the low level of IRFC in these organisations. By emphasising group culture and adhocracy culture values, organisational members in SMOs are more likely to be psychologically ready and willing for TQM implementation. This means that the values of group and adhocracy culture types would support the development of individuals' positive attitudes towards TQM implementation in SMOs.

6.3.4. The Mediating Role of Individual Readiness for Change

This study examines the mediating role of IRFC in the relationship between OC and TQM implementation (see section 1.5). The empirical findings of this study, based on Baron and Kenny's (1986) conditions, show that the IRFC mediates the relationship between group culture/adhocracy culture and TQM implementation. Also, the findings of Sobel test show that IRFC mediates the relationship between market culture and TQM implementation. These results indicate that group culture, adhocracy culture and market affect TQM implementation indirectly through their effects on IRFC. Thus, the following hypotheses were supported in this study:

- *H4a: IRFC mediates the effect of group culture on TQM implementation.*
- *H4c: IRFC mediates the effect of adhocracy culture on TQM implementation.*
- *H4d: IRFC mediates the effect of market culture on TQM implementation.*

Thus, group culture, market culture, and adhocracy culture exert some of their influences on TQM implementation via IRFC (as a mediating variable), and they exert some of their influence directly and not via IRFC. The findings of this study support the findings of many research studies such as Chang & Wiebe (1996), Dellna & Hauser (1994), and Khalifa & Aspinwall (2001), by verifying the significance of group and adhocracy culture types for implementing TQM. However, at the same time they indicate that IRFC is one of the mechanisms through which an OC emphasising group and adhocracy culture values influences successful TQM implementation. Thus, the findings show support for the mediating effect of IRFC on the link of OC-TQM implementation success.

This mediator enhances the effect of OC on TQM. There was evidence to suggest that the organisational members who perceived strong group and adhocracy values in their organisations reported higher levels of IRFC and possessed a more positive attitude towards TQM, which in turn lead to higher levels of implementation of TQM. In addition, there was evidence to suggest that the organisational members who perceived

strong market culture values in their organisations reported lower levels of IRFC, which in turn led to lower levels of implementation of TQM.

The above analysis and discussion of the results of this study prove that the characteristics and values of group culture and adhocracy culture have a positive impact on the implementation of TQM; however, IRFC acts as a mediator to attenuate these positive relationships. These findings highlight the critical roles of organisational members' attitude towards change in the formation of the OC-TQM implementation link. The results further indicate that a psychological mediator is useful for transmitting and enhancing the influence of organisational culture (antecedent) on TQM implementation (consequence).

The findings of this study fill the gap in the literature caused by the lack of empirical investigations into the mediating roles of IRFC in the relationships between organisational culture types and TQM implementation (see section 2.12). The results of this study show support for the mediating role of IRFC in the influence of OC on TQM implementation. However, the relationship between OC and TQM implementation was only partially mediated by IRFC, which suggests the presence of other potential mediating variables in the OC-TQM relationship.

6.4 Summary of Hypotheses Testing

In summary, chapter five and the above sections have presented the data analysis and discussion for the hypotheses testing of the specified relationships between the variables in the conceptual model shown in Figure 3.1 (TQM implementation, organisational culture and individual readiness for organisational change). Table 6.1 provides a summary of the tested hypotheses and the related findings in this study.

Table 6.1 Summary of Hypotheses Testing

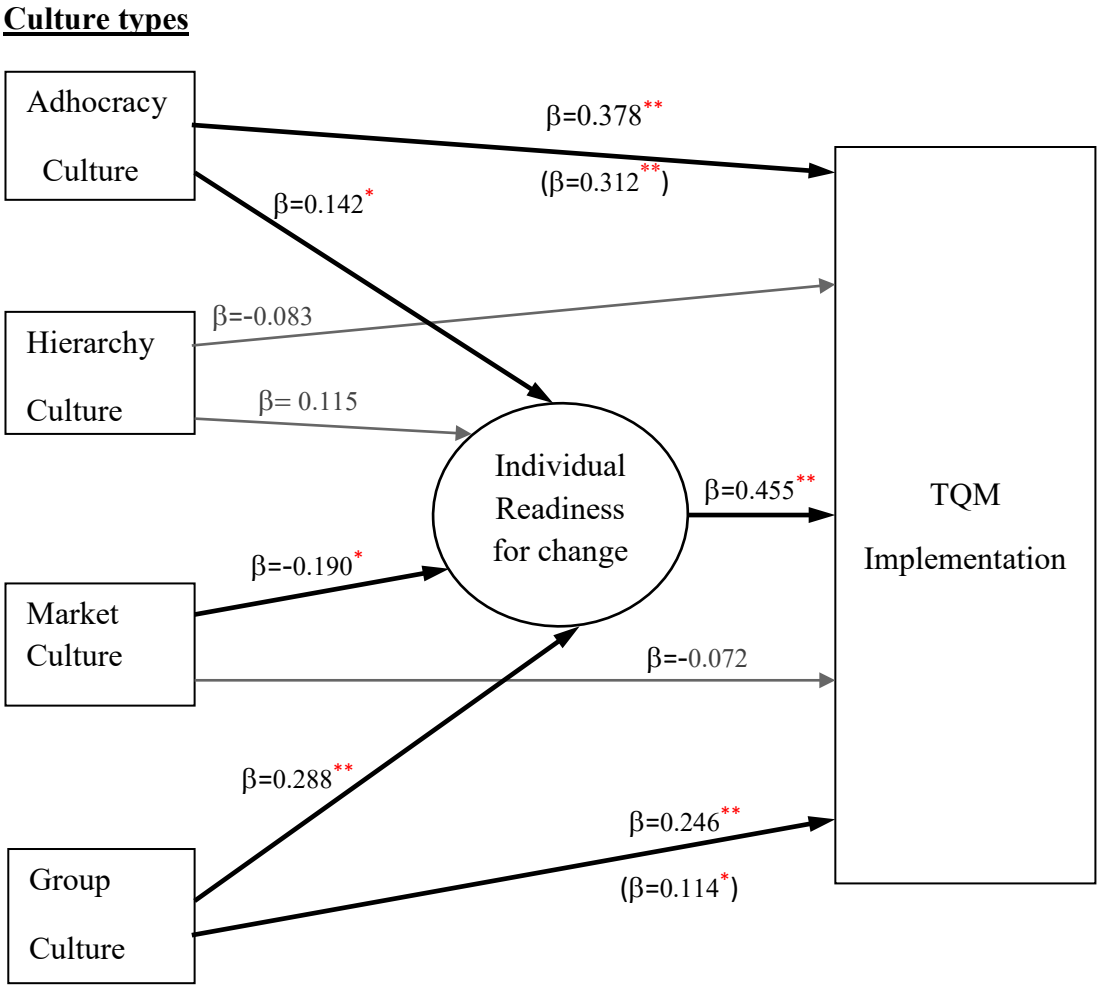
Research Hypotheses	**Effect**	**Results**
The direct influence of organisational culture on TQM implementation.		
H1a. An organisation's emphasis on the group culture will be positively associated with the level of implementation of TQM.	Positive	Accepted
H1b. An organisation's emphasis on the hierarchy culture will be negatively associated with the level of implementation of TQM.	Negative	Rejected
H1c. An organisation's emphasis on the adhocracy culture will be positively associated with the level of implementation of TQM.	Positive	Accepted
H1d. An organisation's emphasis on the market culture will be negatively associated with the level of implementation of TQM.	Negative	Rejected
The influence of individual readiness for change on TQM implementation		
H2. The level of IRFC has a positive influence on the level of implementation of TQM.	Positive	Accepted
The direct influence of organisational culture on individual readiness for change.		
H3a. An organisation's emphasis on the group culture will be positively associated with the level of individual readiness for change.	Positive	Accepted

H3b. An organisation's emphasis on the market culture will be negatively associated with the level of individual readiness for change.	Negative	Accepted
H3c. An organisation's emphasis on the hierarchy culture will be negatively associated with the level of individual readiness for change.	Negative	Rejected
H3d. An organisation's emphasis on the adhocracy culture will be positively associated with the level of individual readiness for change.	Positive	Accepted
The mediating effect of IRFC		
H4a. IRFC mediates the effect of group culture on TQM implementation.	Mediating	Accepted
H4b. IRFC mediates the effect of hierarchy culture on TQM implementation.	Mediating	Rejected
H4c. IRFC mediates the effect of adhocracy culture on TQM implementation.	Mediating	Accepted
H4d. IRFC mediates the effect of market culture on TQM implementation	Mediating	Accepted

The findings of the data analysis indicate that the effect of hierarchy culture on IRFC is not significant. In addition, empirical evidence suggests that the effects of market culture and hierarchy culture on TQM implementation are not significant. Therefore, modifications to the proposed conceptual framework (see Figure 3.1) were imposed by the results of empirical data analysis and hypotheses testing. In support of this empirical evidence, a revised conceptual framework has been presented in this chapter (see Figure 6.1).

The findings of this study contribute to the existing literature by developing and validating a conceptual framework for explaining the relationship among OC types, individual readiness for change and TQM implementation. Accordingly, this study builds up the conceptual framework and hypotheses to indicate the mediating role of IRFC between OC types and TQM implementation. This novel framework has investigated the role of the IRFC as a mediating mechanism through which OC types influence the implementation of TQM. Thus, it has demonstrated a refined and advanced way of understanding the relationship between organisational culture and TQM implementation.

