Integrating TQM methods with corporate strategy: A source of sustainable competitive advantage.

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REFERENCE

Integrating TQM Methods with Corporate Strategy: A Source of Sustainable Competitive Advantage.

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ABSTRACT

This thesis presents the outcome of an investigation into the incorporation of Total Quality Management (TQM) methods with a firm's corporate strategy as a means of achieving a sustainable competitive advantage. The research study was carried out in an effort to bring to the fore the importance and relevance of TQM within the context of strategy formulation and implementation within the service industry in Trinidad and Tobago.

This research adopted an integrated approach to the research methodology. Questions and objectives were explored through the administration of 180 questionnaires of which 150 were completed and 97 semi structured interviews. A comprehensive literature review was conducted on the major concepts being explored (TQM, management philosophies, principles and practices, strategy, sustainability and competitive advantage). Additionally, the Deming Prize, Malcolm Baldrige National Quality Award and the EFQM Excellence Model were examined in some detail and later formed the basis of the author's TQM Six Senses Model (The Six Senses Model). The Six Senses Model was then validated via two focus groups and comparison with four existing models.

Data collected from the interviews with employees at the six organizations which participated in the study revealed that although TQM methods had not been implemented in the respective firms, employees were optimistic that the Six Senses Model could be successfully adopted and implemented. Furthermore, the findings from the companies provided new insights on employees' attitudes towards the adoption and implementation of quality based initiatives.

The Six Senses Model is based on integration among the following constructs:

i. Top management's core functions
ii. Stakeholders
iii. TQM Success Factors
iv. The Process of Integration
v. Implementation and
vi. TQM Strategic Outcomes

An organization that contemplates embarking on the TQM journey with the expectation of achieving a sustainable competitive advantage can use The Six Senses Model as a "roadmap" in its quest to improve the way business is conducted. Through successful implementation of the Six Senses Model within the service industry, perhaps there can be scope for a National Quality Award and subsequently a regional award.

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Finally, I wish to express my gratitude to God, through whom all things are possible, for granting me good health and a continuous source of inspiration during the last seven years.

CANDIDATE'S STATEMENT

The objectives of this research study were as follows:

1. To assess and evaluate the current performance of firms within the service industry in Trinidad and Tobago.
2. To identify the factors necessary for the successful implementation of TQM-based strategies. This was done by examining the extant literature on TQM implementation, as well as strategy formulation and implementation.
3. To identify performance gaps between actual, current and best practices.
4. To formulate a TQM-based strategy model applicable for the service industry in Trinidad and Tobago. TQM philosophy and strategy were synthesised to devise this proposed model, which is expected to provide stakeholders within the service industry with a means to achieve efficiency and effectiveness within their operations, all of which will lead ultimately to a sustainable competitive advantage.
5. To thereby develop an academic research body of TQM current principles and practices.

In seeking to fulfill the above mentioned objectives via the completion of this thesis, I the undersigned, declare that this is my own work, unless due acknowledgement is made to the contrary.

February 23ld 2011

Steve Rajpatty Date

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CHAPTER 1 – INTRODUCTION

1.1 INTRODUCTION

In today's highly competitive, dynamic and globalised economy, the demands placed on the service industry are increasingly exceptional. As a result, service providers are being forced to acknowledge that they must now make a conscious and concentrated effort to meet customer requirements in order to survive and be successful.

Industry dynamics have been further compounded by the fact that firms are now subject to customers who have become better informed and more interested in issues directly related to their requirements, are demanding better quality, are empowered and have unlimited information mainly through the internet. Increasing competition and other factors are forcing many service providers to look at ways to retain and add to their clientele whilst at the same time balancing the tasks of improving quality, reducing time and costs, increasing productivity and improving customer service in an effort to achieve a competitive advantage within the marketplace.

Firms that continue to be complacent and remain oblivious to changes in the marketplace will not survive in the long run. To become an efficient, effective and viable service provider, a firm now needs to maintain a good balance of proactive and reactive techniques. To be successful in the long run, it is the author's view that these techniques must be an integral part of the firm's corporate strategy.

One promising management strategy which focuses on the customer, continuous improvement of the structure, the process and its outcome is, Total Quality Management (TQM). Since the 1980s TQM has developed as a key management philosophy (Redman, 1995). Over the years, it has changed and matured through the influence of several differing factors, such as the business process movement and human resources and empowerment (Davenport, Jarvenpaa and Beers, 1996).

Although it has been more than three decades since TQM was considered the current "management fad", TQM's applicability to real world problems is as relevant today as it

was then, for the simple reason that quality in any permutation will always be in demand because the provision of quality begets an increased demand for quality, especially since today's consumers are better informed with respect to standards, specifications and deliverables.

Although TQM has 'made the rounds' in many organisations throughout the globe since its emergence, it has not been fully implemented in any organisation in Trinidad and Tobago (T & T). Several organisations within the manufacturing sector have successfully achieved ISO (International Organisation for Standardisation) certification. However, even though the ISO 9000 and 9002 certifications entail some measure of quality, they provide no holistic process that incorporates all aspects of the business. Additionally, the standards ignore the people aspect of the organisation and in most cases locally, are used mainly as a marketing tool.

Presently, the government of Trinidad and Tobago (T&T) is trying to diversify the economy to reduce dependence on the energy sector and achieve self-sustaining growth. The Trinidad and Tobago Coalition of Service Industries has expressed the view that if the diversification of the economy is to be achieved, it is the services sector which will drive the process. Consequently, the role of the service industry remains critical to the overall growth and development of the national economy. These circumstances compel service-based firms to adopt new measures and strategies which will enable them to deal with the challenges and pressures of operating within a more competitive environment. Accordingly, the overall aim of this research study is to investigate whether or not firms in the service industry in T&T which incorporate TQM methods within their corporate strategy can achieve sustainable competitive advantage. To assist with achieving this goal, the author has developed a prescriptive and holistic model, The TQM Six Senses Model (The Six Senses Model). The Model is based on the constructs of top management's core functions, stakeholder involvement, the process of integration, implementation and TQM success factors and TQM strategic outcomes. The Six Senses Model is presented and discussed in detail in Chapter 6.

This study is groundbreaking in the sense that although attempts have been made by some major firms throughout T&T to introduce and implement quality initiatives only a few have attempted to implement TQM methods. Of these, there has been no reported case of successful implementation. The author believes that the lack of success to date is due largely to the fact that these firms did not incorporate TQM as part of their strategic planning or strategy generation process. He further believes that firms seeking to achieve competitive advantage must look beyond a "piecemeal" strategy to find true success.

As customers demonstrate and demand value from the exchange relationship, firms are faced with the fact that strategies which addresses price, product features, technology and perhaps some aspects of quality are simply not enough to gain a sustainable competitive advantage, therefore a holistic approach is needed. This study proposes that it is therefore essential to integrate TQM methods with the firm's corporate or core strategy and this "integration" is critical to a firm achieving sustainable competitive advantage in the marketplace.

Most of the major service-based companies in T&T have a business or strategic plan. Hence, one can conclude that these firms practice some degree of strategy formulation, articulation and implementation. Accordingly, the author believes that this appears to be an ideal starting point for the introduction of TQM philosophies, principles and practices as part of the total strategic offering. In this regard, the key questions proposed in this research are: how do we go about adopting TQM methods and more importantly, how do we integrate them within the firm's guiding philosophy, strategy, organisational culture and business practices with a view towards achieving sustainable competitive advantage? The author submits that the findings from this research study and the Six Senses Model will provide the answers to these questions.

This first chapter of the thesis presents the research context, the research problem, aim, goals and objectives, the research process, the structure of the thesis and concluding remarks.

1.2 THE RESEARCH CONTEXT

This section briefly illustrates the importance of understanding the role and position of TQM within the context of strategy formulation and implementation in the achievement of sustainable competitive advantage. All of these concepts will be explored further in Chapter 4.

Quality has become a competitive advantage of significant importance, especially for organisations driven by efficiency. The question of how these organisations can sustain such a competitive position over an extended period is at the very core of every strategy development process (Day, 1994). One answer to this question lies with the firm's ability to offer products of superior quality. This has led to the notion that quality represents a source of competitive advantage (Porter, 1985). Spitzer (1993) emphasizes this view when he describes TQM as the only source of competitive advantage.

As firms attempt to explore alternative means of sustainable competitive advantage, quality practices have been discussed conceptually as a potential alternative to traditional skills and resources (Bharadwaj et al., 1993; Shank and Govindarajan, 1994). Fuentes (1994) explained that TQM represents an excellent strategy for achieving a competitive advantage in the long run, as it is equipped with specific tools and techniques. Additionally, he emphasised that TQM focuses on the constant achievement of improvements and creates a corporate culture that values a delighted customer.

Various academics and practitioners have extensively researched TQM and quality over the past three decades. However, many authors and to a certain extent the academic world, have failed to educate their audiences about the relationship between TQM and quality. In other words, can quality by itself be sustainable over an extended period? Although quality has become a cornerstone of the international business language, it should not be just another piece of corporate jargon used conveniently. It is the author's view that instead of embracing some vague notion of quality, firms should be committed to the practices of TQM. If this is done, they will be able to sustain their position and retain their clientele through improvements in their quality practices.

A review of the literature on quality has shown that TQM has become a competitive advantage of great importance in supporting efficiency. Dean and Bowen (1994) provide a good overview of the concept of TQM. According to them it is a management philosophy which focuses on improving the quality of a company's products and services. In this regard, they suggest that company-wide operations should be oriented towards this goal. This has led to the perception that implementing TQM and thereby improving the quality of a firm's products and services may be considered a source of competitive advantage.

Garvin (1985) explains that the impact of high-quality products on competitive advantage is twofold. Firstly, providing products of comparable quality increases the value of those products from a customer's perspective. Secondly, this enhanced perception of value allows the company to charge a higher premium for its products and services. In the author's view, this is not quite the case, as, in actual practice, TQM is more often focused on improving efficiency. Consequently, the goal is often to reduce costs (by eliminating waste and streamlining the entire operation), while maintaining quality as the constant in the equation. Similarly, Porter (1980) explains that there are two main strategies firms may employ in an attempt to achieve competitive advantage. The first is by providing products or services that buyers perceive as being better than those of the competition. Essentially, if the prices of the firm's and its rival's products are comparable, then the firm's products are preferred by buyers on the grounds of perceived superior quality. The second strategy is that the firm's products or services are of comparable quality to those of its competitors, while enabling the firm to sell at lower prices.

In a somewhat similar view of TQM strategy and competitive advantage, Belohlav (1993a, 1993b) explains how quality practices influence competitive position, which in turn presents an array of strategic options to the firm. This is in sync with the author's view that quality is the key to building and sustaining competitive advantage and therefore it should be a vital part of a firm's competitive strategy, regardless of the products or services being offered. Specifically, and for the purpose of this research, the author hypothesises that by implementing TQM practices in direct support of the chosen

strategy, a firm may be in a better position to improve its overall processes in an effort to satisfy both internal and external customers.

The author's underlying assumption is that the successful implementation of TQM practices would certainly assist in shaping strategy thereby ensuring that customer's needs are met – further allowing the firm to achieve a competitive position in the marketplace. Therefore, the greater the attention paid to quality as a cornerstone of strategy formulation and implementation, the higher the likelihood of building and sustaining competitive advantage.

Implementing TQM is not as simple as throwing a ball and is definitely not a "quick fix" solution. Firms willing to implement TQM practices must be patient and be prepared to get everyone involved. It is also not enough to just introduce TQM; management must also be a part of the new paradigm shift and drive towards building a quality organisation. The literature review and the Six Senses Model will both show that top management involvement is critical to the successful implementation of TQM within the organisation.

The success of TQM is dependent on those closest to the operational aspects of the organisation. As discussed by Piercy (1998), the implementation process plays a more significant role in the overall execution of any given strategy. According to Ellram and Pearson (1993), "a strategy which emphasises quality and which is understood by organisation members can provide effective guidance on a daily basis". The question of what is involved in the implementation of a TQM-related strategy as a means of achieving a competitive advantage in T&T remains one of the major objectives of this research.

The key to formulating and implementing a successful plan depends on the level of commitment from top management, as their acceptance, involvement and commitment remain critical to the delivery of quality objectives (Stahl, 1995). Equally important are core organisational features such as strategy, structure and culture, all of which have to be examined individually and re-engineered accordingly, since the failure to introduce

these carefully could impact negatively on the organisation (Singh, Tucker and House, 1986). Laza and Wheaton (1990) attempt to further illustrate the relationship between the individual organisation and its enhancement. They noted that a common error in implementing quality programmes is the failure to recognise that every company and every environment is different. They recommended that specific quality practices be matched to the organisational context, or more specifically to the firm's overall strategy.

Numerous arguments put forward by various academics, practitioners and students, have concluded that implementation is often the most difficult part of the strategy process. In line with this proposed research, the author proposes that in order to attain and sustain a competitive advantage, strategies established at the corporate level must be consistent with strategies developed and coordinated throughout the entire organization and once this is done in a consistent and coherent manner relative to the needs of the customer, the firm stands to achieve better results as implementation becomes an automatic process (or as processes become institutionalised).

The implementation of any given strategy, be it low-cost, high-quality, superior resources or product differentiation (Porter, 1980), is comprised of a series of sub-activities which are primarily administrative and must be coordinated accordingly. Once purpose is determined, the resources of a company can be mobilised to accomplish it. An organisational structure appropriate for the efficient operation of the required tasks must be made effective by information systems and relationships permitting coordination of subdivided activities (Andrews, 1980).

The author hypothesises that the implementation of a TQM based strategy at the corporate level will assist firms within the service sector in achieving sustainable competitive advantage. While it remains a known fact that a common error in implementing quality is the failure to recognise that every organisation and every environment is different (Laza and Wheaton, 1990), this research will inevitably attempt to reflect the interrelationship among TQM, strategy formulation and implementation. For this reason, in this study the author will incorporate the use of the reference models along with the findings of this research as a basis for the development and

implementation of the Six Senses Model relative to the service industry, as increasingly these continue to be adopted by numerous businesses.

It has been suggested that TQM is fundamental in achieving sustainable advantage (Bharaduraj et al., 1993; Shank and Govindarajan, 1994). Indeed, earlier research by Feeny and Ives (1990) and later by Spitzer (1993) and Jensen & Markland (1996) reinforces how quality management practices can assist a company in establishing generic lead time, leveraging competitive asymmetries and creating pre-emption potential and system conformance checks. The aforesaid are crucial to sustainable competitive advantage. However, before this becomes reality, a clear understanding of what constitutes quality and how it must be articulated to the employees in a manner that will aid in the implementation phase, remains critical in the overall process (Asubonteng et al., 1996). The author proposes to explore this and other related issues in Chapter 4.

Today, consumers worldwide are demanding quality because it has become a business norm. Businesses which fail to provide quality assurances to their diversified customer base may soon find themselves in an uncompetitive position.

All in all, the worldwide perception of TQM has changed in recent years, as evidenced by the numerous articles and published work on the said subject matter. In the author's view, TQM has become paramount in many a company, as increasingly they have recognised that TQM leads to a better reputation with both suppliers and customers, increased revenues and a source of sustainable competitive advantage.

1.3 RESEARCH PROBLEM

The research problem emerged from the continued struggle by public and private sector organizations to meet the requirements of current industry standards and more importantly, stay abreast with the competitiveness within the global marketplace. These circumstances call for a shift in conventional management thinking and practices. In recent years, TQM principles and practices have attracted many developing nations. It has also received a great deal of attention by both academics and practitioners. Still,

there has been relatively little study on TQM and its integration with strategy, moreso as it relates to empirical study, in developing countries throughout the Caribbean region. Implementation efforts to date have not been able to bridge the gap between developed and developing countries especially along the lines of the firms' culture, value system, management style and overall vision and strategy. The research data was thus developed and analyzed within the context of firms operating in region considered as a developing and hence, developing a unique model for the successful implementation of TQM and its integration with strategy remains critical to this research. The conclusions and implications of this study are related to the potential of the Six Senses Model as an effective tool for integrating TQM methods with strategy to achieve sustainable competitive advantage.

1.4 RESEARCH AIM

The primary aim of this research study is to investigate whether or not firms within the service industry in T&T can achieve sustainable competitive advantage by integrating TQM methods (principles) with their corporate strategy. The author proposes to establish that this aim can only be achieved if firms differentiate themselves by introducing and implementing TQM as an overall organisational strategy or at least incorporating it into the firm's strategy through a mere study of the principles and practices of this phenomenon.

1.5 RESEARCH QUESTIONS

This overall aim of this study is achieved by answering the following questions:

1. What are the TQM methods considered critical to service based firms in Trinidad and Tobago?
2. What are stakeholders views on the implementation of quality related practices in their organization?
3. What are the factors necessary for the successful implementation of a TQM based strategy?
4. What model of TQM inclusive of methods, strategy, stakeholder and integration could be adopted by the six firms being investigated in the research study?

1.6 RESEARCH GOALS AND OBJECTIVES

The general purpose of this study is to determine the most appropriate TQM methods to be adopted and subsequently incorporated and integrated with the firm's strategy. This overall aim is bought to fulfillment by separate objectives:

1. To assess and evaluate the current performance of firms within the service industry in Trinidad and Tobago.
2. To identify the factors necessary for the successful implementation of TQM-based strategies. This will be done by examining the extant literature in TQM implementation, as well as strategy formulation and implementation.
3. To identify performance gap between actual, current and best practices.
4. To formulate a TQM-based strategy model applicable for the service industry in Trinidad and Tobago. TQM philosophy and strategy will be synthesized to devise this proposed model, which will provide stakeholders within the service industry with a means to achieve efficiency and effectiveness within their operations, all of which will lead ultimately to a sustainable competitive advantage.
5. To thereby develop the academic research body of TQM current principles and practices.

To answer the research questions, the research methodology framework was established. It is discussed in the following section.

1.7 RESEARCH METHODOLOGY

A long-standing debate on choosing a research philosophy (or paradigm) between positivism and phenomenology is ongoing. The differences between these two paradigms are shown in Table 1. However, according to Easterby-Smith et al (1991) a balance of philosophical position can be achieved in the reality of research. Having regard to the research problem and objective, this study supports neither extreme paradigm but rather seeks to create a balance between the two. Accordingly, this study adopts the systematic approach for empirical research provided by Flynn et al (1990). This approach consists of six stages which are:

1. Establish theoretical foundation;
2. Design research which is appropriate to both problem and theoretical foundation;
3. Select data collection method;
4. Implement research empirically;
5. Analyse data; and
6. Prepare research report for publication.

Since the research problem in this study comprised a number of research questions which are in various areas of quality management, the research strategy employed has used multiple methods, each of which is considered to be either a quantitative method within the positivist paradigm or a qualitative method in the phenomenological paradigm.

Table 1
Key characteristics of positivist and phenomenological paradigms

Positivist paradigm	**Phenomenological paradigm**
Basic beliefs:	
1. The world is external and objective. 2. Observer is independent. 3. Science is value-free. 4. Distinction between science and personal experience. Research concentrates on description and explanation.	The world is socially constructed and subjective. Observer is part of what observed Science is driven by human interests. Researcher accepts influences from science & personal experience, use their personality as an instrument. Research concentrates on understanding and interpretation.
Researcher should:	
Focus on fact. Look for causality and fundamental laws. Reduce phenomena to simplest elements. Formulate hypotheses and then test them.	Focus on meanings. Try to understand what is happening Look at the totality of each situation. Develop ideas through induction from data.
Preferred methods include:	
Operationalising concepts so that they can be measured. Taking large samples. Using statistical techniques for quantitative processing of data.	Using multiple methods to establish different views of phenomena. Small samples investigated in depth or over time. Data are primarily non-quantitative.

Source: Easterby-Smith et al, 1991 and Gummesson, 1991

Flynn et al (1990) were of the view that empirical research can be based on either "a theory-verification" or "a theory-building" approach. In a theory verification approach, hypotheses are generated in advance of the research, and then tested with the data collected. Alternatively, a theory-building study has no hypothesis in advance. Nevertheless, a previous theory or constructs which has been proposed from previous studies and from the literature can provide foundations for the research to build on. For the purposes of this study, theoretical foundation lies on a theory-building approach because the aim of the research is not to test hypotheses but to explain phenomena and the intention has been to add to existing theory or knowledge with new findings based on the empirical data collected. This does not mean that hypotheses were not tested in this study. After identifying the TQM Success Factors from rigorous data collection and analysis, hypotheses were developed and tested. It must be noted that these emerged out of the findings and were not pre-determined.

The scope of the research encompasses aspects of management principles and practices, strategy, TQM, competitive advantage and the use of the reference models including the specification, design, implementation and validation of the Six Senses Model.

Data and information for this study was gathered through a literature review, questionnaires, interviews and in-depth and general observations of the selected companies. It is expected that the results may unavoidably be coloured by subjective interpretations. However, in drawing conclusions, the author will create an understanding of the topic based on his own comprehension of the environments studied.

1.8 THE RESEARCH PROCESS

1.8.1 Introduction

This research adopts a positivist paradigm in administering the scientific research process. This paradigm rests on the evolution of sound theoretical frameworks, supervened by rigorous statistical testing of the developed theoretical constructs.

The research process will begin with a thorough review of the diverse TQM and strategy literature, before embarking on the development of a conceptualisation of the relevant constructs, along with a hypothetical conceptual model of the relevant pillars.

A two-stage empirical methodology will be developed, consisting of the administration of questionnaires and semi-structured interviews to carefully selected participants. Conclusions will be drawn from the data collected and the Six Senses Model developed.

1.8.2 The Research Strategy

A review of the literature will show that for the purpose of any study, the scope of TQM is very broad. However, the author has decided to focus on various models which have their origins in TQM. These will be explained in detail in Chapters 4 and 6.

Within recent times an increasing number of organisations across Europe, the Americas and Asia have adopted the reference models or similar types of models. Whilst there is no single universally accepted model for TQM implementation, it is believed that the models to be discussed in Chapters 4 and 6 do provide an internationally agreed framework. Hence, the development of a TQM-based model using these models as a springboard will be explored as a means of successful implementation within the private health care, construction, tourism, public utilities and banking sectors in T&T.

This research will be conducted by way of a literature review, questionnaires and interviews. The investigation will use many of the theoretical techniques advocated by the European Foundation for Quality Management and other authorities in the field in an attempt to develop an original TQM-based model and its implementation within the confines of the industries being examined in this primary research.

1.9 RESEARCH INTEREST AND SIGNIFICANCE

1.9.1 Introduction

The concept and practice of TQM transformed inexpensive and unreliable products labelled "made in Japan" into goods that are now internationally known for their high quality, reliability and innovative features. The TQM paradigm shift forced

industrialised countries around the world to study and adopt the Japanese way in order to be competitive in the global marketplace.

In organisations where TQM has been well executed, both the organisation and customers have benefited. For example, the quality of products and services has increased sharply, design cycle times have been reduced and "the voice of the customer" is now a key consideration in decision-making.

Given the evolving nature of TQM, organisations are yet to master this art. A review of the literature will suggest that we should not really expect to ever reach its pinnacle since the whole emphasis is on continuous improvement. Whatever its current version, many are inclined to agree with Joel Barker, who in his famous book 'Paradigms' calls TQM the most important paradigm shift of the twentieth century.

The diffusion of TQM ideas since 1980 has unleashed a flood of interest, research, practice and results. Ideas from different disciplines have been extorted, evaluated and combined to advance the original theories. In addition, some old ideas from the ancient Greeks, Henry Ford and John Dewey have been revived. Variations and extensions of the concept include Continuous Quality Improvement (CQI), re-engineering, systems thinking and Hoshin planning. The movement that began with TQM has grown and changed dramatically, more so within the last decade.

For the purposes of this research the author has decided to incorporate the findings of this research along with key aspects of the EFQM model as a means of introducing and subsequently implementing TQM within the healthcare, construction, tourism, telecommunications, utilities and banking sectors in T&T. He expects that other service industries will soon follow on this journey of continuous improvement.

1.9.2 The Research Interest and Significance of the Study

TQM has received a tremendous amount of research attention over the past three decades. Today, interest in the subject has by no means diminished; however, although there is a multiplicity of available opinions and theories available on the topic. A review of the literature has revealed that there is a definite lack of research within the service

sector in T&T and possibly the English-speaking Caribbean. This de
research often lends to the inability of researchers to validate or refute their findings.

The overarching goal and significance of this research study is to demonstrate that the inherent principles of TQM can improve efficiency, effectiveness and competitiveness in firms within the service industry in T&T, if it is adopted and implemented via the Six Senses Model. The author will not pretend to advocate that the findings from this research study will by any means be definite and final. Nonetheless, he is convinced that the aims and objectives of the study will be realised and provide far-reaching implications and positive contributions for the implementation of TQM, especially throughout T&T and possibly the English-speaking Caribbean.

The author's personal interest in this research comes from years of practical experience and involvement in the fields of TQM, strategy formulation and implementation and general work experience in the service sector.

1.10 STRUCTURE OF THESIS & SEQUENCE OF PRESENTATION

The order of presentation of this research reflects the basic aims and objectives of the study; it is organised into eight chapters, each having a distinctive aim and building logically upon the preceding chapter to construct a sound representation of the research process.

Chapter One (1) has presented the context and purpose of the study. It has also provided a description of the research problem and its significance to the concepts of TQM, strategy and implementation and sustainable competitive advantage relative to the service industry in T&T.

Chapter Two (2) provides a basic outline of the major environmental factors prevailing in the country, bearing in mind that many believe that the organisation is in fact a true reflection of society. The major components of the environment discussed are: the Trinidad and Tobago environment, geographical and historical background, social and cultural aspects, the political system and a general review of the economy. Additionally,

this chapter looks at the six service sectors in T&T that participated in the study. This chapter thus seeks to provide an understanding of the environment within which stakeholders are involved.

Chapter Three (3) provides a rationale for the research methodology undertaken, inclusive of the research approach, sampling and research design. Both primary and secondary data collection methods are examined. As mentioned previously, this research highlights the qualitative nature of the concept of TQM and the problems associated with implementation. However, both qualitative and quantitative methods are used in the data gathering and analysis processes. This chapter also details the development of the questionnaire which was administered and the collection of data via interviews and questionnaires.

Chapter Four (4) is a literature review of the concepts of TQM, corporate strategy and sustainable competitive advantage. This chapter provides the conceptual groundwork for the key concepts applicable to the proposed model.

Chapter Five (5) presents an analysis of the data collected, which is analysed using SPSS version 12.0. This chapter considers questionnaire design and the reliability of this instrument. Results of the 150 returned questionnaires are placed under rigorous analysis in order to attain both descriptive and inferential statistics. Questions and their responses are coded appropriately and tests of analysis conducted. Selected responses from the semi – structured interviews are also reported.

Chapter Six (6) introduces the Six Senses Model, the theoretical model which has been developed based on the data collected and analysed, literature review and the author's own ideas. An explanation is also provided about the workings of the new model.

Chapter Seven (7) outlines the approach taken by the author to validate the Six Senses Model. Firstly, the model is compared against the reference models identified in Section 6.3, the three frameworks identified in Table 7.1 and four other notable models. Further validation is done via two multidisciplinary focus groups; the first comprising members

from the construction industry and the second comprising members from all of the other firms surveyed. This is an extensive and comprehensive validation process which leads to some changes in the Six Senses Model.

Chapter Eight (8) provides a summary of the major developments and findings of this research study, conclusions drawn from these findings, managerial implications of these findings and the study's limitations. In addition, this chapter presents a detailed discussion of direction for future research within the context of TQM implementation and sustainable competitive advantage.

1.11 CONCLUDING REMARKS

In today's world of the empowered and informed customer, it might seem obvious that quality should be designed around the customer. Surprisingly, this is not always the case. Within the realms of the corporate boardroom, customers' needs and expectations are often defined by those furthest removed from the customers.

To a customer, quality is a lot more than a slogan or tagline. In the words of D. Daryl Wyckoff (2001), "It requires company-wide investment in defining and articulating what quality service means, and providing the resources to produce that quality. All parts of the organisation must be committed to measuring quality, because improvement is possible only when quality is measured".

Hence, it is logical to conclude that the only way firms can continue to focus on delivering unparalleled service to the customer is through the adoption of TQM-based principles and practices. Accordingly, it is the author's view that this can only be achieved through the integration of TQM methods with corporate strategy. The top layer of the organisation must therefore embrace the TQM philosophy, and one way of making this possible is by including it as an item on the corporate agenda. For TQM to be accepted it must be seen as being strategic in nature and that its adoption and integration with the firm's corporate strategy should help to provide the missing link necessary in achieving sustainable eminence.

CHAPTER 2 - THE TRINIDAD AND TOBAGO ENVIRONMENT

2.1 INTRODUCTION

Since the twin island's independence from Britain in 1962, T & T has undergone rapid changes in various aspects of its economic, political and social development. The growth of the economy from one based purely on primary commodities to one founded on both commodities, industry and service is certainly a reflection of progress.

In the early part of its growth, T & T was almost singularly dependent on the production of agricultural commodities such as sugar cane, cocoa and coffee. However, through economic diversification and foreign direct investments following independence from Britain, dependence on primary commodities was reduced. Today, the Government's mission to further lessen the country's reliance on certain primary products, industry and services emphasises the importance of the role placed on TQM, strategy formulation, articulation and implementation within the context of T & T's overall economic development.

Economic and social development inevitably affects firms within the country. This chapter will thus examine the impact of the country's salient economic and social aspects with respect to the integration of TQM methods, with corporate strategy as a means of achieving sustainable competitive advantage within the service industry. Additionally, this chapter will provide a detailed background on the country's service sector, inclusive of the firms and various sub-sectors being studied. These factors are considered relevant in order to appreciate the environment in which managers in T & T operate, specifically with regards to how it affects their perception and strategic decision-making.

The first of the three sections of this chapter will present the T & T environment, which includes location, demographic background, population composition and social, cultural

and political aspects. The second will present the economic environment. The final section will focus on the service industry and the various sub-sectors being studied.

2.2 THE TRINIDAD AND TOBAGO ENVIRONMENT

A study of strategy formulation and sustainable competitive advantage within the T & T service industry must inevitably take into consideration the major environmental factors prevailing in the country. According to the contingency theory of organisations, firms must conform to the demands of the environment if they are to be effective. It is therefore necessary to discuss any changes in the T & T environment, which are thought to affect the objectives, strategies and structures of organisations. Regardless of the source of these changes, the organisation and its management system still remain the focus and reactive indicator of environmental changes. It may even be argued by many academics and practitioners that the organisation is in fact a true reflection of society. Based on this concept of the organisation, it may be possible to assess the effects of the environment on firms. Such effects have been perceived by T & T's top and middle management executives, who have responded by adopting appropriate objectives, strategies, structures and TQM programmes for their respective organisations.

Organisational scholars have given much emphasis to the impacts of social, cultural and environmental variables on principles and practices of management. Neghandi & Reinemann (1973), Hofstede (1981) and Mansfield (1986) have all argued that different cultural traits and value systems are reflected in the management values and strategies of organisations. In accordance with this line of thinking, the following sections will discuss the major components of the T & T environment in the following order:

1. Geographical
2. Historical Development
3. Social-Cultural
4. Political

2.2.1 Geographical

The two islands of Trinidad and Tobago are located between the Atlantic Ocean and the Caribbean Sea, northeast of Venezuela. The southern tip of Trinidad lies only 11 kilometres (7 miles) from the Venezuelan mainland, while Tobago lies approximately 30 kilometres (19 miles) northeast of Trinidad. The total area of the twin island state is 5,128 square kilometres (1,980 square miles), of which Trinidad accounts for 4,828 square kilometres (1,864 square miles) and Tobago 300 square kilometres (116 square miles). T & T has 362 kilometres (225 miles) of coastline. Its capital and main urban centre, Port of Spain, is on the northwest coast of Trinidad, while Tobago's capital, Scarborough, lies on the island's southwest coast.

2.2.1.1 Climate

T & T has a tropical marine climate. The average temperature is 29^0 C (83^0 F). There is a wet season, when atmospheric conditions are unstable and the Inter Tropical Convergence Zone (ITCZ) may influence the weather (Wilson, 1990). Then there is the dry season, with stable conditions and much less rainfall. The wet or rainy season begins in June and ends in December. The country experiences the dry season from January to May. The islands are outside the path of hurricanes and other tropical storms; however, there are many minor disturbances, which can produce rain at any time of the year.

2.2.2 Demographic Background

The population factor impacts on all aspects of human life – social, economic, legal and political (Beardshaw & Ross, 1992). The population issue is the all-important backdrop against which all human activities are played. For organizations, it provides the essential resource of labour as well as the market for its goods and services. It is therefore important to look at the impact of size and composition of the service industry.

2.2.2.1 Population Composition

According to the key indicators published by the Central Statistical Office, the 2010 mid-year statistics for T & T's estimated the population to be 1,317,714 (persons). In the year 2001, this figure stood at 1,266,797 (persons). Over the previous four-year

period (1997-2001), the population increased marginally by about 0.25% from 1,263,616 in 1997 to the aforesaid figure (Central Statistical Office, 2000).

Of the total population figure, the age group that is by far the largest is the under-15 group, which accounts for just about 25% of the total population. Approximately 57% of the total population falls within the age group 15-49 (six categories), whilst the remaining 18% of the population falls within the group 50 to over 65.

The gender distribution of the population has remained unchanged, with males and females representing 50.1 and 49.9% of the population, respectively (Central Statistical Office, 2002).

During the period 1999-2002, the population change per year was stagnant at 0.5% per year. This is reflected in the births per 1000, which averaged 14 for the time period 1999-2002. Deaths per 1,000 were approximately seven over the same time period. Consequently, the crude natural growth rate averaged 6.55.