Figure. 6.1 The Validated Framework of the Study



Standardized coefficients of the direct relationships are reported (The regression coefficients for the relationships between OC types and TQM controlling for IRFC are in parentheses).

Gray arrows exhibit non-significant paths. All other paths significant at $^{*}p < 0.05$, or $^{**}p < .001$

The analysis and discussion of the results of this study confirm the hypothesised direct positive influences of group culture and adhocracy culture on IRFC, and the hypothesised direct negative influences of market culture on IRFC. Therefore, this study contributes to the existing literature on change management by providing a holistic perspective and empirical evidence leading to advancement in the understanding of the influence of all OC types on IRFC.

The findings of this study show that the level of IRFC has a direct influence on the level of implementation of TQM. This provides support for the arguments of many authors such as Jones et al. (2005) by verifying the importance of preparing organisational members to be ready psychologically in order to achieve change implementation success.

The findings of this study confirm the hypothesised direct positive influences of group culture and adhocracy culture on the implementation of TQM. This aligns with the findings of many research studies such as Dellana and Hauser (1994) and Gimenez-Espin et al. (2012) by verifying the significance of the group and adhocracy culture types, as they offer a more conducive setting for a successful TQM implementation. In addition, the findings of the current study support the conclusions of many studies that the hierarchy culture type is the least influential culture type for TQM implementation (e.g. Zu et al., 2010; Dellana and Hauser, 1994; Chang and Wiebe 1996; ZU et al., 2006; Gimenez-Espin et al., 2012). Therefore, the values of the hierarchical culture must not be overemphasized in SMOs.

In addition, the findings of this study verify the hypothesised indirect relationships between OC types and TQM implementation. These findings have contributed to better understand the research problem by highlighting and verifying the critical role of IRFC in the formation of the OC-TQM implementation link. The results further indicate that IRFC as a psychological mediator is useful for transmitting and enhancing the influence of organisational culture on TQM implementation. Therefore, the findings of this study have filled the gap in the literature caused by the lack of empirical investigations into the mediating roles of IRFC in the relationships between organisational culture types and TQM implementation. This study highlights that, in

order to foster IRFC and increase the likelihood of TQM implementation success, the values of the hierarchy market culture should not be overemphasised as is evident in current practice in SMOs. The leaders of SMOs should change their existing culture and move their emphasis towards the values and characteristics of the group and adhocracy cultures.

6.5 Conclusion

The aim of this study is to examine the influence of OC on TQM implementation success and the mediating role of IRFC in the OC-TQM implementation relationship in SMOs. This chapter has provided a detailed discussion of the descriptive findings, as well as of the hypotheses testing. All hypotheses have been discussed in relation to the literature and found inferences for future research. The results of the data analysis and hypotheses testing clarified that OC types have a strong effect on individuals' readiness for change, which in turn has a significant effect on TQM implementation in SMOs. The findings highlight the importance of IRFC as a mediator between organisational culture and TQM implementation. These findings show that IRFC plays a role in partially mediating the relationship between OC types and TQM implementation.

This study has developed and validated a novel conceptual framework leading to advancement in the understanding of the relationship between OC and TQM implementation. In this framework, IRFC has been positioned as a mediator that affects the influence of OC on TQM. Thus, the study is novel in addressing the mediating role of IRFC, as opposed to advancing hypotheses about the direct influence of OC on TQM implementation.

The next chapter will summarise the whole thesis and presents the conclusions from the research findings. It will present the contributions of this study to theory and practice. Practical implications of the findings will be suggested, the research limitations and avenues for future research will be identified.

Chapter Seven

Implications, Contributions and Conclusion

7.1 Introduction

The aim of this chapter is to conclude the research carried out in this study and to propose areas of further work. This concluding chapter begins by summarising the dissertation and particularly the findings of this thesis (Section 7.2). This chapter summarises the theoretical contribution and the novelty of the study in terms of gaps in the research (Section 7.3). Thereafter, the managerial and policy implications of the study's findings are discussed in section 7.4. This is followed by a discussion of the limitations of the study (Section 7.5). This chapter ends by suggesting directions for future research (Section 7.6).

7.2 Conclusions of the Study

This thesis was set up to investigate the mediating role of IRFC as one possible mechanism through which an organisation's culture comes to have an impact on TQM implementation, in an attempt to assist executives to implement TQM more effectively and efficiently. Accordingly, this study attempts to investigate the level of implementation of TQM practices and the level of IRFC in SMOs; to identify the OC profiles and characteristics of SMOs; to examine the influences of OC types on TQM implementation and on the level of IRFC in SMOs; to investigate the impact of the IRFC on the level of TQM implementation in SMOs, and to examine the mediating role of IRFC in the relationship between OC and TQM implementation.

Based on the combined critical literature review conducted in the three subject areas of TQM, OC and IRFC, an integrative conceptual framework and 13 hypotheses were developed to address and investigate the relationship between OC types, IRFC and

TQM implementation. The proposed conceptual framework combined the direct effect of OC on TQM implementation and the mediating role of IRFC in the OC-TQM relationship in a single framework. In this framework, the direct influence of OC on IRFC and on TQM was investigated; the direct influence of IRFC on TQM was examined; and the indirect influence of OC on TQM via IRFC was investigated.

The results from this study indicate that TQM implementation is positively and directly influenced by IRFC. In addition, the results from this study demonstrate that IRFC is strongly influenced by OC. Very few authors such as Jones et al. (2005) have found that the characteristics of group and adhocracy culture types are associated with higher levels of IRFC. Similar findings have been found in SMOs where the level of IRFC is positively influenced by the group and adhocracy culture types. In addition, it is evident from the findings of this study that the characteristics of market culture are associated with lower levels of IRFC. Therefore, the results of this study indicate that organisations dominated by group and adhocracy culture types facilitate an improved acceptability of change. Thus, organisational members are more likely to have higher levels of readiness for organisational change when they perceive their work environment to have the characteristics associated with a group and adhocracy culture types. The leaders in such organisations used to value employee involvement and motivate their employees by establishing a fair incentive system and reward the members who participate in change implementation success. This leads to strengthen the members' feelings and believe of fairness and personal benefits which would gain as a result of participation in implementing new change initiatives introduced by their organisations. This supports the findings of many authors such as Goksoy (2012) who found that if organisational members perceived fairness in previous change processes, they will have less concerns about change and consequently be more ready psychologically to implement change initiatives.

The results of this study show that in comparison with other CVF culture types, group culture and adhocracy culture are the most supportive culture types for TQM implementation. The hierarchy and market culture types are the least supportive for implementing TQM. These findings provide support for the notion that organisations

that value teamwork, cohesion, employee involvement, human resource development, flexibility, creativity and innovation are able to implement TQM practices better than organisations that do not focus on these values (Chang & Wiebe 1996; Dellana & Hauser 1999; Al-Khalifa & Aspinwall 2001; Gimenez-Espin et al., 2012).

Furthermore, the findings of this study prove that the characteristics and values of group culture and adhocracy culture positively affect the implementation of TQM, however, IRFC acts as a mediator and possible mechanism to attenuate these positive relationships. The above empirical findings highlight the critical role of IRFC in the formation of OC-TQM implementation link. However, the relationships between group culture/ adhocracy culture and TQM implementation were only partially mediated by IRFC suggest the presence of other potential mediating variables in OC-TQM relationships.

In addition, the results of this study show that market culture has less of a significant effect on successful TQM implementation. This result seems to be inconsistent with the findings obtained in few studies such as Zu et al. (2010) who suggest a significance influence of market/ rational culture on TQM implementation. A possible explanation is offered for this inconsistency in that market culture values are overemphasised in SMOs. The major focus of the managers of these organisations is to get the work done and to achieve the biggest market share and profit in short time, with less confederating and caring about the morale and development of the human resources in the organisation.

7.3 Novelty and Contributions

Several novel contributions emerge from this study. Most importantly, this study extends the existing literature on the link of OC-TQM implementation. Unlike previous studies about the direct influence of OC on TQM implementation, this research is one of the first empirical studies that examine the mediating role of IRFC as one of the mechanisms through which an organisation's culture comes to have an impact on TQM implementation. In the present study, an integrative theoretical

framework was developed that combines the direct effect of OC on TQM implementation and the mediating role of IRFC in the OC-TQM relationship in a single framework. Thus, this theoretical framework is offered as an extension to the work of many authors such as Dellna and Hauser (1994) and Zu et al. (2010) in relation to the influence of OC on the implementation of TQM. This novel framework departs from existing theory regarding the direct influence of OC on TQM in that it seeks to provide explanations for one of the mechanisms through which an organisation's culture comes to have an impact on TQM implementation. A novel aspect of this model is that it highlights the importance of IRFC as a mediator between OC and TQM implementation.

The results of this study show support for the mediating role of IRFC as one of the mechanisms through which an organisation's culture comes to have an impact on TQM implementation. By presenting and validating the differential effects (direct and indirect) of OC types on TQM implementation, this study makes a novel contribution by giving a refined comprehension of the relationships between OC types and TQM implementation. With an improved comprehension on the relationship between OC and TQM, organisational leaders and managers can implement TQM more effectively and efficiently in their organisations.

It is worth indicating that this research study is one of the few studies that empirically examine the influence of different OC types of the CVF model, namely group, developmental, hierarchical and market/rational, on IRFC, in order to give a holistic perspective, rather than focusing on the influence of some of the OC types on IRFC. Therefore, this study contributes to the existing literature of change management by providing empirical evidence leading to the advancement in the understanding of the relationship between OC types and IRFC. This could help the organisations in enhancing the level of IRFC by identifying the supportive and more favourable OC types which improve the organisational members' acceptability of change.

Moreover, this study provides empirical evidence leading to advancement in the understanding of the relationship between individual readiness for change and TQM implementation, particularly in developing countries. With better understanding of the

relationship between IRFC and TQM, organisational managers can increase the level of TQM implementation.

Another contribution to knowledge is that it is the first study of its nature based on valuable data from Syria, which is a relatively new cultural context, taking into account that most of the studies on the OC-TQM relationship have taken place in developed countries. This is significant in permitting a test of the wider validity of results derived from studies conducted in the context of developed countries. Therefore, this thesis contributes to the literature of TQM implementation in developing and Arab countries, particularly in Syria. Furthermore, this study has provided SMOs' executives with useful suggestions for implementing TQM more effectively and efficiently.

7.4 Managerial Implications

The results of this study offer several useful implications for researchers and practitioners by highlighting the importance of supportive OC and high level of IRFC to implement TQM successfully.

The findings of this study show that the level of IRFC has a direct influence on the level of implementation of TQM. It is concluded that organisational members who felt negative about TQM as a new change initiative reported lower levels of the implementation of TQM. In other words, organisational members who feel positive about the implementation of TQM initiative show higher levels of involvement in TQM execution efforts and are more likely to behave in a manner consistent with TQM principles.

Additionally, the results from this study demonstrate that the characteristics of market and hierarchy culture types are associated with lower levels of IRFC, while group and adhocracy culture types have a positive impact on IRFC. Also, the findings from this

study demonstrate that the group and adhocracy culture types have a positive impact on TQM implementation. It was found that the hierarchy and market culture types negatively influence the level of implementation of TQM. However, it was found that the hierarchy culture and market culture are the dominant OC types in SMOs. The characteristics and values of hierarchical and market culture types are overemphasised in SMOs. The findings further indicate that the level of IRFC in SMOs was low. In addition, the level of TQM implementation in SMOs is very low. Therefore, the results showed that the dominant OC in SMOs (hierarchy and market culture types) is one of the major hindrances causing low level of IRFC and low level of implementation of TQM in these organisations.

The findings of this study demonstrate that organisational members in SMOs who rate their OC as being high in hierarchy and market culture values rather than group and adhocracy culture values are less willing to accept the implementation of TQM. Therefore, the dominant OC in SMOs (hierarchy and market culture types) is one of the major obstacles causing low levels of IRFC. In addition, the findings of this study indicate that organisational members in SMOs reported low levels of IRFC and held a negative attitude towards TQM implementation. Consequently, they demonstrated low level of involvement in TQM implementation; and did not take an active part in the execution of TQM practices. Therefore, the low level of IRFC is another important hindrance for TQM implementation in SMOs.

In order to improve the level of TQM implementation in Syrian manufacturing organisation, they should seek certification and introduce ISO 9000 to their organisation. However, they should consider that ISO 9000 registration or certification as just the first step to improve their internal operations, to make their system more effective, and to help in the continuous improvement of quality, which in turn sets the tone for building a TQM culture.

This study has highlighted that, in order to foster IRFC and increase the likelihood of TQM implementation success, the values of the hierarchy market culture should not be overemphasised as is evident in current practice in SMOs. The top management

and leaders in SMOs should realise that the current style of management, which is hierarchical or authoritative, is not conducive for implementing TQM successfully and achieving organisational competitiveness. In addition, the leaders and managers in SMOs must understand the desired TQM culture and establish a supportive OC to facilitate the extensive implementation of TQM. The leaders of SMOs should change their existing culture and move their emphasis towards the values and characteristics of the group and adhocracy cultures in order to offer a conducive environment for TQM implementation. Thus, the managers of SMOs should put greater emphasis on participation and collaboration, and encourage each member to take part in decision making and solving the problems of the organisation.

Also, they should adopt flexible policies and regulations. SMOs should also improve and support an innovation culture. They should encourage organisational members to be innovative and creative in order to achieve continuous improvement and increase the effectiveness of their organisation.

The leaders of SMOs should create readiness for change among their members, and develop individuals' positive attitudes towards TQM implementation. While creating IRFC, SMOs should focus on long-term rather than short-term profits and concentrate on human resource improvement. The executive management in SMOs has to have a complete and comprehensive understanding and knowledge of the principles of TQM by participating in training and attending seminars and conferences. Then, they should provide their members with training on the implementation of various TQM practices. In addition, they should be educated about the ways in which they need to change their personal behaviour to line up with the TQM culture. This would result in a reinforcement of employees' feelings of self-efficacy and encourage feelings of readiness for implementing TQM. The Ministry of Industries, Industrial Chambers and Quality Association in Syria can assist by dispersing information and providing training on TQM processes throughout the country.

The leaders in SMOs should value employee involvement and motivate their employees by establishing a fair incentive system and reward the members who participate in change implementation success. This would lead to strengthen the members' feelings and believe of fairness and personal benefits which would gain as a result of participation in implementing new change initiatives, such as TQM, introduced by their organisations. Therefore, they will have less concerns about change and consequently be more ready psychologically to implement change initiatives.

SMOs should explain the positive influence of implementing various change initiatives, particularly TQM practices on the performance of their organisations. Also, the managers need to actively involve organisational members in the change process efforts. Consequently, they will be better able to understand the need for TQM, and are therefore less likely to resist its implementation.

By emphasising the group culture and adhocracy culture values, organisational members in SMOs are more likely to be psychologically ready and willing for TQM implementation. That means that the values of group and adhocracy culture types would support the development of individuals' positive attitudes towards TQM implementation in SMOs. Creating this supportive culture would minimise the efforts and cost requirements for implementing TQM successfully by fostering individuals' readiness for organisational change. When organisational members' readiness for change is high, possessing a strong positive attitude towards TQM, they are more willing to accept the implementation of TQM. This in turn leads them to behave in a manner consistent with TQM principles showing higher levels of involvement in TQM execution efforts and increase the possibility of successful implementations of TQM in SMOs. This would enable SMOs to produce higher-quality products that conform to the international quality awards criteria and standards. Consequently, this would assist SMOs in achieving global marketing effectiveness and competitiveness in the international markets.

The findings and implications of the current study are not only limited to Syrian manufacturing organisations. These results could be useful for other sectors such as education, tourism, health, and banking sectors. Moreover, these findings may give an essential reference for organisations in other Arab countries whose cultures and climates are similar to those in Syrian organisations.

7.5 Limitations and Future Research

There are some shortcomings of this research that lead to avenues for future research**.** Firstly, this research is not longitudinal in design because the researcher used a cross-sectional research design, which restricted the researcher's ability to tackle or refer to the change or development of the phenomenon under study over a period. This study recommends that future studies use the longitudinal research design in order to be able to study the possible changes and developments of a phenomenon and the relationship between the variables of this study over a period.

Secondly, this study considers OC as the predecessor of TQM practices. However, it is argued by many authors such as Mosadeghrad (2006) and Jenner et al. (1998) that TQM implementation leads to a change in OC. It is believed that a future study is needed and would be beneficial to investigate the recursive influence between OC and TQM implementation, even though it can only be conducted via a longitudinal study. Thirdly, as OC is one of the most influential factors in TQM implementations, this study focuses on the influence of OC types on TQM implementations' success or failure. However, in order to achieve TQM success, not only should the focus relate to cultural issues, but also many other factors should be covered, considered and implemented (Awan et al., 2007; Arumugam et al., 2009). However, studying and assessing the current position of Syrian OC identified the gap between the current OC profiles and characteristics in Syria and those required for TQM culture. This will also help to determine the changes needed to build and support the total quality culture and approach in Syrian organisations. Future research studies should study and examine

the impact of other issues such as the educational, political and economic issues in Syria on the implementation of TQM.

Fourthly, the current study has examined the mediating role of IRFC as a possible mechanism through which an organisation's culture comes to have an impact on TQM implementation. However, there might be other potential mediating variables in the OC–TQM relationship, which have not been included or discussed. Thus, future research needs to identify and examine the role of other potential mediators in the OC – TQM implementation relationships, as they would help expand our current understanding of the mechanism through which an organisation's culture has an impact on TQM implementation. Understanding the paths between organisational culture and TQM allows for a more informed approach to guiding organisations towards adopting constructive cultures, as the mediating variables can give more immediate feedback on the suitability of an organisation's culture such that changes to culture could be identified and implemented before a significant influence on TQM implementation is felt.

Fifthly, the questionnaire was distributed to one respondent in each organisation. A problem common to the organisational-level study is whether an individual response can represent the intended firm-level situations. While the use of multiple raters may enhance the reliability of our measures, inclusion of "less knowledgeable informants can actually decrease the accuracy of responses" (Huber & Power, 1985, p. 175). This study approached one relevant respondent in each organisation who is the most familiar with the topic to complete the questionnaire. However, using only one respondent may still exist as a limitation to this study. It is recommended that for future research multiple respondents in one organisation should be used in order to decrease the influence of systematic response bias.