According to figures sourced from the Central Statistical Office, it was expected that by the end of 2010 the population of Trinidad and Tobago would be approximately 1,463,870, of which 746,200 would be male and the remaining 717,670 female. By the year 2015, it is expected that the total population will be 1,530,610, of which 780,200 will be male and the remaining 750,410 female. This represents a percentage change of just about 4.5% over a five-year period.

An examination of the pattern of population distribution shows an imbalance of urbanisation within the country. The northwestern part of Trinidad is quite densely populated compared to other parts of the country, which is reflected in the population density per square mile/kilometre. For example, Port of Spain's population density per square mile/kilometre of 11,503 and 4,601 respectively is undoubtedly the highest within the country.

2.2.3 Historical Background

When Columbus rediscovered Trinidad in 1498, the Caribs and Arawaks already inhabited the island. The colonisation of Trinidad by Spain was anything but rapid or effective, as the island was an insignificant part of the vast Spanish empire. Few people in Spain were aware of its location, the island lacked precious metals and it had no productive peasantry to be taken over and exploited by settlers.

In 1783, acting upon the advice of French planter, Roume de Saint Laurent, the King of Spain issued a decree, with the sole purpose of attracting immigrants to the island. The king proclaimed that free grants of land would be offered to citizens of any country friendly to Spain (provided they were Roman Catholic). French settlers flocked to Trinidad, and as an additional incentive Spain offered extra land grants to sugar plantation owners based on the number of African slaves they owned (Claypole & Robottom, 1999).

Thus, by the 1790s, Trinidad had become an international frontier colony, full of foreigners preying on the island's new prosperity and anxious to make quick fortunes. Persuaded by the island's newfound prosperity, British merchants started a flourishing trade business with the island. In addition, its geographical position made it the ideal base for British commercial penetration of the Spanish-American colonies (Carter, Digby & Murray, 1981).

In October of 1796, the French government succeeded in forcing Spain to declare war on Britain, which exposed Trinidad to Britain's naval might. The British expedition that sailed to the Caribbean late in 1796 had as its first objective the capture of Trinidad. On February 17th, 1797, after some months of weak resistance, Chacon surrendered and the British took control of the island. Thus, for the next 165 years until independence, Trinidad remained a British colony.

At about this time back in Britain, Clarkson, outside of Parliament, and Wilberforce, inside, had brought to the attention of the British Parliament and the people the non-profitability of slavery, as well as its injustice, inhumanity and impolicy (Williams,

1982). The British Parliament then committed itself, in principle, to the gradual abolition of slavery. For this reason, August 1st 1834 faced the colony of Trinidad with the greatest social crisis until June 19th 1937 (Hall, 1984). It was a reaffirmation of the fundamental thesis of West Indian society: no slavery, no sugar (Claypole & Robottom, 1981).

The question now was where would this new source of labour to come from. A solution was found in India. The British Government agreed in 1844 to an immediate programme of immigration to Trinidad from India.

Hence, the whole population pattern in the West Indies particularly that of Trinidad, underwent a drastic change relative to the socio and cultural aspects of the island. Between 1838 and 1917, no fewer than 145,000 Indians were introduced onto the island (Claypole & Robottom, 1981).

And so the last thirty years of the nineteenth century witnessed fundamental changes to the social and economic situation of Indians in Trinidad. By the early years of the twentieth century, most Indians were off the estates, living in villages and scattered settlements as small cultivators. The centre of gravity of the Indian population had shifted from indentured labour in sugar to peasant proprietorship, and a settled Indian community emerged that was recognised as such by the rest of society.

In the sixty years leading up to the end of the First World War, three decisive changes took place in Trinidad. In 1857, oil was discovered on the island, which soon became the leading oil producer in the British Empire. This newfound source of export soon led to the neglect of other sectors of the economy.

The second decisive change that took place in Trinidad was the abolition of the indentured system of Indian labour, based very largely on the opposition of the nationalist movement in India. The third change was the emergence of the working class movement, assisted quite accidentally by the overseas service of the British West Indian Regiment during the war years.

Reforms began after World War II, with the introduction of adult suffrage in 1945. The British sponsored the West Indies Federation as a potential post-colonial model, in the belief that most of the Caribbean islands would be unable to survive politically or economically on their own. The Caribbean peoples thought otherwise and the Federation collapsed in the early 1960s. By this time Trinidad had already been granted internal self-government and achieved full independence in 1962. In 1976, the twin islands went on to achieve republican status.

Today, T & T remains the most developed country in the English-speaking Caribbean, with a thriving economy (notwithstanding depressed conditions because of the global economic downturn), highly skilled human capital and a wealth of natural and cultural resources.

The next section presents the socio-cultural aspects of the islands.

2.2.4 Socio-Cultural Aspects (Africans, East Indians and Other Races)

It has been suggested by many practitioners and academics that the country's socio – cultural dimension has important implications on management efficiency, initiative and effectiveness. Thus, one may be inclined to conclude that management techniques, principles and strategies have to be structured in the light of prevailing socio-cultural dimensions.

Negandhi & Reinemann (1973) and Mansfield (1986) considered socio-cultural differences an alternative explanation for results regarding contingency studies. In the case of T & T, this aspect is of tremendous importance given its multiracial and multicultural background. This section will present the socio-cultural backgrounds of the two major ethnic groups on the islands, whilst mention will also be made of a third group comprising a cross-section of, possibly, all the other races in the world.

2.2.4.1 The Afro -Trinidadians

The Afro - Trinidadian population constitutes an important element of Trinidad and Tobago, and as such has contributed greatly to the development and culture of the country.

The shouters and the shango, the latter the God of Thunder of the Yoruba people, came to Trinidad directly from Africa, bringing with them burial traditions, especially in respect of wakes, with which the Bongo is traditionally associated. The prevalence of obeah, magic and divination also has an African inspiration.

Most important of all, the Calypso, for which Trinidad has become famous, comments on current happenings, phrases social criticism and conveys innuendo in the African tradition. As Herskovits (1941a and 1941b) writes:

"Even though some of the music is cast in the mould of European folk tunes and the words are in English, nothing of African purport or intent has been erased. For despite its non-African form, this musical complex can be regarded as nothing less than retention of the purest type".

Some of the men and women of African descent who have contributed greatly to the development and culture of Trinidad and Tobago include: Dr. Eric Williams (first Prime Minister of Trinidad and Tobago) Brian Lara (cricketer), Dwight York (footballer) and A.N.R. Robinson (former Prime Minister and President of the Republic of Trinidad and Tobago, who was singularly responsible for the establishment of the International Court) and Haseley Crawford, Olympic Gold Medalist (1976).

2.2.4.2 The Indo-Trinidadians

Between 1844 and 1917, 134,000 indentured labourers were brought to Trinidad from India (Honeychurch, 1985). According to Vohra (2003), today over 24 million Indians live outside their home country; arguably, this is the largest ongoing migration in the world.

By the time the last Indian had finished his indenture, only a quarter of all those brought to Trinidad and Guyana had taken a passage back home; the others chose to remain in Trinidad. Thus, in respect of Trinidad, the sheer numbers of Indians that were brought to the island means that their contribution to the development and culture of Trinidad, and to a certain extent Tobago, remains significant.

Trinidad's Indian population is made up of Hindus and Muslims, although some have converted to Christianity, notably through the Presbyterian missions. However, the majority of Indo-Trinidadians are Hindus. A few had been converted to Christianity in India, but few changed their faith whilst in the West Indies.

The Indians have kept their languages alive through various Hindi dialects and the Urdu spoken by Muslims. Other signs of success in preserving their traditional society are mosques and temples. They brought with them a rich and distinctive culture, which is expressed in festivals such as Eid–ul–Fitr, Hosay, Divali, Phagwa and Rameela, to name but a few, and their dance, music and dress.

The East Indian community has influenced many of the island's most popular dishes. These include curry and rice or the nation's very own fast food "roti" and "doubles", which are a staple breakfast or dinner, as the case may be. The Indians in Trinidad developed chutney music, which is now internationally known. Some Indians who have made a significant contribution to the development of Trinidad and Tobago include V.S. Naipaul (Nobel Prize laureate), Dr. Rudranath Capildeo (scientist), Basdeo Panday (former Prime Minister and Trade Unionist) and Bhadase Sagan–Maharaj (founder of the Sanathan Dharma Maha Sabha primary and secondary schools).

2.2.4.3 Other Races

The two major ethnic groups in T & T are the Afro-Trinidadians and the Indo-Trinidadians, who together make up roughly 80% of the population. The other 20% of the population is comprised of people of mixed and other ethnic origin.

The mixed population accounts for approximately 18% of the total population. Since the arrival of the Spaniards in 1498, the ethnic origins of the people of this country have never been the same. Interracial relationships between the Amerindians and the Spaniards resulted in what was then referred to as the "mestizos".

When the French arrived in 1777, they brought with them their slaves (of African descent). The resulting liaisons between white plantation owners and female slaves led to a new class of people, known as the "coloureds" or mulatto.

When the Chinese and Syrians were brought to Trinidad as a replacement for slave labour, it didn't take the plantation owners very long to realise that they were not a viable source of labour because they were not used to the manual labour and the hot tropical climate. Although many returned to their homelands, those that chose to stay in Trinidad have made valuable contributions to the business landscape.

In conclusion, given the islands' history and more than a century of social and cultural interaction, an observer in Trinidad could sum up the society by saying, "A Trinidadian feels no inconsistency in being a British citizen, a Negro in appearance, a Spaniard in name, a Roman Catholic at church, an obeah practitioner in private, a Hindu at lunch, a Chinese at dinner, a Portuguese at work, a Syrian from the middle-east and a coloured at the polls".

The next section looks at the political system in T & T.

2.2.5 Political System

T & T is a unitary state, with a parliamentary democracy modeled after that of the United Kingdom (U.K). From 1962 until 1976, T & T, although completely independent, acknowledged the British monarch as the figurehead chief of state. In 1976, the country adopted a republican constitution, replacing Queen Elizabeth with a president elected by parliament.

The general direction and control of the government rests with the cabinet, led by a prime minister and answerable to the bicameral parliament. The 41 members of the House of Representatives are elected to serve terms of at least five years. Elections may be called earlier by the president at the request of the prime minister or after a vote of no confidence in the House of Representatives. The Senate's 31 members are appointed by the president: 16 on the advice of the prime minister, six on the advice of the leader of the opposition, and nine independents selected by the president from among outstanding members of the community. Elected councils administer Trinidad's seven counties and four largest cities. Tobago was given a measure of self-government in 1980 and is ruled by the Tobago House of Assembly. In 1996, its parliament passed legislation which gave Tobago greater self-government.

The country's highest court is the Court of Appeal, whose Chief Justice is appointed by the president on the advice of the prime minister. Appeals from the Court of Appeal are determined at the Privy Council, in London, which is the final court of determination. Recently the Caribbean Court of Justice was established; its headquarters is situated in Port of Spain, Trinidad, and will eventually replace the Privy Council in London as the last court of appeal.

The next section looks at the economy of T & T.

2.3 THE TRINIDAD AND TOBAGO ECONOMY

2.3.1 Introduction

T & T has the most diversified and industrialised economy in the English-speaking Caribbean. The country boasts large reserves of petroleum and natural gas, and well-developed heavy industries such as iron and steel, methanol and nitrogenous fertilisers and petroleum products. air, sea and land transportation links are excellent, and telecommunication links with the Americas and Europe are completely modern.

History will show that after the OPEC (Organisation of Petroleum Exporting Countries) oil shocks of the 1970s, and the resultant increased revenues between 1974 and 1982, the nation's economy experienced an average annual growth of more than six per cent

(6%). The government's revenues skyrocketed, providing funding for development projects, which in turn led to a dramatic decrease in unemployment. These were the boom years of T & T, during which much of the country's infrastructure was developed.

The financial sector also grew and diversified, seeing the numbers of finance companies, merchant banks and trust and financial companies double from 11 in 1974 to 22 by 1978. However, by 1980 the country's appetite for foreign consumables and travel sent, despite fixed exchange rate and tight controls, the economy into recession from 1983 to 1984. Foreign debts and fiscal deficits rose, oil production fell and the currency was devalued.

In the mid 1980s, the International Monetary Fund (IMF) was brought in to appease foreign creditors, and for the next ten years, the agency dictated the country's economic planning, monetary and fiscal policy. The currency was again devalued and many non-banking financial institutions collapsed.

However, T & T as a nation emerged from this uncertain period free from major debt, with the opportunity to move forward. After this period of radical economic adjustment under IMF and World Bank supervision, the government economic policy was well in line with prevailing market principles such as trade liberalisation, an open market-driven economy, rationalisation of the public sector, promotion of private enterprise and foreign investment and development of exports and tourism.

By 1997, foreign exchange controls were removed and the currency regained its stability. The late 1990s was also a period of strong economic growth for T & T. This prosperity was made possible by the solid economic fundamentals established in the late 1980s and was aided by high oil prices and large investments in the energy sector.

During the next 13 years, T & T's economy thrived. Several hundred million US dollars were pumped into the local oil and petrochemical industries. Ammonia, methanol and steel processing plants were set up and international companies like Enron, Amoco, BP, Exxon, Union Carbide, Bechtel and Farmland MisChem were all part of this foreign direct investment drive.

These mirror the traditional investment patterns of the early 1960s. The oil industry was capital-intensive and generated thousands of construction jobs in its early phases. After the construction phase, some permanent jobs were created and the earnings enjoyed by the government were mainly from taxation.

2.3.2 Present Economic Climate

Despite its strength, the T & T economy was not immune to the effects of the global economic meltdown. The global economic downturn in 2008-2009 led to a 2.7% contraction of the economy in 2009, while 2010 was another year of slow activity.

On November 8th 2010, an International Monetary Fund (IMF) mission, headed by Judith Gold, Deputy Division Chief in the IMF's Western Hemisphere Department, issued the following statement at the end of its discussions in Port of Spain:

"After 15 years of positive growth, Trinidad and Tobago was hit hard in 2009 by the global financial crisis, the fall in energy prices and the collapse of a large financial conglomerate. The country entered this period of crisis from a position of strength, with large fiscal surpluses and low debt, which provided important buffers to help deal with both the external and domestic shocks. The fiscal balance has turned negative, despite a real decline in expenditure in 2009. Inflation has surged despite weak economic activity, reflecting weather-related increases in food prices, and unemployment has increased sharply, to 6.7 percent in the first quarter of 2010".

The mission's representatives were also of the view that growth is expected to pick up only in 2011, with near-term risks tilted to the downside reflecting fragile confidence, weak regional outlook and global uncertainty. Even with the expected firming of energy prices, economic prospects over the medium term are weaker compared to the strong growth period preceding the economic crisis.

In his presentation of the 2010/11 budget, the country's Minister of Finance, Winston Dookeran, adopted an expansionary stance, along with some additional expenditure and tax incentives, to catalyse increased private sector activity and higher domestic and external investments to support a recovery. He also outlined the government's plans for

diversification and structural reform, which would focus on investing in physical and human capital to support the development of a knowledge-based economy. It would also work towards improving the business climate through a one-stop shop for investors and strengthening the public enterprise sector by inviting private sector participation and accelerating privatisation.

However, given the measures proposed by the present administration, the country is still faced with some fundamental problems, which are due to the inability so far to translate economic strengths into a better quality of life for large sections of the population. Notwithstanding steady economic growth over the past 13 years, unemployment remains unacceptably high; the quality of health and housing for large sections of the population is grossly inadequate, as is the education system. Consolidating macro-economic and structural reforms is critical to achieving sustained growth and stability, which will continue to be a necessary, though not sufficient, condition for dealing with these social problems.

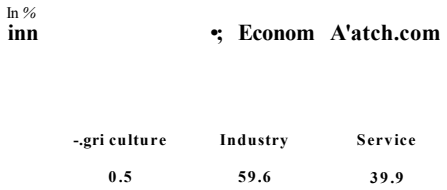
2.3.3 Key Economic Indicators

The T & T economy is well known for being an excellent investment site for multinational businesses. The country has one of the highest growth rates and per capita incomes in Latin America, exemplified by the fact that the economy grew by more than 8% between 2000 and 2007. However, due to the global economic downturn in 2008-2009, it contracted by 2.7% in 2009. The nation's growth has been fuelled by investments in the Liquefied Natural Gas (LNG) sector, and is heavily dependent on oil and natural gas production. T & T is a renowned financial centre in the region and a leading economy in the Caribbean.

Appendix E provides a synopsis of major economic indicators for Trinidad and Tobago for the period 2004-2009.

Given this study's focus on the service industry in T & T, the following chart illustrates a breakdown of GDP by sectors. (All data are in percentages).

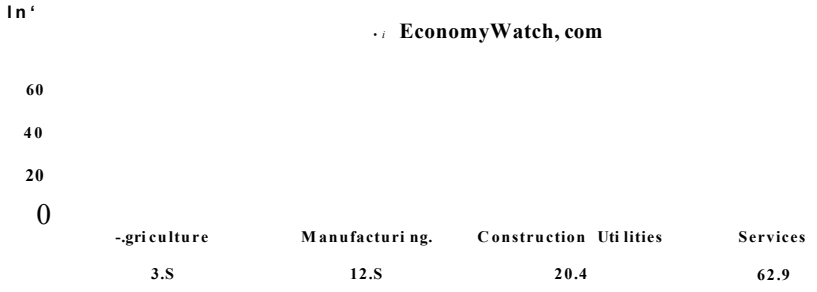
Fig. 2.1 GDP by Sector (2009)



Source: EconomyWatch.com

T&T's total labour force stood at 629,200, according to 2009 estimates, while the rate of unemployment was 7.5% in 2009, up from 4.6% in 2008. The next chart illustrates Trinidad and Tobago's breakup of labour force by occupation in various sectors. (All data are in percentages).

Fig. 2.2 Labour Force by Sector



Source: EconomyWatch.com

2.4 THE SERVICE SECTOR IN TRINIDAD AND TOBAGO

2.4.1 Introduction

The services sector produces "intangible" goods, some well known - hospitality, education, health, financial, construction and tourism/travel - and some quite new such as modern communications, information and business services. Relative to other sectors of T & T's economy, the services sector has been the largest contributor to GDP for almost a decade.

T & T has a developing service sector. For the period 2001-2009, the services sector on average accounted for 53% of GDP, or TT$43 billion (US$6.8 billion) in monetary terms. In 2009, the sector employed more than 58% of the labour force, some 366,100 persons. To date, the sector continues to be a net contributor to the balance of payments.

Unfortunately, despite the fact that the economy can be classified as a service economy, many people misunderstand the concept of the services sector. This fact was revealed during the data collection phase of the study and will be further explained in Chapter 5. Customer service is a part of the service sector, and tourism and hospitality constitute a significant part. However, the services sector is much more than tourism and hospitality, as anything that can be produced and has a value but which we cannot hold, in essence, is a service. So, from design (architecture and engineering), financial services, teaching and journalism to the building and maintenance of plants and machinery, the construction of roads and the extermination of unwanted pests, the services sector is large and diverse. Nevertheless, many firms have not grasped some of the basic tenets of operating within this industry.

It should also be noted that although the country has the largest service sector in Caricom (the Caribbean Community), the focus of development policies has always been on the manufacturing sector. Thus, service sub-sectors which have developed in T & T have largely developed on their own and with little proactive, enabling policy. The energy services sector and the yachting industry are two such examples. Therefore, the orientation of the policymakers must change from bias toward products to a line of thinking which acknowledges the importance of the services sector and the infinite possibilities for balance between viable manufacturing industries and services.

While the Ministry of Trade has been much more cognisant and supportive of the sector in recent years, the overall orientation of policymakers still appears to be focused in the main on goods. Of course, for the sector to develop, the home market must be a place of growth. At present, the individual Caricom markets are often more welcoming (in reality, though not on paper) to Foreign Service providers than to locals. In several jurisdictions, either the lack of capacity or lack of will to enforce laws which, for example, may require foreign architects or engineers to register with local company

boards, put T & T's professionals at a disadvantage. That is not to say that some aspects of the services sector are not in fact woefully underdeveloped and under-skilled, but that is no reason to dismiss them.

There are ways of nurturing industries in their infancy; for instance, encouraging partnerships where local deficiencies exist could facilitate knowledge and know-how transfer if properly done. Additionally, many government contracts are designed, either intentionally or by accident, in a manner that makes locals less competitive than their foreign counterparts. Similarly, simple measures that have deep impact on industries, such as better customs facilitation in the yachting sector, are not addressed. So nationally, laws have to be revised, updated and enforced. The policy orientation has to be shifted away from commodities and manufacturing to take into account the services sector, which is the real driver of the economy in most Caricom countries, especially T & T.

T & T has the most developed and diversified economy in the region, which implies that firms operating within the primary, secondary and tertiary industries would be "mature" in their development (systems, procedures, practices etc.), with the understanding that, depending on the sub-sector, firms may be at varying levels of development. Given the fact that this study is pioneering in T & T and by extension the region, it is important to look at the various firms studied as well as the sub-sectors in which they operate.

2.4.2 The Health Care Industry

T & T's health care system consists of public and private hospitals, well-qualified specialists, private medical practitioners and myriad public clinics scattered across the islands. Medical services are provided free of charge at government-funded institutions and clinics, but a fee is charged at all other institutions.

The country boasts a wide range of institutions which provide health care services to the populace, including 101 primary health care centres, 2 general hospitals, 2 county hospitals, several specialised care hospitals and clinics, 33 private hospitals, over 400 private general practitioner surgeries and a number of private specialists and laboratories.

The country's health care system is plagued by a multitude of problems ranging from lack of resources, employee dissatisfaction and high staff turnover (which has forced the government to recruit doctors from outside of T & T) to industrial action by staff, high prices within the private sector and the failure of past and present governments to successfully address these issues in a timely and efficient manner.

In view of all the inherent problems over the years, customers who can afford it have shifted away from seeking attention at public health care institutions and instead sought attention and care at various private institutions which have entered the market within the recent past. However, with a total population of approximately 1.3 million people (Central Statistical Office, 2002), many people still depend on the government to provide them with health care services.

Nonetheless, in a positive development, the government revealed in their most recent budget presentation that a national health policy is presently being formulated to articulate the scope and coverage of the public health service and to examine both the public and private sectors for the delivery of integrated health services to the general public. In addition, health quality legislation is to be enacted with the purpose of prescribing proper standards of health care for the private and public health sectors. Certainly, the author is convinced that by using a TQM-based strategy, the government, the general public and the Ministry of Health can be assured of some degree of enhanced efficiency.

In spite of the government's investment in the provision of health care, serious deficiencies are still evident today. The ratio of population to health centres is twice as large as desired and there is also a lack of trained medical personnel; for example, in 1984 T&T had 1,213 doctors, or a ratio of 10.6 per 10,000 inhabitants, but according to PAHO (2001) there were 7.5 physicians to every 10,000 inhabitants in 2001. Meeting this demand requires a long-term commitment of funds, resources and specialised training.

Health statistics for T & T show an ageing population with the increasing prevalence of obesity, hypertension, diabetes and other lifestyle diseases, which has, to a great degree, resulted in pronounced consciousness in health and an increased demand for health care services (PAHO, 1994). This effective demand has triggered a rise in the number of firms entering the private health care sector.

Since 1998, the number of private health care providers in T & T has increased significantly. During the 1980s and '90s, private sector health services concentrated primarily on ambulatory services, with some publicly employed physicians maintaining separate private practices. However, over the years, this figure has grown to accommodate increased consumer-driven demand.

Medical Associates Hospital is a private health institution located in the first capital city of Trinidad, St. Joseph. Established in 1979, Medical Associates started as a small, twelve-bedded institution in a renowned great house, standing on St. Joseph Hill. Today the organisation continues to grow and a second hospital will soon be opened in Chaguanas. This expansion has seen growth in physical infrastructure, providing additional bed spaces, dedicated areas for outpatients' clinics, laboratories, cardiac laboratory, X-Ray, ultrasound and CT imaging.

Over the years, Medical Associates has become a provider of the most comprehensive array of high quality medical services. Special achievements include the first successful renal transplant and in vitro-fertilisation (IVF).

Like other private health care institutions operating in the country, Medical Associates is owned and operated by doctors, who are in most cases senior personnel at government hospitals. However, since health care institutions and personnel, by and large, have very few skills and expertise when it comes to business, one can easily believe that these doctors must be doing something right. This does not mean that the institution is not without its problems. With increasing competition in the private sector and the government's plans to develop T&T as a niche market for medical tourism, Medical Associates will have to address its two major problems of costs and quality.

In the foreseeable future, the demand for health care services will increase due to factors such as an ageing population and a changing epidemiological profile evidenced by the high prevalence of costly, chronic, non-communicable and lifestyle diseases. However, demand will be backed by a desire for quality products and services. The health care industry, like other service industries, has become increasingly receptive to the notion that service quality and customer satisfaction management are critically important factors in the success of organisations within the field.

2.4.3 The Construction Industry

In T & T, the construction industry is viewed as perhaps the major economic indicator, surpassing all other sectors of the economy, with the exception of energy-based industries.

The construction sector is the third largest services contributor, adding some $US 964 million (TT 6,073.2 million) to GDP in 2004 and 2005 and accounting for 16.2% of employed persons. Given its significant contribution towards development, the major issues of concern for the sector include the need to fill regulatory gaps, especially as the country strives to develop a first-class construction industry, issues of licensing, ensuring quality service and prompt payment for contracted work.

The local construction industry is large, complex and diverse and covers a wide range of business interests and activities, united by their common usage and development of land. It comprises clients (including house-builders and commercial property developers who determine what should be built and where), designers (who decide on the detail of what should be built), materials and components suppliers (who extract and/or manufacture materials and components) and contractors (who carry out the building).

Although the construction industry has been dynamic and buoyant for the past decade, construction professionals and contractors alike have remained inflexible and indifferent to the real needs of their clients, and in this way they differ from their counterparts elsewhere. Even today, client satisfaction leaves much to be desired. Additionally, the functional approach adopted by project team members often results in a lack of proper

coordination, time wastage and cost overruns. In an industry where both the government and the private sector continue to invest abundant resources, everyone becomes affected by material and labour shortages, sub-standard products, escalating costs, reduced quality and questionable value for money.

The construction industry is viewed generally as one with poor quality emphasis compared to other sectors like manufacturing and other service providers. Many criticisms have been directed at the industry for substandard works, and it is not only the final product that is subject to criticism, but also the processes, the people and the materials.

In many other countries TQM is increasingly being adopted by construction companies as an initiative to solve quality problems and to meet the needs of the customer.

However, construction firms have been continually struggling with project implementation. Cultural change is being recognised as an important aspect of total quality development. However, the issue surrounding quality culture has not been comprehensively studied, and as such their achievements can seem devalued in light of the recent corruption charges involving both government and private contractors and consultants.

As a result, it is necessary to examine this sector and to further determine to what extent TQM practices would be applicable to the construction sector in Trinidad and Tobago. Specifically, the issue of TQM within the construction sector presents an opportunity for the author to address the research questions.

Associated Services (Caribbean) Limited (ASL) is a construction-based project management company. ASL offers a multitude of professional construction consultancy services from design conception to project completion. The company has been in existence for eight years and has grown and developed as a reputable organisation within the industry. The company's success to date lies in its core philosophy of service to the customer. It follows an integrated approach to project implementation, which was

developed by the author. The construction industry's trilogy of time, cost and quality remains the cornerstone of the company's continued growth. Despite its achievements to date, the company remains exposed to threats in the external environment and is often challenged by time and resource constraints, no control over prices and the unavailability of qualified and experienced professionals.

2.4.4 The Tourism & Hospitality Industry

Tourism is a dynamic and competitive industry that requires the ability to constantly adapt to customers' changing needs and desires, as the customer's satisfaction, safety and enjoyment are of paramount importance.

The government of T & T has recognised that the development of the country's tourism industry can play a key role in making the transition from a third world country to first world status. Compared to other Caribbean islands, and other sectors locally, tourism does not contribute significantly to the GDP of the economy. However, within recent years it has been attracting foreign investors to set up and establish their operations in the country. This may be attributed to the fact that T & T is seen as the business capital of the world and seems to be developing a niche market for the business class.

In 2008, the 428-room Hyatt Regency Hotel and Conference Centre opened its doors. Refurbishment works continued at the 430-room Trinidad Hilton Hotel and Conference Centre. In 2009, the 165-room Carlton Savannah Hotel opened for business. The Star Hotel at Piarco, with 120 rooms, is nearing completion, and refurbishment works are also underway at the 200-room Vanguard Hotel in Tobago, whilst the Cara Suites Hotel and Conference Centre at Claxton Bay has commenced an expansion which will add approximately 50 rooms to its existing plant. These new hotels and expansions have seen the inventory of first-class rooms grow by almost 800 rooms. Aside from conference and business tourism, other parts of the tourism sector also thrive in T & T. Cruise and yachting/leisure boat tourism, adventure holidays and ecotourism make significant contributions to the overall economy, as of course does Carnival. According to figures from the Port Authority, between 1995 and 2000 cruise passenger arrivals more than doubled from 54,000 to 104,000, with the figure levelling off at 75,000 by 2007. Stopover tourist arrival numbers are as impressive, rising from 260,000 in 1995 to

460,000 in 2006 (Central Statistical Office figures). On average, stopover visitors from the USA represent just fewer than 40% of total stopover tourists. This is followed by visitors from the United Kingdom and Canada, with 13% and 10%, respectively. Barbados follows with 8%. Other main markets for Trinidad and Tobago tourism include Guyana, Grenada, Venezuela and Germany.

Despite the fact that the government remains optimistic that the country's tourism sector is at an exciting and promising stage of development, some fundamental problems continue to haunt real development. T & T faces a serious challenge in the delivery of customer service based on analyses of recent exit surveys and visitor feedback. These studies indicate that whilst visitors enjoy tremendously the beauty, biodiversity, cuisine and culture of T & T, service at all levels of the industry generally needs to be improved. During an interview with a senior member of staff at the Trinidad Hilton, the interviewee offered the view that this may be due to the fact that attitudes to service are tied to our colonial past and islanders still see service as servitude.

Located just outside of the country's capital, the Trinidad Hilton and Conference Centre boasts 418 rooms, including 27 suites. According to the hotel's General Manager, Ali Khan, all rooms feature contemporary décor with natural wood furniture, superior amenities and a modern bathroom outfitted with a glass-enclosed bath with rainfall and hand-held shower. Hotel features include among other things a 24-hour business centre, executive lounge, fitness centre, dining and conference and meetings facilities.

Today, providing a level of service to guests is an issue which continues to challenge all stakeholders within the industry, including the management at Trinidad Hilton. This is compounded by the fact that hotel staff is not the only ones with whom guests interact. Tour operators, bus drivers, entertainers and tour guides are just some of the key people involved in the total guest experience. Additionally, the hotel faces a continued challenge with a fairly high turnover rate, due largely to the fact that many people do not view working in this industry as real or meaningful employment. If T & T wishes to be a destination of choice, either for business or pleasure, the level of service provided to guests must be on par with international standards. The author believes that the

findings from this study can make a real difference in the way businesses within this industry operate.

2.4.5 The Telecommunications Sub-Sector

In the attainment of its Vision 2020 Development Plan, the government of T & T identified one of its goals as the transformation of the country into an interconnected, technologically advanced society with modern information and communication systems driving innovation, growth and social progress. The use of information and communications technology (ICT) can be a powerful catalyst for the development of a sustainable learning society, the building of competitive businesses, improvement of governance and the efficiency of government.

The state enterprise charged with the development of the nation's telecommunications sector is the Telecommunications Services of Trinidad and Tobago (TSTT), jointly owned by the government and Cable & Wireless. TSTT is the largest telephone and internet service provider in T & T and has recently launched into digital television and business and residential security solutions.

TSTT no longer controls a monopoly in the fixed-line services, as FLOW, another company, has introduced a fixed-line service of their own. Additionally, TSTT's cellular monopoly was broken after 26 years in 2005, when licenses were granted to Digicel and Laqtel.

Today, the company's operations are divided into the following divisions – technical operations, marketing, human resources and finance. TSTT's employee headcount is approximately 2,300 employees (including contractors). The company has approximately 160,000 customers in four major operating districts. The T & T market for telecommunications services is arguably one of the most lucrative in the Caribbean.

TSTT continues to operate as a monopoly, even though the market has opened up. This has inherent problems, though, as the market has now become characterized by aggressive marketing, which customers complain is not an indication of the levels of

service provided. More than anything, telecommunications facilitates "the voice of the customer" through the internet. Customers are no longer willing to accept poor service and long waiting times for the installation of new telephone lines or fixing of any other related problems, especially since they now have options. If TSTT wishes to survive and be successful, it needs to change its approach to dealing with customers. The author is of the belief that this approach starts and ends with quality.

2.4.6 The Public Utilities Sector

A public utility is an organisation that maintains the infrastructure for a public service. The word "utilities" can also refer to a set of services provided by these organisations and consumed by the public such as electricity, water, sewage and even telephone services. For the purposes of this research, the segment of the public utilities sector being studied is the Water and Sewerage Authority of Trinidad and Tobago (WASA).

It is widely accepted that a well-run utility will provide an efficient service to all customers, at prices which are affordable but will allow the utility to recover efficient costs and finance new investment. There are five broad characteristics of such a utility: efficient operations and maintenance, financial sustainability, efficient and effective capital investment, responsiveness to customers and accountability to owners.

Perhaps one of the problems public utility companies face in T & T is the fact that most are monopolies. Being government-owned and operated, most of these companies are overstaffed with under-qualified people. Additionally, workers are unionised, which never seems to work in the best interest of the company, as any kind of change is greeted with a high level of resistance. Apart from operational challenges, management remains clueless on how to commence and institutionalise change.