Sixthly, the findings of the current study are limited to Syrian manufacturing organisations and for this reason they should not be generalized to whole sectors. It is hoped that many researchers who are interested in the Syrian context will take this

study as a basis and repeat it in other sectors such as the education, tourism, health, and banking sectors, etc. Finally, the current study focuses on SMOs; the characteristics of these organisations may be relatively different from those in other countries. Therefore, the findings of this study should not be generalised. However, these results may give an essential reference for organisations in other Arab countries whose cultures and climates are similar to those in Syrian organisations. This research study provides a basis for future studies in different countries and contexts. Therefore, it is recommended that this study be replicated in different countries.

7.6 Concluding Remarks

This concluding chapter provides the summary and conclusions of the findings of the study. This chapter has highlighted the theoretical contribution and practical implications of this study. This study argues that, despite the substantial body of literature examining the influence of organisational culture (OC) on TQM implementation, little attention has been paid to the mechanism through which an organisation's culture comes to have an impact on TQM implementation. This study has attempted to address the lack of research and add to the body of knowledge by examining IRFC as a potential mediator and mechanism in the OC TQM implementation relationship.

Recommendations for the improvement of the TQM implementation in SMOs and suggestions have been made in the light of the findings. Syrian governmental policy makers and managers in both public and private sectors could benefit from the recommendations given by the researcher to implement TQM successfully in the Syrian context. This chapter has also highlighted the limitations and some suggestions for avenues for future research in order to advance our understanding of the relationship between OC and TQM implementation.

The thesis has been divided into seven chapters. The first chapter introduced the reader to the topic of this study by providing a brief description of the background of the

research, with an overview of the research problem, followed by the aim and objectives of the study. In addition, this chapter provided a brief explanation of the context of the study and the significance of the study. The second chapter provided a broad picture of the existing literature related to TQM, OC and IRFC, and the relationships between them.

The third chapter presented a deeper understanding of the relationship between TQM, OC and IRFC, and presented the hypotheses of this study. In addition, this chapter presented the conceptual framework that explains the relationship between the variables considered for this study and aggregates the research hypotheses. The fourth chapter explained and justified the methodology used in this research. Also, this chapter has given an overview and background about Syrian culture, the Syrian manufacturing industry, and quality management in Syrian organisations.

The fifth chapter presents detailed discussion of the analysis of the collected data. The proposed conceptual framework and hypotheses were tested and the findings were reported in this chapter. The sixth chapter presented more detailed discussion of the findings in relation to the literature.

Finally, the seventh chapter summarised the whole thesis and presented the conclusions from the research findings. This concluding chapter presented the contributions of this study to the subject areas of TQM, OC and change management as well as the practical managerial implications. Moreover, this chapter provided a discussion of the limitations of the current research and possible directions for further research.

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Appendices

Appendix A

Appendix A1

Important Events in the Development of TQM

Table A1 Important Events in the Development of TQM

Year	Contributions
1900 – 1930	"Henry Ford – the assembly line – further refinement of work methods to improve productivity and quality; Ford developed mistake-proof assembly concepts, self-checking, and in-process inspection"
1901	"First standards laboratories established in Great Britain".
1907 – 1908	"1ATandT begins systematic inspection and testing of products and materials".
1915 – 1919	"WWI-British government begins a supplier certification program".
1919	"Technical Inspection Association is formed in England; this later becomes the Institute of Quality Assurance".
1920s	"A TandT Bell Laboratories forms a quality department-emphasizing quality, inspection and test, and product reliability".
1924-1932	"Hawthorne studies demonstrated the importance of the social and psychological climate in work".
1924	"W. A. Shewhart introduces the control chart concept in a Bell Laboratories technical memorandum"
1926	"The Bell Telephone began to apply statistical control methods".
Mid-1940s	"The American army pushed the use of sampling methods during World War II".
1950s	"A large number of attempts at work improvement were undertaken (e.g. job enrichment, work redesign, participative management, quality of work life and worker involvement)".
1950	"First visit of Deming to Japan".
1951	"Creation of "Deming Application Prize" in Japan". First edition of Juran's Quality Control Handbook"
1954	"First visit of Juran to Japan. Maslow's theories about human needs".
1960	"Liberalization of economy in Japan with pressure to improve quality to compete with foreign companies. McGregor's X and Y theories".
1961	"First edition of Feigenbaum's Total Quality Control".
1962	"The idea of quality circles appeared in the first issue of the Japanese journal Quality Control for the Foreman".
Late 1960s and early 1970s	"The pressure of Japanese companies began to be felt in American companies"
1972	"QFD was developed at Mitsubishi's Kobe shipyard site".

1973 After the 1973	"Oil crisis the JIT system was adopted by a vast number of Japanese companies. A small number of American and European companies began to apply this system in the 1980s".
Mid-1970s	"Quality circles began to be widely introduced in the USA, the first quality circle programme was launched in Lockheed in 1974 and in the UK it was Rolls-Royce which introduced the concept in 1979".
1975 – 1978	"Books on designed experiments oriented toward engineers and scientists to appear. Interest in quality circles begins in North America – this grows into the total quality management (TQM) movement".
1979	"First edition of Crosby's Quality Is Free".
1980	"An NBC television documentary about the "Japanese miracle" proposed Deming as a key element in this miracle".
1981	"Ouchi's Z theory".
1982	"First edition of Deming's Quality, Productivity and Competitive Position".
1983	"Quality on the line", published by Garvin in Harvard Business Review, analysed the differences between Japanese and American companies, showing some of the reasons for the better performance of the former.
1984	"The American Statistical Association (ASA) establishes the Ad Hoc Committee on Quality and Productivity; this later becomes a full section of the ASA".
1985	"The Naval Air Systems Command named its Japanese-style management approach "total quality management".
1986	"First edition of Deming's Out of the Crisis. It became a bestseller".
1987	" First edition of ISO 9000 quality management system series".
1988	"The Malcolm Baldrige National Quality Award is established by U.S. Congress The European Foundation for Quality Management is founded; this organisation administers the European Quality Award"
1989	"The journal Quality Engineering appears".
1990s	"ISO 9000 certification activities increase in U.S. industry; applicants for the Baldrige award grow steadily; many states sponsor quality awards based on the Baldrige criteria". €€€
1998	"The American Society for Quality Control becomes the American Society for Quality (see www.asq.org), attempting to indicate the broader aspects of the quality improvement field".
2000s	"ISO 9000:2000 standard is issued. Quality improvement activities expand beyond the traditional industrial setting into many other areas including financial services, health care, insurance, and utilities".

Source: Based on Martinez-Lorente et al. (1998: p. 382) and Montgomery et al. (2011:p.9-11)

Appendix A2: Gurus of Quality and Their Contributions in Chronological Order

Appendix B

Survey Questionnaire - “Arabic Version”

الجمهوريـــة العربيـــة السوريـــة

جامعـــة دمشـــق

كليـــة الاقتصـــاد

التصنيف : ....

الموضوع : ....

الرقم : ٣٩٦٢

التاريخ : ١٦/٦/٢٠١٠

إلى : المؤسسات الصناعية في القطاع العام والخاص دمشق/حلب

تنفيذاً لمبدأ ربط الجامعة بالمجتمع وتعزيز قدرات خريجي كليتنا على معالجة المواضيع العلمية .

يرجى تسهيل مهمة الطالب المعيد محمد عطار ....

في الحصول على المعلومات اللازمة لإعداد بحث في موضوع :

(تأثير الثقافة التنظيمية على تطبيق إدارة الجودة الشاملة في المؤسسات الصناعية السورية في عصر التسويق العالمي: الدور الوسيط لاستعداد الأفراد للتغيير)

الدراسات العليا

دمشق في ١٦/٦/٢٠١٠

نائب العميد للشؤون العلمية

أد. بطرس ميالـــــة

عميد كلية الاقتصاد

أد. مصطفى العبد الله الكفري

جامعة دمشق - العميد

أمين جامعة دمشق

الدكتور المهندس عباس صندوق

جامعة دمشق - أمين الجامعة

ديوان جامعة دمشق المركزي - الوارد الداخلي

الرقم: ٨٩٨٤ و ع

ت: ١٤ حزيران ٢٠١٠

١٤ حزيران ٢٠١٠

دراسة تأثير الثقافة التنظيمية على تطبيق إدارة الجودة الشاملة في عصر التسويق العالمي:
و الدور الوسيط لاستعداد أفراد المؤسسة للتغيير

الإستبيان

عزيزي المشارك،

أنا طالب درجة دكتوراه في كلية التجارة و الأعمال في جامعة برونيل ، المملكة المتحدة. إنني أقوم ببحث علمي الغرض منه دراسة تأثير الثقافة التنظيمية على تطبيق إدارة الجودة الشاملة في المؤسسات الصناعية السورية ، ودراسة الدور الوسيط لاستعداد و جاهزية الأفراد للتغيير في العلاقة بين الثقافة التنظيمية و إدارة الجودة الشاملة.