WASA is a vertically-integrated, government-owned and -operated statutory authority. It operates under the Water and Sewerage Act, Chapter 54:40 of 1965, with amendments. The Authority is solely responsible for the provision of water and wastewater services in T & T and is therefore a monopoly provider. It is headed by a board comprising eight Commissioners responsible for matters of general policy.

WASA's management team, which currently consists of a Chief Executive Officer and six General Managers, is responsible for the day to day running of the Authority. The company currently employs approximately 2,600 people. As at December 2002, WASA had 317,095 accounts for water customers and 42,818 accounts for wastewater connections. Additionally, only 9,298 of these accounts are metered. In 2001, the Authority had 309,414 customer accounts for water.

WASA seeks to provide a pipe-borne supply to 100% of the population, but up to 2009 had only been able to provide 67% to citizens. The country's labour force continues to drain its resources. Additional problems include inefficient operations, which result in continuing losses, poor customer service and aged pipelines which constantly hamper supply.

2.4.7 The Banking Sector

Banks play a very important role in the economic life of the nation. The health of the economy is closely related to the soundness of its banking system. Although banks create no new wealth apart from their borrowing, lending and related activities facilitate the process of production, distribution, exchange and consumption of wealth.

The T & T financial system is large and complex. By total assets relative to GDP (170%), the financial sector is large relative to countries at comparable income levels. The last decade has seen remarkable growth and structural change in the financial system. Growth of the banking sector has been outpaced by non-banks, particularly the contractual savings sector, which now accounts for a majority of asset segments of the financial system exhibit oligopolistic concentration: the two largest commercial banks account for up to 60% of all assets, while the two largest insurers account for 85% of all new business written and 87% of the income of the life insurance business. The banking sector includes all institutions licensed under the Financial Institutions Act (FIA), namely commercial banks, merchant banks, finance companies and trust companies. At present there are six commercial banks, several foreign banks and roughly 130 credit unions.

Republic Bank Limited is a leading bank in T & T and one of the largest banks in the Eastern Caribbean. The bank's mission is to provide financial services that are efficient, personalised, competitively priced and to the benefit of customers, shareholders and staff through the implementation of sound policies. The company has employee strength of about 4,500 and an extensive branch network covering the entire Eastern Caribbean region. It has six specialised functional divisions which cater to their individual, commercial and institutional clients.

Given the country's economic prosperity, the banking industry in T & T is very lucrative and, as such, highly competitive. The banks all boast of providing "quality service" to their customers. However, customers continue to complain about the plethora of service charges, high interest rates, long waiting lines and bad customer service. There is a general feeling among customers and even employees that, at the end of the day, banks are more interested in the bottom line as opposed to the needs of customers.

2.5 SUMMARY

The aim of this chapter has been to lay the groundwork for understanding the T & T business environment. As such, it has presented the geographical, demographic and economic environment of the country. Additionally, this chapter presented an overview of the six service sectors and organizations which participated in the study.

A tropical twin island republic, T & T is both multicultural and multiracial, which can be attributed to its historical background and early development. From its unique development, the country's economy has grown in leaps and bounds (during the oil boom years and later during the period 1995 to present). As stated before, there was a recessionary period during the late 1980s; however, the economy recovered from this because of prudent economic controls.

Additionally, because of this very history, there exist crucial imbalances between the two major ethnic groups inhabiting the country. Furthermore, a careful examination of the business sector will reveal that there also exist imbalances in those who own wealth

in the country. Statistics will reveal that wealth is owned by a few. Nonetheless, this has not affected the surge in entrepreneurship over the years.

T&T is by far the most industrialised nation in the Caribbean, with a growing economy, falling unemployment and sound macroeconomic fundamentals. Governments tend to be stable and businesses oriented, as well as having established sound legal and administrative frameworks and a strong infrastructure. Investors are also drawn to the highly literate and skilled English-speaking population, an abundance of natural resources and low operating costs.

Although today the T & T economy is depressed, it has not been devastated by the global financial meltdown. With prudent financial and economic stewardship, the government is optimistic that there will be resurgence in growth in the next fiscal year. Accordingly, firms within the service industry may find themselves operating in a vibrant marketplace. How they compete to survive and be successful will be dependent upon the strategies they employ. This research study is, thus, well timed in terms of proposing a realistic implementation model which can lead to the achievement of sustainable advantage.

CHAPTER 3 - RESEARCH METHODOLOGY

3.1 INTRODUCTION

Chapter 1 established that the aim of this study is to investigate if firms within the service industry in T & T can achieve sustainable competitive advantage by incorporating TQM methods within their corporate strategy. Five research objectives were identified. In keeping with the research aim, questions and objectives, this chapter will now explain the research design, strategy and methods used for data collection and analysis. This chapter includes a discussion on the following relevant areas:

a. Research design and strategy
b. Research approach
c. Research methods
d. Sampling design
e. Data collection and preparation
f. Data analysis and interpretation and
g. Reliability and validity

The chapter concludes with a brief summary, to set the scene for Chapter 4, "The Literature Review". The next section examines the study's research design and strategy.

3.2 RESEARCH DESIGN AND STRATEGY

According to Cooper and Schindler (2003), the research process is driven by the research questions, which form the basis of the research and what it is seeking to find. Researchers must therefore employ appropriate methodologies in their quest to obtain remedies to the research problems at hand. How do they do this? The answer to this question lies in the research design. Cooper and Schindler (2003) are of the view that research design is the blueprint for fulfilling objectives and answering questions. Maybe this type of design (via planning) was what Aristotle was referring to hundreds of years ago when he stated that "well begun is half done".

In many instances, the selection of the research design is complicated by the availability of a large variety of methods, techniques, procedures and protocols. Additionally, extant literature will show that many researchers have fallen victim to a strategy whereby they pursue a particular design regardless of the nature of their research question. The author shares the view of Blaikie (1993), who stated that a clear and concise purpose is an essential element in any research project. The author further believes that the genesis of any research study lies with the research question(s) and purpose. Accordingly, inherent in this research study are the following:

a. TQM is something that can be measured (see Chapters 4 and 5).
b. TQM involves a lot of other variables, which are not easily quantifiable.

Although many studies have been done on the implementation of TQM, very little research has been done on the subject as it pertains to T & T. Additionally, and equally important, only a few authors and researchers have sought to examine the link between TQM and sustainable competitive advantage. Given the nature of the phenomenon being studied, the design of this research study will be formulated in such a way to reflect both the quantitative and qualitative natures of TQM.

3.3 RESEARCH APPROACH

The ultimate goals of research are to formulate questions and find answers to those questions (Dane, 1990). Depending on what the researcher is trying to accomplish, the purpose of any research could be organised into three groups: namely exploratory, descriptive and explanatory (see Table 3.1). Although studies may have multiple purposes, one purpose is usually predominant.

In order to test the hypotheses for this study, both exploratory and descriptive approaches were chosen. The purpose of the exploratory approach is to generate new knowledge and understanding of the benefits derived from integrating TQM methods with corporate strategy (if any at all). On the other hand, it is anticipated that the findings from a descriptive approach will provide a detailed and accurate picture of the role and place of corporate strategy and TQM methods within the service industry,

which can then be used as the basis for any action plan that may ultimately have a positive impact on firms within the industry.

Table 3.1

Different Kinds of Research Proposals

Exploratory	Descriptive	Explanatory
Become familiar with the basic facts, settings and concerns.	Provide a detailed, highly accurate picture.	Test a theory's predictions or principle.
Create a general mental picture of conditions.	Locate new data and contradict past data.	Elaborate and enrich the theory's explanation.
Formulate and focus questions for future research.	Create a set of categories or classify types.	Extend a theory to new issues or topics.
Generate new ideas, conjectures and hypotheses.	Clarify a sequence of steps or stages.	Support or refute an explanation or prediction.
Determine the feasibility of conducting research.	Document a causal process or mechanism.	Link issues or topics with a general principle.
Develop techniques for measuring and locating future data.	Report on the background or context of a situation.	Determine which of several explanations is best.

Source: (Neuman, 2003)

The approach taken by a researcher towards a research study can have a significant impact on the overall outcome. Research approaches are often closely related to each other and the formulated purpose of a study. Given that this study is pioneering in T & T, the author believes that the approach is suitably aligned to the purpose of the study.

The next section gives a brief overview of the research methods to be used in this study.

3.4 RESEARCH METHODS

Research method refers to the specific procedures used to gather and analyse research data for the purposes of the study. "Method" is used in a general sense to mean "a specified way to proceed". According to Mays and Pope (1996), research methods refer to specific research techniques used to gather data about the social world. Generally, they are categorised into two broad categories – qualitative and quantitative – both of which include interviews, questionnaires, ethnography, case studies and the grounded theory approach, among others.

The choice of which research method to use is normally dictated by a research strategy, which outlines decisions about the research design and beliefs about how the social world can be studied and how the validity of the social knowledge established by such research might be assessed (Mays and Pope, 1996). In the case of Cooper and Schlinder (2003), the design strategy takes into consideration the study's type, purpose, time frame, scope and environment. Muijs (2004) was of the view that the right research design is just as important as using the right data analysis. Further to this, the author believes that the methodology selected for any research study must be in sync with the goals of the research and must be able to provide answers for the questions being asked.

In this instance, the overall goal in selecting the data collection methods was to get the most useful information for the purposes of the study. It is widely accepted that any given study can make use of more than one method (Cohen et al, 2000; Yin, 1984). In fact, it is often the case that researchers use a combination of methods, for example the questionnaire, to collect quickly a lot of information from a large group of people, and then interviews for more in-depth information gathering. This study utilised both methods, since the author believed that each would bring a distinctive contribution in terms of the research questions. It was also based on the prevailing socio – cultural dimensions of T & T.

The use of more than one method or instrument of data collection in a study, or more than one source of data used to study the same subject, is referred to as "triangulation". According to Cohen and Manion (1994), this is a "multi method" approach to conducting research. In other words, if the outcomes of two or more different methods generate consistent results, then the researcher can be more confident with regards to the validity of his findings.

Triangulation is well suited for this study because of the nature of the phenomenon under investigation. This study sought the views of diverse groups from different sub-sectors inclusive of top management and internal and external stakeholders. It was therefore important to collect data which could be compared and contrasted as necessary in the development of the Six Senses Model.

According to Jick (1979), triangulation can also capture a more complete, holistic and contextual portrayal of the unit(s) under study. In other words, beyond the analysis of overlapping variance, the use of multiple measures may also reveal some unique variance which otherwise may have been neglected by the use of a single method. The design of this study was intended to extract as much information as possible from the participants. It is believed that data collected from both methods provided a more holistic picture of the prevailing attitudes existing in the country at this time.

3.4.1 Qualitative Research Methods

One methodological option when conducting management research is the use of qualitative methods. Qualitative research, with its emphasis on understanding complex, interrelated or changing phenomena, is particularly relevant to the challenges of conducting management research. Qualitative methods combined with their quantitative counterparts can provide particularly strong inquiries, whether used alone or in combination.

Often, qualitative research is defined by reference to quantitative research. Whatever its definition, it must be noted that qualitative research involves the application of logical, planned and thorough methods of collecting data and careful, thoughtful and rigorous analysis. Although it is not an easy option, its application continues to grow in popularity, especially in the social sciences (Denzin & Lincoln, 2000a and 2000b).

Qualitative research methods are valuable in providing insightful descriptions of multifaceted phenomena, tracking unique or unexpected events and enlightening the experience and interpretation of events by participants with widely differing objectives and roles. It also gives voice to those whose views are rarely heard, conducting initial explorations to develop theories and generating and testing hypotheses while moving towards explanations.

According to Miles and Huberman (1994), qualitative research is usually exploratory, in-depth can be used to collect critical data, usually in the following sequence:

1. Observe events/ ask questions with open-ended answers
2. Record/log what is said/done
3. Interpret (personal reactions, write emergent speculations or hypotheses, monitor methods)
4. Return to observe or ask more questions of people
5. Recurring cycles of 2-4 – iteration
6. Start formal theorising (which emerges out of speculations and hypotheses)
7. Draw conclusions

The main types of qualitative data collection techniques include interviews, case studies, interview surveys, ethnography and observation, self-completion questionnaires, media items (newspaper, magazine and audio), documents, archives and records.

An evaluation of the research literature will show that qualitative research methods are not without criticism. Some of the more common shortcomings associated with this method include lack of validity, as a result of the challenges faced while coping with large amounts of data, defining the scope of the study, collecting the data in a coherent manner, analysing data in a replicable way and condensing the complexity into something that is logical, understandable and acceptable to others (Harrison, 2002).

Qualitative methods have been systematically, comprehensively and positively employed in this study to generate answers and enlightenment on some of the very complex issues which plague the service industry of Trinidad and Tobago. Additioanlly, it proved to be very useful in the development of the Six Senses Model.

3.4.2 Quantitative Research Methods

Quantitative research is concerned mainly with numbers and data which are easily quantified. The most popular quantitative technique is the survey, often based on a large number of cases, where a broad overview of a population is required.

This research methodology is appropriate where quantifiable measures of variables as identified in the research proposal, are possible, where hypotheses can be formulated

and tested and where inferences can be drawn from samples to populations. Conversely, qualitative methods are appropriate when the phenomena under study are "complex, social in nature and do not lend themselves to quantification" (Liebscher, 1998).

There have always been contentions between researchers who sit on the qualitative and quantitative sides of the research fence. Usually, the stringent scientific methods employed by quantitative analysis have been considered the best way to conduct any meaningful research: "The positivist notion that qualitative data is inherently untrustworthy and therefore to be avoided is untenable. Arguments are advanced to support the view that social research is based on 'qualitative knowing' and that quantification extends, refines, and cross-checks qualitative knowledge" (Howe, 1985). In other words, current thought holds that the two paradigms are not mutually exclusive and could very well support each other in most social science inquiry. Thus, in the words of Howe (1985), "To disparage qualitative data as subjective is to accuse it of having high fallibility; to laud the objectivity of quantitative data is to construe it as having low fallibility".

In quantitative research, the data collected usually takes the form of measurements or counts which can be used for statistical analysis. Quantitative methods can be used for comparison purposes, whilst analysis is generally conducted through statistics. Examples include experiments, correlation studies using surveys, standardised observational protocols and simulations. This process usually follows standard procedures, methods and forms of analysis and reporting of the results of the research conducted. This process maximises objectivity.

This research method usually follows the following sequence:

1. Observe/present questionnaire/ask questions with fixed answers
2. Tabulate
3. Summarise data
4. Analyse data
5. Draw conclusions

However, unless the steps are kept in alignment with one another, it may be difficult to bring the final phases of the study to a successful completion.

Many people are of the opinion that quantitative research methods are as simple as collecting and analysing data. However, according to Gay & Airasian (1999), quantitative research goes beyond just analysing numbers, as a quantitative researcher must systematically:

1. State both the hypothesis studied and the research procedures that will be implemented prior to conducting the study
2. Maintain control over contextual factors that might interfere with the data collected
3. Use large enough samples of participants to provide statistically meaningful data
4. Employ data analyses that rely on statistical procedures

Both qualitative and quantitative methods were employed in this study, as the combination approach was instrumental in providing a more comprehensive account of the subject matter being studied.

3.4.3 Data Collection Methods Used

The questions and objectives of this research study were explored through the administration of a detailed questionnaire and semi-structured interview to the participants. Additionally, a comprehensive literature review was conducted on the major concepts being studied (TQM, corporate strategy, management and sustainable competitive advantage) and focus groups were later used to validate the Six Senses Model for management principles and practices. The Model evolved as a result of the research methods employed as well as the extensive literature review conducted. The methods used will now be reviewed in detail.

3.4. 3.1 Questionnaires

Arguably, the most common research method is that of the questionnaire, as it is an inexpensive way to gather data from a potentially large number of respondents. Often, they are the only practicable way to reach a number of respondents large enough to

allow statistical analysis of the results. A well designed questionnaire, used effectively can gather information on both the overall performance of the test system and information on specific components of the system. If the questionnaire includes demographic questions, they can be used to correlate performance and satisfaction with the test system among different groups of users.

A self-administered questionnaire was one of the primary data collection tools in this study. Although the most commonly used form of self-administered questionnaire is the mail or postal questionnaire, in this instance the questionnaire was personally delivered by the author or, in some cases, forwarded to the respondents via email. Generally, this questionnaire was completed by respondents independently; however, in an effort to ensure completion of the questionnaire, some respondents completed same in the presence of the author during their interviews. It is believed that this approach led to an extremely high response rate being achieved.

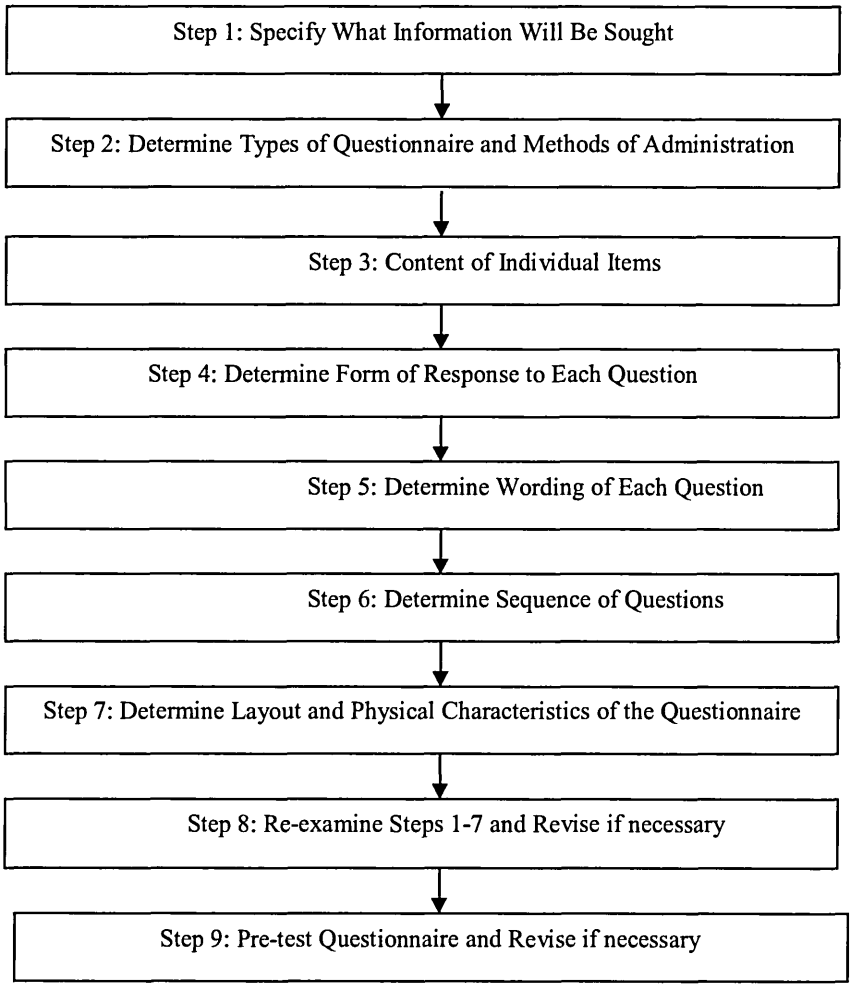
Generally, a questionnaire should be viewed as a multi-stage process beginning with a definition of the aspects to be examined and ending with interpretation of the results. Every step needs to be designed carefully because the final results are only as good as the weakest link in the questionnaire process. Although questionnaires may be cheap to administer compared to other data collection methods, they are every bit as expensive in terms of design time and interpretation.

A well-used model that clearly depicts the stages of development of a questionnaire, as articulated by Churchill (1991), is presented in Figure 3.2. Although this format is by no means definitive it provides a worthy checklist of the stages in the design and development processes, as well as the issues that needed to be understood.

When using questionnaires, it must always be remembered that you only get answers to the question that you ask (Johnson & Harris, 2002). Although this may sound obvious, it is often forgotten, and the omission of vital questions could have negative implications to the results of the study. Equally important is the fact that the researcher must ask the right questions to participants of the study, which can only be done by having a clear

idea of the research topic/questions and upon completion of a thorough literature review of the subject matter.

Table 3.2 Stages of development of a questionnaire



Source: Churchill (1991)

Invariably, five types of question styles are used in questionnaires, namely open-ended questions, close-ended questions, ordered questions, unordered questions and partially close-ended questions. The questionnaires used in this research study were a combination of open- and close-ended questions. Most responses were rated on a scale of one to five.

Generally, a low response rate is a problem which plagues many mail survey researchers (Roth & BeVier, 1998) and often leads to potential concerns with external validity. The researcher was very aware of this, which is one of the reasons why personal contact was made with most of the respondents. One of the other primary reasons for the researcher being involved in the administration of the questionnaires was the nature of the questions being asked. It was envisaged that the researcher would clarify misconceptions and also become sensitised to what was important to the respondents (Partington, 2000). Furthermore, it is believed that this allowed for the research to be more convincing about the methodological process employed.

Prior to administration, the questionnaire was pre-tested. This is recommended to make certain the questionnaire is appropriate for the purposes of the study. At this stage the researcher is able to check structure and use of language, and information required from targeted respondents can be collected through this research instrument (Reynolds and Diamantopoulos, 1998). Furthermore, the questionnaire pre-test should assess two main issues, namely the respondents' understanding of the questionnaire itself and their perception of each individual question.

According to Dillman (1978), the modus operandi of pre-testing is to identify construction defects, including:

- The measurement of what is intended to measure
- Its interpretation by all respondents in a similar manner
- The appropriateness of the scale items and anchors
- The determination that the questionnaire creates a positive impression that motivates people to answer all questions
- Are the questions answered correctly when compared to actual potential respondents rather than academics?
- Is any aspect of the questionnaire biased, ambiguous or misleading?

Pre-testing of the questionnaires led to an amount of variations based on the responses received.

The questionnaires were designed specifically to measure all possible aspects of quality-related practices and customer and employee satisfaction, and were largely administered by the researcher, so in essence the research method used here was that of the interview survey.

3.4.3.2 Questionnaire design

The main instrument of analysis was the questionnaire, which was designed utilising information collected from a review of various TQM models and frameworks, and most specifically the EFQM model. Questions were close or open-ended, with close-ended questions based on a 5-point Likert scale. The scaled questions investigated current and expected perceptions of employees on the organisation's level of performance, with the following ratings:

1= excellent, 2 = good, 3 = average, 4 = between average and poor and 5 = poor.

A total of thirteen variables were identified for the survey:

1. Employee/Department profile
2. Environment – the service industry
3. Strategic goals and objectives
4. Customer satisfaction services
5. Quality-related practices
6. Communication
7. Human resource support system
8. Computerisation/technology
9. Organisational resources
10. Suppliers
11. Competition
12. Organisational culture
13. Overall employee satisfaction

The questionnaire was divided into sections, each collecting information on the specified variables. The sections examined were as follows:

1. Employee/department profile – This section sought demographic data on the employee (job description, highest educational qualification, number of years employed, department and duties and if the respondent was a citizen of T & T).
2. The service industry – This section sought information about the external environment, its challenges and the ways firms react to them and the major services provided by his/her department. It also assessed employees' opinions on the expectations of their customers, the extent such expectations are met and how they are measured to monitor customers satisfaction. It also evaluated the quality of service the firm offers and asked employees to rate the performance of certain constructs instrumental to the quality of service present in the firms.
3. Organisational structure – This section focused on the organisational structure, employee views as to whether company structure should be built around quality practices and if quality-related business strategy can help operational and business performance. It also identified the current and expected performance of elements of the company's strategic goals and objectives that facilitate quality implementation.
4. Customer satisfaction services – This section looked at employee perceptions on the firm's customer satisfaction procedures, if the company had staff dedicated to customer satisfaction, the frequency of tracking customer satisfaction and their views on customer satisfaction existing within the firm, along with complaints they receive.
5. Quality-related practices – This section explored employee perceptions on the current and expected performance level of variables pertaining to quality-related practices within the firm, and employee thoughts on implementing quality practices in improving departmental performance and their willingness to be trained in quality practices.
6. Communication – This section covered the type of communication prevalent in the organisation; the information from this section can be used in assessing the ease of implementing TQM practices.

7. Human resources support system – This section collected data about the company's human resource support system (the availability of staff, the level of teamwork prevalent, performance reviews, staff training, staff turnover, staff involvement, employee satisfaction and the competency of staff). It also measured whether the company had conducted an assessment to identify the most pressing human resource problem.
8. Computerisation/Technology – This section reviewed the level of computerisation present in the firm, the frequency of software upgrades, if the company had a functioning IT department and employee access to the internet. Additionally, it rated employee satisfaction and their view of the importance in using computing services in the discharge of their duties, as well as the use of the internet to visit competitor websites.
9. Organisational resources – This section gave a description of the firm in terms of the number of employees, managers, supervisors and technical and support staff. This section also evaluated employee views on the company's organisational structure, visibility and consistency. This section further allowed employees to rate the firm's equipment/resources.
10. Suppliers – This section covered the organisation's major suppliers and allowed employees to give opinions on their suppliers and the problems they have encountered with them.
11. Competition – This section collected information on the company's local and international competitors, employee views on the competitiveness of their industry, their knowledge of their service market, as well as company benchmarking and the company's success against their immediate competitors. It also rated employee understanding about the benefits of adopting quality-related practices in their company.
12. Organisational culture – This section focused on the current and expected behaviours of employees within the firm that are instrumental in catalysing a quality-related service culture.
13. Overall employee satisfaction – This section sought employees' overall views on their company.

A carefully designed questionnaire was administered to produce evidence relating to the research objectives. The questionnaire was one of the primary tools used in the collection of data (the other was the interview). Samples of both a blank and completed questionnaire are included in Appendices A and B, respectively.

Of the one hundred eighty questionnaires given out, a total of one hundred and fifty questionnaires were completed. Given the hypothesis being tested, there was the need to administer questionnaires to:

i. Members of the top management team
ii. Key members of staff involved in the decision-making process (from all relevant departments within the various organisations).

In most instances, once the Managing Director, Chief Executive Officer or Human Resources Manager provided a list of suitable candidates (subject to the study's criteria), contact was made with the candidates identified via telephone or email. In some instances, candidates asked that the questionnaire be emailed so that they could either complete or attempt to complete same prior to the interview. In other instances, candidates were given the questionnaires during the interview, and the completed questionnaire was then collected at a later date. In yet another instance, questionnaires were actually completed during the interview itself. Each questionnaire was accompanied by a covering letter, which provided some background on the research study as well as instructions such as deadline for submission etc. A copy of the covering letter is attached in Appendix A.

With the use of the SPSS program, it is believed that this gave the researcher the required support to complete the necessary data entry and to analyse the results.

Although the questionnaire seemed to be quite lengthy, it was designed to take no more than forty-five minutes to complete. The responses from the questionnaires were excellent, bearing in mind that generally one of the major disadvantages of questionnaires is the low response rate. This high response rate can be attributed to the

fact that the researcher administered the questionnaire himself (in most cases) or had contact with the respondents via the interview.

3.4.3.3 Interviews

In many social sciences disciplines, interviewing is a well-established research technique. The three main types of interviews are:

1. *Structured interviews*: This includes the administering of structured questionnaires, where interviewers are trained to ask questions, which usually have a fixed choice of responses. For example, the interviewer might ask the respondent, "Is your health good, fair or poor?" Qualitative interviews are often described as being unstructured, but it must be noted that the word "unstructured" is deceptive, since no interview lacks structure in the end since without it there would be no guarantee that the data gathered would be applicable to the research study.
2. *Semi-structured interviews*: In these types of interviews, structure is looser. The questions asked are generally open-ended, which define the topic of the research. During the course of the interview the interviewer or interviewee may diverge to develop an idea or response in more detail.
3. *Depth interviews*: Like semi-structured interviews, there is less focus on structure. The interviewer focuses on one or two issues, but in great detail. Questions are usually asked based on responses from the interviewees and there is a great deal of probing and clarification.

A qualitative interview has the advantage of being interactive and sensitive to the language and concepts used by the interviewee. In addition, they are considered to be flexible, in that they uncover new ideas that were not anticipated at the onset of the study.

The two main types of interviews conducted are personal interviews and telephone interviews. Personal interviews allow the interviewer to work directly with the respondent, whereas telephone interviews enable a researcher to gather information

rapidly. Most of the major public opinion polls that are reported were based on telephone interviews. Like personal interviews, they allow for some personal contact between the interviewer and the respondent and allow the interviewer to ask follow-up questions. However, they also have some major disadvantages, as many people do not have publicly-listed telephone numbers, some do not actually have telephones, one cannot read body language and often people do not like the intrusion of a call to their homes.

Some other common drawbacks of interviews, according to Morse and Field (1996), include the temptation to counsel interviewees, stage fright, awkward questions and jumping from one question to another. Probably, the most common disadvantage of this method for research purposes is that the researcher will interview fewer people than he would have done with a questionnaire. Another major disadvantage is that open-ended questions could steer the interview away from its original purpose, resulting in wastage of resources and inappropriate data. Interviews are also time-consuming to conduct, generally require a great deal of resources, which may or may not be available to the researcher and does not offer the researcher the benefit of viewing body language which may be critical to the topic being studied.

According to Patton (1987), good questions in qualitative interviews should be open-ended, neutral, sensitive and clear to the interviewee. He identified six types of questions that can be asked – those based on behaviour or experience, opinion or value, feeling, knowledge and sensory experience and those which ask about demographic or background details.

Despite its many inadequacies, interviews have the advantage of being more in-depth than questionnaires since the interviewer has the opportunity to probe responses. Generally, interviewers are trained to deal with most contingencies and the confidentiality of the interviewee is at all times respected and protected.

Basically, qualitative interviewing is a flexible and powerful research tool, which can positively impact on the research study by adding new insight and depth.

Questionnaires are closely aligned with interviews as a research method. Some interviews function simply as spoken questionnaires, while open-ended questionnaires are similar in aim and design to qualitative interviews. The author made use of both methods in this study. Semi-structured interviews were conducted with members of the top management teams and senior supervisory level at the various firms studied.

As mentioned above, interviews have the advantage of being more in-depth than questionnaires and the interviewer has the opportunity to probe responses. Whilst the information provided in the questionnaires was insightful, additional information accumulated during the course of the interviews allowed the researcher to clearly understand the culture, leadership, strategic planning agenda and attitude to quality of each of the firms studied. Furthermore, a clear and historical picture of the general service industry was gathered.

Some of the questions asked during the semi-structured interviews were as follows:

1. How would you describe the climate at your organisation within which your service(s) is/are delivered?
2. What is your definition of quality from your industry's perspective?
3. Do your vision and/or strategy focus on TQM principles and practices?
4. Is TQM treated as a separate issue or is it part of the firm's overall strategy?
5. Are you convinced that TQM can assist your organisation in:

- ✓ Improving efficiency (explain)?
- ✓ Reducing costs (explain)?
- ✓ Increasing customer (internal and external) satisfaction (explain)?

6. How regular do you have meetings with the following?

- ✓ Employees
- ✓ Managers
- ✓ Directors

7. Is training provided for employees? Please elaborate.
8. What will it take to improve the overall quality and services of your facility?
9. Apart from salary, what other benefits do you have in place for members of staff (e.g. a pension/health plan)?
10. What sort of employee recognition programme do you have in place? How long has this programme been implemented?
11. Is planning done formally or informally in your organisation? Who are the people involved in the process and what are some of the issues discussed?

3.4.3.4 Focus Groups

Focus groups are frequently used to explore specific issues. The group brings together individuals chosen to meet a specific profile; they may be homogenous along some dimensions and heterogeneous along others. A structured yet informal setting is then used to investigate a limited number of questions. Unlike individual interviews, focus groups provide a new dimension of interaction, which is often combined with more quantitative approaches such as surveys that can be directed at different points in the group discussion and even used as grist for additional information.

Focus groups are generally long-term exposure to a setting or group of people (usually about 5-10 people who have something in common). During the interview a facilitator initiates and guides discussions, which are usually between one-and-a-half and two hours in duration. One of the advantages of this research method is that it generates ideas and elicits topics unlikely to arise with an individual interview. Additionally, one can quickly identify a range of issues that are relevant to a research topic.

As with any research method, there are disadvantages to this technique. The first is that it generates large amounts of data that is sometimes not necessary for the purpose of the research. Also, it requires a good facilitator to obtain quality data and keep participants on the topic.

The focus group sessions were used to gather feedback on the Six Senses Model developed by the researcher (see Chapter 6). Although it was not a "data collection"

method in the sense that it was used after the Six Senses Model was developed, it is of importance, since it allowed for feedback from candidates which would facilitate modifications to said model prior to its implementation in any organisation. Copies of the letter of introduction and Feedback form can seen in Appendices C and D respectively.

3.4.4 Secondary Research

As mentioned in Chapter 1, no similar type of research has been conducted in T&T. However, there is a lot of existing literature on the different components of the research topic, for example TQM, corporate strategy and sustainable competitive advantage. In an effort to gather a clear understanding of current information on these components, a literature review was conducted by using the following sources of secondary data: websites of firms based in T&T, journals, magazines and textbooks.

3.4.5 Websites

The hypotheses imply that firms within the service industry in T&T can or cannot achieve sustainable competitive advantage by integrating TQM methods into their corporate strategy. Additionally, given the fact that most service-based firms in Trinidad and Tobago use quality-related strategies as part of their marketing campaign, it was further believed that if TQM in any form had been implemented within the organisation, this information would be reported and therefore be available via their website. Thus, the websites of the following firms were examined:

1. Republic Bank Limited
2. Hilton Trinidad and Conference Centre
3. Medical Associates Limited
4. Associated Services Limited
5. TSTT (Telecommunications Services of Trinidad and Tobago)
6. WASA (Water and Sewage Authority of Trinidad and Tobago)

Additionally, in an attempt to benchmark the practices of firms in T&T, the information was compared with that of other firms on a global basis. Therefore, a number of other

websites were examined in an effort to gather information on the research topic. Most of these were facilitated via the SHU Gateway (Google Scholar, Emerald Fulltext, etc.).

3.4.6 Journals and Magazines

Current information was collected from a number of academic journals and magazines, most of which were accessed electronically via the University's Library Gateway.

3.5 SAMPLING DESIGN

One of the two main steps emanating out of the research design and strategy is the identification of the population and the selection of a sample if a census is not required. Webster (1985) defines a sample as "a finite part of a statistical population whose properties are studied to gain information about the whole. The main purpose of sampling is to infer conclusions about the population.

Generally speaking there are six main reasons why samples are used to extract information about a population as opposed to a census, namely economy, timeliness, the large size of many populations, inaccessibility of some of the population, destructiveness of the observation and accuracy.

Before deciding how large a sample should be, one must define the study population. The population for this study consisted of three main groups:

1. Members of the top management team: directors, general managers, department managers and other key decision-makers.
2. Internal stakeholders: key members of staff.
3. External stakeholders: key persons with whom members of the organisation conducted business.

The question of how large a sample should be is not an easy one. Sample size can be determined by various constraints, for example the availability of funds may establish the sample size. This constraint can then influence the sample size as well as the sample design and data collection procedures.

In selecting a sample for the study, the research questions were once again reviewed, since generally sample size depends on the purpose of the research study, the nature of the analysis to be done, the desired accuracy, the comparisons to be made, the number of variables that have to be examined concurrently and the diversity of the sample. Field and Morse (1989) believed that sampling strategies should be determined by the purpose of the research study.

Deciding on a sample size for qualitative research can be more complex than quantitative research because there are no definite rules to be followed; it will depend on what the researcher wants to know, the purpose of the investigation, what will be useful, what will be reliable and what can be done with available time and resources. According to Mays and Pope (1995), statistical representativeness is not normally required in qualitative research, since, as stated previously, there are generally no set rules to follow.

This study focused on institutions within the service industry in Trinidad and Tobago. The choice of firms chosen was discussed in detail in Chapter 2. For the primary reasons of time and cost, studying all of the firms within the various sub-sectors would have been an exhaustive exercise. Therefore, the author sampled in detail six firms, which he believes are comprehensively representative of the population of the various service industries in the country.

Letters seeking authorisation to conduct research were sent to top management officials (chairmen, board of directors and chief executive officers) of all six institutions. A sample of the said letter is attached in Appendix A and the questionnaire in Appendix B. These were reinforced by telephone calls and subsequent meetings. A positive response was forthcoming and once permission was granted, the researcher administered questionnaires and conducted interviews with selected members of staff, totalling 150. As mentioned in the abstract, 180 questionnaires were given out and of these 150 were completed. Semi-structured interviews were conducted with 97 persons.

3.6 DATA COLLECTION AND PREPARATION

Generally, the data-gathering phase of the research process begins with pilot testing, which is generally undertaken to detect weaknesses in design and instrumentation. In some instances this is omitted if the researcher has the need to condense the time frame of the study.

There are a number of variations on pilot testing. For the purposes of this research study, pre-testing was used as the method of pilot testing. Questionnaires were administered to respondents with an interest in the various sub-sectors being studied. During this pre-testing phase modifications were made to the questionnaires based on feedback from the participants. Modifications included improvements on the wording of the questionnaire, the elimination of unnecessary questions and some which were suggested as necessary and sequencing.

3.7 DATA ANALYSIS AND INTERPRETATION

Seldom is raw data ever useful to anyone. People need information, but this must be generated from the data collected. This can only be done through the data analysis process, which involves the reduction of accumulated to manageable size, looking for patterns, the application of statistical techniques and the development of summaries. In instances where scaled responses are used in questionnaires, the researcher is often required to derive various functions and relationships among variables. The researcher must also interpret findings in light of the research question and decide if the results are consistent with the hypotheses/theories being tested.

The preceding section of this chapter has shown the difference between quantitative and qualitative data. Accordingly, given the differences in the research methods, the data collected will be analysed differently. Firstly, let us look at the analysis of quantitative data. When analysing quantitative data, the two foremost factors to bear in mind are:
1.0 The fact that there is little standardisation as it relates to data collected from previous research. To a great extent, each analysis would have been different, given the uniqueness of each study.

2.0 There are multiple interpretations and an equal amount of multiple ways of arriving at these interpretations. Simply put, there are no absolutes. The method by which data are analysed in this type of research depends largely on the research question, the method of data collection and, finally, what is deemed appropriate to achieve the aims and objectives of the research.

In qualitative data analysis the mass of words generated by interviews or observational data needs to be described and summarised. The question may require researchers to seek relationships between various themes that have been identified, or to relate behaviour or ideas to the biographical characteristics of respondents such as age or gender. Implications for policy or practice may be derived from the data, or interpretation sought regarding puzzling findings from previous studies. Ultimately, theory can be developed and tested using advanced analytical techniques.

There are no 'quick fix' techniques in qualitative analysis. Just as software packages such as the Statistical Package for the Social Sciences (SPSS) will not indicate which of the myriad statistical tests available can be used to analyse numerical data, so there are probably as many different ways of analysing qualitative data as there are qualitative researchers carrying it out.

Many would argue that this is the way it should be – qualitative research is an interpretative and subjective exercise and the researcher is intimately involved in the process, not aloof (Pope and Mays, 1996). However, there are some theoretical approaches to choose from. Furthermore, there are a number of common processes, no matter which approach is taken. Regardless of the formal analysis procedure used, initial analysis is similar. Initial analysis, which occurs throughout the research study, can be divided into the following phases:

i. Code various units
ii. Development of categories, subcategories and super ordinate categories
iii. State examples of categories
iv. Linkages

Formal analysis often begins near the end of the qualitative study. Although, there are many ways of describing the methods of formal analysis, Tesch (1990) summarises these into four categories:

i. Language-oriented
ii. Describing regularities
iii. Meanings of actions or text
iv. Reflective methods

Given these aforementioned methods of data analysis (the list of which is by no means final), one might easily reminisce about the seeming lack of information provided by simple statistics. However, it must be remembered that in the final analysis, the choice of which data collection method (qualitative or quantitative) to use is dependent on the purposes and objectives of the research study. In most circumstances, the answer to the question lies in a blend of both methods.

The inadequate reporting of the process of data analysis has been identified as one of the major shortcomings of the qualitative research process. This is further compounded by the inductive nature of this method, in which prior conceptualisation is unsuitable because concepts and categories are developed during the process of the research. For this reason, the processes of data collection and analysis are inextricably linked.

The results of the data collected in any research study are subject to several stringent criteria that either make the research study a success or otherwise. In qualitative research this is further compounded by the very nature of the research, as a result of the allowances for "creativity" in the research study. For the purposes of this research study, the Statistical Package for the Social Sciences (SPSS version 12.0) was utilised to analyse the data collected from the questionnaires. The qualitative data collected from the data will be used in the development of the proposed model.

3.8 RELIABILITY AND VALIDITY

Qualitative researchers argue for different standards for judging the quality of research. For example, Lincoln and Guba (1985) have proposed four criteria for judging the soundness of qualitative research, and explicitly presented these as an alternative to more traditional quantitatively-oriented criteria. They felt that their four criteria positively reflected the underlying assumptions involved in much qualitative research. Their proposed criteria and the "corresponding" quantitative criteria are listed in the following Table (3.3).

Table 3.3
Criteria for Judging Quantitative and Qualitative Research

Traditional Criteria for Judging Quantitative Research	Alternative Criteria for Judging Qualitative Research
Internal validity	Credibility
External validity	Transferability
Reliability	Dependability
Objectivity	Confirmability

Source: Lincoln and Guba (1985)

Each of these is examined in greater detail in the following sections.

3.8.1 Credibility

This criterion involves establishing that the results of qualitative research are realistic or believable from the perspective of the participant in the research. From this perspective, the purpose of qualitative research is to describe or understand the phenomena of interest from the participant's view, since participants are the only ones who can legitimately judge the credibility of the results.

3.8.2 Transferability

Transferability refers to the degree to which the results of qualitative research can be generalized or transferred to other contexts or settings. From a qualitative perspective, transferability is primarily the responsibility of the one doing the generalising. The researcher can enhance transferability by doing a thorough job of describing the research context and assumptions central to the research. The person who wishes to "transfer" the results to a different context is then responsible for making the judgment about how sensible the transfer is.

3.8.3 Dependability

The traditional quantitative view of reliability is based on the assumption of replicability or repeatability. Essentially, it is concerned with whether or not the same results would be obtained. In order to estimate reliability, quantitative researchers construct various hypothetical notions.

The idea of dependability, on the other hand, emphasises the need for the researcher to account for the ever-changing context within which research occurs. The research is responsible for describing the changes that occurred in the setting and how these affected the way the researcher approached the study.

3.8.4 Confirmability

Qualitative research assumes that each researcher brings a unique perspective to the study. Confirmability refers to the degree to which the results could be confirmed or backed up by others. There are a number of strategies for enhancing confirmability (documentation, "devil's advocate", negative instances, among others). After the study, one can conduct a data audit that examines the data collection and analysis procedures and makes judgments about the probability of bias or distortion.

There has been considerable debate among methodologists about the value and legitimacy of this alternative set of standards for judging qualitative research. On the one hand, many quantitative researchers see the alternative criteria as just a re-labelling

of the very successful quantitative criteria, in order to accrue greater legitimacy for qualitative research. They suggest that a correct reading of the quantitative criteria would demonstrate that they are not limited to quantitative research alone and can be applied equally well to qualitative data. They further posit that the alternative criteria represent a different philosophical perspective that is subjectivist rather than realist in nature. They claim that research inherently assumes that some reality is being observed with greater or less accuracy or validity. If you do not make this assumption, they would contend, you simply are not engaged in research (although that does not mean that what you are doing is not valuable or useful).

Perhaps there is some legitimacy to this argument. Certainly, a broad reading of the traditional quantitative criteria might make them appropriate to the qualitative realm as well, but historically the traditional quantitative criteria have been described almost exclusively in terms of quantitative research. No one has yet done a thorough job of translating how the same criteria might apply in qualitative research contexts. For instance, discussions on external validity have been dominated by the idea of statistical sampling as the basis for generalising, and considerations of reliability have traditionally been inextricably linked to the notion of true score theory.

Nonetheless, qualitative researchers do have a point about the irrelevance of traditional quantitative criteria. How could we judge the external validity of a qualitative study that does not use formalised sampling methods? Moreover, how can we judge the reliability of qualitative data when there is no mechanism for estimating the true score? No one has adequately explained how the operational procedures used to assess validity and reliability in quantitative research can be translated into legitimate corresponding operations for qualitative research.

While alternative criteria may not ultimately be necessary, they certainly can be confusing, since these alternatives do serve to remind us that qualitative research cannot easily be considered only an extension of the quantitative paradigm into the realm of non-numeric data.

3.9 CONCLUDING REMARKS

This chapter provided a rationale for the research methodology used in this research study. Accordingly, primary and secondary research evidence was collected to meet the research objectives. Primary data collection was undertaken via the use of a questionnaire and semi-structured interviews with selected candidates. Secondary data was collected via a comprehensive literature review (Chapter 4), which made use of journals, textbooks and various websites.

The combination of primary and secondary research methods used provided appropriate data for the analysis to be carried out. Chapter Five reports on the findings and provides an in-depth analysis of the said findings.

CHAPTER 4 - LITERATURE REVIEW

4.1 INTRODUCTION

The 1980s witnessed an expansion of the Total Quality Management (TQM) concept. As mentioned in Chapter 1, TQM has emerged and developed as a key management philosophy, (Redman, 1995) and over the past three decades has changed and matured through the influence of several differing factors, inclusive of the business process movement and human resources and empowerment (Davenport, Jarvenpaa & Beers, 1996). The concept has also encountered its share of challenges, mostly in its implementation. Regardless of the shortcomings and advantages put forward by advocates and detractors alike, there is consensus that TQM remains applicable today for many reasons.

It is therefore important to review TQM in a detailed manner, from both a conceptual and practical perspective. In order to understand TQM fully, especially as it relates to the proposed study, this chapter will examine the concept from its genesis of quality, i.e. from inspection to quality control, quality assurance and then TQM. This will be followed by a brief discussion on the philosophies and methods of the three quality gurus: Deming, Crosby and Juran. Next, consideration will be given to the implementation of TQM. In view of the research aim, the relationship among quality, strategy, competitive advantage and TQM are then presented. One of the primary objectives of the strategic management literature is to explain why some firms outperform others (Rumelt, Schendel, and Teece, 1994). Accordingly, this chapter concludes by examining how implementing a TQM-based strategy can lead to sustainable advantage.

4.2 THE CONCEPT OF QUALITY

4.2.1 Introduction

Improving quality is arguably one of the most important task facing firms. In T&T improving quality involves not only making products and services more attractive to end

users but also keeping all related costs down, improving delivery schedules and being more customer conscious and attentive.

4.2.2 Defining Quality

Over the years, quality has remained a dominant theme in the management literature. Despite its popularity and widespread use, there is no single definition of quality; in fact, it can be said that it has contradictory meanings, because it implies different meanings to different people in different contexts. As a consequence, Pfeffer & Coote (1991) expressed the view that, "quality has a slippery meaning". In order to acquire a better understanding of the concept of "quality", various definitions will now be examined.

Aristotle (350, BCE) wrote, "It is the mark of an educated man to look for precision in each class of things just so far as the nature of the subject admits". Fast forward to the 1950s, where quality can be traced to the pioneering work of Abbott (1955), who explained that differences in quality amount to differences in the quantity of some desired ingredient or attribute. Fiegenbaum (1956) later spoke about the adverse impact of independent departmental actions on product quality. It should be noted that around this same time, quality circles made its entry into the business world; bearing in mind that quality circles were invented in the United States of America (USA) as a practical example of a creative autonomous group (Handy, 1988).

Whilst organisations understand the need for improving their quality, it would seem that the basic definition still eludes many. Although numerous definitions have been published, most can be summarised through the following classifications along with some sample definition in each category:

1. Product based: Differences in quality amounts to differences in quality of some desired ingredient or attribute (Abbott, 1955).
2. Manufacturing based: Conformance to specification – quality is defined by the relative absence of defects (Levitt, 1972).

3. Customer based: Meeting the customers' requirements – in this case, quality is measured by the degree of customer satisfaction with a particular service or product's characteristics and features (Oakland, 1993).
4. Strategy based: It is not only a strategic weapon for competing in the current marketplace, but also means pleasing consumers, not just protecting them from annoyances (Garvin, 1987).

Traditionally, the word "quality" has been used when referring to luxury or added features and services that supposedly cost more. However, what is actually involved is providing the customer with what is required (Oakland, 1993), namely a product or service that is fit for use (Juran, 1988) and being able to execute the entire transaction in such a way that each individual process is done right the first time, every time (Crosby, 1979). Still, this definition is restrictive in the sense that a more comprehensive definition would focus not only on the products, services, strategies, systems and processes, but also on the people who are responsible for ensuring that excellence is achieved at every possible level of the organisation (Bounds et al., 1994).

4.2.3 Other Notable Definitions of Quality

The literature identifies various definitions of quality, all of which are related to a body of knowledge about product, service and customer satisfaction. Additionally, the literature also reveals that the ideas of Deming, Crosby and Juran continue to dominate the quality movement. In the author's view, Deming (1982) provides the most comprehensive and perhaps the simplest definition of quality, "doing the right thing right, right away". However, Crosby (1984) went one step further to include the customer in his definition and was of the view that regardless of their precise definitions, both quality and satisfaction are determined ultimately by the customer's perception of a total product's value relative to its performance. Juran (1988) defines quality as "fitness for use", which encompasses both freedom from defects and the multiple elements required to meet the total needs of the customer. Similarly, Crosby's "conformance to requirements" and Juran's "fitness for use" make it clear that it is the customer's concept and interpretation of quality that matters most – not the company's.

Kondo (1999) reinforces the above by noting that improving quality in creative ways reduce costs and raise productivity. For example, quality in the health care industry can mean delivering the right medication in accordance with prescribed specification and quantity, at the right time and by the right people. In the case of the construction of a proposed highway, it could mean that the facility should be able to adequately serve the existing and planned future traffic of the highway in a manner that is conducive to safety, durability and economy of maintenance, and it will be designed and constructed with the view that it will perform satisfactorily in service. Hence, definitions such as those discussed earlier are partly responsible for advancements made to quality improvement practices, not only in Japan, Europe and America, but also developing countries like T & T and certain parts of Asia, Africa and the Americas.

The author is of the view that quality ought to be considered a management approach which focuses on increasing customer satisfaction, enhancing productivity, reducing costs and improving the offering of firms' products and services. Furthermore improvements in quality, productivity and customer satisfaction enable firms to increase their market share and to charge better prices for their products, which, in turn, results in higher profitability (Garvin, 1984). Therefore, the emphasis and beliefs placed on the effects of quality and productivity by Garvin (1984), and the views of the author, somehow point in a similar direction, except that very little has been mentioned about the apparent integrated approach to gaining competitive advantage by building on every facet of an organisation's activities and processes.

In general, the aforementioned authors and their works continue to be used for the teaching and understanding of quality and quality-related principles and practices. To truly understand and appreciate what exactly constitutes quality, we may have to start with Webster's and/or the Oxford Dictionary definition: "[quality is] the degree of excellence". In the author's view, quality remains critical and paramount to every aspect of the business. More importantly, the author acknowledges that it affects everything around us, and all that we do, from an individual and organisational perspective. Yet for many academics and business practitioners, quality is difficult to define, and generally it

means different things to different people. Its definition also depends on whether a person is a provider of a service or a recipient.

It is important to note that quality can be said to exist when products or services meets customers' requirements and expectations (pre-defined specifications) at acceptable prices. Thus, quality should form part of the overall strategy of every Caribbean based firm striving to achieve a sustainable competitive advantage during these times of economic turmoil. According to Hendricks and Singhal (2001) all major firms pursue quality in an effort to improve long term financial performance. In fact, there is little question that when implemented properly, quality-related practices can have a dramatic impact on the performance and culture of an organisation (Deming, 1986; Juran, 1989; Hackman & Wageman, 1995). Accordingly, this study emphasizes the integration between TQM initiatives (methods) and organizations visions via their stakeholders as a means of achieving a sustainable competitive advantage in service based industry.

4.3 THE EVOLUTION OF TQM

A review of the management literature has revealed that TQM has evolved over a number of years to arrive at its present state. Four steps have been identified in the development process: quality inspection, quality control, quality assurance and TQM. Each of these will now be examined in detail.

4.3.1. Quality Inspection

Quality inspection was with us as far back as 210 B.C., when the Emperor Qin Shi Huang Di enforced standards for weights and measures throughout the Chinese Empire. Indeed, quality inspection (the examination of goods before they are purchased) has been ongoing for as long as mankind has traded (Hooley, 1993).

In the management literature, the roots of quality can be traced back to the Industrial Revolution, when it is believed to have emerged prominently. The standardisation of manufacturing and work processes took off with the introduction of the gauge in 1823, which allowed inspectors to examine parts. The bicycle industry was the first to use the

inspection process, followed by the automobile industry in the 1900s (Mouradian, 2002). This was the genesis of the process improvement concept.

Frederick Taylor is credited as being one of the pioneers of new approaches to improve unskilled workers in industrialised organisations. His writings, which developed the notion of work as a process, are outlined in his book "The Principles of Scientific Management (1911)". Taylor's framework for an organisation included a clear delineation of authority, responsibility, separation of planning from operations, incentive schemes for workers, management by exception and task specialisation (www.accel-team.com), and he used work timings carried out at Bethlehem Steel. He also designed a different type of shovel and reduced his required workforce from 500 to 140. Taylor believed that every act of every workman could be reduced to a science.

According to Seymour (1992), the process of inspection which existed in the industry in the 1930s was used to guarantee the uniformity of production. Prior to this, Aguayo (1990) had indicated that proper inspection could detect defects and prevent them from reaching the customer. However, he pointed out that inspection was a limited tool which was overused and sometimes misused. Thus, it could not guarantee quality or improvement and was not really part of the process. This restricted nature of inspection as a management method made it an inappropriate means of managing complex organisations, and it was this limitation that paved the way for quality control.

4.3.2. Quality Control

In 1924, Dr. Walter Shewhart devised a framework for the first application of the statistical method to the problem of quality control. In response to the Inspection Manager's request for some type of inspection report that "might be modified from time to time, in order to give a glance at the greatest amount of accurate information", he attached a sample chart "designed to indicate whether or not the observed variations in the % of defective apparatus of a given type are significant; that is, to indicate whether or not the product is satisfactory"
(www.resourcesystemsconsulting.com/blog/archives/1108).

Dr. Shewhart's example was the world's first schematic control chart, and in one brief letter, he outlined the essential principles and considerations of quality control. His later studies gave birth to the modern scientific study of statistical process control. In 1931, his book 'Economic Control of Quality of Manufactured Product' contained his findings on statistical sampling techniques, and was instrumental in progressing Taylor's scientific management. It is now considered a landmark contribution to the effort to improve the quality of manufactured products.

Dr. Shewhart's techniques were developed to bring industrial processes in line with what he called statistical control. Statistical Control referred to a series of techniques for removing variability from industrial processes in an effort to enable them to be more predictable and controllable. The particular outcomes envisaged were delays and the elimination of waste (Sallis, 1993).

Inspection forms the basis for detecting quality control problems through an examination, measurement and comparison against specific standards (Kanji and Asher, 1993). Quality control inspection takes place at numerous stages in a production run, and is performed mainly by staff employed specifically for this purpose. Thus, the focus of quality control is to ensure quality of conformance to design specifications in manufactured goods and services (Evans and Lindsay, 1996).

Gummersson (1991) provides us with a comprehensive definition of quality control: "The control of quality during an operation process and at the post process stage through containment and inspection with the aim of preventing the release of defective goods". Juran (1989) suggested that the process was managerial, which allowed one to:

1. Evaluate actual quality performance
2. Compare actual performance to quality goals
3. Take action on the differences

Although quality control is more advanced than inspection, in that the quality controllers use statistical techniques to achieve quality goods and services, it has its limitations.

4.3.3. Quality Assurance

On the heels of quality control came quality assurance (QA). In the evolution towards TQM, QA can be considered the third step. According to Seymour (1992), QA was applied to manufacturing between the 1950s and 1980s. In order to prevent quality failure, QA concentrated on the entire production process, inclusive of the contribution of all functional groups.

In his explanation, Hooley (1993) offered that QA is the achievement of specified cases of poor quality through problem solving and preventions. The distinction between QA and QC is that whilst quality assurance is prevention-based, quality control is inspection-based.

According to Sallis (1993), QA aims to prevent the occurrence of faults, since quality is designed into the process to ensure that products are produced to predetermined specifications. He further explains that the quality of the good or service is assured by the system in place. This system is known as the quality assurance system and has exacting standards for how production should take place. In this regard, QA is therefore a managerial process applied to the manufacturing process with a view towards achieving quality and preventing faults.

QA is not without its limitations, though. Although it is specific on how things should be done, the scope for improvement or enhancement is limited. This does not, however, mean that the focus on quality diminishes in any way. In fact, there was a shift away from the narrow realms of quality control to a more developed understanding of the process of change and improvement. While much has been written on the "new" philosophy of QA or for that matter Total Quality Control in general, management was still reluctant to change and as such there was little top management involvement. By the end of the seventies, things on the quality front were beginning to change and companies throughout Europe and America were at least being educated about the developments taking place in Japan. Industry after industry worldwide had become dominated by Japanese manufacturers. In their quest to differentiate themselves from the rest of the world, the Japanese started the trend for better quality focusing on the

teachings and philosophies of Deming, Juran and Crosby. Other quality pioneers such as Ishikawa, Taguchi, Shingo (Japan) and Oakland also assisted the Japanese. It is beyond the scope of this study to examine the contributions of all these men, however the next section focuses on the main pioneers, Deming, Juran and Crosby.

4.4. THE ADVENT OF TOTAL QUALITY MANAGEMENT

4.4.1 Introduction

Since the 1980s, both scholars and practitioners have developed a new method of measuring quality as a result of globalisation This new concept, Total Quality Management (commonly referred to as TQM) in effect replaced quality assurance and involves the application of quality management principles throughout the entire organization.

Dory and Schier (2002) explain that TQM was one of the several approaches that appeared during the early 1990s in an attempt to address all of the problems associated with serious quality deficiencies. TQM is an organised and integrated system for improving performance. It simply means continually improving performance at every level of every process, with the sole purpose of meeting and subsequently satisfying customers' expectations and requirements. Burati and Oswald (1993) pointed out that "it should be viewed as a journey, not a destination".

During the course of this literature review it will become quite clear that TQM is based on the theories and methods of Deming (1986), Juran (1988), Crosby (1979, 1984), Feigenbarn (1991), Garvin (1983) and other notable writers in the quality management field.

4.4.2 Definition of TQM

Many firms boast of having introduced TQM into their organisations. Unfortunately, very few have truly embraced the basic concept, much less explored this phenomenon that is so often associated with improving quality and reducing costs. Still, many authors agree that TQM has become well established as a system for improving both the

performance of firms and the satisfaction of customers (Lagrosen and Lagrosen, 2003). Whilst there are many discussions and debates on the subject of TQM, the core of this literature attempts to address factors believed to be associated with successful implementation of TQM practices. However, before understanding the process, one must define the concept.

What is TQM? Like quality and, as we will see later on in this chapter, strategy, TQM is difficult to define. Indeed, a review of the literature will show that often no definition of TQM is offered (even though authors and researchers expound on the "history" of TQM from the quality gurus of Deming, Crosby and Juran). The Japanese adoption and extension of quality control to present day models such as the European Quality Award, Malcolm Baldrige National Quality Award (MBNQA) and the Deming Prize.

There are a number of reasons for this confusion and ambiguity in defining TQM. Firstly, the author submits that TQM remains an evolving concept, thus its definition changes as new ideas and methods are introduced and developed. This view is supported by Dale et al. (2000), who argue that TQM is still in the early stages of theory development and future theoretical development incorporating "appropriate management theories" needs to be realised before TQM can reach a "refined" stage of development. Secondly, according to AlSabahi (1999), different firms may require different forms of TQM. Thirdly, firms are in differing stages of TQM development. Fourthly, TQM has been called many other names such as total quality (TQ), total quality control (TQC) and quality improvement (QI), to name a few (Seymour, 1992).

Many have offered their definition of TQM. Oakland (1993) defined it as meeting the customer's requirements. Øvretveit (2000) agreed with the earlier definition made by Oakland, but further believed that TQM involves exceeding customer expectations. It should always be a case where the desired expectation exceeds rather than meets, in order to achieve the highest levels of customer satisfaction.

In the broadest sense, TQM attempts to establish a set of guidelines or practices that ensure ongoing adjustment and improvement take place consistent with the operating

principles of the organisation (Perrott, 2002). In an article entitled "TQM Paradigm in the Banking Industry", Rana (2004) examined the meaning of each word within the TQM acronym as follows:

"Total: Everyone linked with the operations is involved in continuous improvement (including customers and suppliers, if feasible).
Quality: Customers' expressed and implied requirements are met fully.

Management: Executives are fully committed".

Unlike QA, the concept of "TQM" focuses on improving the quality of a company's products and services and stresses that all company operations should be oriented towards a goal; more importantly, it should be part of the overall management agenda (Dean and Bowan, 1994).

Oakland (2000) provides one of the more comprehensive descriptions of the concept. He describes it as an approach to improve competitiveness, efficiency and flexibility for the entire organisation and states that:

"For an organisation to be truly effective, each part of it must work properly together towards the same goals, recognising that each person and each activity affects and in turn is affected by each other... the methods and techniques used in TQM can be applied throughout any organisation".

For the purposes of this research, the meaning of TQM would be viewed from the following definition as developed by the author:

"TQM is an ongoing organization wide process, requiring total commitment from top management and involving everyone in the organization to continuously improve the quality of products and services with the view to satisfying the customer's needs".

Through its various definitions, one can surmise that TQM is a well structured approach geared towards meeting and exceeding customer requirements, by creating organisation-wide participation and commitment in the planning and implementation of a continuous

improvement process, with an emphasis on people and their participation and openness to the process of continuous transformation.

However, defining TQM is only one facet of what the method entails. In order to fully understand the concept, it is equally important to understand the principles, tools and techniques which have been developed by pioneering gurus such as Deming, Juran and Crosby. The following section looks at the contribution of these men in further detail.

4.4.2.1 Pioneers of Total Quality Management

Whilst there are many quality "gurus" who have contributed significantly to our knowledge and understanding of quality, this research will focus on three: Deming, Crosby and Juran. These three men are considered the pioneers and gurus of TQM because of their contribution to knowledge and the development of TQM principles and methods. These three men devoted their lives to helping organisations improve the quality of their products and services. In order to understand the theory behind TQM, it is necessary to understand the background of these founders as well as their philosophies and methods.

4.4.2.2 W. Edward Deming

Dr. W. Edward Deming is widely regarded as the visionary father of the quality movement, and is arguably the most famous of the three gurus. Deming was an American who was initially ignored in his own country though he was instrumental in assisting the Japanese in rebuilding their economy after World War II. Deming held a doctorate in physics from Yale and worked for the US government in the department of Agriculture and the Bureau of Census (Gitlow and Gitlow, 1987). He was a keen statistician and in the 1950s was invited by the Union of Japanese Scientists and Engineers to conduct a course on quality control. Inspired by Deming, the Japanese embraced the notion of quality. In recognition of his contribution to their country, the Japanese Union of Scientists and Engineers established the Deming Prize, to be discussed further in Chapter 6.

4.4.2.3 Deming's Philosophy

Prior to World War II, Japanese goods had a very poor, inferior image. Consequently, the Japanese decided that they needed to improve on quality. In an effort to improve quality, the Japanese Union of Scientists and Engineers (JUSE) invited Deming, who was subsequently instrumental in transforming Japanese industrial output from low quality to extremely high quality.

Deming's philosophy emanated from his background as a statistician and his association with statistical process control and other problem-solving methods used to improve processes and reduce the inevitable variation which occurs from "common causes" and "special causes" in production. Based on his interaction with Dr. Walter Shewhart, Deming advocated for management to focus on the causes of variability in the manufacturing process (Beckford, 2002). This is reflected in his words, as follows:

> *It is good management to reduce the variation of any quality characteristics... Reduction in variation means greater uniformity and dependability of product, greater output per hour, greater output per unit of raw material, and better competitive position.*
> *Cases of variation and of high cost, with loss of competitive position, may be usefully subsumed under two categories:*
>
> - *Faults of the system (common or environmental cases) 85 percent:*
> - *These faults stay in the system until reduced by management. They include poor product design, non-conforming incoming materials, and poor working conditions.*
> - *Special cases 15 percent.*
> - *Special cases relate to the lack of knowledge or skill or poor performance.*
> - *These are the responsibilities of employees. However, it is management's responsibility to provide adequate training and to continuously strive to improve the existing systems.*

Source: Deming (1982)

Focusing on the term "quality", Deming placed much emphasis on the customer and defined quality as "satisfying the customer, not merely to meet his expectations but to exceed them". Deming insisted that a company should strive to provide the customer with more than they anticipated. Similarly, in the words of Scholtes and Hacquebord

(1987), "If your customers are not delighted, you have not begun to achieve quality". Deming's philosophy thus commences and concludes with the customer and can be summarised by what he refers to as the chain reaction for quality improvement (Deming, 1986). He believed that by improving quality, cost would decrease and productivity improve, which in turn would result in improved market share (http://tql-navy.org).

4.4.2.4 Deming's Methods

Deming's methods include the use of statistical tools and a fundamental change in corporate culture. Both of these are fundamental to the successful implementation of his philosophy. His method is outlined in his 14 points for senior management, which are geared towards helping people understand and implement the necessary transformation to a quality organisation. The 14 points put forward by Deming are listed in Figure 4.1.

Figure 4.1 Deming's 14 points for Management

No.	Point
1	Create and publish to all employees a statement of the aims and purposes of the company or other organisation. The management must demonstrate constantly their commitment to this statement.
2	Learn the new philosophy, top management and everybody.
3	Understand the purpose of inspection, for improvement of processes and reduction of cost.
4	End the practice of awarding business on the basis of price tag alone.
5	Improve constantly and forever the system of production and service.
6	Institute training.
7	Teach and institute leadership.
8	Drive out fear. Create trust. Create a climate for innovation.
9	Optimise toward the aims and purposes of the company the efforts of teams, groups, staff areas.
10	Eliminate exhortation for the work force.

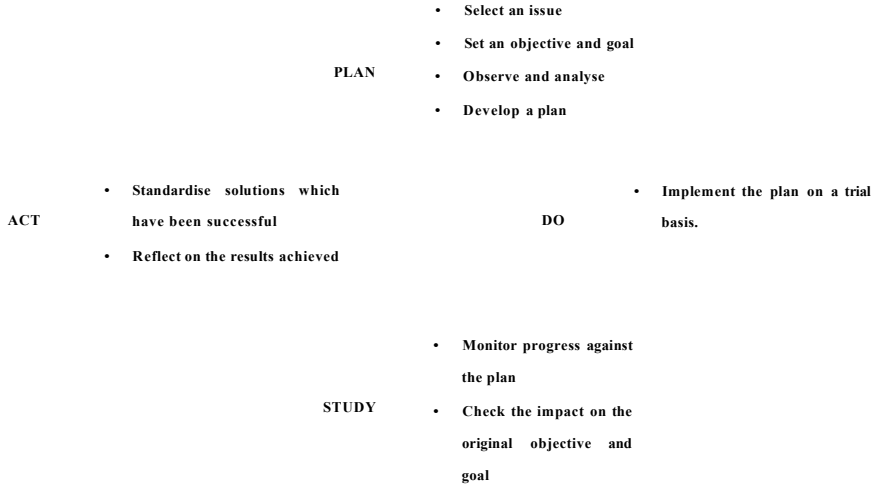
11	Eliminate numerical quotas for production. Instead, learn and institute methods for improvement. Eliminate M.B.O. Instead, learn the capabilities of processes, and how to improve them.
12	Remove barriers that rob people of pride of workmanship.
13	Encourage education and self-improvement for everyone.
14	Take action to accomplish the transformation.