إن هذا الاستبيان ينبغي أن يتم املاءه و اكماله من قبل أحد المدراء في الادارة الوسطى (مدير الجودة ، مدير الانتاج، او مدير العمليات في المنظمات التي تطبق إدارة الجودة الشاملة. إن نتائج هذه الدراسة ستساعد الباحث على تقديم مقترحات لتحسين مستوى تطبيق إدارة الجودة الشاملة في المؤسسات الصناعية السورية.

يرجى ملاحظة أن مشاركتك أمر هام والحصول على المعلومات منك سيكون مفيدا في وضع نهج مناسب من شأنها أن تفيد المؤسسات الصناعية السورية. إن مساعدتكم في استكمال الاستبيان المرفق ستكون موضع تقدير كبير. يرجى تذكر أنه من المهم إكمال الاستبيان وفقا للتعليمات المنصوص عليها في كل جزء.

إن المشاركة في هذه الدراسة طوعية وانه لديك الحق في الانسحاب من إستكمال الإستبيان في أي وقت أو عدم الرد على أي أسئلة معينة إذا كنت لا ترغب في الإجابة عليها. سيتم التعامل مع الإجابات بدرجة كبيرة من السرية التامة و النتائج التفصيلية للاستطلاع سرية للباحث فقط و لا يحق لأحد آخر الاطلاع عليها. إن أسماءكم لن يتم إدخالها إلى قاعدة بيانات الدراسة و إن المعلومات التي تكتبونها سوف تكون سرية جدا و لا يمكن لأحد الاطلاع عليها او معرفتها ، وأية معلومات يمكن أن تؤدي إلى معرفة هويتك لن تنشر وهي طي الكتمان و السرية البالغة. سيتم التعامل مع جميع الإجابات بأقصى قدر من الموثوقية و السرية وان نتائج هذا الاستبيان ستستعمل فقط لأغراض البحث، ولن يتم استغلالها لأغراض تجارية. أيضا ، أود أن أؤكد لكم أن مؤسستكم سوف لن تعطى أي معلومات عن إجابتك. سيتم إعطاء رقم متسلسل لإجابات المشاركين، وسوف ينشر فقط النتائج المجمعة لكل الإجابات معا.

سيكون هناك ملخصا للنتائج النهائية لهذه الدراسة البحثية متاحة لجميع المهتمين الذين شاركوا في هذه الدراسة إذا طلبوا ذلك.

محمد حفار

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و شكرا لكم سلفا على مشاركتكم

ملاحظة : المنظمة في هذا الاستبيان تعني أيضا (منشأة أو مصنع أو شركة)

الجزء الأول: إدارة الجودة الشاملة

يُعنى هذا الجزء بتطبيق إدارة الجودة الشاملة و ممارساتها في منظمتكم
يرجى قراءة العبارات التالية و اجعل أجوبتك مبنية على كيف تسير الأمور في الواقع في المؤسسة الخاصة بك، وليس كيف تريد لها أن تكون. يرجى وضع دائرة حول الرقم الذي يعكس وضع منظمتك الحالي،

حيث إن: 1: أعارض بشدة؛ 2: أعارض؛ 3: لا أعارض و لا أوافق؛ حيادي؛ 4: أوافق؛ 5: أوافق بشدة

1	المدراء في الإدارة العليا يشجعون التغيير بفعالية من أجل تحقيق الممارسات الأفضل.	1	2	3	4	5
2	المدراء في الإدارة العليا في منظمتنا قد طبقوا ثقافة الثقة والمشاركة والالتزام من أجل تحقيق الممارسات الأفضل	1	2	3	4	5
3	الإدارة العليا تشرك رؤساء الإدارات و المدراء في تحديد الأهداف الطويلة الأجل	1	2	3	4	5
4	منظمتنا نسعى بشكل استباقي للتحسين المستمر بدلا من رد الفعل للأزمة.	1	2	3	4	5
5	الإدارة العليا حققت درجة عالية من وحدة الهدف في أرجاء المنظمة	1	2	3	4	5
6	منظمتنا أزالت الحواجز بين الأفراد والأقسام.	1	2	3	4	5
7	أفكار مدراء و فنيي الإنتاج يؤخذ بها و تستخدم بفعالية في مساعدة الإدارة	1	2	3	4	5
8	رضا الموظف يقاس بشكل رسمي و منتظم	1	2	3	4	5
9	جودة المشاركة في فريق العمل هو عنصر أساسي في عملية تقييم الأداء في هذه المنظمة.	1	2	3	4	5
10	معنى 'العميل أو الزبون الداخلي' و الذي يتضمن كل العاملين في المنظمة، مفهوم جيدا في منظمتنا.	1	2	3	4	5
11	لدينا عملية تدريب و تطوير واسعة، لجميع الموظفين في مؤسستنا ، بما في ذلك تخطيط المسار الوظيفي.	1	2	3	4	5
12	مؤسستنا لديها عمليات اتصالفعالة 'من أعلى إلى أسفل' و 'من أسفل إلى أعلى'.	1	2	3	4	5
13	لدينا ممارسات الصحة والسلامة المهنية ممتازة	1	2	3	4	5
14	منظمتنا تدرب أفراد المنظمة ليكونوا أكثر مرونة مما يساعد على تطوير الأداء.	1	2	3	4	5
15	كل الموظفين يؤمنون بمسؤوليتهم بتحقيق الجودة	1	2	3	4	5
16	شركتنا تستخدم نظام عادل و دقيق لتقييم أداء الموظف	1	2	3	4	5
17	نحن نعرف 'المتطلبات الحالية والمستقبلية لزبائننا الخارجين على حد سواء من حيث حجم وخصائص المنتج	1	2	3	4	5

18	متطلبات العملاء و المستهلكين يتم نشرها وفهمهاعلى نحو فعال من قبل كل القوة العاملة	1	2	3	4	5
19	نصمم المنتجات والخدمات الجديدة بناء على متطلبات العملاء(المستهلكين) المحليين	1	2	3	4	5
20	لدينا إجراءات فعالة لتسوية شكاوى الزبائن الخارجيين	1	2	3	4	5
21	شكاوى العملاءو المستهلكين تستخدم كوسيلة للشروع في القيام بتحسينات لإجراءاتنا الحالية.	1	2	3	4	5
22	نحن نقيس رضا العملاء الخارجيين بشكل منهجي ومنتظم	1	2	3	4	5
23	نحن نأخذ بالاعتبار آراء العملاء عند صنع قرارات الشركة.	1	2	3	4	5
24	لدينا عملية تخطيط شامل ومنظم التي تحدد و تعيد النظر في الأهداف الطويلة و القصيرة الأجل بصورة منتظمة.	1	2	3	4	5
25	خططنا تركز على تحقيق 'أفضل الممارسات.	1	2	3	4	5
26	عند بناء و تطوير الخطط والسياسات والأهداف فان منظمتنا دائما تدرج و تاخذ بالاعتبارمتطلبات العملاء، وقدرات الموردين، واحتياجات أصحاب المصالح الآخرين، بما في ذلك المجتمع.	1	2	3	4	5
27	لدينا بيان مكتوب لإستراتيجية المنظمة تغطي جميع عمليات التصنيع التي صيغت بوضوح و تم الموافقة عليها من قبل كبار المديرين	1	2	3	4	5
28	عمليات التصنيع تتماشى بشكل فعال مع الاستراتيجية المركزية لمؤسستنا	1	2	3	4	5
29	شركتنا لديها خطة إستراتيجية للسنوات الخمس المقبلة	1	2	3	4	5
30	في شركتنا ، يفهم العاملين التوجه الاستراتيجي في شركتنا.	1	2	3	4	5
31	الموردون يعملون بشكل وثيق معنا في تطوير المنتجات	1	2	3	4	5
32	نحن نعمل بشكل وثيق مع موردينا لتحسين عمليات بعضنا البعض	1	2	3	4	5
33	لدينا أساليب فعالة لقياس نوعية منتجاتنا وخدماتنا	1	2	3	4	5
34	لدي شركتنا إجراءات تشغيل موحدة وموثقة على نطاق واسع	1	2	3	4	5
35	نحن باستمرار ندرس و نراجع نظام العمليات الأساسي و نحاول إدخال تحسينات.	1	2	3	4	5
36	نحن نعمل في فرق عمل مع أعضاء من مختلف المجالات و الاقسام في المنظمة (مثل التسويق، والإنتاج...) لتطوير منتجات جديدة.	1	2	3	4	5
37	منظمتنا تستعرض المعلومات المتعلقة بجودة منتجات و إجراءات الشركات الأخرى و تقارنها مع جودة منتجاتنا و إجراءاتنا	1	2	3	4	5
38	منظمتنا تستعرض المعلومات المتعلقة بممارسات وسياسات الموارد البشرية في الشركات الأخرى و تقارنها مع ممارسات وسياسات الموارد البشرية في شركتنا	1	2	3	4	5

39	منظمتنا تستعرض المعلومات المتعلقة بخدمة العملاء في الشركات الأخرى و تقارنها مع خدمة العملاء في شركتنا.	1	2	3	4	5
40	نحن نستخدم أساليب علمية تقوم على المعلومات عند اتخاذ القرارات في المنظمة.	1	2	3	4	5
41	تستخدم منظمتنا المعلومات ومقاييس الأداء في تحسين عملياتها وخدماتها.	1	2	3	4	5
42	نحن نستخدم الأساليب الإحصائية للتقليل من الانحراف و الاخطاء في العمليات	1	2	3	4	5