Source: (Deming, 1986)

According to Deming, a manager's role is to enable employees to do the best job possible by foreseeing and eliminating barriers that get in the way. On the other hand, workers learn to apply the expertise they have gained working with processes and customers on a daily basis. To Deming, there are many ways of improving quality and perhaps the important aspect to quality improvement are well known and documented in Deming's cycle of continuous improvement.

Figure 4.2

The Deming Cycle of Continuous Improvement



Source: (Deming, 1986)

This cycle was previously known as PLAN, DO, CHECK and ACT, but Deming changed the third item to STUDY because with only a 'check' one might miss something. The Deming cycle is illustrated in Figure 4.2 above.

Deming also placed considerable emphasis on promoting "zero defects day", where management and employees reaffirm their commitment to quality excellence. All in all, Deming's training programme focuses on helping managers develop an organisational culture that focuses on delivering quality throughout the entire organisation.

4.4.2.5 Dr. J. M. Juran

Dr. Joseph M. Juran began his career in 1924 with Western Electric's Hawthorne Works. His first job was troubleshooting in the Complaints Department. Additionally, he held degrees in both electrical engineering and law. In 2004, he became an honorary doctor at Luleå University of Technology in Sweden. His career spanned nearly 80 years. The first edition of his book, "Quality Control Handbook", in 1951 led to his pre-eminence in the field of quality. It also served to attract the attention of the Japanese Union of Scientists and Engineers (JUSE), which invited him to Japan in 1952. Juran's impact on the quality movement in Japan was second only to that of Deming and he made ten trips to the country during his lifetime. He popularised the Pareto principle, which he summarised as the "vital few and trivial many".

4.4.2.5.1 Juran's Philosophy

Juran considered quality management as three basic processes: quality planning, quality control and quality improvement. His philosophy can be summarised in what he called the "quality triology" (Juran, 1989; Juran & Gryna, 1993). In his view, the underlying concept of the quality triology is that:

1. Such chronic problems are traceable to an inadequate quality planning process;
2. The sporadic problem is detected and acted upon by the process of quality control and
3. The chronic problem requires a different process, namely quality improvement.

Juran held that the starting point lay with quality planning, i.e. creating a process that would be able to meet established objectives, and do so under operating conditions. By and large, people working in the planning phase are responsible for determining who their customers are and identifying their needs and expectations. On the other hand, quality control is concerned with maintaining consistency and not allowing defects or inefficiency to increase, bearing in mind that quality is efficiency.

Juran was also of the view that the control process addresses sporadic spikes in variation; if necessary, the people working in this process create teams to determine the causes of an unanticipated or abnormal variation in the process. In other words, this process involves evaluating actual performance, comparing this performance to goals or standards and then taking action on the difference.

Finally, those involved in the quality improvement process are concerned with lowering the knock-on costs of poor quality in the existing process, but more importantly they are also responsible for raising quality performance to unprecedented levels. In this respect, Juran's approach addresses continuous improvement. It is also worth mentioning that each process in the trilogy can be applied to any type of business in any part of the world. His methods also include identifying customers, establishing measurements and diagnosing causes.

4.4.2.5.2 Juran's Method

The quality improvement methodology, as identified by Juran in his quality trilogy, requires project-by-project implementation involving four simple steps:

1. Establish the infrastructure needed to secure annual quality improvement.
2. Identify the specific needs for improvement – the improvement projects.
3. For each project established, a project team with clear responsibility for bringing the project to a successful conclusion.
4. Provide the resources, motivation and training needed by the teams to diagnose the causes, develop remedies and establish controls to keep quality at the improved levels (Juran and Gryna, 1988).

Other concepts developed in an effort to support his philosophy are discussed in the following section.

4.4.2.5.3 Juran's Other Concepts

Juran stresses that organisations produce and distribute their products through a series of specialised activities carried out by specialised departments. These activities are depicted by the spiral of progress in quality. In effect, the spiral shows the actions or activities deemed necessary prior to a product or service being introduced into the marketplace (Juran and Gryna, 1988).

The other two concepts developed by Juran are (i) breakthrough activities (Juran and Gryna, 1970) and (ii) the vital few and the trivial many.

Like Deming, Juran acknowledges that most quality-related problems are the result of poor management, not employees. It is also the author's view that Juran's approach is essentially the same as Deming's, because quality is essentially a management responsibility that needs to be performed systematically and coherently and ought to be communicated to all the relevant stakeholders in order to achieve "continuous quality improvement".

4.4.2.6 Philip Crosby

According to *Time* magazine (1984), Philip Crosby is the leading evangelist of quality. A graduate of Western Reserve University, he served in both World War 2 and the Korean War. He then worked for Crosley, Martin-Marietta and ITT, where he was corporate vice president for 14 years. He was perhaps best known for popularising the "zero defects" concept. As a result of the interest shown in his book "Quality is Free" (1979), he left ITT to set up Philip Crosby Associates Incorporated and started to teach organisations the quality principles and practices outlined in his book. In 1985, his company was floated for $30 million. In 1991, he retired from Philip Crosby Associates to launch Career IV Inc, a consultancy advising on the development of senior executives.

4.4.2.6.1 Crosby's Philosophy

Crosby defines quality as conformance to requirements. Generally, it is presumed without question that management can plan and achieve "conformance to requirements" (Crosby, 1979) and that organisational outcomes will match management's desired intentions and objectives (Knights and McCabe, 2002). In other words, the requirements of a product and/or service, need to be defined and specified in absolute terms so that they are properly understood. The foundation and guiding philosophy of Crosby's approach is prevention. His general rule is that higher quality reduces costs and increases profits.

Crosby's approach to quality is demonstrated through his actions and suggestions on how to tackle quality improvement issues. He identifies four absolutes of quality management and it is also fair to say that he considers them to be the core concepts of the quality improvement process.

Crosby's four absolutes are:

1. Quality is by all means conformance to requirements, not goodness.
2. The system for achieving quality is prevention, not appraisal. In Crosby's eyes training, discipline, example and leadership can all greatly produce preventives.
3. The performance standard is zero defects. The attitude of "that is close enough" is not tolerated in his approach to quality.
4. The measurement of quality is the price of non-conformance. Non-conformance is a management tool for diagnosing an organisation's effectiveness and efficiency.

In essence, Crosby (1980) consolidates his definition of quality along these lines:

"Requirements must be clearly stated so that they cannot be misunderstood. Measurement is then taken to finally determine conformance to those requirements. The non-conformance detected is the absence of quality. Quality problems become non-conformance problems and quality "becomes definable".

Crosby also popularised the concept of "zero defects", which, contrary to what is generally believed, is not just another piece of management or motivational jargon, but an attitude, philosophy and commitment to prevention. In essence, it involves getting it right the first time. In other words, what Crosby claims is that an organisation should not be happy even if 95% of its customers are fully satisfied with the products or services received. That would be the same as saying that they were prepared to accept the fact that 5% of their customers were not satisfied. The costs of 5% of unsatisfied customers, including the effects of them sharing their experiences with others, could be considerable. Hence, organisations shouldn't be satisfied until they have achieved zero defects. By this, Crosby is not implying that a given organisation could necessarily achieve zero defects, but he is saying that it should never be complacent.

Additionally, Crosby's approach also provides for the establishment of a zero defects day, which requires a person from management to re-affirm commitment to quality and allows employees to make the same commitment. While the definition of the quality performance standard (zero defects) has been explored from Crosby's perspective, it is also worth mentioning his general approach to the subject matter via his 14 steps to quality improvement.

4.4.2.6.2 Crosby's Method

Crosby (1979, 1984) firmly believes in the following 14 steps to improving and sustaining quality throughout the organisation:

1. Management Commitment – to discuss the need for quality improvement with management. More precisely, it is important to understand management's perspective on quality.
2. Quality Improvement – to set up a high-level, cross-functional team to run the quality improvement plan. In attendance should be people who can speak for and on behalf of their department, in order to commit to that operational plan.
3. Quality Measurement – to provide a report of current and potential non-conformance problems in a coherent and objective manner. In essence, quality

measurements for each area of activity must be established where they don't exist and received where they do.

4. Cost of Quality – to define the ingredients of the cost of quality and explain its implementation as a potential management tool, bearing in mind that the cost of quality is not an absolute performance measurement. It is an indication of where corrective action will be profitable for a company. The higher the cost, the more corrective action that needs to be employed. In essence, it involves reducing the cost of quality in an effort to increase profitability without actually increasing sales, buying new equipment or hiring additional staff.
5. Quality Awareness – the need to emphasise the meaning and understanding of quality. This is done by training supervisors to orient employees and by providing visible evidence of the concern for quality improvement through communication material such as booklets, films, seminars and posters – to mention just a few.
6. Corrective Action – to provide a systematic method for resolving problems identified. As people are encouraged to speak freely about their problems, opportunities for correction present themselves automatically. Some of these problems are not simply the defects found as a result of an inspection, audit or self-evaluation, but also less obvious problems – as seen by the normal working staff themselves – that require attention.
7. Establish an Ad – a committee for the zero defects programme. A means of reducing defects usually involves a team comprising three to four employees that are selected to investigate the zero defects concept and ways to implement the programme. The main objective is to communicate to all employees the literal meaning of the term zero defects and the thought that everyone should do things right the first time, all the time. This ought to be transmitted to every member of the team.
8. Supervisor Training/Education – Define the type and extent of supervisor training. A formal orientation with all levels of management should be conducted prior to the implementation of any quality-related programme. All managers must understand each step well enough to explain it to their people. The proof of understanding is the ability to explain it.
9. Zero Defects Day – Where management and employees reaffirm their commitment to quality. Management should explain the programme to their people and do

something different in the workplace so that everyone will recognise that it is a "new attitude" day, bearing in mind that the ultimate goal is to provide defect-free products and services to the customer.

10. Goal Setting – Goals and commitment are set by employees for themselves and their groups. During meetings with employees each supervisor requests that they establish the goals they would like to strive for. Usually, there should be 30-, 60- and 90-day goals. All should be specific and capable of being measured.
11. Communication – Develop a method for employees to communicate with management regarding errors. Usually, individuals are asked to describe any problem that keeps them from performing error-free work on a simple one-page form. The functional group will in turn develop an answer or simply find a solution to the problem. It is important that problems be acknowledged within twenty-four hours.
12. Recognition – Award programmes are established to recognise those who achieve their goals or perform outstanding acts. The prizes or awards should not be financial. Recognition is what is important.
13. Quality Councils – The quality professionals and team chairperson should be brought together for planned communication on a regular basis. This is necessary to determine actions required to upgrade and improve the solid quality programme being implemented.
14. Do it over Again – The need to emphasise that quality improvement never ends and is a constant effort. Therefore, it is necessary to set up a new team of representatives and commence the process once more.

Crosby (1984) further explains that, "mistakes are caused by two factors: lack of knowledge and lack of attention". In the case of the first he believes that education and training will assist in eliminating this issue. However, he is of the firm view that personal commitment to excellence (zero defects) and attention to detail will cure the second cause of common mistakes.

Although each of the quality pioneers has their own distinctive style and approach, a number of similarities and differences are discussed below.

4.4.2.7 Similarities

Crosby, Deming and Juran agree that:

1. It is management's responsibility to establish an organisational culture in which commitment to quality is and should always be the main focus.
2. Continuous improvement, especially along the lines of education and training at all levels of the organisation.
3. Effective communication, cooperation and teamwork remain critical in the process of quality improvement.
4. Top management is responsible for quality – not the employees.
5. The pursuit of customer-focused quality is a long-term process that will not produce results overnight.
6. They do not view improvement in terms of the final product. The emphasis is on the prevention of product defects, not inspection after the event, and on the reduction of the costs of quality to improve competitiveness.
7. All support the practice of involving suppliers in the quality effort. It is impossible to achieve quality when products or services provided by suppliers are inferior.

4.4.2.8 Differences

The main differences are along the lines of measurement, goal setting, supplier relationships and leadership activities.

1. Use of measurement: Both Juran and Crosby view the cost of quality as a focus of measurement. Similarly, both use reduction in cost as an indicator of the effectiveness and efficiency (profitability) of the process used to meet customer requirements. On the other hand, Deming does not use the cost of quality as a focus of measurement. He considers that unknown costs, such as the impact of the loss of a customer, are far more important than the visible ones outlined by Crosby and Juran. To Deming, measuring and meeting customer requirements and expectations

about a product or service are paramount to implementing quality improvement practices.

2. Goal Setting: Crosby strongly believes that the ultimate goal should be defect-free products and services. In his view, a quality product or service results when the process has consistently produced something that falls within the defined limits. Deming, on the other hand, considers that being within specifications is but only the first step to continuous process improvement. He advocates reducing process variation on a continuing basis to improve and enhance quality. Deming also opposes the use of numerical goals and quotas as a means of managing the overall work itself. He believes that such a method can have a negative effect on both the quality of product and individual and team morale.

In the case of Juran, well formulated and articulated objectives for employees are necessary. Additionally, management should also provide a proper plan for said objective in an effort to achieving same. In essence, every aspect of the business including its human resources ought to be working with a plan, which should ultimately include objectives, strategies and means of implementation.

3. Supplier Relationship: Deming is in favour of working with a supplier wherever possible as a means of reducing the variability of incoming materials. He also believes that this practice should be built on a long-term relationship of trust and understanding between supplier and recipient company. The end result is the establishment of a long-term relationship and improvement on the part of those supplying incoming materials and services, which will in turn lead to better products and services.

Juran and Crosby identify and understand the principal advantages of utilising a single supplier, but they take a more conservative view and simply suggest reducing the number of suppliers, due to possible strikes, accidents or other unforeseen problems beset by suppliers. Different suppliers are also recommended in cases where the product is considered critical.

4. Leadership Commitment: While they all acknowledge and agree that top management's involvement, commitment and direction are essential in the introduction and implementation of quality-related practices, each has a different view on the subject matter.

5. Crosby emphasises on "Zero Defects Day" as a means of getting management to reaffirm its commitment to quality and, by extension, all of the employees. Similarly, Juran also has an annual quality programme which involves the top management team. Such occasion is used by management to reinforce their commitment and to communicate to all employees their support and involvement to quality improvement. Deming, on the other hand, does not see management involvement and commitment through any specific programme. While he recognises management's commitment to quality improvement, he sees it as a part of their overall role and function. More importantly, it is the responsibility of top management to show commitment through leadership. In essence, leaders must be able to direct their employees by example, as opposed to paying the usual lip service. A true leader places particular emphasis on managing quality; it is just another part of the management mix.

From the general comparison on the quality management approaches developed and proposed by the quality gurus, some shortcomings and limitations are apparent. Different researchers hold different views of what quality management ought to address. Even though the essence of their debate hinges upon the weaknesses of a conceptual framework and methodology, there is no doubt Deming, Juran and Crosby's original works on quality management require a strong element of creativity, which is at the heart of theory formulation.

Since theory cannot be established or improved until we have a theorising process, and we cannot improve the theorising process until we have a well-documented methodology (Weick, 1989, 1995; Partington, 2000), it might be safe to conclude that certain linkages are evident from the works of these three pioneering figures, such as

management involvement in quality improvement, increasing productivity, reducing costs and meeting customer needs on an ongoing basis.

4.4.3 TQM Principles

Since the 1980's TQM has arguably, become the most commonly used management acronym. Oakland (1993) calls TQM a new way of managing to improve a business to meet customer's requirements. Many research studies recognizes TQM as incorporating in particular the contributions of Deming, Juran and Crosby. One can therefore say that TQM has evolved into a philosophy incorporating principles as identified by the three "gurus" Deming, Juran and Crosby. This TQM philosophy recognises:

1. Focus on the customer
2. The importance of training and development
3. The involvement and commitment of everyone to quality improvement
4. Continuous improvement as a philosophy
5. The use of teams and teamwork
6. The use of appropriate tools and techniques
7. Goal setting measurement, feedback and rewards for all processes within the organisation
8. A change in the culture of the organisation
9. The inclusion of quality principles into products and service design

Based on the foundation laid by Deming, Crosby and Juran, it is perhaps convenient at this time to introduce TQM and its effectiveness in assisting firms to achieve a sustainable competitive advantage since this is in fact the major subject of interest in this research study. To do this, it is necessary to examine briefly, the relationship between quality and TQM.

4.4.4 Relationship between Quality and TQM

The difficulty in separating quality from TQM, especially in the service industry, could be a daunting task. While quality is regarded as the responsibility of everyone, TQM is a long-term perpetual improvement process requiring the input of both human and

financial resources. In essence, it is a continuous effort with no deadlines or target date (Mehra et al., 2001). Perhaps this is the reason why quality and reliability became so synonymous with Japanese manufacturers, especially the electronics industry, where there is general consensus regarding the adoption of quality-related practices as a major strategy in differentiating themselves with the West.

In the author's opinion, quality in the real sense was adopted and implemented by the Japanese through these renowned experts as their core strategy. While America and Europe were paying attention to new technology, new product development, pricing, distribution and promotional strategies, industrial Japan already begun to focus its attention on quality. From the 1950s through to the 1980s, the Japanese proved that the implementation of quality practices was the key to success. It is also worth mentioning that even today the Japanese continue to use quality as perhaps their major source of sustainable competitive advantage.

One can argue that without quality there can be no marketing, as quality plays an important role in the satisfaction of customer needs. As Cole (1999) noted, "quality has been well documented as being amongst the most significant competitive advantage for Japanese automobile producers". Deming (1986) made it quite clear when he said "pay attention to quality first. Quality goes up and costs go down". This would result in having less waste, less rework, less scrap, further allowing the firm to enter the market with better and better quality and lower and lower cost. Thus, paying attention to quality becomes the primary competitive strategy.

Just ask yourself... what has been the most important characteristic of all Japanese companies since the 1960s? One would have to agree that it's all about "managing total quality". Zeithaml et al. (1990) further reinforce this point when they argue that a company which is dedicated to total quality produces marketing at all levels through the commitment to satisfy customers both internally and externally, and more importantly this comes from the dynamics of the marketplace. But how are companies going to achieve high levels of quality practices? From an overview of the subject matter it has become quite clear that TQM promises to both improve quality and reduce costs.

Furthermore, it is meant to be a holistic approach that seeks to integrate all organisational functions to focus on meeting customer needs and organisational objectives satisfactorily (Kumar et al., 2009). In general, TQM is viewed as the process-oriented philosophy of enhancing customer satisfaction through the production of goods and services (Mehra et al., 2001), whereas quality management practices of the past focused on corrective measures, regarded as "after the fact".

In her article "From Quality Assurance to Total Quality Management", Frattali (1991) identified four actions for firms wishing to make the move from TQM theory to practice, namely:

1. Read in order to have a thorough understanding of the concept. The following writings were recommended: Berwick (1989, 1990), Deming (1986), Crosby (1979, 1984) and Walton (1986).
2. Create a vision. Block (1988) stated that a vision is both strategic and lofty, further explaining that "lofty" captures your imagination and engages your spirit and "strategic" focuses on customer needs and expectations.
3. Adopt a new philosophy which will demonstrate that poor quality is costly, make us strive towards continuous improvement and encourage the participation of all.
4. Familiarise yourself with quality management tools, since, TQM involves the use of a number of statistical techniques used to study and control work processes.

4.4.5 TQM Practices

A firm has a number of options in the implementation of TQM in ways that can best cater to its needs and requirements. However, in order to enjoy the benefits of successful TQM implementation, the firm must first identify what it wishes to achieve through TQM implementation, as well as the requirements for implementation.

Firms also have the option of benchmarking their progress with other key models. According to Zhang et al. (2000), quality award models such as the European Quality Award (1994) in Europe, the Deming Prize (1996) in Japan and the Malcolm Baldrige National Quality Award (2005) in the USA, all provide a useful benchmark framework against which firms can evaluate their quality management methods, the deployment of these methods and the end business results. This chapter thus introduces three of the key TQM models that will be used to benchmark the proposed model developed in Chapter 6.

4.4.6 Objectives of TQM

For organisations to succeed in their quest to adopt TQM they need to know where they are now, as well as where they would like to be. These answers can only be provided by the top management team, the involvement of which is therefore a critical factor in the implementation process. According to Juran (1993), it is the responsibility of senior management to develop appropriate visions, missions, objectives, strategies and philosophies that support quality-related practices or continuous improvement. In turn, it is the responsibility of everyone to develop a sense of commitment to the new TQM direction (Beer, 2003).

Burr (1993), Evans & Lindsay (1996) and Lindsay & Patrick (1997) suggest that the objectives of TQM are to:

1. Satisfy the needs of the customer
2. Prevent poor quality rather than correcting problems after the fact
3. Develop an attitude of continuous improvement
4. Understand value-measuring performance to identify opportunities and maintain improvement
5. Eliminate chronic sources of ineffectiveness
6. Gain competitive advantage by continuously improving every facet of a firm's activities

There seems to be a general agreement that TQM is considered more than just as set of tools and techniques for dealing with quality problems; it is now seen as a guiding philosophy for an entire organisation (Hooley, 1993); so much so that it is considered to have the greatest impact upon operational performance and then business performance (Robson et al., 2002). Therefore, in the author's view, the objectives of TQM can be applied to any type of business or organisation, and as such are intended to improve the quality of products and services, reduce costs, create more satisfied customers and employees, promote stakeholder involvement and enhance productivity, reduce lead time, reduce cost and subsequently achieve competitive advantage.

If a well-articulated TQM-related strategy is to emerge, then meaningful and measurable objectives have to be established. Bearing in mind that these objectives are normally revised annually in accordance with changes within both the internal and external environment.

4.4.7 Requirements for TQM

A review of the literature has identified the following requirements for the effective adoption of TQM:

1. Top management involvement
2. Adoption of a quality enhanced philosophy
3. Emphasis on TQM-oriented training
4. Focus on the customer, continuous improvement of processes
5. Management by fact
6. High levels of participation and teamwork
7. Transferring of ownership to those responsible for the implementation of TQM
8. Staying close to suppliers
9. The proper use of TQM methods

(Dean and Bowen, 1994; Hackman and Wageman, 1995; Powell, 1995; Pitts, 1994; Reeves and Bednar, 1993; Gopalakrishna et al., 1992; Brah et al, 2000).

Crosby, Deming and Juran addressed most, if not all, of the above requirements for TQM. Similarly, the aforementioned framework which addresses some of the basic requirements for TQM concurs with earlier works by Kanji and Asher (1993), namely:

1. TQM is strategically linked to business goals;
2. Customer understanding and satisfaction are achieved throughout the organization;
3. Management's overall involvement and commitment are required and
4. An environment of inclusion must be present for both customer and supplier

The above was adopted by McAdam and O'Neill (1999). Similarly, Chorn (1991) suggests that TQM techniques, like other implementation procedures, are contingent on strategy. The requirements for TQM seem pretty straightforward, but if they are not documented and expressed via a basic framework, then it may be difficult to implement and subsequently measure. Measurement of some sort (score out of 10) is suggested by Deming and other experts.

Black and Porter (1996) also conducted a study to determine critical TQM success factors (requirements) using, as a sample, members of the European Foundation for Quality Management. The survey questions were developed from the Baldrige Award Criteria and a thorough literature review. The TQM critical success factors were:

1. People and customer management
2. Supplier partnership
3. Communication of improvement information
4. Customer satisfaction orientation
5. External interface management
6. Strategic quality management
7. Teamwork structures for improvement
8. Operational quality planning
9. Quality improvement measurement system
10. Corporate quality culture

Interestingly, Black and Porter (1996) concluded that the TQM field had become much more complex since the Saraph et al. study in 1998.

4.5 TQM IMPLEMENTATION

4.5.1 Introduction

TQM has developed as a discipline to encompass approaches to managing an organization's processes, people and procedures (Sullivan -Taylor and Wilson, 1996). TQM principles and practices have been adopted by many leading organizations and is now accepted as part of the organization's agenda. However, implementing TQM is still very much a major organizational change that requires a transformation in the organization's culture, processes, vision, strategic priorities, beliefs and modifications and adjustments to the TQM tools, among others (Motwani, 2001, Yasin et. al. 2004). The purpose of this section is to demonstrate that once a firm has set its objectives it can begin the process of TQM implementation.

The importance of TQM implementation for a company's performance and success within the global marketplace is widely recognised in the business literature and practice (Weintraub, 1993; Kekäle & Kekäle, 1995; Black & Porter, 1996; Al-Khalifa & Aspinwall, 2000). It is also a well-accepted fact that central to the long-term success of TQM within an organization, is the implementation process (Roger et al., 1994; Shin et al., 1998). If firms expect to reap the benefits of TQM implementation, they must be cognisant of what the process entails, as well as the failures and barriers which commonly affect success of the implementation.

After merging the recommendations of a number of writers in the areas of quality, healthcare quality, changing an organisation's culture and personal experience, Jackson (2001) developed the following five main actions necessary for the successful implementation of TQM:

1. Set up a steering committee

2. Develop a vision for TQM
3. Agree on a strategy for implementation
4. Implement the strategy
5. Assess and review progress

Jackson (2001) further explained that the above actions could be broken down into other specific actions, which can be seen in Appendix F.

4.5.2 Benefits of Implementation

TQM has been implemented in a number of firms throughout the world. In so doing, these firms have benefited from the process. Accordingly, this section lists some of the benefits of implementing TQM.

The results of several studies have shown that the adoption of TQM practices can allow firms to compete globally (Easton, 1993; Handfield, 1993; Hendricks & Singhal, 1993, 1997; Womack et al., 1990).

Based on his study of 39 firms that had implemented TQM practices, Powell (1995) concluded that TQM-adopting firms outperformed non-TQM-adopting firms. From a healthcare perspective, Yasin et al. (1998) reinforce the point that TQM implementation has the potential to significantly improve the performance of the healthcare industry.

Gerber (1992) presented strong arguments favouring TQM practices, when he stated, "when a hospital is able to obtain both lower costs and better quality through its TQM efforts, it will place itself in a better competitive position" (Gerber, 1992). This view was later supported by Anderson (1994), who revealed that many firms had arrived at the conclusion that effective TQM implementation could improve their competitive abilities and provide advantages in the marketplace.

Lewis (1998) confirmed the importance of TQM in improving overall quality and customer satisfaction. For many, TQM focuses on continuous improvement of work

processes in an effort to enhance the firm's ability to deliver high-quality products or services in a cost-effective manner (Spector & Beer, 1994).

While improvements in business performance are at the heart of successful TQM implementation, researchers frequently use financial performance as a means of measuring overall performance. Research conducted by Douglas & Judge (2001) is considered the first large-scale study to confirm the expected positive relationship between the degree of implementation of TQM practices and overall organisational performance, but some organisations are yet to be convinced of its perceived benefits.

The conceptualisation of TQM implementation and competitive advantage is wide and varied. It is often characterised as the degree of enhancing organisational performance (Shortell et al., 1995; Westphal et al., 1997) attained by improving the quality of products and services, reducing costs while at the same time increasing efficiency (Appleby, 1995), creating more satisfied customers and employees (Lovelock, 1988), effective implementation of TQM-based strategy (Bergman, 1994), continuous improvement (Deming, 1986) and long-term partnerships with suppliers and customers (Christopher, 1998).

4.5.3 Reasons why TQM Fails

Burrows (1992) reported a 95% failure rate for initiated TQM implementation programmes. In most instances the failure was down to reasons such as lack of vision and commitment from senior management, limited integration between systems, processes and resources in the organisation, and last but by no means least, ill-conceived implementation plans (Allpebaum & Wohl, 2000).

Hendricks & Singhal (2000) suggest that TQM's failure in some organisations results from their misconception of what it entails. The authors explain that many firms adopt TQM with inflated expectations and a quick fix mentality – that it is believed to have the answers to all their problems and will reverse poor performance. When swift gratification is not forthcoming, it is deemed a failure.

Thus far, the literature has been abundant in identifying the link between top management's involvement and successful implementation. However, it has not always been the case where top-level managers have acted as they should. Giles (1991) explains that "top management who develop their strategy in isolation leave certain staff members (especially line managers) without proper 'ownership' of strategy and no understanding of the rationale behind it".

Sinclair and Zairi (1995) pointed out that inappropriate or poorly designed performance management systems could cause considerable problems for effective TQM implementation. In a similar vein, it was indicated that there is a major challenge in fitting TQM into daily work and management practices (Wang & Ahmed, 2001).

According to Yang (2005), TQM is an integrated management philosophy and a set of practices that emphasise, among other things, continuous improvement, meeting customers' requirements, reducing rework, long-range thinking, increased employee involvement, problem solving, constant measurement of results and closer relationships with suppliers. Fundamentally, the adoption of TQM requires organisations to implement change throughout their entire operation (Oakland & Sohal, 1996). However, the required changes are not always made and, as such, the full benefits cannot be realised.

4.5.4 Barriers to TQM Implementation

According to Garvin (1991), "Quality advocates contend that TQM will only be successful if the entire organisation becomes involved". More importantly, TQM principles need to be integrated and articulated at the strategy formulation level and fully supported by human resources. Above all, this new initiative will inevitably result in changes in behavior patterns further resulting in additional training in order to achieve the required skills and understanding (Sullivan – Taylor and Wilson, 1996).

Similarly, Beer (2003) suggested that TQM will only be successful if the organisation starts with a "quality of direction". He further argued that quality depends on an effective senior team – one that has developed real agreement about the commitment of

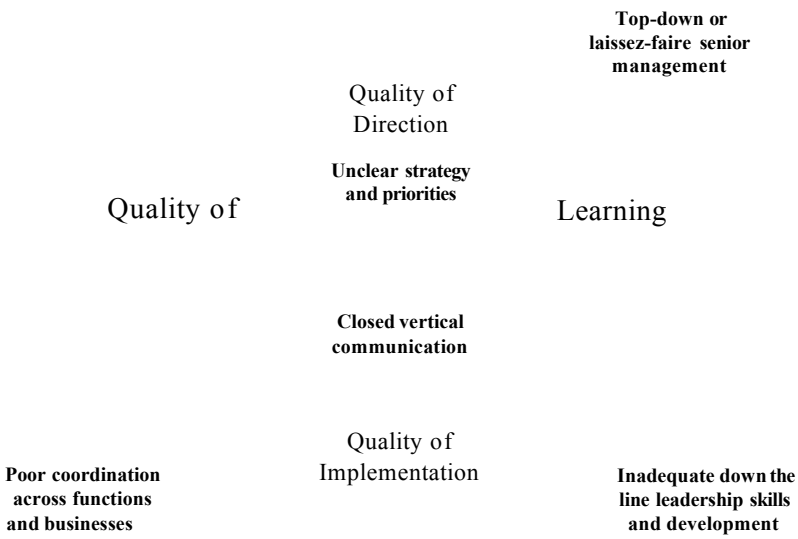
objectives, strategy and priorities. Without that commitment, a strategic change like TQM cannot succeed (Beer, 2003). According to Kaufman (1992) and Kano (1993), "TQM requires the support and involvement of senior management in order for the process to be successful". According to Brashier et al., (1996), if management treats the process as "the programme of the month", employees will soon replicate.

For the purposes of this study the author has decided to adapt the works of Beer (2003) through his model - labelled "undiscussible" dynamics of poor management quality. Beer's findings report the following six barriers to successful implementation:

1. Unclear strategy and conflicting priorities
2. Leadership style of the general manager - too top-down or laissez-faire
3. An ineffective top team
4. Poor coordination
5. Inadequate skills and development
6. Close vertical communication (top-down and bottom-up).

Figure 4.4

Barriers to Implementation



Source: (Beer, 2003)

In essence, these barriers represent the inevitable problems senior teams face in developing agreement about their strategic intent, designing the organisation to achieve requisite coordination, and then learning the truth about how organisation behaviour and leadership may be preventing effective implementation. Figure 4.4 above illustrates how the six barriers contribute to poor quality of direction, implementation, management intent and organisational action (Beer, 2003).

Despite TQM's perceived benefits, an examination of published material suggests that not enough care and attention is being devoted to barriers and problems associated with its implementation (Ghobadian & Gallear, 2001). In fact, more and more organisations are adopting TQM practices with the inflated expectations and quick-fix mentalities mentioned previously (Hendricks & Singhal, 1997). Above all, TQM was meant to have answers to all the problems, including improvement for overall business performance. According to Yasin et al. (2004), successful implementation of TQM has impacted positively on three major externally measured variables in market share, return on investment (cost) and competitive position.

Furthermore, a number of researchers and authors have concluded that despite the attention TQM has received, it still suffers from a proliferation of uncoordinated activities that reveal little evidence of its apparent effectiveness (Glover, 1993; Mann and Stewart, 2000; Ovretveit, 1998). It should be noted that whilst TQM is regarded as one of the most effective ways to improve quality and enhance productivity (Oakland, 1993; Becker et al., 1994), there still exists no single model that has been unanimously established and recognised. However, in an attempt to address some of the barriers and problems that seem to "haunt" management during the implementation phase, the next section will review the Quality Award Models or what the author calls the "three reference models".

4.6 REVIEW OF QUALITY AWARD MODELS

4.6.1 Introduction

Draghici and Petcu (2010) are of the view that quality is not only a strategic weapon for competing in the current marketplace, but it also means pleasing consumers, not just protecting them from annoyances. Therefore, a company's specific advantage is to identify and then compete on one or more of the dimensions of quality (Kumar, 2009). Achieving a sustainable competitive advantage remains the ultimate aim of companies bent on surviving and growing their business. This review suggest that this can be achieved by implementing TQM principles and practices within the firm, provided that some sort of assessment measures are readily available, user friendly and is not considered too sophisticated. Presently, most of the assessment models are easily accessible but suffers from a number of shortfalls. However, it is important that organizations do not rush into trying to apply any and every assessment model. It is therefore important for organizations to carefully examine what is readily available and applicable to their specific requirements (Garvin, 1987, Chase and Aquilano, 1989).

At an international level, there are several Quality Awards such as the Deming Prize in Japan, the European Quality Award in Europe and the Malcolm Baldrige National Quality Award in the United States of America. In fact, a UNECE (2004) report says that there are at least 90 quality and business excellence awards in at least 75 countries. More importantly, the origin of self assessment of TQM principles and practices can be directly traced to the initiation of quality programs and business excellence models such as the aforementioned quality awards. These awards provide a useful audit framework against which organizations can evaluate their quality management methods, the deployment of these methods and the end results.

4.6.1.1. Deming Prize

According to the website of the Union of Japanese Scientists and Engineers, the Deming Prize is one of the highest awards on TQM in the world. It was established in 1951 in commemoration of the late Dr. W.E. Deming, who contributed greatly to Japan's

proliferation of statistical quality control after World War II. As mentioned previously, his teachings helped Japan build the foundations on which the level of its product quality has been recognised as the highest in the world. The prize has three award categories:

1. The Deming Prize for Individuals
2. The Deming Application Prize
3. The Quality Control Award for Factories

The checklist for the Deming Prize covers diverse areas such as the organisation's policy and objectives, organisational structure and the use of education and information (Sallis, 1993), all of which will be further explored in Chapter 6.

4.6.1.2 The Malcolm Baldrige National Quality Award

The Malcolm Baldrige National Quality Award (MBNQA) defines "excellence" in terms of the overall quality of an organisation. The MBNQA defines core values and concepts – a "framework" or model establishing the relationships between the "driver, system, goal and measures of progress" – and an implicit hierarchy of priorities and values (points assigned to each category of the award, totaling 1000). The MBNQA's scoring criteria and marks have widely been adopted for both the education and the healthcare sectors.

The MBNQA recognizes seven criteria for assessing businesses. These seven guidelines are used extensively by organisations trying to understand and implement "quality" as a key internal driving force and according to Costin (1999), it is used in an attempt to achieve a substantial competitive advantage. The focus of the MBNQA is on enhanced competitiveness through strategic planning, which is further illustrated in Chapter 6.

4.6.1.3 The EFQM Model

The EFQM Model is based on the philosophy that customer satisfaction, employee satisfaction and impact on society, are achieved through leadership and driving policy,

strategy and other key business activities. The model recognises that there are many ways to achieve sustainable excellence. It offers a non-prescriptive standard against which an organisation can assess itself, thus lending easy adaptation to an organisation's unique characteristics and circumstances (Bajaria, 2001; Thiagarajan & Zairi, 1997). The EFQM model establishes nine criteria, which include five enablers and four sets of results.

The Deming Application Prize, the MBNAQ and the EFQM Excellence Model are discussed in more detail in Chapter 6 since they allowed the researcher to highlight specific areas of effectiveness – further lending knowledge in the development of the TQM Six Senses Model.

4.7 TQM CHALLENGES IN 2011 AND BEYOND

As with the preceding concepts, techniques and philosophies, TQM has inevitably been the recipient of much negative publicity. "Is TQM Dead?" was the question posed by *USA Today* (1995) when it announced the 1995 MBNQA. As another example, an article on management fads in *Business Week* proclaimed, "TQM is as dead as a pet rock" (Byrne, 1997).

According to Peter Scholtes (1996), it is not that TQM is a failure; it is just that the USA's application (and arguably the rest of the world's) for the quality movement has never really been tried. If we are to be completely honest, the 1990s the business world was somewhat obsessed by management fads and every new management technique, philosophy and new theory was tried and discarded as management fancied, often without any clear understanding of the technique/concept/philosophy. TQM was no different. The author is of the view that TQM is one of the most misunderstood concepts of all time and therein lays organisations' lack of total success to reap its benefits to date.

Today, whilst TQM continues to be criticised, some have interpreted the popularity of quality awards at the state and national levels as evidence that TQM is well and alive

(Hendricks & Singhal, 2001a and 2001b; Karia & Asaari, 2006). However, much of the current literature on TQM focuses on realities of implementation rather than the actual adoption and strategic implications associated with its principles and practices. The next section addresses the concepts of strategy and sustainable competitive advantage as they relate to this study.

4.8 THE TQM STRATEGY INTERFACE

4.8.1 Introduction

Today, practitioners and academics alike can only speculate as to what will be the luminary management concept, technique or philosophy of this decade. How will the future be different from the past? Or will the past be any different from the future? It is often said that history repeats itself. Thus, to make the best use of the wisdom and experience gleaned from years, decades and perhaps even centuries of research and practice, it may be that the only way to go forward is to first go backwards to the basis of strategy. Even so, strategy alone will not sustain a firm's competitive advantage in or beyond 2011. To survive and have any sustained competitive advantage over their competitors, it is the author's view that firms must integrate TQM with strategy. Since TQM is also commonly referred to as a process oriented philosophy which can enhance customer satisfaction through the production of higher quality goods and services, the firm's primary objective is to simply enhance customer satisfaction. On way of achieving this objective is through the proper deployment of the company's strategy. TQM and its integration with strategy therefore becomes a necessity. Consequently, an approach is needed to achieve this integration. Ultimately, it is envisages that this would result in the firm being able to achieve a sustainable competitive advantage. In this case the approach being adopted is the framework or model defining how integration will be achieved with specific objectives being achieved. The planning aspect basically implies the development of a plan in which the TQM principles, philosophies, methods etc. are integrated with the vision, mission, objectives and strategy of the firm (Mehra, Hoffman and Sirias, 2001).

The literature review has shown that TQM has been implemented in various industries with differing levels of success. However, the author believes that despite the many criticisms from detractors, the lack of success to date has nothing to do with the philosophy itself. If TQM has not realised its full potential it is only because it has not been properly understood and implemented. Surprisingly, the same applies to strategy. Like TQM, many managers have tried it without any real understanding of its philosophy. As a result they have failed to realise its full benefits.

If the quality movement and by extension TQM, is to remain alive, grow and prosper in the 21st century, where do we go from here? In a past interview, Crosby said that quality professionals need to learn how to help management succeed rather than burden themselves with increasing rules, procedures and regulations. The 21st century is about reality and not certification (Crosby, 1996); the reality is that organisations exist to be successful. In the author's view, being successful hinges on the firm's ability to develop a TQM-based strategy that is driven by those at the corporate level. To fully understand this reasoning, it is necessary to understand the concepts of corporate strategy and sustainable competitive advantage.

4.8.2 The Importance of Strategy

Of all the decisions that business executives must make, none is more challenging or has received more attention than choosing from among alternative business strategies, as failure to select a purposeful strategy can be highly detrimental to business.

To survive and be successful, businesses must choose the best strategy, one that is capable of enhancing performance while at the same time systematically and consistently improving efficiency and reducing costs. Buzzell et al. (1975) and Buzzell & Gale (1987) explained that high quality is a key ingredient in the strategy performance relationship. Their findings came from an analysis of the 1,000 businesses in the PIMS (Profit Impact of Market Strategies) database. For all these businesses, higher product quality was associated with a larger return on investment.

As seen from the previous sections, evidence of quality as an important ingredient of commercial success can be traced back to the 1950s with certain Japanese businesses. It should also be noted that the Japanese have been extremely successful in achieving a major percentage of world market share, due to the heavy emphasis placed on quality and meeting the requirement of the market (Garvin, 1983: Kotler et al., 1985; Doyle et al., 1986). Even today, as we speak in terms of the new millennium and a dynamic business environment, the Japanese continue to use quality in a variety of ways. From the many articles written and the research conducted, it would appear that regardless of whether world economic conditions are favourable or not, the Japanese have managed to survive.

4.8.3 Definition of Strategy

As with TQM, there are various definitions of strategy, and indeed it could be said that strategy means many things to many persons. According to the literature, strategy was originally a term applied to warfare; it was defined as the art of planning and directing larger military movements and the operations of men (Quinn, 1980). Similar concepts have emerged in the past via the analysis of military diplomatic strategies (Tuchman, 1962; Foch, 1970).

Numerous papers written about the phenomenon of strategy, such as Ansoff (1965) and Andrews' (1971) initial writings, however are still highly influential in such literature. It is believed that Ansoff (1965) presented researchers and practitioners with one of the earliest, but still most practical and intellectually stimulating, strategy concepts as he distinguished "corporate strategy" from "business strategy".

Andrews (1971) stated that strategy included the ends, goals and objectives to which an organisation aspires, and the means by which it will be achieved. Hofer and Schendel (1978) took the concept a bit further, including "functional" levels of the organisation as belonging to the hierarchies of strategy. In line with previous authors, Mintzberg (1978) and Johnson & Scholes (1984) explained that strategy is the organisation's "conception" of how to deal with the environment, as well as the organisation and its resource capabilities.

Mintzberg (1988) later referred to strategy as a plan, a pattern, a position and a perspective. This highlighted strategy as being deliberate and rational, possessing traits that were succinct and powerful (Hammermesh, 1986) and could be used as a tool for reorienting an organisation's thrust (Ansoff & McDonnell, 1990). However, in spite of conceptual and semantic differences, we can draw substantial areas of commonalities and disagreements pertaining to the subject matter, stemming from past definitions put forward by distinguished authors and researchers. Unfortunately, the result is often confusion rather than insight. Confusion is also caused by the numerous definitions of strategy. This multiplicity is unfortunate, as quite often different sets of strategic considerations affect an issue. This came about because practicing managers and academics began to realise that objectives alone are not sufficient to secure long-term profitability and ensure the future growth necessary for a company to create and sustain an advantage over its competitors (Porter, 1990; Piercy, 1991; Giles, 1991).

Giles (1991) explains that for strategy to be effective, it must be visible, consistent and have a direct bearing on the customer interface. The two characteristics that make strategy the prime success factor of all businesses are its long-term nature and its ability to create positioning images through capabilities in the customer's mind (Porter, 1996). It was therefore believed that a business required a well-defined scope and growth direction in order for it to achieve a sustainable position in a competitive society. Such rules were broadly defined as strategy or the concept of the firm's future direction (Ansoff, 1965; Ansoff & McDonnell, 1990). Others such as Roberts (1993) referred to this as a firm's "driving force", while Prahalad & Hamel (1990) used the famous term "core competencies".

Courtney et al. (1997) explained that at the heart of the traditional approach to strategy lies the assumption that by applying a set of powerful analytical tools, executives can predict the future of any business accurately enough to allow them to choose a clear strategic direction for their organisation.

4.8.4 Strategic Management

Corporate strategy is a product of the strategic management process. Therefore, it is useful at this juncture to understand the thinking of strategic management prior to defining corporate strategy.

Steiss (1985) defines strategic management as "the process whereby goals and objectives are identified, policies are formulated and strategies are selected in order to achieve the overall purpose or mission of an organisation". He went on to describe the process in systemic terms and identified three component processes:

1. **Strategic planning** to determine organisational objectives and strategies
2. **Resource management** to configure and allocate resources among units within an organisation, in order to implement the plans
3. **Control evaluation** to ensure the implementation of the strategies

Before proceeding further, it is necessary to understand the difference between strategic management and strategic planning. Whilst strategic management is a process carried out at the top of the organisation and provides guidance, direction and boundaries for all aspects of operational management, strategic planning places more emphasis on strategy than operations, and can therefore be thought of as the process that constitutes the backbone of strategic management (Vinzant and Vinzant, 1996).

There are various perspectives on strategic management. However, according to Vinzant and Vinzant (1996), there are several common elements in most models. These include:

1. An understanding that although strategic management is characterised by strategic planning, it is not limited to it.
2. A link between planning and budgeting.
3. An assessment of organisational capacities in areas not limited to managerial capability, power structure, culture, leadership and organisational structure to facilitate successful implementation.

This view was articulated by one of the founding fathers of strategic management, Ansoff (1979), who proffered that an organisation's capacity for successfully utilising strategic management approaches is dependent on its managerial capability, logistical capability, power structure and leadership.

Table 4.1

Comparison of Strategic Management and TQM

	Strategic Management	TQM
View of Organisation	✓ Open systems ✓ Organisations can change ✓ Relies on strategic planning	✓ Open systems ✓ Organisations can change ✓ Sometimes utilises strategic planning ✓ Customer focus and emphasis on quality are drivers of change efforts
Time Orientation	✓ Future oriented ✓ Long- term perspective ✓ Attempts to link strategic and operational processes	✓ Emphasis on present ✓ Current customer demands ✓ Long-term horizon for implementation
Impact on Organisation Culture	✓ Requires changes in organisational culture ✓ Emphasises creativity ✓ Promotes choice making capacity of organisation	✓ Requires changes in organisational culture ✓ Emphasises creativity ✓ Emphasis on teamwork, attention to quality and customer satisfaction
Requirements of Leadership	✓ Long-term commitment required ✓ Senior executives team primarily responsible for implementation	✓ Long-term commitment required ✓ Emphasis on participation of all levels of employees ✓ Substantial training required
Emphasis on Management Control	✓ Strong control feature using internal control systems and management control systems.	✓ Goals must be measurable ✓ Characterised by the use of statistical process control etc.

Source: Vinzant and Vinzant (1996)

Both TQM and strategic management share a number of similarities and differences. Both concepts are comprehensive and involve every facet of the organisation, are often poorly understood thus badly implemented and are evolving. On the other hand, one

places emphasis on the future and the other on the present. One emphasises creativity, the other is yet to decide how creativity can be used. Table 4.1 presents a comparison of similarities and differences for ease of review.

The literature has revealed that there is a relationship between TQM and strategic management. In a study on the strategic impact and implementation of TQM, Leonard & McAdam (2002) concluded (among other things) an overall need for TQM to import corporate strategy planning by clarifying terminology so that the existing confusion is minimised. In their view, the use of TQM in its widest sense to assist in the implementation of corporate strategy was encouraging, and they had hoped that it would be useful in creating an upstream influence on corporate strategy influence. Their expectations are in sync with the author's own aim and objectives for this study.

4.8.5 Strategy Hierarchy

Ansoff was among the first to conceptualise different levels of organisational decision-making. Ansoff made reference to three levels: strategic decisions - "the selection of products mix and markets... an impedance match between the firm and the environment", administrative decisions - "structuring a firm's resources to maximise performance potential", and operating decisions "maximise the efficiency of the firm's resource conversion process, (1965 p5-6)". It is now generally accepted that there is more than one level of strategy within an organisation (Hofer and Schendel, 1978). These will now be discussed in the following sections.

4.8.6 Corporate Strategy

At the corporate level the board of directors is responsible for formulating corporate strategies. These strategies determine the business in which the firm will compete. Consequently, scope and resource deployment among business units are the principal components of corporate strategy. When necessary, corporate management may seek to strengthen the firm's portfolio via acquisition, merger, alliance or a completely new venture altogether. In these instances, the various stakeholders of the firm will look for synergistic benefits. In the long-term, the firm will be judged by the success of the board

and its ability to match company objectives, resources, and capabilities in a manner that is consistent with the characteristics of the general and task environment.

In most industries, firms develop individual strategies to deal with various business aspects and components. All strategic fields are treated separately but belong to the overall corporate strategy of the firm. For example, the finance, marketing, operations and human resources departments would have an individual strategy which evolved from the wider organisational corporate strategy. Conflict for scarce resources among individual fields is not uncommon (Barwise et al., 1989).

Additionally, in the development of any given strategy, attention would have to be paid to the organisational structure, corporate culture, top management's vision, mission, values and objectives, as these are all relevant to the successful development of a given corporate strategy.

4.8.7 Business strategy

Since the pioneering development of corporate – level strategies by others including, Rumelt (1974) nearly four decades ago, little progress has been made at the business level. While corporate strategy is concerned with answering the question, "What business are we in (or should be in!)?", business-level strategies focus on how a firm chooses to compete within a particular product market segment (Hofer & Schendel, 1978). Thus, business unit managers have to develop profitable and sustainable business strategies. At this level, therefore, competitive advantage is the most important component. Synergy too, becomes critical, as the integration among functional departments can have significant bottom-line effects. Again, resource deployment is important, but not as important as at the corporate level.

4.8.8 Functional strategy

This third level represents the managers of various functional departments such as finance, sales, marketing, operations, etc. These managers are responsible for their own intra-functional strategies, which support and assist in the implementation of the various

business unit strategies. Thus, as in the case of business strategies, synergy and the creation of distinct competencies become crucially important.

Although each of the strategy levels has been treated as discrete, it must be borne in mind that in practice they are in fact interrelated, thereby forming a coherent and consistent whole for any particular organisation if it is to be successful over the long term. Hence, corporate strategy permeates to business strategy, and functional strategy is responsible for developing and implementing the various action plans. At this level regular feedback becomes necessary, especially where it requires the immediate attention of top management, i.e. revisiting a decision taken during the initial stages of strategy formulation.

4.8.9 Constructional strategy

One of the major challenges faced by construction firms today is caused by foreign competitors who enter the local markets equipped with the latest construction techniques and technology, all targeted to the client. Whilst this option may favour Clients, this challenge among many others have forced Caribbean based firms to look for suitable strategies to be implemented in an effort to survive and grow with the changing and complex workplace.

Many construction firms have made profits and satisfied their clients by introducing operational-type strategies such as TQM, re-engineering and benchmarking. However, since operational effectiveness means performing similar activities better than your rivals, the profits from these tools have been temporary because when everyone uses the same tools, the playing field is levelled (Strassmann, 1988). It has been found that the capabilities of firms are influenced by their organisational structures, which in turn can determine the extent to which a company is competitive. Construction firms with flexible organisational structures are better equipped than those with rigid structures, as it is believed they can respond to changes in the environment better (Arditi & Gutierrez, 1991).

While some of the past literature, in particular Courtney et al. (1997), makes a significant contribution to the understanding of strategy, other views have also been expressed by leading authorities. Andrews (1980) explains that strategy is the pattern of decisions in a company that determines and reveals its objectives, purposes or goals, produces the principal policies and plans for achieving those goals. It also defines the range of business the company is to pursue, the kind of economic and human organisation it is or intends to be and the nature of the economic and non-economic contribution it intends to make to its stakeholders. Quinn (1981) stated further that there is no single universally accepted definition. This lack of consensus among researchers when attempting to clarify the subject has filtered down to practitioners and aspiring academics as they try to extract something useful from published literature.

For the purposes of this research, the intention is not to promote any view of strategy but rather to establish a linkage between strategy and some aspects of TQM, bearing in mind that the immediate purposes of organisational strategy are to provide harmony, commitment and linkage among specific objectives (Hofer & Schendel, 1978). As explained earlier, the objectives in improving work processes are to enhance the organisation's ability to deliver high quality products and services in a cost-effective manner (Spector & Beer, 1994). This in itself is the foundation of TQM. Andrews (1980) also emphasised that certain aspects of a firm's strategy remain consistent over long periods of time, like a commitment to quality. Therefore, according to Garvin (1997), quality is not only a strategic weapon for competing in the current marketplace, but also it means pleasing consumers, not just protecting them from annoyances. Therefore, to a firm's specific competitive advantage is its ability to identify TQM success factors and proceed to integrate same with the overall vision of the firm in pursuit of sustainability.

4.8.10 Competitive Advantage and Sustainability

Complex business organisations and competitive environment uncertainty have focused business researchers' and practitioners' attention on the use of strategy formulation and implementation to integrate and optimise management processes and the notion of a

firm's distinctive capabilities in pursuit of achieving sustainable competitive advantage (Pearce et al., 1987, Eustace, 2003). According to Kazlauskait and Bučiūnien (2008), in their search for an answer, they have been looking into both external and internal environments of the organization.

What makes a firm's competitive advantage sustainable is of paramount importance in this research. In this regard, it is important to note at this time that there is a distinction between a competitive advantage and a sustained competitive advantage. Barney (1991) articulates that in the first instance, the implementation of a strategy that is not followed by current or potential competitors, while the latter means not only the possession of such a strategy, but its non-duplicability as well. He further explains that in order to act as a potential source of a sustained competitive advantage, a resource has to: be valuable, rare, inimitable, and nonsubstitutable. It is further held that resources have to be relevant (Grant, 1998) and dynamic (Johnson, Scholes, Whittington, 2005). These additional features are emphasised taking into consideration such circumstances of the modern business world as hyper-competition, rapidly changing environment and volatile customer needs and expectations, which clearly necessitate dynamic core competencies, i.e. organizational ability to adjust and develop competencies to meet the needs of the fast altering environment.

Porter (1991) held the view that sustainability can only be achieved if and when a particular strategy of a firm cannot be implemented, imitated or replaced successfully by a potential competitor, in which case said strategy in effect provides the firm with a source of sustainable competitive advantage. Similarly sustainability is achieved when the advantage resist erosion by competitor behavior (Porter, 1985). On the other hand competitive advantage can result either from offering superior value i.e. through the adoption of TQM practices or "out executing" your competitors (Bharadwaj et al, 1993).

When compared to international firms operating in T&T, many local companies lack competitiveness in both the domestic and international markets. Local firms therefore need to find ways and means of improving their competitive position in the marketplace.

Perhaps TQM may very well prove to be a major strategic weapon in achieving sustainable competitive advantage.

Many factors need to be considered by the firm in the development of a particular strategy, in order to gain a competitive advantage. In the past, if a firm's products and services were of comparable quality to those of its competitors, lowering prices was virtually the only weapon in a firm's armoury (Ghemawat, 1986; Porter, 1985; Porter, 1987). In this scenario the firm's low-cost position was the source of sustainable competitive advantage.

Better quality is a source of achieving competitive advantage (Shapiro, 1983; Ahire et al., 1996; Mehra et al., 2001). However, while there exist two basic classifications of strategy – "low cost" or "high quality" – this paper explores the relationship and integration of a quality-related strategy as a means of achieving a sustainable competitive advantage.

The vulnerability of a firm's imitation strategy depends on the nature of its advantage on the grounds of superior quality. Total quality built into every aspect and process of a business can prove to be a source of sustainable competitive advantage, as it becomes extremely difficult to imitate and cannot be readily acquired by another firm (at least not in the short term). Additionally, even though Kondo (2001) suggested that quality strongly demanded by the customer can be the key to competitive advantage, additional research is needed along the areas of achieving sustainable competitive advantage through proper integration of TQM and strategy.

Quite often we are led to believe that many aspects and key resources of our business provide us with an advantageous position, which is more or less sometimes sustainable but frequently is not. For example, a firm that has a more flexible manufacturing process than its rivals may be able to respond quicker to customer demands, thereby outperforming those rivals. But this should not be taken to imply that their position is sustainable. In order for the competitive advantage to be sustainable, it must not be possible for rivals to compete on an equal footing in the short and medium term.

According to Mariotti (1998), the only sustainable competitive advantage today is the ability to change, adapt and evolve – and to do it better than the competition. Unfortunately, most improvement initiatives undertaken by organisations, even with the best of intentions, are certain to have little or no impact.

Arguably, sustainability is much more difficult to achieve if a firm is uncertain about its strategic positioning (Porter, 1996). He argues further that, in general, sustainable competitive advantage is derived from the following:

1. A unique competitive position
2. Clear tradeoffs and choices vis-à-vis competitors
3. Activities tailored to the company's strategy
4. A high degree of fit across activities (it is the activity system, not the parts, that ensure sustainability)
5. A high degree of operational effectiveness

He concluded that "when activities complement one another, rivals will get little benefits unless they successfully match the entire system". This is usually very difficult, and more so where it concerns entirely new dimensions to doing business. TQM requires a change in culture, strategy, structure, resources, capabilities, etc., which requires attention and a certain level of devotion to understanding its philosophy and practices.

Similarly, there are two main ways in which firms attempt to achieve competitive advantage. The first is by providing products or services that buyers perceive as being superior to those offered by the immediate competition. That is to say, if the prices of the firm and its rival's products are comparable, the firm's products are preferred by the consumers on the basis of superior perceived quality. In other words, the firm is able to deliver benefits that exceed those of competing products. This is commonly referred to as "differentiation advantage".

On the other hand, if the firm's products or services are of comparable quality to those of its competitors, but the firm is in a position to sell at reduced prices, it is presumed that the firm must have lower input costs in order to be able to sell at lower prices. Consequently, it may be safe to conclude that the firm's low cost position is the source of competitive advantage. This is usually referred to as a "cost advantage".

This has led to the notion that cost leadership and quality-related strategy are sources of competitive advantage. In essence, a firm either has a "low cost" or "high quality" strategy (Porter, 1985). However, this conclusion regarding the classification of strategies, in particular the "low cost" position, leaves out some very important issues. And this has nothing to do with being stuck in the middle. Advocates of TQM practices claim that improving quality will lead to a reduction in total product and service cost. They feel this should occur because the increased cost of a TQM programme would be more than offset by the savings that would result from its successful implementation (Belohlov, 1993; Dory & Schier, 2002). Additionally, TQM has been recognized as one of the sources of a firms' competitive advantage. Prabhu et al. (2000).

Similarly, a low cost position cannot always be associated with inferior quality. According to Price & Chen (1993), TQM practices are considered a powerful holistic approach that simultaneously affects customers, employees and processes to achieve continuous improvement. They list some of the benefits of implementing TQM practices:

1. Cost savings
2. Productivity increases through process improvements
3. Marketing focus
4. Product development effectiveness
5. Organisational decentralisation and
6. Employee empowerment

Supporting the views expressed by Price & Chan (1993), Spector & Beer (1994) found that continuous improvement of work processes enhanced the firm's ability to deliver

high quality or services in a cost-effective manner. Similarly, Belohlav (1993) expressed that high levels of quality not only create the potential to pursue a differentiated strategy, but also lead to a low cost leadership strategy within the marketplace. Certainly, this conclusion contradicts Porter's interpretation of being "stuck in the middle".

Post Porter (1980), the resource based-view (RBV), has offered an alternative option to that of Porter's. The RBV emphasizes internal sources of competitive advantage and the fact that firms possess heterogeneous resources that cannot be perfectly imitated, substituted, or traded (Barney, 1991; Wernerfelt, 1984).

RBV suggests that the purpose of any strategy is to enhance the value-creation potential of a firm's resources (Reed and DeFillippi, 1990; Wernerfelt, 1984). The potential for value-creation is based on certain conditions, such as resource characteristics (Barney, 1991; Dierickx and Cool, 1989) and sustainable competitive advantage hinges on whether these positive conditions can be met. As mentioned previously, Barney (1991) suggests that resources that can lead to competitive advantage need to meet four conditions, namely: valuable, rare, imperfectly imitable, and imperfectly substitutable. It must be noted that these conditions are not limited to any single resource; however it is considered desirable when a firm's overall resource profile (i.e. combination of resources) meets these four conditions. Peteraf (1993) further develops this line of thinking and proposes the following four resource conditions that are 'cornerstones of competitive advantage': heterogeneity, ex post limits to competition, imperfect mobility, and ex ante limits to competition.

In this case, heterogeneity refers to a condition of owning superior resources that are scarce in an industry (Peteraf, 1993). This argument can be viewed as a combination of value and rareness in Barney's (1991) framework. Secondly, the condition of ex post limits to competition suggests that after a firm acquires certain superior resources, there are forces that limit competition for those resources. Two of the forces are Barney's (1991) notions of imperfect imitability and imperfect substitutability. On the other hand, superior resources are sustainable if they cannot be perfectly traded, i.e. a condition of imperfect mobility. Imperfect mobility ensures that resources cannot be easily bid away

from the company. Finally, ex ante limits to competition means that the cost of acquiring superior resources is not too high to offset any future benefits.

Although the competitive forces perspective and the RBV views differ sharply on how competitive advantage is achieved, they both "focus primarily on firm's supply-side interactions and largely neglect the demand environment in which these interactions take place" (Adner and Zemsky, 2006).

Clearly, the above initiatives via the adoption of TQM practices can play a significant role in achieving competitive advantage. However, even if customer requirements are accurately identified and organisational processes enhanced, an advantage created in the marketplace will not necessarily be sustainable unless the resulting product or service attributes are unique, valuable and difficult to imitate (Barney, 1991). How vulnerable the organisation is to imitation or replication depends on the nature of its advantage. By extension, if a firm's competitive advantage is based on its capabilities, and as this research proposes the integration of TQM practices with corporate strategy, a sustainable advantage requires either that it be difficult for rivals to imitate, replicate or implement those said capabilities or that the firm can improve its capabilities before its rivals catch up.

Even though remarkable progress has been made in the field of strategic management, the problem of strategy implementation failure persists and it remains an important and ongoing concern for researchers and practitioners (Mockler, 1995; Barney, 2001; Hickson et al., 2003 and Candido and Santos, 2008). Within the context of this study, the author hypothesises that the successful implementation of TQM practices is considered most difficult to imitate, replicate or implement, especially when they are deeply embedded in organisational processes or it is difficult to figure out the firm's success. The author is also inclined to believe that continuous improvement of processes focusing attention on the customer, ownership, management involvement, adoption of a quality philosophy, employee empowerment, implementation of TQM methods and training and good stakeholder relationships are all difficult to figure out and can appear

a bit far-fetched, especially with commitment from everyone involved in the process coupled with sound leadership qualities.

4.4.11 The TQM Strategy Interface

Today, quality has been recognised and accepted as a key factor or activity in achieving competitive advantage for both manufacturing and service-oriented companies (Porter, 1985; Gummesson, 1994; Cole, 1998). In this regard, quality is essential and remains critical to the continued existence of the organisation in an evolving and dynamic competitive environment (Hackman & Wageman, 1995).

This has led to firms in diverse sectors focusing more and more on possessing a combination of unique skills and assets (resources) that can be viewed as special and hard to imitate, duplicate or implement, which allows them to outperform their rivals. These resources and capabilities are referred to as "sources of competitive advantage" (Johnson & Sirikit, 2002). Competitive advantage results either from implementing a value-creating strategy not currently being implemented by any existing or potential competitors (Barney, 1991), or perhaps through the timely and superior implementation of a similar type of strategy tailored to suit the firm's individual operations. Sustainability is achieved when an advantage developed over time is capable of resisting head-on challenges from major competitors (Porter, 1985). According to Barney (1991), competitive advantage is sustained when other firms are unable to duplicate, imitate or implement the true value of this strategy. Perhaps the skills of the employees, commitment from management, coupled with the new organisational structure and culture required for the adoption of quality-related practices can be considered difficult to duplicate, imitate or implement by other firms, which can result in sustainable competitive advantage.

Anderson et al. (1994) state that many organisations now believe that effective TQM implementation can improve their competitive abilities and provide strategic advantages in the marketplace. Thus, offering superior service quality as a strategy towards achieving TQM status can assist firms in becoming more profitable, leading to sustainable competitive advantage within their respective markets (Hampton, 1993).

In more recent times, Porter (1996) describes the foundation of strategy as the activities an organisation pursues in order to excel. Noting that, practices such as quality improvement have long been considered as part of the strategy formulation process (Pfau, 1989). Spitzer (1993) described TQM as the only source of competitive advantage.

In a somewhat similar but different view of the strategies/quality interface, relationships can be drawn from the resource-based theory of competitive advantage. Grant (1991) argues that an organisation's resources and capabilities serve as the foundation for the development of its strategy. Sometimes, however, even resources or capabilities that depend on human capital cannot be separated from the business. For example, if the ability of the firm to solve problems is embedded in the patterns of communication and interactions of the firm rather than with the individuals themselves, then the capabilities reside with the firm and not the individuals; in essence, individuals can leave, but they cannot take the capability with them. However, capabilities are built from resources that yield competitive advantage. Therefore, strategies, in turn, should be built around competitive advantage. It may be safe to conclude that TQM practices developed by individuals may be viewed as a core capability in the strategy formulation process. According to Waldman & Gopalakrishna (1996), TQM needs to be integrated with a complementary asset in order for it to achieve a competitive advantage.

Thus, it is the author's view that a successful strategy is one that allows a company to capture a competitive advantage. Additionally, combining the two approaches suggests that apart from the inherent relationship between strategy and TQM, it may also mean that in order to secure a sustainable position a firm's strategy formulation should be complemented by TQM-based principles and practices. As a result, management should include practices such as quality planning and continuous quality improvement as part of the strategy formulation process (Pfau, 1989).

Taking into consideration that a firm's capabilities (in this case we can assume TQM is one of these) are the most difficult to imitate when they are deeply embedded in organisational processes or when it is difficult to figure out what factors are responsible

for the firm's success (Porter, 1985), it is possible to relate a firm's success to both its objectives and strategies. From the literature so far we can safely conclude that such a position may be secured through a TQM-based strategy and via increasing efficiency, decreasing costs and increasing consumer satisfaction. For these basic reasons, TQM is very much worthy of attention.

4.4.12 Concluding Remarks

The objective of any given strategy is to achieve a competitive advantage over your immediate competitors. The author's suggestion is that there are many factors that need to be considered by organisations in the formulation, articulation and implementation of a particular strategy in order to gain a competitive advantage that is sustainable. Today, however, many firms have adopted product, process, customer service and company-wide quality improvements as a key strategic initiative for achieving world-class performance levels (Adam, 1992). In addition, given the objective of this proposed research, quality has been linked to improved competitiveness (Porter, 1990) and to superior organisational performance (Buzzel & Gale, 1987; Phillips et al., 1983; Aacker & Jacobson, 1994). Fornell et al. (1996) regard quality as perhaps the most important determinant of customer satisfaction. Moreover, increased attention to quality-related activities is an excellent approach to differentiating one's products from those of competitors (Calantone & Knight, 2000).