الجزء الثاني: تقييم جاهزية و استعداد الأفراد في الشركة لتطبيق إدارة الجودة الشاملة

يرجى وضع دائرة حول الرقم الذي يعبر عن درجة توافقك مع البنود التالية المتعلقة بتطبيق ادارة الجودة الشاملة مؤخرا في منظمتك حيث إن: 1: أعارض بشدة؛ 2: أعارض؛ 3: لا أعارض و لا أوافق؛ حيادي؛ 4: أوافق؛ 5: أوافق بشدة

1	أعتقد أن المنظمة تستفيد و تحقق المنفعة بتطبيق إدارة الجودة الشاملة	1	2	3	4	5
2	انه من المنطقي بالنسبة لنا لتطبيق إدارة الجودة الشاملة	1	2	3	4	5
3	أعتقد أن هناك أسبابا منطقية و مشروعة بالنسبة لمؤسستنا لتطبيق إدارة الجودة الشاملة	1	2	3	4	5
4	أشعر أن تطبيق إدارة الجودة الشاملة يحسن الكفاءة العامة لمؤسستنا	1	2	3	4	5
5	أعتقد أن هناك عددا من الأسباب المنطقية لتطبيق إدارة الجودة الشاملة	1	2	3	4	5
6	أعتقد أن الوقت الذي نمضيه في تطبيق إدارة الجودة الشاملة مُجدي (له منافع)	1	2	3	4	5
7	أعتقد أن تطبيق إدارة الجودة الشاملة يتوافق مع أولويات منظمتنا	1	2	3	4	5
8	إن قادة منظمتنا قد شجعوا الأعضاء و الموظفين الآخرين في المؤسسة للالتزام بتطبيق إدارة الجودة الشاملة	1	2	3	4	5
9	إن صناع القرار من الإدارة العليا لمؤسستنا وضعوا كل الدعم وراء تطبيق إدارة الجودة الشاملة	1	2	3	4	5
10	الإدارة العليا في منظمتنا شددت على أهمية تطبيق إدارة الجودة الشاملة	1	2	3	4	5

11	أشعر بأنقادة المنظمة ملتزمون بتطبيق إدارة الجودة الشاملة	1	2	3	4	5
12	الإدارة العليا قد أكدت بشكل واضح بأن منظمتنا سوف تطبق إدارة الجودة الشاملة.	1	2	3	4	5
13	هناك بعض المهام المطلوبة مني مع تطبيق إدارة الجودة الشاملة و التي أعتقد أنني يمكن أن أقوم بها بشكل جيد	1	2	3	4	5
14	أشعر بأنني استطيع التعامل مع ممارساتو متطلبات إدارة الجودة الشاملة بسهولة	1	2	3	4	5
15	أمتلك المهارات اللازمة لتطبيق ممارسات إدارة الجودة الشاملة	1	2	3	4	5
16	حصلت على التدريب اللازم وامتلك المهارات اللازمة لتطبيق ممارسات إدارة الجودة الشاملة	1	2	3	4	5
17	أعتقد أنني استطيع أن أتعلم كل ما هو مطلوب لتطبيق إدارة الجودة الشاملة	1	2	3	4	5
18	لا أتوقع أي مشاكل في التكيف مع العمل الذي أقوم به مع تطبيق إدارة الجودة الشاملة	1	2	3	4	5
19	تجربتي السابقة تجعلني واثقا من أنني استطيع أن اعمل بنجاح مع تطبيق إدارة الجودة الشاملة	1	2	3	4	5
20	أعتقد أن عملي لا يُقيد بتطبيق إدارة الجودة الشاملة	1	2	3	4	5
21	لا أشعربأنني أفقد أي من مكانتي ووضعي في المنظمة بتطبيق إدارة الجودة الشاملة.	1	2	3	4	5
22	لا أشعر أن تطبيق إدارة الجودة الشاملة يؤثر سلبا على العلاقات الشخصية	1	2	3	4	5
23	أعتقد أن هناك منافع شخصية بالنسبة لي احصل عليها من تطبيق إدارة الجودة الشاملة	1	2	3	4	5
24	في المدى الطويل، أشعر بأن تطبيق إدارة الجودة الشاملة في مؤسستنا مُجدي بالنسبة لي	1	2	3	4	5
25	أعتقد أن تطبيق إدارة الجودة الشاملة يجعل عملي أسهل	1	2	3	4	5

الجزء الثالث: الثقافة التنظيمية:

العبارات التالية تصف أنماط القيم السائدة التي قد توجد في مؤسستك. يرجى تبيين المدى الذي عنده تقوم كل عبارة بوصف مؤسستك كما هي في الوضع الراهن مستخدما للمقياس التالي:

1: أعارض بشدة؛ 2: أعارض؛ 3: لا أعارض و لا أوافق؛ حيادي؛ غير متأكد 4: أوافق؛ 5: أوافق بشدة

يرجى ملاحظة أنه لا يوجد وصف أفضل من الأوصاف الأخرى و لكنها أوصاف مختلفة عن بعضها فقط

	1- الخصائص و الصفات المهيمنة في المنظمة					
أ	مؤسستنا مكان شخصي جدا. وهي مثل أسرة واحدة كبيرة. أفراد المنظمة فيها متعاونون و يشتركون مع بعضهم البعض بكثير من الصفات.	1	2	3	4	5
ب	مؤسستنا مكان يسوده النشاط ، و الدافع للابتكار.والأفراد في المنظمة فيها مستعدون للمغامرة و الخوض في المخاطر	1	2	3	4	5
ج	منظمتنا هي من النوع الذي تركز على النتائج، و الاهتمام الرئيسي في منظمتنا هو انجاز العمل المطلوب . و أفراد المنظمة لديهم توجه نحو التنافسية و الانجاز	1	2	3	4	5
د	منظمتنا هي مكان محكوم و منظم جدا. الإجراءات الرسمية بشكل عام تحكم ماذا يفعل الأفراد في المنظمة	1	2	3	4	5
	2- نوعية القيادة الإدارية في المنظمة					
أ	القيادات الإدارية في المنظمة بشكل عام تعتبر ميالة إلى الإرشاد و التسهيل	1	2	3	4	5
ب	القيادات الإدارية في المنظمة بشكل عام تعتبر ميالة إلى الاستحداث، التطوير و الابتكار و تحمل المخاطر	1	2	3	4	5
ج	القيادات الإدارية في المنظمة بشكل عام تعتبر ميالة إلى الجدية و الشدة في العمل و تهتم بتحقيق النتائج المطلوبة	1	2	3	4	5
د	القيادات الإدارية في المنظمة بشكل عام تعتبر ميالة إلى دور المنسق و المنظم و الاهتمام بأداء العمل بكفاءة و فعالية	1	2	3	4	5
	3 -إدارة الموظفين					
أ	أسلوب الإدارة في المنظمة يتسم بعمل الفريق والتوافق و المشاركة	1	2	3	4	5
ب	أسلوب الإدارة في المنظمة يتسم بتشجيع المبادرات و الابتكارات و الحرية و التميز الفردي.	1	2	3	4	5
ج	أسلوب الإدارة في المنظمة يتسم بطلب واجبات كثيرة و تحقيق الانجاز و التنافسية.	1	2	3	4	5

د	أسـلوب الإدارة في المنظمة يتسـم بالسـعي لاسـتقرار العاملين في وظـائفهم و العلاقـات في المنظمـة و العمـل وفقـا لمـا هو محـدد و مثبت.	1	2	3	4	5
	4- الرابطة في المنظمة					
أ	الرابطة التي تســـاعد على تماســـك و متانة المنظمة هو الولاء والصدق والثقة المتبادلة و الالتزام بشكل كبير	1	2	3	4	5
ب	الرابطة التي تســـاعد على تماســـك و متانة المنظمة هو الالتزام بالابتكار و التطوير والتشـــديد على الســـعي لتكون الأفضـــل من المنظمات الأخرى	1	2	3	4	5
ج	الرابطة التي تساعد على تماسك و متانة المنظمة هو التشديد على الجدية انجاز الأعمال و تحقيق الأهداف و الفوز بجدية	1	2	3	4	5
د	الرابطة التي تساعد على تماسك و متانة المنظمة هو السياسات و القوانين الرسـمية. و إن الحفاظ على سـير العمل بشـكل سـلس و انسيابي أمر مهم في هذه المنظمة	1	2	3	4	5
	5- التركيز و الاهتمام الاستراتيجي في المنظمة					
أ	المنظمة تركز و تشدد على تطور العنصر البشري و الثقة العالية و الانفتاح و التطور	1	2	3	4	5
ب	المنظمة تركز و تشـدد على الحصـول على موارد جديدة و تطبيق أمور جديدة و إيجاد تحديات و فرص جديدة	1	2	3	4	5
ج	المنظمة تركز و تشـدد على الأعمال التنافسـية و الانجاز و تحقيق الامتداد و التوسع و السيادة في السوق	1	2	3	4	5
د	المنظمة تركز و تشـدد على الاسـتمرار و الاسـتقرار و الفعالية و السيطرة و انسياب العمليات	1	2	3	4	5
	6- معايير النجاح في المنظمة					
أ	المنظمة تُعرف النجاح على أســـاس تطوير الموارد البشـــرية و العاملين و العمل الجماعي	1	2	3	4	5
ب	المنظمـة تُعرف النجـاح على أســـاس إنتـاج المنتجـات الأحدث و الأفضل و أن تكون سباقة في الابتكار	1	2	3	4	5
ج	المنظمة تُعرف النجاح على أساس الفوز و اختراق السوق و أن تكون في المرتبة الأولى بين المنافسين.	1	2	3	4	5
د	المنظمة تُعرف النجاح على أســـاس الفعالية و أهمية أداء المهام في وقتها بشكل انسيابي إضافة إلى تخفيض تكاليف الإنتاج.	1	2	3	4	5

الجزء الرابع: معلومات عامة عن نفسك و عن المنظمة التي تعمل بها

هذا الجزء من الاستبيان هو عبارة عن معلومات عامة عنك و عن منظمتك التي تعمل بها.

1- الجنس:

ذكر ☐ أنثى ☐

2- السن:

اقل من 20 سنة ☐ 30-21 ☐ 40-31 ☐

41- 50 ☐ اكثر من 50 سنة ☐

3- ما هو أعلى مستوى تحصيل علمي حصلت عليه؟

أقل من الثانوية ☐ الثانوية ☐ درجة جامعية (بكالوريوس) ☐ درجة الدبلوم ☐

درجة الماجستير ☐ درجة الدكتوراه ☐

4- ما هو المسمى الوظيفي لك في الشركة

مدير الجودة ☐ مدير العمليات ☐ مدير الانتاج ☐ وظيفة اخرى ☐

5-عدد سنوات الخبرة

1-5 سنوات ☐ 5-10 سنة ☐ 11-15 سنة ☐ 16-20 سنة ☐

☐ ☐ ☐

25-21 سنة 30-26 سنة أكثر

6- ما نوع ملكية المؤسسة التي تعمل بها ؟

القطاع العام ☐ القطاع الخاص ☐

7- هل حصلت منظمتكم على احدى شهادات الايزو؟

نعم ☐ لا ☐

- هل ترغب في الحصول على نسخة من ملخص نتائج هذه الدراسة؟

نعم ☐ لا ☐

إذا أجبت بنعم يرجى إرفاق بطاقة معلوماتك (عنوانك التفصيلي)

إذا كنت ترغب في تقديم أي تعليقات أو اقتراحات الرجاء استخدام الفراغ أدناه:

.....
.....
.....

شكرا جزيلا لكم على مشاركتكم.

Appendix C

Survey Questionnaire - “English Version”

AN ANALYSIS OF THE INFLUENCE OF ORGANISATIONAL CULTURE ON TQM IMPLEMENTATION IN AN ERA OF GLOBAL MARKETING: THE MEDIATING ROLE OF INDIVIDUAL READINESS FOR CHANGE

A survey conducted by Mr. Mohamed Haffar

Dear Respondent,

I am a full-time Ph.D. student at the Business School of Brunel University, United Kingdom. The aim of this research study is to examine the mediating role of individual readiness for change in the relationship between organisational culture and TQM implementation in Syrian Manufacturing Organisations (SMOs).

This questionnaire should be completed by middle managers (operation, production or quality managers) in organisations which are involved in implementing TQM. The findings of this study will help the researcher to provide recommendations and guidelines for improving the level of TQM implementation in SMOs.

Please note that your participation is crucial to the survey results, and the information obtained will be useful in devising suitable approaches that will benefit Syrian manufacturing organisations. Your help in completing the attached questionnaire would be greatly appreciated. Please remember that it is important to complete the survey according to the instructions provided for each part.

Taking part in this study is voluntary and you have the right to withdraw from completing the questionnaire at any time, or not to answer any particular questions if you do not wish to answer them. This is a confidential, anonymous survey. Detailed results of the survey will be confidential to the researcher only. No names will be entered into the database of the study. No individual feedback will be given to any party, any information provided will be confidential and will not be publicised. All responses will be treated with the utmost confidence. The results will be used for research purposes only, and will not be exploited for commercial purposes. Also, I would like to assure you that your organisation will not be provided with any information on what you have answered. Responses will be assigned a sequential number and only the aggregated results will be reported for the purpose of this research

A summary of the final outcomes of this research study will be available to all those interested who participated in the study upon request. If you have any enquiries about the survey, please feel free to contact me on the following No.: 021 678062 (in Syria), 00447912117226 (in the UK).

Note: Organisation in this survey could also refer to a company, factory, firm, etc.

Yours Faithfully,

Mr. Mohamed Haffar

Ph.D. Candidate

Brunel Business School

Brunel University

Email: Mohamed.haffar@brunel.ac.uk

Part A: Total Quality Management

This part is concerned with the implementation of Total Quality Management (TQM). Please read the following statements and base your responses on how things actually are in your organisation, not how would you like them to be. Please circle the number which reflects your present position, where: 1: Strongly disagree; 2: Disagree; 3: Neither agree nor disagree; 4: Agree; 5: Strongly agree

1	Our senior managers actively encourage changes to past practices, in order to achieve 'Best Practices'.	1	2	3	4	5
2	Our senior managers have implemented a culture of trust, involvement and commitment in order to achieve 'Best Practices'.	1	2	3	4	5
3	Top management involves major department heads and managers in determining long-term objectives.	1	2	3	4	5
4	At this site we proactively pursue continuous improvement rather than reacting to crises.	1	2	3	4	5
5	Senior management have achieved a high degree of unified purpose throughout our organisation	1	2	3	4	5
6	Our organisation has eliminated barriers between individuals and/or departments	1	2	3	4	5
7	Ideas from production managers and operators are actively used in assisting management.	1	2	3	4	5
8	Employee satisfaction is formally and regularly measured	1	2	3	4	5
9	Quality of teamwork participation is an essential part of performance evaluation at this organisation	1	2	3	4	5
10	The concept of the 'internal customer' (i.e., the next person or process down the line and including all employees) is well understood at this site	1	2	3	4	5
11	We have an organisation-wide training and development process, including career path planning, for all our employees	1	2	3	4	5
12	Our site has effective 'top–down' and 'bottom–up' communication processes	1	2	3	4	5
13	Our occupational health and safety practices are excellent	1	2	3	4	5
14	Our organisation trains all members to be multi-skilled, thereby more flexible which improves performance	1	2	3	4	5
15	All employees believe that quality is their responsibility	1	2	3	4	5

16	Our company uses employee evaluation procedures which are fair and accurate.	1	2	3	4	5
17	We know our external customers' current and future requirements, both in terms of volume and product characteristics.	1	2	3	4	5
18	These customer requirements are effectively disseminated and understood throughout the workforce	1	2	3	4	5
19	In designing new products and services we use the requirements of domestic customers	1	2	3	4	5
20	We have an effective process for resolving external customers' complaints	1	2	3	4	5
21	Customer complaints are used as a method to initiate improvements in our current processes	1	2	3	4	5
22	We systematically and regularly measure external customer satisfaction	1	2	3	4	5
23	We involve customers' input in making company decisions	1	2	3	4	5
24	We have a comprehensive and structured planning process which regularly sets and reviews short and long-term goals	1	2	3	4	5
25	Our plans focus on the achievement of 'best practice'	1	2	3	4	5
26	When we develop our plans, policies and objectives, we always incorporate customer requirements, supplier capabilities, and the needs of other stakeholders, including the community.	1	2	3	4	5
27	We have a written statement of strategy covering all manufacturing operations, which is clearly articulated and agreed to by our senior managers.	1	2	3	4	5
28	Our site's manufacturing operations are effectively aligned with the central business mission	1	2	3	4	5
29	Our company has a strategic plan for the next five years	1	2	3	4	5
30	In our company, employees understand the company's strategic direction	1	2	3	4	5
31	Our suppliers work closely with us in product development	1	2	3	4	5
32	We work closely with our suppliers to improve each others' processes	1	2	3	4	5
33	We have an effective system for measuring the quality of our products and services.	1	2	3	4	5
34	We have site-wide standardised and documented operating procedures	1	2	3	4	5

35	We constantly study and review our key system processes and try to make improvements	1	2	3	4	5
36	We work in teams, with members from a variety of areas (marketing, production, …) to introduce new products	1	2	3	4	5
37	Our organisation is reviewing the information relating to other firms' product quality and procedures and comparing them with our product quality and procedures.	1	2	3	4	5
38	Our organisation is reviewing the information relating to other firms' human resource practices and policies and comparing them with our human resource practices and policies	1	2	3	4	5
39	Our organisation is reviewing the information relating to other firms' customer service and comparing them with our customer service	1	2	3	4	5
40	We are using scientific methods based on information whilst make decisions in the organisation	1	2	3	4	5
41	The organisation uses information and performance measurements in the improvement of its processes and services	1	2	3	4	5
42	We use statistical techniques to reduce variance in processes	1	2	3	4	5

Part B: Assessment of individual readiness for change

Please circle the number which expresses your level of agreement with the following 24 items reflecting on the recent application of total quality management (TQM) in your organisations, where: 1: strongly Disagree; 2: Disagree; 3: neither Agree nor Disagree; 4: Agree; 5: strongly Agree.