Nonetheless, while it is emphasised that a key element in the success of any firm is product and service quality, the whole aspect of integrating quality with strategy has received little research and attention.

The preceding, brief literature review highlighted the gap between research on quality and its integration with strategy. Researchers have largely regarded quality as synonymous with the overall strategy of the firm and, in so doing, have ignored the usefulness of quality and its apparent integration with strategy. Those few studies that have attempted to show some sort of relationship between the two concepts have, in certain ways, failed to realise its full and true potential. This is because they have largely treated quality as a dimension of strategy which, if managed properly, can result

in the development of a distinct competence over time, further providing the basis for sustainable competitive advantage (Porter, 1985; Ghemawat, 1986; Garvin, 1988).

Likewise, much previous research on quality has been carried out independently of strategy, and vice-versa. This ignores the fact that, no matter how high the quality levels are, they are of little practical usefulness if incongruent with the core strategy of the firm. Correspondingly, a good strategy may be hampered by the non-existence of some basic aspects of quality.

Some previous researchers have attempted to explicitly and implicitly link quality to organisational outcomes. However, they have explored this phenomenon by attempting to link quality to performance, leading to such simplistic statements as "the correlation between quality differentiated strategy and sustainable competitive advantage" (Hofer, 1975; Porter, 1985). Still, the author is of the view that, while performance may be quantified, the same cannot be said of quality. It should be noted that it is difficult to quantify quality, and any assertion of its correlations is, at best, simplistic.

Furthermore, quality is just one variable, yet there are many others with which it interacts to determine organisational performance and sustainable competitive advantage.

Accordingly, in this proposed research, strategy is incorporated in an attempt to minimise the above problems. Organisational performance in the context of sustainability will be treated, in part, as a function of the ability of management to integrate strategy and quality. Thus, although a company may have a strong quality base (a crucial success factor for previous researchers), the organisation may still be unsuccessful if the quality policy is not in sync with the overall strategic direction set out at the corporate level.

A key area of this chapter addressed TQM implementation. Since effective implementation can make a sound strategic decision ineffective or a debatable choice successful, it is important to examine the process of implementation, so as to determine

the basis of business performance, in this case the successful implementation of TQM. According to Andrews (1980), the implementation of any given strategy is comprised of a series of primarily administrative sub-activities. Accordingly, this research takes the view of Andrews (1980), Giles (1991), Piercy (1991), Cole (1993), Kano (1993), Hauser & Clausing (1998), Cole (1999), Covin et al. (1994) and others in hypothesising that, if a firm's vision, mission and objectives are established or conceptualised, then certainly the resources of the firm can be mobilised to accomplish its overall purpose.

This chapter has attempted to establish the foundation for the actual research through the provision of an analysis of the theoretical platform on which the present research work will be performed. The review of the pertinent literature has focused on the main areas of concern: TQM concepts, components, elements and implementation as well as strategic management, the strategy hierarchy, competitive advantage and sustainability and the TQM strategy interface.

Like any good practice, achieving TQM takes time, commitment and dedication and the required resources from the entire organisation. Thus, there remains a compelling need to understand how this transformation should occur, as well as its integration with the various business processes and functions in situ, in an effort to achieve improved efficiency and subsequently sustainable competitive advantage. These issues will be developed and explored in Chapters 6, 7 and 8.

CHAPTER 5 - DATA ANALYSIS

5.1 INTRODUCTION

In this chapter the data obtained from the research sample is summarised and presented. In keeping with the research aim and objectives, both descriptive and inferential statistics are used in the analysis and interpretation.

The questionnaire played a prominent role in collecting data from 150 participants. The quantitative data analysis undertaken in this chapter is helpful in establishing a broad feel of the participants' experience with and attitude towards the concepts being studied. Moreover, this data analysis establishes a baseline for the overall trends and a sense of the participants' general responses.

Equally important is the information collected from the 97 semi – structured interviews which are used to provide meaningful insight into operations and psyche of the various companies. Semi – structured interviews were conducted with members of top management and other key employees.

Data collected from both the questionnaires and the semi – structured interviews were also analysed to explore the differences and similarities between the six participant firms and will be used in the development of the Six Senses Model, which is presented in Chapter 6.

This chapter presents the findings of both the quantitative and qualitative data collected. The next section of this chapter considers the reliability of the questionnaire.

5.1.1 Reliability

Prior to conducting the research postulates, the reliability of the survey instrument was evaluated. According to Black (1999), reliability indicates the consistency between two measures of the same thing. In the academic world, generally researchers must demonstrate that their chosen survey instruments are reliable. Without reliability,

research results using the instrument are not replicable, and replicability is fundamental to the scientific method. Reliability is frequently employed to ensure reliable measurement scales, to evaluate the reliability of scales already in use and improve existing scales.

In reliability analysis, scale reliability is assessed based on the correlations between individual items (measures) that comprise the scale, relative to the variances of the items.

For this study, Cronbach's alpha was found to be 0.9, which is indicative of moderate consistency between variables in the questionnaire, i.e. strong internal consistency between items.

Once all the completed questionnaires were collected, the responses to questions were coded appropriately and data entered and analysed using SPSS Version 12.0. The data was then cleaned by generating frequency tables of responses to the close-ended questions. Analysis of these frequencies revealed that six questions had greater than 5% of responses missing, namely:

5.8 Your involvement in any previous quality initiative.
5.9 If you have been involved in any way or the other with respect to question 5.8, please rate the successfulness of the same.
7.9 If yes to 7.8, rate the overall response.
7.10 Level of staff involvement.
10.2 Your organisation/department relationship with major suppliers.
10.3 The timely delivery of supplies.

As such, these questions were omitted from the analysis. After the data was cleaned, the frequency histograms generated were analysed for normality (these were used to identify the factors). Normality of data would be essential in conducting further tests.

All variables were normally distributed. Each closed-ended question was divided according to the responses for current performance and expected performance, since separate analysis was done on both sets of data.

The data generated by firms was also categorised according to each firm. As a result, individual case studies were conducted on the results on a firm-by-firm basis. However, the relevant data is reported on a collective basis.

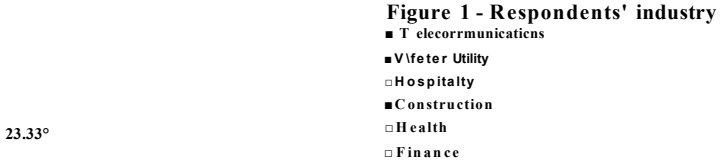
All demographic and yes/no questions were subjected to analysis using univariate descriptive statistics. The mean, mode, median and standard deviations for each variable were calculated. Both pie charts and bar charts were used in the analysis of discrete data. Details of the demographics of the sample will be discussed in Section 5.2. Results of the questionnaire were then placed under rigorous analysis in order to attain both descriptive and inferential statistics, some of which included pie charts, tables, exploratory factor analysis and analysis of variance tests.

5.2 DEMOGRAPHICS OF THE SAMPLE

It is well known that demographic variables are associated with differing perceptions of conditions in the workplace (Harber et al., 2007). Therefore, before delving any further into an analysis of the data collected, an insight into the key characteristics of the sample respondents with respect to their demographic profiles will be given. This procedure provides the background for the analysis that follows. The characteristics studied are the respondent's gender, department, job title, highest level of qualification and citizenship - factors which the author considers essential to fully appreciating the responses of the sample population with respect to the concepts being studied.

The sample population of one hundred and fifty persons (n = 150) consisted of a greater proportion of females (56%) compared, to the 44% of males within the dataset. Moreover, 97% of the sample was citizens of Trinidad and Tobago, with the remainder (3%) from other countries.

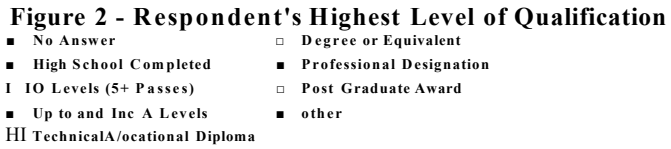
Fig. 5.1 Sample Population



Source: Author's own work

Members of the financial sector made up 23.3% (Figure 5.1) of the sample, followed by water utility (20%), construction (18%) and telecommunications (16%). The hospitality and health sectors represented the same percentage (11.3%) of the sample, respectively.

Fig. 5.2 Sample Population

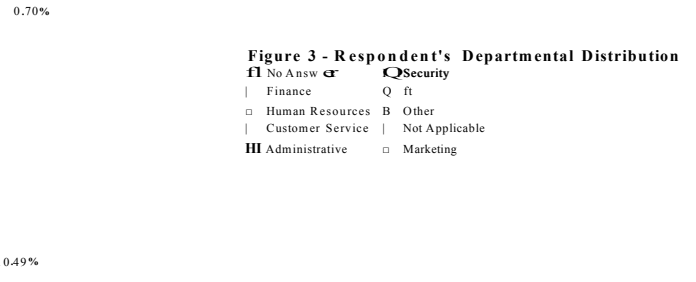


Source: Author's own work

As seen in Figure 5.2 above, in terms of education most respondents were well educated, with less than 3% only completing high school. Those with a degree or equivalent made up the majority (36.5%), with a significant proportion (10.8%) either having a professional designation or a post graduate award. The second highest grouping of respondents had a technical or vocational diploma (25%).

Figure 5.3 provides a breakdown on the participants' departmental distribution. Although 16% of the sample did not indicate the department they belonged to, most came from the "Other" category (43.4%). This category included departments such as engineering, construction, health and safety and design. Given that the largest sample came from the construction industry, this finding is consistent with the results. Customer service represented 11.9% of the sample followed by administrative (10.5%), finance (7.7%), human resources (6.3%) and IT (2.11%). All subsequent departments combined to make 4.2% of the sample. The diverse nature of the sample reflected the author's attempts to capture the views of all employees across the entire organisation.

Fig. 5.3 Pie Chart showing Respondents' Departmental Distribution Sample Population

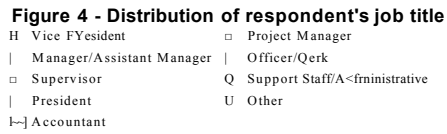


Source: Author's own work

Managers/assistant managers represented 51.5% of the sample, with the subsequent highest job title prevalent (21.6%) being the "Other" category. This included engineers,

chartered quantity surveyors, project coordinators, licensed land surveyors and architects. As seen in Figure 5.4, company vice presidents made up 4.5% of the sample, which was the same proportion for project managers; the rest of the data set was composed of officer/clerks (6%), accountants (2.2%), company presidents (1.5%) and support staff/administrative (3%).

Fig. 5.4 Pie Chart showing the distribution of respondents' job title.



Source: Author's own work

A general review of the open-ended results from both the questionnaires and semi-structured interviews showed that even though the services provided by each firm were different, the problems faced by each were similar across the board, whether it was the telecommunications provider who faced imminent competitive pressure, the water purveyor who dealt with decreasing consumer confidence, the medical service provider who faced a public who saw in the media cases of medical negligence and staff shortages, the hotelier whose customer base was correlated with international events, the financial services institution that experienced the advent of the "sophisticated customer" who demanded value for money and the construction consultancy firm that saw the boom of the industry bringing an alarming number of firms into their market, as well as an increase in corrupt practices.

All respondents agreed that decreasing market segments (through competition and globalisation), staff issues (their lack of motivation, shortages, attitude and unsuitability in their job capacity) and the quality of their service delivery all affected their respective industries. While their methods of coping were different, the management of each firm sought to stifle the effects of both external and internal threats proactively by either increasing education and training, implementing new strategies or developing a new thinking paradigm. As one employee from the construction consultancy firm elaborated:

"Management tries to instill a 'do it right the first time' and 'quality first' mindset in employees and to ignore the notion that we can get away with something, just because the rest of the industry is doing so".

Furthermore, respondents generally agreed that customers' expectations were the same in wanting value for money, efficiency and timely, quality service. An interesting finding was that regardless of whether respondents were from the private or public sectors, they all recognized that there was a paradigm shift away from the way business was being conducted. "Customer care", "quality service" and "value for money" were all buzz words that respondents were now familiar with and had to incorporate in their daily operations as the performance and survival of their organizations now seemed to depend on these.

Having examined the key characteristics of the sample, analyses of their responses can be undertaken.

Chapter 3 established that the data collected for any study must be in sync with the research aim and objectives. One of the objectives of this study was to assess and evaluate the current performance of firms within the service industry in T&T. Given the pioneering nature of this study in the local context, this objective was factored into the design of the questionnaire, which also went one step further to seek participants' views on the expected performance of their respective firms. The author believes that the information collected was vital to the development of the proposed model for TQM. Section 5.3 provides an analysis of the current performance data.

5.3 ANALYSIS OF CURRENT PERFORMANCE DATA

5.3.1 Introduction

According to the literature, prior to embarking on a TQM initiative, it is critical that a firm understands its current position in relation to quality. It has also been premised that by ascertaining where firms are in relation to quality, it is possible to identify the significant criteria and/or performance of existing practices that can support the TQM initiative. Building on existing effective quality activities is an essential element of the successful development of a quality programme (Srivivatanakul & Kleiner, 1996; Øvretveit, 2001).

Jackson (2001) suggests that existing mechanisms and structures can be enhanced to support the implementation process. Beckhard & Harris (1987), meanwhile, suggest that large-scale organisational change can be conceptualised by assessing the organisation's current situation (present state), determining the desired future (future state), planning ways to reach the desired future and implementing these plans (transition state). Accordingly, both the current and expected states of the various firms will be examined in the following sections.

5.3.2 Overview of the Tests Conducted

The questionnaire included 84 (of which six were inappropriate – having a response rate of less than 5%) variables for which participants rated the current performance of their respective firms. These variables were rated using a Likert-type scale ranging from 1 = excellent to 5 = poor. Due to the large number of variables, appropriate statistical analysis had to be employed. As such, exploratory analysis was first conducted, in which the researcher tries to establish the direction and strength of influence between variables. Again, given the large number of variables an appropriate data reduction method was needed. As such, exploratory factor analysis was performed.

Before factor analysis was performed, the data was screened using a correlation matrix. The correlations between each variable were examined to ensure all variables correlated and there was no extreme multi-collinearity between variables (variables correlated too

highly). Variables with a Pearson's co-efficient greater than 0.9 (R > 0.9) were excluded. All variables in the data correlated and there was no high multi-collinearity. As such, factor analysis was performed in order to reduce the number of variables and uncover any latent variables.

During factor analysis, the R matrix and the determinant were generated. This ensured that multi-collinearity was not present in the data. The Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity were also generated.

The entire sample of 150 respondents was analysed using principal components analysis (PCA), followed by orthogonal (varimax) rotations, which allowed combinations of factors to be chosen so that the analysis could be simplified.

Once factor analysis was performed, the criteria of eigen values greater than 1 suggested 16 factors. However, further examination of the scree plot suggested 8 factors. In view of this, multiple factor analyses were run, setting the number of factors to retain manually – once at the projected number (16), again at the number of factors suggested by the screen test (8) and then at numbers above and below those numbers. Given that the screen test suggested six factors, the data was run four times, setting the number of factors extracted at 16, 8, 6 and 10. After rotation, the item loading tables were compared. The one with the "cleanest" factor structure-item loadings above .30, no or few item cross loadings or no factors with fewer than three items had the best fit to the data (Costello & Osborne, 2005).

From this method, the "cleanest" factor structure had six factors. As such, this factor structure was chosen for analysis. The factors included in this structure are:

1. Employee knowledge on the benefits of quality
2. Organisational culture
3. Human resource support system
4. Organisational structure
5. Customer satisfaction services
6. Strategic planning

These factors have been interpreted as those necessary for the successful implementation of TQM, and form an integral part of Six Senses Model which has been developed. The author has identified these as "TQM Success Factors" and they are so named in the Six Senses Model.

Although exploratory factor analysis reduced the data to six factors, only variables within each factor with loadings of greater than 0.5 and cross loadings with other factors less than 0.3, were considered. Once the underlying factors of the data were generated, each factor was tested for the reliability of its constructs.

An analysis of variance analysis (ANOVA) was also performed on each factor. However, the assumptions of ANOVA first had to be met before analysis could be deemed appropriate. Section 5.3.1.3 looks at the assumptions of the ANOVA.

5.3.3 Assumptions of ANOVA

Major assumptions must be met before ANOVA analysis can be conducted: data should have a normally distributed sampling distribution and must be from a normally distributed sampling population, the variances in each experimental condition must be fairly similar (homogeneity of variance), observations independent and the dependent variable must be measured on at least an interval scale (Field, 2008).

However, many authors report on ANOVA as being a robust procedure and the above assumptions frequently can be violated with relatively minor effects (Maxwell & Delaney 1990; Winer, Brown & Michels, 1991; Hays, 1994; Kirk, 1995; Sirkin, 1995; Hinton, 1995; Diamantopoulos & Schlegelmilch, 1997; Howell, 1997; Jaccard, 1998; Black, 1999; Newton & Rudestam, 1999; Roberts & Russo, 1999; Everitt, 2001; Cramer & Howitt, 2004; Field, 2005). Robust denotes the extent to which a statistical method produces correct results, even when its assumptions fail to hold. ANOVA is generally robust to violations of normality assumption, as highlighted by Maxwell & Delaney (1990): "Even if a researcher's data are not perfectly normally distributed, they may be close enough to normal (e.g. unimodal, symmetric, most scores centrally located, few scores at the extremes) that there would seem to be little cause of concern".

ANOVA analysis was chosen in order to identify any significant differences occurring amongst the ratings of the six firms. In order to test the assumption of homogeneity of variances, Levene's test was employed. For this test, the null hypothesis states that the variances of the groups are the same. For variables where the null hypothesis was not rejected, the F statistic was used to ascertain whether there were significant differences in the ratings between firms. If the assumption of homogeneity of variance was violated, the Brown-Forsythe statistic was used.

Once significant differences were found in the ratings for each firm, post hoc analysis was utilised in order to ascertain such differences. Both Hochberg's GT2 (for unequal sample sizes) and the Games Howell procedures, (where the homogeneity of variances is not relied upon) were used.

5.4 ANALYSIS OF EXPECTED PERFORMANCE

Given the fact that the exploratory factor analysis on the current performance of employee ratings revealed six factors, the expected performance of employee ratings was also analysed using these six factors. Bivariate correlations were performed on each factor, after which these correlation matrices were used in determining the strengths of associations between the variables comprising each factor.

5.5 RELIABILITY ANALYSIS

Three of the most widely used test methods for reliability, as suggested by Cramer, 1998 are:

1. Cohen's kappa coefficient
2. Ebel's intraclass correlation
3. Cronbach's alpha test

For this research, Cronbach alpha tests were used. The alpha (reliability) coefficient can be thought of as the proportion of variance in the subjects, which is explained by the equations below (Cramer, 1998):

$$\alpha = \frac{\text{between – subjects variance – error variance}}{\text{between – subjects variance}}$$

or

$$\alpha = \frac{\text{1- error variance}}{\text{between – subjects variance}}$$

Once the error is higher, the corresponding value of alpha will be lower. Since alpha has an inverse relationship with the error, the higher the value of alpha, the higher the reliability. An alpha of 0.6 or higher is thought to indicate an acceptable level of consistency (Black & Porter, 1996).

5.6 TESTING OF THE HYPOTHESES

5.6.1 The Hypotheses

This section details the testing of the six hypotheses, which were developed based on the null and alternative hypotheses required by ANOVA tests. To clarify, for each construct, the average (mean) of the item scores represents the actual level of performance for the respective item. The hypotheses tested were:

5.6.1.2 Hypothesis 1

H1a: There are no significant differences in the current performance of employee knowledge of the benefits of quality-related-practices among firms.

5.6.1.3 Hypothesis 2

H2a: There are no significant differences in the current performance of the organisational culture among firms.

5.6.1.4 Hypothesis 3

H3a: There are no significant differences in the current performance of the human resources support system among firms.

5.6.1.5 Hypothesis 4

H4a: There are no significant differences in the current performance in the organisational structure among firms.

5.6.1.6 Hypothesis 5

H5a: There are no significant differences in the current performance of the customer satisfaction services among firms.

5.6.1.7 Hypothesis 6

H6a: There are no significant differences in the current performance of strategic planning process among firms.

5.6.2 Analysis of the Hypotheses

For the analysis of each hypothesis, each of the TQM Success Factors underwent rigorous testing procedures. For each factor, to measure the internal consistency, Cronbach's alpha was found. In addition, as well as prior to ANOVA testing, the homogeneity of variance tests was performed for each item using Levene's test. Apart from ANOVA, post hoc tests were also conducted on the data. Where Levene's test showed that there was homogeneity in the population variances against groups, Honchberg's GT2 was used. Where the population variances were not equal, the Games Howell procedure was used. The resulting F statistic generated from ANOVA and p values served as the main indicators as to whether the respective null hypotheses would be rejected or not, the results of which follow. In the analysis, the coding is as follows:

Company A – The water utility
Company B – The telecommunications services provider
Company C – The hotel
Company D – The construction consultancy firm
Company E – The private hospital
Company F – The financial institution

5.6.2.1 Hypothesis 1a:

Factor 1 consisted of 12 variables, which accounted for 13.5% of the total variance. The internal consistency of this factor (Cronbach's alpha) was given as 0.9. Table 5.1 lists the variables composing the factor, as well as the total variance explained and reliability of the scale.

Table 5.1 Listing of Variables of Factor 1

Item	Total Variance explained (%)	Cronbach's alpha
Factor 1 – Employee Involvement	**13.5**	**0.901**
Greater efficiency Staff effectiveness Reducing cost Enhancing customer satisfaction Company-wide image Increased profitability Reputation Competitive advantage Improved management participation Improved market share Increased productivity Increased employee motivation		

Source: Author's own work

Since these variables all dealt with employee knowledge of the benefits of adopting quality-related practices and entailed employee involvement, this factor was labeled "Employee Involvement". With a Kaiser-Meyer-Olkin measure of sampling adequacy value of 0.942, and the Bartlett's test significant at the 5% level (p value .000), factor analysis was deemed appropriate for this data (current performance).

Prior to ANOVA testing, the homogeneity of variance tests was performed for each item to ensure that the assumption of equal variances for each group had been met. Using

Levene's test, all items except the adopting of quality-related practices – improved market share (significant at the 5% level) – met the assumption. Since this construct violated the equality of variances assumption, the Brown Forsythe test for the equality of means was used for each dependent variables group. All other items exhibited homogeneity.

Table 5.2

Results of the ANOVA for Factor 1

Factor 1 – Employee Involvement	F stat	p value
Greater efficiency	3.681	0.00**
Staff effectiveness	6.099	0.00**
Reducing cost	5.445	0.00**
Enhancing customer satisfaction	8.281	0.00**
Companywide image	9.527	0.00**
Increased profitability	8.558	0.00**
Reputation	12.575	0.00**
Competitive advantage	9.152	0.00**
Improved management participation	10.93	0.00**
Improved market share	5.236	0.00**
Increased productivity	4.861	0.00**
Increased employee motivation	7.878	0.00**

**significant at the 0.01 level

Source: Author's own work

The results of the ANOVA are given in Table 5.2 above. As can be seen, statistical differences occur for all firms with respect to employee involvement: greater efficiency ($F(5, 143) = 3.681$, $p<0.05$), staff effectiveness ($F(5,143) = 6.099$, $p <0.05$), reducing cost ($F(5,143) = 5.445$, $p<0.05$), enhancing customer satisfaction ($F(5,143) = 8.281$, $p<0.05$), companywide image ($F(5, 143) = 9.527$, $p<0.05$), increased profitability ($F(5, 143) = 8.558$, $p<0.05$), reputation ($F(5, 143) = 12.575$, $p<0.05$), competitive advantage ($F(5,143) = 9.152$, $p<0.05$), improved management participation ($F(5,143) = 10.930$, $p<0.05$), improved market share ($F(5, 138) = 5.236$, $p<0.05$), increased productivity (F

(5, 143) = 4.861, $p<0.05$) and increased employee motivation (F (5, 143) = 7.878, $p<0.05$). Hence, there are significant differences in the current performance of firms on employee involvement.

Apart from ANOVA, post hoc tests were also conducted on the data. Where Levene's test showed that there was homogeneity in the population variances against groups, Honchberg's GT2 was found for the post hoc analysis. Where the population variances were not equal, the Games Howell procedure was used. Appendix G gives the average rating for each firm in the current performance of employee involvement, along with the standard deviations (stated in italics). For the benefit of greater efficiency, differences were significant at the 1% level between Company A and Company F, whereas Company D and F differed at the 5% significance level.

For staff effectiveness as a benefit of adopting quality-related practices, significant differences were found between Company A and Company F (p value = 0.000) and Company B and Company F (p value = 0.005). In enhancing customer satisfaction, Company A had differences with the level of current performance of firms C, D and F, respectively, at the 5% significance level. Company B's employees had significantly different (at the 5% level) ratings for this variable with Companies D and F. Furthermore, Companies D and E's results were also significantly different.

As for company-wide image, Company A's results were significantly different (at the 5% significance level) against all other companies except Company B. Additionally, Company B's responses were significantly different (p value = 0.000) to Company F.

On knowledge of the benefit of company reputation, Company A's ratings were significantly different to Company C, Company D, Company E and Company F (all p values = 0.000). Company B's results were significant at the 5% significance level with both Company D and Company F (p values = 0.000).

For increased profitability benefit, both Company A and B had ratings significantly different to the same two companies – Company A with Company D (p value = 0.007)

and Company F (p value = 0.000), Company B with Company D and Company F (p values = 0.000).

The benefit of competitive advantage saw Company A's results differing significantly with each firm except Company E at the 5% significance level, whereas Company E had results different from Company D (p value = 0.016) and Company F (p value = 0.004).

Employees in each firm's knowledge of the benefit of improved management participation differed significantly in the survey. Company A's ratings differed with all companies at the 5% significance level. Company B's ratings differed with both Company A (p value = 0.001) and Company D (p value = 0.045) at the 1% and 5% significance levels, respectively.

As for improved market share, Company A and Company D differed significantly at the 5% level (p value = 0.024) along with Company A and Company F (p value = 0.003) at the 5% level of significance. Company E and Company F also had results significantly different at the 5% level (p value = 0.015).

Company A's employees rated the benefit of increased productivity differently from Companies D and F (p values = 0.005 and 0.002, respectively).

For employee motivation, once again Company A had ratings different to those of Company D (p value = 0.000) and Company F (p value = 0.011). Moreover, Company D had significantly different ratings at the 1% level, with Company F (p value = 0.000) and Company C (p value = 0.003).

From the analysis of the average ratings for each variable, Company A's employees had the worst ratings, whereas the best ratings were found in Companies D and F. Therefore, the employees of these two firms had most knowledge of the benefits of quality.

The highest rated variable was reputation by the bank's employees (1.77). The lowest rated variable was company-wide image (3.21) by the telecommunications provider's employees.

5.6.2.2 Hypothesis 2:

Ten variables were chosen by the factor analysis, which accounted for 11.3% of the total variance. The internal consistency of this factor (Cronbach's alpha) was given as 0.907. Table 5.4 lists the variables composing the factor, as well as the total variance explained and reliability of the scale.

These variables all dealt with some aspect of the organisational culture existing within the firms, hence, this factor will be labeled "Organisational Culture". With a Kaiser-Meyer-Olkin measure of sampling adequacy value of 0.890, and z Bartlett's test significant at the 5% level (p value .000), factor analysis was suitable for the current performance of organisational culture.

Table 5.3

Listing of Variables for Factor 2

Factor 2	**Total % variance Explained**	**Cronbach's alpha**
Factor 2 – Organisational Culture	**11.30%**	**0.907**
Extent to which the employees at all levels realise that the real purpose of their existence is to "provide service the customer"		
Trust, openness and good relationships among employees		
Degree to which the employees believe that quality plays a vital role in strengthening the organisation's ability to compete in a highly competitive marketplace		
Resistance of employees to change		
Strong belief in the philosophy of "right first time and right every time"		
The attitude and behaviour of co-workers toward quality in general		

Customer/staff/management relationship		
Level of staff interaction with public		
Extent to which the organisational structure facilitates fast decision-making and quick response to customer requirements		
Professional recognition of organisation		

Source: Author's own work

Prior to ANOVA testing, the homogeneity of variance tests was performed for each item to ensure that the assumption of equal variances for each group had been met. Using Levene's test, the extent to which employees at all levels realised that the real purpose of their existence is "to provide service to the customers", trust, openness and good relationships among employees, resistance of employees to change, the extent to which the organisational structure facilitates fast decision-making and quick response to customer requirements, the professional recognition of the organisation and the level of staff interaction with clients/public were all significant at the 1% level. Since these constructs violated the equality of the variances assumption, the Brown Forsythe test for the equality of means was used for each group of dependent variables. All other items exhibited homogeneity.

The results of the ANOVA are given in Table 5.4 below. Once again, it is evident that statistical differences occur for firms in their employee's involvement in the operations: the extent to which all employees realise their real purpose of their existence is to "service the customer" ($F(5, 143) = 17.166, p<0.05$), trust, openness and good relationships among employees ($F(5, 143) = 12.649, .p<0.05$) , the degree to which employees believe quality plays a vital role in strengthening the ability to compete in a highly competitive marketplace ($F(5, 143) = 8.268, p<0.05$), resistance of employees to change ($F(5, 143) = 8.925, p<0.05$), strong belief in the philosophy of "right first time and right every time" ($F(5, 143) = 7.201, p<0.05$), the attitude and behaviour of workers towards quality in general ($F(5, 143) = 7.68, p<0.05$), customer/ staff / management relationship ($F(5,143) = 11.029, p<0.05$), level of staff interaction with the public ($F(5,$

143) = 11.329, $p<0.05$), extent to which the organisation's structure facilitates fast decision-making and quick response to customer requirements (F (5, 143) = 14.008, $p<0.05$) and professional recognition of the organisation (F (5, 143) = 20.302, $p<0.05$). Hence, the hypothesis is not supported for this construct' as firms have significant differences in the current performance of their organisational culture.

Table 5.4

Results of the ANOVA for Factor 2

Factor 2 – Organisational Culture	**F stat**	**p value**
Extent to which the employees at all levels realise that the real purpose of their existence is to "service the customer"	17.17	0.000**
Trust, openness and good relationships among employees	12.65	0.000**
Degree to which the employees believe that quality plays a vital role in strengthening the organisation's ability to compete in a highly competitive marketplace	8.268	0.000**
Resistance of employees to change	8.925	0.000**
Strong belief in the philosophy of "right first time and right every time"	7.201	0.000**
The attitude and behaviour of co-workers toward quality in general	7.68	0.000**
Customer/Staff/Management relationship	11.03	0.000**
Level of staff interaction with public	11.33	0.000**
Extent to which the organisational structure facilitates fast decision-making and quick response to customer requirements	14.01	0.000**
Professional recognition of organisation	20.3	0.000**

Source: Author's own work

Along with ANOVA, post hoc tests were also conducted on the data. Where the Levene's test showed homogeneity in population variances against groups, Honchberg's GT2 was found for the post hoc analysis. Where the population variances were not equal, the Games Howell procedure was used. Appendix H gives the average rating in the current performance of organisational culture for each firm, along with standard deviations (stated in italics).

According to the ratings given by employees, each firm had significant differences (except Company D and Company F), when it came to them realising that the real purpose of their existence was "service to the customer". Company A differed with both Company D and F at the 1% significance level (p values = 0.000 and 0.001, respectively). Company B's ratings differed with each company except Company A. Company C's employee ratings were different at the 1% significance level to Companies D and F (p values = 0.000 and 0.001, respectively). Company E and Company D also differed at the 1% level (p value = 0.002).

Furthermore, trust, openness and good relationships among employees were rated differently between firms. Companies A, D and F all performed differently at the 5% level. Company B also differed with the ratings given for Company D (p value = 0.000) and Company F (p value = 0.017) at the 1% and 5% levels, respectively. Company C and Company D differed at the 1% level (p value = 0.000). Company D's ratings were different from Company E (p value = 0.000) and Company F (p value = 0.014).

The degree to which employees believed that quality plays a vital role in strengthening the organisation had different performances for each firm. Companies D and F were the only companies whose rating of this variable did not differ. All other companies had significant differences with these companies – Company A (at the 1% level), Company B (at the 1% level), Company C (at the 5% level) and Company E (at the 5% level).

In employees' resistance to change, once again Companies D and F had similar ratings and each had different significance – Company A (at the 1% level); Company C (at the 5% level) and Company E (at the 5% level). However, Company B only differed with Company D at the 1% significance level (p value = 0.007).

For their belief in the philosophy of "right the first time" and "right every time", Company A differed significantly at the 5% level with Company D and differed with Companies D and F at the 1% level (p values = 0.000) and Company E at the 5% level (p value = 0.018).

As to the attitude and behaviour of co-workers toward quality in general, Company A's employees' perceptions differed from those of Company D (at the 5% level) and Company F (at the 1% level). Company B also differed with Companies D and F at the 5% and 1% significance level, respectively. Company C differed with Company F at the 5% significance level (p value = 0.023).

With respect to the Customer/ Staff/ Management relationship occurring in each firm, employees had dissimilar views. Company A and Company D's employees differed at the 1% level (p value = 0.000). Company B's employees had different ratings with Companies C, D and F (all at the 1% level of significance). Company D and E also differed at the 1% level (p value = 0.000).