1	I think that the organisation benefits with the implementation of total quality management (TQM)	1	2	3	4	5
2	It makes sense for us to implement TQM	1	2	3	4	5
3	I think that there are legitimate reasons for us to implement TQM	1	2	3	4	5
4	I feel that implementing TQM improves our organisation's overall efficiency	1	2	3	4	5
5	I believe that there are a number of rational reasons for TQM implementation.	1	2	3	4	5
6	I believe that the time we spend on TQM implementation is feasible	1	2	3	4	5

7	I believe that TQM implementation matches the priorities of our organisation	1	2	3	4	5
8	The leaders of our organisation have encouraged organisational members to commit themselves to TQM	1	2	3	4	5
9	Our organisation's top decision makers have put all their support behind the implementation of TQM	1	2	3	4	5
10	The top management of our organisation has stressed the importance of TQM implementation	1	2	3	4	5
11	I feel that our organisation's general manager is committed to TQM implementation	1	2	3	4	5
12	Management made it clear that our organisation was going to implement TQM	1	2	3	4	5
13	There are some tasks that are required with TQM implementation that I think I can do well	1	2	3	4	5
14	I feel that I can handle TQM practices with ease when our organisation implement it	1	2	3	4	5
15	I have the skills that are needed to make TQM practices work.	1	2	3	4	5
16	I have the necessary training and skills that are needed to implement TQM	1	2	3	4	5
17	I believe I could learn everything that is required for the implementation of TQM.	1	2	3	4	5
18	My past experiences make me confident that I can perform successfully with the implementation of TQM.	1	2	3	4	5
19	I do not anticipate any problems adjusting to the work that I have with the implementation of TQM.	1	2	3	4	5
20	I believe that my job is not limited by TQM implementation.	1	2	3	4	5
21	I do not feel I lose any of my standing in the organisation with the implementation of TQM.	1	2	3	4	5
22	I do not feel TQM implementation has disrupted my personal work-related relationships.	1	2	3	4	5
23	I believe there are personal benefits for me to gain from TQM implementation.	1	2	3	4	5
24	In the long run, I feel that the implementation of TQM in our organisation is worthwhile for me.	1	2	3	4	5
25	TQM implementation is making my job easier	1	2	3	4	5

Part C- The Organisational Culture

In this section we are going to characterise your organisation's culture as it is currently. The following statements describe types of operating values which may exist in your organisation. Please indicate the extent to which each statement describes your corporation as it is currently, utilizing the scale below

1	2	3	4	5
Strongly disagree	Disagree	Neutral or not Sure	Agree	Strongly agree

Please take notice that none of the descriptive statement is any better than others; they are just different. Please circle the number on the right against each question from the scale below:

C l. The dominant characteristics of the organisation						
A	The organisation is a very personal place. It is like an extended family. People seem to share a lot of themselves	1	2	3	4	5
B	The organisation is a very dynamic and entrepreneurial place. People are willing to stick their necks out and take risks	1	2	3	4	5
C	The organisation is very results oriented. A major concern is with getting the job done. People are very competitive and achievement oriented	1	2	3	4	5
D	The organisation is very controlled and structured place. Formal procedures generally govern what people do	1	2	3	4	5
C2. Organisational Leadership						
A	The leadership in the organisation is generally considered to exemplify mentoring, facilitating, or nurturing.	1	2	3	4	5
B	The leadership in the organisation is generally considered to exemplify entrepreneurship, innovation, or risk taking	1	2	3	4	5
C	The leadership in the organisation is generally considered to exemplify a no-nonsense, aggressive, results-oriented focus	1	2	3	4	5
D	The leadership in the organisation is generally considered to exemplify coordinating, organising, or smooth-running efficiency.	1	2	3	4	5
C3. Management of Employees						
A	The management style in the organisation is characterised by teamwork, consensus, and participation	1	2	3	4	5
B	The management style in the organisation is characterised by individual risk-taking, innovation, freedom, and uniqueness	1	2	3	4	5

C	The management style in the organisation is characterised by hard driving competitiveness, high demands, and achievement	1	2	3	4	5
D	The management style in the organisation is characterised by security of employment, conformity, predictability, and stability in relationships	1	2	3	4	5
C.4 Organisation Glue						
A	The glue that holds the organisation together is loyalty and mutual trust. Commitment to this organisation runs high	1	2	3	4	5
B	The glue that holds the organisation together is commitment to innovation and development. There is an emphasis on being on the cutting edge	1	2	3	4	5
C	The glue that holds the organisation together is the emphasis on achievement and goal accomplishment. Aggressiveness and winning are common themes	1	2	3	4	5
D	The glue that holds the organisation together is formal rules and policies. Maintaining a smooth-running organisation is important.	1	2	3	4	5
C5. Strategic Emphasis						
A	The organisation emphasises human development. High trust, openness, and participation persist.	1	2	3	4	5
B	The organisation emphasises acquiring new resources and creating new challenges. Trying new things and prospecting for opportunities are valued	1	2	3	4	5
C	The organisation emphasises competitive actions and achievement. Hitting stretch targets and winning in the marketplace are dominant.	1	2	3	4	5
D	The organisation emphasises permanence and stability. Efficiency, control and smooth operations are important	1	2	3	4	5
C6. Criteria of Success						
A	The organisation defines success on the basis of the development of human resources, teamwork, employee commitment, and concern for people.	1	2	3	4	5
B	The organisation defines success on the basis of having the most unique or newest products. It is a product leader and innovator.	1	2	3	4	5
C	The organisation defines success on the basis of the winning in the marketplace and outpacing the competition. Competitive market leadership is key.	1	2	3	4	5

D	The organisation defines success on the basis of efficiency. Dependable delivery, smooth scheduling and low cost production are critical.					

Part D — Personal and Organisational Information

This part is to provide general information about yourself and the organisation that you work for.

l- What is your gender?

Male ☐ Female ☐

2- How old are you?

<20 ☐ 20—30 ☐ 31—40 ☐

41—50 ☐ >50 ☐

3- What is the highest level of formal education you have attained?

Below secondary school ☐ Secondary school ☐

University Degree (Bachelor degree) ☐ Diploma degree ☐

Master's degree ☐ Doctorate ☐

4- What is your working position in this company?

Quality manager ☐ Operations manager ☐

Production manager ☐ Other work positions ☐

5- Number of years of Experience

1-5 years ☐ 5-10 years ☐ 11-15 years ☐ 16-20 years ☐

21-25 years ☐ 26-30 years ☐ more ☐

6- What is the owner ship of your organisation?

Public ☐ private ☐

7- Has your organisation obtained any ISO certifications?

Yes ☐ No ☐

- Do you desire to be given a summary of outcomes of this study?

Yes ☐ No ☐

If you answer with yes, please attach your business card in order to receive a summary copy of the study outcomes.

- If you would like to make any further comments or suggestions please use the space below:

……
……
…….....

Thank you very much for your participation

APPENDIX D: Regression Analysis Results

APPENDIX D .1 Regression Results Showing the Direct Effect of Organisational Culture Types on TQM Implementation

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.524[a]	.275	.260	.86048858

a. Predictors: (Constant), market, group, adhocracy , hierarchy

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	53.576	4	13.394	18.089	.000[a]
	Residual	141.424	191	.740		
	Total	195.000	195			

a. Predictors: (Constant), market, group, adhocracy, hierarchy

b. Dependent Variable: tqm

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.513E-16	.061		.000	1.000
	group	.246	.063	.246	3.918	.000
	adhocracy	.378	.063	.378	6.020	.000
	hierarchy	-.083	.085	-.083	-.976	.330
	market	-.072	.085	-.072	-.853	.395

APPENDIX D.2 Regression Results Showing the Direct Effect of Organisational Culture Types on IRFC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.372[a]	.138	.120	.98205753

a. Predictors: (Constant), Market , group , adhocracy , hierarchy

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.415	4	7.354	7.625	.000[a]
	Residual	183.243	190	.964		
	Total	212.658	194			

a. Predictors: (Constant), Market , group, adhocracy, hierarchy

b. Dependent Variable: irfc

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.122	.070		1.739	.084
	group	.302	.072	.288	4.181	.000
	adhocracy	.149	.072	.142	2.070	.040
	hierarchy	.121	.097	.115	1.236	.218
	market	-.198	.097	-.190	-2.045	.042

a. Dependent Variable: irfc

APPENDIX D.3 Regression Results Showing the Mediating Role of IRFC in the Effect of Organisational Culture Types on TQM Implementation

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.671[a]	.451	.436	.75153039

a. Predictors: (Constant), Market, group, adhocracy, hierarchy, IRFC

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	87.656	5	17.531	31.040	.000[a]
	Residual	106.747	189	.565		
	Total	194.403	194			

a. Predictors: (Constant), market, group, adhocracy, hierarchy, irfc

b. Dependent Variable: tqm

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.053	.054		-.976	.330
	irfc	.435	.056	.455	7.835	.000
	group	.115	.058	.114	1.990	.048
	adhocracy	.313	.056	.312	5.610	.000
	hierarchy	-.136	.075	-.136	-1.814	.071
	market	.014	.075	.014	.185	.853

a. Dependent Variable: tqm