For the level of staff interaction with clients/public, Company A differed significantly at the 5% level with Company C (p value = 0.018) and with Companies D and F at the 1% level (p values = 0.000). Company B differed with Companies D and F at the 1% level (p value = 0.000 and 0.003, respectively). Company C also differed with Companies D and F at the 5% level (p value = 0.034 and 0.046, respectively).

The extent to which the organisational structure facilitates fast decision-making and quick response to customer requirements had different performances for each firm. Company A differed with Companies C, D and E (at the 1% level), Company B differed with Companies C, D and E also at the 1% level (p values = 0.000), while Company D and Company F were also dissimilar (at the 5% level).

As to the professional recognition of the organisation, Company A significantly differed with all firms except Company B (Company C – 0.003; Company D and F – 0.000; and Company E – 0.001). Company B also significantly differed with Companies C, D, E and F (p values = 0.004; 0.000; 0.000; and 0.001, respectively).

For the variables comprising this factor, in nine of the ten variables Company D had the best ratings. Moreover, the worse ratings were shared between Company A and Company B.

For this factor, significant differences occurred between firms in the ten constructs. Employees of the construction consultancy firm gave its company top ratings for the professional recognition of the organisation (1.44), whilst the telecommunications firm had the lowest ratings for their opinions on the resistance to change within the company (3.54).

Most of the ratings for this factor were between good and average, which forms a general description of the work ethic of the entire country. Employees have not yet fully realised their role of having to "serve the customer". However, both the bank and the construction firm's employees rated this attitude highly. This variable goes hand in hand with the attitude and behaviour of workers towards quality, for which the same companies also rated highly.

Employee resistance to change was rated lowly by employees. Generally, there is a high resistance to change, which is typical in developing countries. Once again, the bank and construction firm had the top ratings. The customer/staff/management relationship was also rated poorly by the larger organisations. Perhaps the bureaucratic nature of partly state-owned companies plays a major part in employee opinions on this variable. Within these firms the organisational structures are largely hierarchal in nature, with top-down management styles. With "red tape" abounding, employees may feel that management is too inaccessible, which may place constraints on their relationship.

The performance of the level of staff interaction with the public is between good and average, with both the bank and the construction consultancy firm having the best ratings. Employee perceptions of this variable may be attributed to the nature of the organisation. In the case of the bank and the private hospital, frontline staff are in constant contact with customers. Similarly, for the construction firm, the client is dealt with on a one-to-one basis, whereas, with the water utility and telecommunications providers, most of their interactions occur with contracted workers and over the telephone only when the need arises (when customers voice complaints etc.)

The professional recognition of firms is also poor for large firms. Once again, these ratings may have stemmed from the bureaucratic nature of the firms (too much "red tape"), which can hinder the extent to which they can facilitate fast decision-making and responses to customer requirements. Smaller firms have a greater advantage with respect to this factor, as there is less "red tape" and greater contact with the public. The exception within the study was the bank. Based on an industry where referrals are key to successful business operations, they use the knowledge that good customer treatment means more customers (similarly with the hotel) to their best advantage. Perhaps, given the fact that at the time of the study they were operating as monopolies, the water utility and telecommunications provider may have a sense of complacency and lack of urgency in conducting business.

5.6.2.3 Hypothesis 3

The factor analysis performed revealed another factor (Factor 3), which had eight variables. This factor accounted for 9.23% of the total variance. The KMO test of sampling adequacy was 0.89 and Bartlett's Test of sphericity was significant at the 5% level (p value = 0.000), reiterating that the data set was appropriate for factor analysis. A Cronbach's alpha value of 0.861 indicated high internal consistency among the variables. The table below gives the variables which make up this factor. Since they were similar with regards to a firm's human resources, this factor will be labelled "Human Resource Support System".

After homogeneity of variance tests were performed on this factor, Levene's statistic inferred that four of the seven variables in the human resource support system violated the assumption of equal variances. In no particular order they are the availability of staff to deal with customer related issues, the level of employee/staff satisfaction, training for staff members and employees with feelings such as 'my company'. Accordingly, where the assumption was violated, the Brown Forsythe statistic was used, instead of the ANOVA F statistic.

Table 5.5

Listing of Variables for Factor 3

	Total % Variance Explained	Cronbach's alpha
Factor 3 - Human Resources Support System	**9.27**	**0.861**
Availability of staff to deal with customer-related issues		
Availability of staff to deal with professional issues		
Availability of staff to deal with technical issues		
Availability of staff to deal with support services		
Availability of staff to deal with administration		
Level of employee/staff satisfaction		
Training for staff members		
Level of prevalence among employees, feelings such as "my company"		

Source: Author's own work

As can be seen in Table 5.6, the ANOVA analysis conducted found that all variables on this factor had significant mean differences at the 5% level of significance; the availability of staff to deal with customer-related issues ($F(5, 144) = 4.563$, $p<0.05$), availability of staff to deal with professional issues ($F(5, 144) = 6.651$, $p<0.05$), availability of staff to deal with technical issues ($F(5, 144) = 3.849$, $p<0.05$), availability of staff to deal with support services ($F(5, 144) = 6.997$, $p<0.05$), availability of staff to deal with administration ($F(5, 144) = 5.552$, $p<0.05$), level of employee/staff satisfaction ($F(5, 144) = 4.528$, $p<0.05$), training for staff members ($F(5, 144) = 9.884$, $p<0.05$), level of prevalence among employees and feelings such as "my company ($F(5, 144) = 4.880$, $p<0.05$). Hence, the hypothesis is not supported; there are significant differences between the human resource support system for each organisation in their current performance.

Table 5.6

Results of the ANOVA for Factor 3

Factor 3 – Human Resources Support System	F Stat	P value
Availability of staff to deal with customer-related issues	4.563	0.001**
Availability of staff to deal with professional issues	6.651	0.000**
Availability of staff to deal with technical issues	3.849	0.003**
Availability of staff to deal with support services	6.997	0.000**
Availability of staff to deal with administration	5.552	0.000**
Level of employee/staff satisfaction	4.528	0.001**
Training for staff members	9.984	0.000**
Level of prevalence among employees, feelings such as "my company"	4.880	0.000**

Source: Author's own work

Post hoc tests on each variable identified where the mean differences for each firm occurred.

Appendix I gives the average rating for each firm in the current performance of "Human Resources Support System", along with the standard deviations (stated in italics)For the availability of staff to deal with customer-related issues, the mean ratings differed between Company A and Company D at the 1% level (p value = 0.010), Company B and Company D (p value = 0.005) and between Company C and Company D at the 5% level (p value = 0.019).

With respect to the availability of staff to deal with professional issues occurring in each firm, employees had dissimilar views. Company A and Company D's employees differed at the 1% level (p value = 0.000). Company A's ratings also differed with Company E at the 1% level (p value = 0.001). Company B's employees had ratings different to Company D (at the 5% level of significance). Companies D and C also differed at the 5% level (p value = 0.015).

On the availability of staff to deal with technical issues, Company A's ratings were significantly different to Company D at the 1% level of significance (p value = 0.000). Company B's ratings were significant at the 1% significance level with Company D (p value = 0.000). Company C and Company D had mean differences for this variable at the 5% level (p value = 0.019).

For the availability of staff to deal with support services, all companies had mean differences in the ratings with Company D at the 1% level. Similarly, all companies except Company F had significant differences in employee ratings of the current performance of the availability of staff to deal with administration, with Company D at the 5% level.

The level of employee/staff satisfaction statistical significant mean differences occurred between Company B and Company D (p value = 0.001), Company C and Company D (p value = 0.000), Company D and Company E (p value = 0.006), and Company F and Company D (p value = 0.000).

As for training for staff members, Company B differed significantly at the 1% level (all p value = 0.000) with Companies D, C and F. Company E differed at the 5% level of significance with Companies A, C, D and F.

For the level of prevalence among employees' feelings such as 'my company', all firms except Company F had significant perception differences, with Company D at the 5% level of significance. Companies E and F also differed at the 1% level (p value = 0.000).

Factor 3 dealt with the ratings of the Human Resource Support System of firms by their employees. All constructs were significantly different at the 5% significance level. Employees in all firms had different perceptions of their respective HR Support systems. The highest rating was given to the construction consultancy firm in the ability of its staff to deal with professional and technical issues (mean = 1.74). The lowest rating was given to the telecommunications provider on the level of prevalence among employees' feelings such as "my company" (mean = 3.29).

In order for TQM to be properly implemented into a firm, the role of human resources and the support they offer is pivotal. The ability to deal with customer-related issues has been delved into throughout the literature. Once employees (the internal customers) are able to understand their customer issues, as well as have the ability to adequately deal with them, only then can quality be improved. For this factor, the construction consultancy firm and the bank garnered the top ratings. These firms made huge investments in employee training and education, ensuring that employees have been sufficiently trained in the latest trends in dealing with professional, technical and support services. During the interviews, the major complaint voiced against training and education was the fact that employee training (seminars, workshops, etc.) took time away from employees doing their jobs. As such, staff resources are severely constrained, which may be a contributing factor to other firms having low ratings in this factor.

Employee/staff satisfaction ratings were between 2 (good) and 3 (average) in this variable. The lowest ratings were given to the private hospital (2.65) and the hotel (2.85). Typically, firms such as these have a history of high staff turnover, as employment in these industries is usually seen as short term. Therefore, most employees must work long hours, extra shifts and even have poor working conditions, all of which can contribute to employee dissatisfaction.

The hotel, construction and banking institutions had good ratings when it came to employee training (1.76, 1.78 and 1.94, respectively). The construction industry is highly dynamic. For this reason, there is always the need to be updated on the latest trends and newest technologies. Hence, sufficient employee training must take place to assure the firm's survival. Similarly, within both the hotel and banking industries, direct customer contact plays an integral role in the success of business, as employees must be continuously trained to satisfy the needs of their customers.

As for the "my company" feelings, the average ratings for Companies A, B and E are quite low (3.29, 3.17 and 3, respectively). For most employees, these companies may be seen as a "stepping stone for something better" – according to one manager. Moreover, with the larger utility and telecommunications provider, there is a greater international presence, so there may be a lot of non-locals working there, especially in higher

management positions. This may, in turn, create an environment whereby employees see the company as not belonging to them. The constant changes in management experienced by these firms may also lead employees to question when their tenure will be up. Furthermore, the low consumer confidence in these firms, where weekly complaints are written about and published via a newspaper outlet, may force employees to distinguish themselves from companies where they "just work".

However, the construction company and bank's employees' sense of ownership is rated higher. At these firms, employees are involved in all parts of the business and as such, are made to feel a part of the entire process. This may also be connected to employees knowing their firm's vision and mission and being rewarded when a good job is done.

5.6.2.4 Hypothesis 4:

Factor 4 consisted of nine variables, which accounted for 8.173% of the variance explained (eigen value 6.0480). Cronbach's alpha value for this factor is given as 0.871, indicating a high internal consistency within the variables. The variables which compose the factor, as well as the total variance explained and reliability of the scale, are given in Table 5.7 below.

Table 5.7

Listing of Variables for Factor 4

Factor 4	Total % Variance Explained	Cronbach's alpha
Factor 4 – Organisational Structure	**8.173**	**0.871**
Existence of formal organizational structure		
Visibility and consistency of organizational structure		
Adequacy of resources to perform job		
Departmentalization of organization		
Frequency of performance reviews		
Competency level of staff		

Source: Author's own work

Since these variables all dealt the organisation's structure, this factor will be named "Organisational Structure". Factor analysis is considered suitable for these variables, since the Kaiser-Meyer-Olkin measure of sampling adequacy value was given as 0.878 and Bartlett's test significant at the 5% level (p value .000).

Homogeneity of variance tests were performed for each item, before ANOVA tests could be run. Using Levene's test, six variables violated the assumption. They were the existence of a formal organizational structure, the visibility and consistency of organizational structure, adequacy of resources to perform job, departmentalization of the organization, the frequency of performance reviews and the competency level of staff. These constructs violated the equality of variances assumption, so the Brown Forsythe test for the equality of means was used for each group of the dependent variables. All other items exhibited homogeneity.

Table 5.8

Results of the ANOVA for Factor 4

Factor 4 – Organisational Structure	**A**	**B**	**C**	**D**	**E**	**F**
Existence of formal organizational structure	**2.42**	**2.67**	**2.47**	**2.37**	**3.41**	**1.63**
	0.717	*0.922*	*0.514*	*0.839*	*0.507*	*0.808*
Visibility and consistency of organizational structure	**2.5**	**2.47**	**2.29**	**2.44**	**3.35**	**1.51**
	0.885	*1.008*	*0.588*	*0.892*	*0.493*	*0.658*
Adequacy of resources to perform job	**2.75**	**3.03**	**2.59**	**2.37**	**3.29**	**2.26**
	0.442	*0.809*	*0.507*	*0.792*	*0.47*	*0.751*
Departmentalization of organization	**2.42**	**2.43**	**2.29**	**1.81**	**3.29**	**1.97**
	0.717	*0.774*	*0.849*	*0.749*	*0.47*	*0.747*
Frequency of performance reviews	**2.87**	**2.67**	**2.41**	**2.78**	**2.94**	**2.31**
	0.815	*0.994*	*0.618*	*0.751*	*0.429*	*0.963*
Competency level of staff	**2.54**	**2.57**	**2.76**	**2.59**	**3.41**	**2.17**
	0.721	*0.817*	*0.437*	*0.797*	*0.618*	*0.618*
Overall factor mean	**2.65**	**2.72**	**2.42**	**2.38**	**3.21**	**1.98**

Source: Author's own work

The results of the ANOVA are given in Table 5.8 above. It is evident that all constructs are significant at the 1% level; existence of formal organizational structure ($F(5, 144) = 13.662$, $p<0.05$), visibility and consistency of organizational structure ($F(5.144) = 14.35$, $p<0.05$), adequacy of resources to perform job ($F(5, 143) = 8.168$, $p<0.05$), departmentalization of organization ($F(5, 143) = 10.267$, $p<0.05$), frequency of performance reviews ($F(5. 144) = 10.53$, $p<0.05$) and competency level of staff ($F(5, 144) = 7.938$, $p<0.05$). Thus, statistical differences occur for firms in the current performance of their organisational strategy. Hence, the hypothesis is not supported for this construct.

Post hoc procedures were similarly conducted on this factor to identify where mean differences occurred (shown in Appendix J). In the existence of formal organizational structure, employees all rated this variable dissimilarly. Company A differed with Companies E and F at the 1% level. Company B differed with Companies E and F at the 1% level. Company C differed with Companies E and F at the 1% level, and Company D's rating was significantly different with Companies E and F at the 1% level. Company E also differed with Company F at the 1% level of significance.

On the visibility and consistency of the organizational structure, Company A's ratings were significantly different to Company E and F at the 1% level of significance (p value = 0.004 and 0.000, respectively). Company B's ratings were significant at the 1% significance level with Companies E and F. Company C and Companies E and F had mean differences for this variable at the 1% level. Company D's ratings were dissimilar at the 1% level with Companies E and F (both p values = 0.001).

For the adequacy of resources to perform the job, Company D differed with Company F at the 1% level. Company C had significant differences in ratings of the current performance with Company D at the 5% level. Similarly, the ratings of this variable were different between Companies D and E (p value = 0.000) as well as the ratings between Companies E and F (p value = 0.000).

The departmentalization of organization statistical significant mean differences occurred between Company A and Company E (p value = 0.004), Company B and Company D (p value = 0.027), Company B and Company E (p value = 0.003) and Company C and Company E (p value = 0.002). Company D and Company E (p value = 0.000) and Company E and Company F (p value = 0.000).

In the frequency of performance reviews, the only significant mean difference in the ratings occurred between Company F and Company E at the 1% level (p value = 0.004).

As for the competency level of staff, all company ratings differed significantly at the 5% level with Company E. Company C differed at the 1% level of significance with Company F (p value = 0.003).

For Factor 4, the highest ratings for current performance were given by employees of Company D, which had the highest ratings in each variable. Once again, the worst ratings were split between Company A and Company B, with Company A having the lowest ratings in five of the six variables. Analysis of this factor revealed six variables, all for which perceptions on the performance of their firms were significantly different. The highest rating was garnered by the bank (1.51) in the visibility and consistency of organizational structure, whereas the lowest rating for the competency level of staff (3.41) came from the private hospital. Overall, results for each firm in this factor ranged between good and average performance.

For the existence of formal organizational structure, all had good ratings. Each firm has ensured that their employees were aware of their structure and chain of command. However, the private hospital was the only firm which acquired less than average ratings in this factor. While conducting interviews, when asked this question most senior employees were aware of the structure but implied that it was not strictly adhered to. Indeed, from the author's own observation during visits for data collection, the only firm where the structure was "visible" in all offices was at the banks, which may explain their high ratings. This was arguably due to the branch setup.

Firms had poorer ratings in their adequacy of resources to perform their job, as well as the departmentalization of their organization. During the interviews, it was revealed that for the state owned enterprises (Companies A and B), too much departmentalization was not in the best interest of the organization.

5.6.2.5 Hypothesis 5:

Since factor 5 consisted of seven variables, all of which dealt with an aspect of a customer satisfaction procedure, this factor was called "Customer satisfaction services". The Cronbach's alpha value of 0.815 showed a high internal consistency amongst the factors. Factor analysis is considered suitable for these variables, since the Kaiser-Meyer-Olkin measure of sampling adequacy value was given as 0.831 and Bartlett's test significant at the 5% level (p value .000).

Table 5.9

Listing of Variables for Factor 5

Factor 5 – Customer Satisfaction Services	**Total % Variance Explained**	**Cronbach's alpha**
Factor 5	**7.24%**	**0.815**
Importance of customer satisfaction in your department		
Importance of quality in your department or organisation		
Priority of dealing with customer complaints		
Services provided by your department or organisation to customers		
Level of customer involvement in their individual transactions		
Level of management involvement in dealing with customer complaints		
Extent to which customers are informed about business procedures		

Source: Author's own work

Homogeneity of variance tests were performed for each item, before ANOVA tests could be run. Using Levene's test, four variables had significant p values (they violated the assumption of homogenous variances), namely the importance of quality in your department/organisation, services provided by the employee's department/organisation to customers, the extent to which customers are informed about business procedures and the level of customer involvement in their individual transactions. The Brown Forsythe test for the equality of means was used for each group of dependent variables which violated the assumption. All other items exhibited homogeneity.

Table 5.10

Results of the ANOVA for Factor 5

Factor 5 – Customer Satisfaction Services	**F stat**	**p value**
Importance of customer satisfaction in your department	3.643	0.02*
Importance of quality in your department or organisation	2.36	0.043*
Priority of dealing with customer complaints	12.2	0.00**
Services provided by your department or organisation to customers	4.646	0.001**
Level of customer involvement in their individual transactions	3.316	0.011*
Level of management involvement in dealing with customer complaints	12.27	0.000**
Extent to which customers are informed about business procedures	4.259	0.001**

* significant at the 5% level **significant at the 1% level

Source: Author's own work

From the results of the ANOVA analysis given above, it is evident that all constructs are significant at the 5% significance level, importance of customer satisfaction in your department ($F(5, 143) = 3.643$, $p<0.05$), importance of quality in your department/organisation ($F(5, 144) = 2.36$, $p<0.05$), priority of dealing with customer complaints ($F(5, 143) = 12.196$, $p<0.05$), services provided by your department or organisation to customers ($F(5, 144) = 4.646$, $p<0.05$), level of customer involvement in their individual transactions ($F(5, 144) = 3.316$, $p<0.05$), the level of management involvement in dealing with customer complaints ($F(5, 144) = 12.269$, $p<0.05$) and the

extent to which customers are informed about business procedures ($F(5, 143) = 4.259$, $p<0.05$). The hypothesis for this factor is rejected, and it can be concluded that there are significant differences amongst firms in the area of customer satisfaction services.

Post hoc procedures were also performed on this factor. The mean ratings of each firm on the seven aspects of customer satisfaction services are given in Appendix K and explained below.

For the importance of customer satisfaction in the respondents' departments, Companies A and D had differences which were significant at the 5% level (p value = 0.013). Company D's rating for this variable was also different from the ratings given by Company B's employees (p value = 0.006).

As for the importance of quality in the department or organisation, all company employees had similar ratings, i.e. no statistically significant differences occurred.

For the priority of dealing with customer complaints, Company A's rating was statistically different to those of Companies D and F at the 1% level (p value = 0.001 for both). Company B had 1% statistical significance in the rating of this variable with all companies except Company A. In the rating for the services provided by the department or organisation to customers, only Company A had statistically significant differences with Company C (p value = 0.008), Company D (p value = 0.001) and Company F (p value = 0.000).

As for the level of customer involvement in their individual transaction, all employees across the board rated this construct similarly, as there were no statistically significant differences.

In the management involvement in dealing with customer complaints, Company A had significant differences with the other companies except Company B. Meanwhile, Company B had 5% significant differences with Companies C, D and F (p values = 0.008, 0.001 and 0.017, respectively).

For the extent to which customers are involved in their individual transactions, Company A's results were different from Company D (p value = 0.005). Company D and Company F had ratings that were different (p value =0.008) and Company B and Company D had significant differences at the 5% level (p value = 0.017).

The company which garnered the top ratings from its employees for the variables in this factor was Company F. The lowest ratings of these variables were split between Company B and Company E, with Company E having the majority.

The customer satisfaction services factor was made up of seven variables, all of which employees rated significantly different. The highest rating was given to the construction company (1.44) for management's involvement in dealing with customer complaints. The lowest rating was given to the water utility (2.59). Overall, all firms got higher than average ratings in their performance in this factor, suggesting that companies have made significant improvements in their customer services.

All firms hold customer satisfaction important in their department, as well as the quality. The only variable which got the lowest ratings in this variable was in the extent to which customers are involved about business procedures. Understandably, this variable was not rated highly, especially by the bank, where highly confidential transactions are sometimes required and in cases where trade secrets must be closely guarded in order to have the competitive edge.

5.6.2.6 Hypothesis 6:

Factor 6 consisted of five variables, all of which dealt with some aspect of the company's strategy; to this end, this factor will be labelled "Corporate Strategy". The Cronbach's alpha value of 0.882 showed a high internal consistency amongst the factors. Factor analysis is considered suitable for these variables, since the Kaiser-Meyer-Olkin measure of sampling adequacy value was given as 0.847 and Bartlett's test significant at the 1% level (p value .000).

Homogeneity of variance tests were performed for each item, before ANOVA tests could be run. Using Levene's test, three variables had significant p values (they violated the assumption of homogenous variances). In no particular order they were the implementation of strategic plans and the level at which data is used to enhance customer relationships. For each group of dependent variables which violated the assumption, the Brown Forsythe test was used. The other two items exhibited homogeneity.

Table 5.11
Listing of Variables for Factor 6

	Total % Variance Explained	Cronbach's alpha
Factor 6 – Strategic Planning process	**5.567**	**0.882**
Articulation of strategic planning		
Involvement in strategic planning		
Formulation of strategic plan		
Implementation of strategic plan		
Level at which data are analysed and used to enhance customer relationships		

Source: Author's own work

ANOVA analysis showed that the variables articulation of the strategic planning ($F(5, 144) = 2.203$, $p>0.05$) and the involvement in strategic planning ($F(5, 144) = 1.568$, $p > 0.05$) were not significant at the 5% level. However, the other three variables were significant at the 1% level of significance (see Table 12 below): formulation of strategic plan ($F(5, 1430 = 4.32$, $p<0.05$), implementation of strategic plan ($F(5, 144) = 5.607$, $p<0.05$) and the level at which data are used to enhance customer relationships ($F(5, 143) = 4.438$, $p<0.05$). Hence, the hypothesis that there are no significant differences among firms in the current performance of corporate strategy cannot be supported.

Table 5.12
Results of the ANOVA for Factor 5

Factor 6 – Strategic planning process	F stat	p value
Articulation of strategic planning	2.203	0.077
Involvement in strategic planning	1.568	0.175
Formulation of strategic plan	4.32	0.001**
Implementation of strategic plan	5.607	0.000**
Level at which data are analysed and used to enhance customer relationships	4.438	0.001**

** - p value significant at 1% level

Source: Author's own work

Further analysis through post hoc procedures indicated that, in the formulation of the strategic plan, Company E's average current performance was significantly different from all the other companies (see Appendix L). For the implementation of the strategic plan, Company A had ratings significantly different from Company E and Company F (p values of 0.001 and 0.039, respectively). Company B also had a 5% significance level difference (p value = 0.013) with Company F and Company C and Company D's ratings were also significantly different at the 1% level (p value = 0.001).

For the level at which customer relationships are analysed, Company A had statistically significant differences in the current performance of this variable with Companies C and D (p values = 0.034 and 0.015, respectively) at the 5% level. Company C also had mean differences with Company B (p value = 0.005) and Company E (p value = 0.032). Company E's employees also rated these constructs statistically different at the 5% level with those of Company F (p value = 0.016).

For this factor, Company F had the highest ratings for each of these variables, whilst Company E ranked first in three of the five variables for the worst performance.

As stated previously, five variables made up the strategic planning process factor. ANOVA analysis revealed that employees in all companies did not have significantly different opinions in two of these variables (articulation of strategic planning and involvement in strategic planning). However, employees had significantly different opinions for the other three factors. Overall, the average ratings for companies were between 2 (good) and 3 (average) based on current performance.

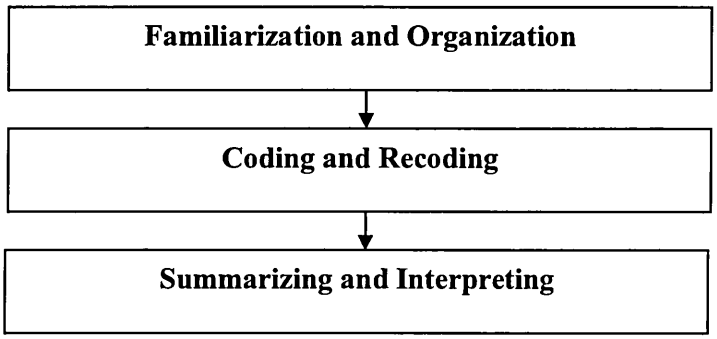
5.7 ANALYSIS OF QUALITATIVE DATA

The comprehensive analysis of the quantitative data as reported in the preceding sections has identified the important construct of "TQM Success Factors" which is part of the Six Senses Model. However, this result is only part of the findings from the data collection exercise and is by itself inadequate in the development of the proposed model identified in the research objectives. In developing the Six Senses Model, it was necessary to analyse and understand how the management and staff of the six organizations think and operate in a more detailed manner.

In order to gather further information on what the participants of the two groups: top management and internal stakeholders see as critical to their mode of operation, two qualitative studies were carried out: the open-ended questions as a part of the questionnaire and the semi-structured interviews. Accordingly, the main aim of this section is to present the analysis and interpretation of the qualitative data collected.

Ary et al. (2006) state that, "*the challenge facing the researcher at this stage is to make sense of copious amounts of data and to construct a framework for communicating the essence of what the data reveal*". Accordingly, the following diagram summarises the method followed in analysing the qualitative data.

Diagram 5.1 - Steps in Analysing the Qualitative Data



Source: Author's own work

5.7.1 Stages of Qualitative Data Analysis

In qualitative research, data analysis involves three main stages: familiarization and organization, coding and recoding and summarizing and interpreting (Ary et al, 2006). The following paragraphs discuss briefly how the three stages of qualitative data were achieved.

5.7.1.1 Stage One: Familiarization and Organization

Familiarization and organization is the first stage in qualitative data analysis. At this stage, the author read and reread his notes in an effort to become familiar with the data. The open-ended questions were then put into an organized form and then the author read and reread again taking notes whilst reading.

5.7.1.2 Stage Two: Coding and Recoding

At this stage, the author identified the main categories and general consensus, as applicable. As he became familiar with the data and the issues which arose from the open-ended questions and the interviews, he looked for general trends and consensus. Moreover, while reading and rereading, translating, coding and recoding, the author separated the responses of the two groups the top management and the internal

stakeholders. However, when it was discovered that there are no significant differences between the groups their responses, a decision was made to present them together as a whole.

5.7.1.3 Stage Three: Summarizing and Interpreting Data

The final but most important of all the stages was summarizing and interpreting data. At this stage, the author has to present the massive amount of data in a well-organized, easy to read and understandable way. Thus, a table to put the summary of the key issues according to the general consensus on a firm by firm basis was selected, as will be seen later in this chapter. The author then reflected on the data presented in the table trying to understand and interpret it with a view towards developing the Six Senses Model.

5.7.2 The Open-ended Questions

Excluding "Section 1: Employee/Department Profile", the questionnaire consisted of twenty seven questions, which can be classified as "open-ended". These include questions which are part of a two-part question, which has both a close and open ended question; for example:

2.6 Do you believe that the survival of your organization depends on the quality of the service you offer?

Yes ☐ No ☐

Please elaborate further:

_____

_____

_____

_____

_____

A summary of the data collected showed that nine of these questions were non responsive in that on 5% were answered. However, given that fact that 150 questionnaires were completed and 6 firms were studied, it is beyond this chapter to

report all of the findings for the remaining 18 open ended questions. In keeping with the research objectives and in an effort to provide a platform for the development of Six Senses Model, summary responses have been provided on a company by company basis for some of the questions. The answers to these questions were analysed, categorised and summarised in the following Tables 5.13 to 5.22. The responses will now be reviewed briefly.

As can be seen in Table 5.13 most of the participants agreed that the environment within which their respective organizations were operating was dynamic and the way they conducted business needed to be changed.

Table 5.13 –
2.1 What do you think is the greatest challenge facing your industry?

Company A:	Providing potable water and wastewater to all citizens 24/7; sustainability Lack of motivated staff (casual attitude to work); qualified staff with an attitude to service Inadequate investment to upgrade infrastructure
Company B:	Getting staff to become more customer focused, on mainly service. Changing technologies Open competition; regulation; survival of the organization
Company C:	Security – getting the guests to feel safe after 9/11 etc. Global decrease in travelling Customer service not on par with international standards
Company D:	Poor quality of workmanship by contractors The high level of demand within the industry for both contracting & consulting services The construction boom being faced by the industry. The strain being placed on the sector's resources resulting from the demands of the numerous number of projects.
Company E:	Quality delivery of healthcare which is timely, efficient and effective Retention of staff that is competent and qualified Since service is unaffordable to everyone, there are too few patients to be sustainable and profitable.
Company F:	Coping with demands of customers Provision of quality services since banks all sell the same products Globalisation – removal of barriers, customers maximise options in competitive and dynamic environments and competition from non-traditional sources: credit unions, insurance companies.

Source: Author's own work

Although there was some measure of variation with the responses obtained, there was a general consensus as to the challenges facing the relevant industries, whereby, participants agreed that quality was an issue that needed to be addressed, whether it was

in the level of service being provided, staff or the organizations' facilities/product. As one participant stated:

"The greatest challenge facing the industry is providing quality service to customers which could ensure customer loyalty, therefore increasing profits."

Given the diversity of the various sub-sectors studied, the challenges identified affected the organizations in differing ways as can be seen in Table 5.14 below. When participant responses were analysed though, there seemed to be a common theme of paying attention to customer care.

For example, in the case of Company B, the telecommunications provider, who was accustomed to operating as a monopoly and was now forced to deal with open competition, the Vice President of Human Resources and Administration stated that the company's greatest challenge was *"open competition"* and the organization was being affected by *"having to improve customer service delivery and cost efficiency"*.

In the case of Company F, the banking institution, a Senior Branch Manager with twenty eight years experience in the industry, identified *"the level of competitiveness, with the increasing number of players"* as their greatest challenge. Consequently, he identified the key to their success as *"quality service and products"*, since products and services were almost homogenous and easily and quickly copied. In the final analysis, he revealed that *the strategic management team had to devise strategies that took into consideration the needs of all stakeholders and were proactive as opposed to reactive.* Given that this was one of the earliest interviews conducted, the issue of paying attention to stakeholders was a factor that the author noted. As will be seen in Chapter 6, stakeholder involvement is an important construct in the Six Senses Model.

Table 5.14 –
2.2 How is it (greatest challenge) affecting your organisation?

Company A:	Inadequate service levels Consistent losses Supplier problems – payment issues
Company B:	People believe that competition will be better than TSTT. Cannot respond to changes quickly since org is state owned and there exists a lot of bureaucracy. Pressure on org to be more responsive to changes. Focus to become customer oriented
Company C:	Decrease in revenue (i.e. loss of business) – guests stay away Frequent staff turnover – greater training time leads to inconsistent service delivery Inconsistent service standard – negatively affects the brand associated with the hotel
Company D:	Staff currently managing a large volume of work, which affects overall performance Interestingly, our org is an exception since we are built around quality related practices. Thus challenges have encouraged us to be the best service providers we can be, from both a contracting & consulting point of view. Friction in the workplace, sometimes some members of staff must "pull the weight" of those who don't perform at their optimum level. As a project mgmt based company, we have to act in the client's best interest at all times. Shoddy work translates into higher costs. If the client feels that we cannot manage then we may not have a job. Thus, we must have the capability to manage contractors. This entails being qualified, experienced etc.
Company E:	Shortage of staff – ways to optimise staff which may adversely affect service Need to improve customer service delivery and cost efficiency Risk that customers may go to competition
Company F:	Emphasis placed on training and development of staff and customer care which is not profit centred Development of products not traditionally offered Loss of business due to low interest rates, less people investing in banks

Source: Author's own work

Given the fact members of the top management team and senior members of staff were the subject of these interviews; they were all able to speak knowledgably about the challenges facing their organizations and their methods for dealing with same. Table 5.15 shows some of the initiatives which had been taken.

Training and development was high on the list of measures taken to combat the challenges being faced. With all except Company E, training and development seemed to be an ongoing part of the organization's culture. Being state owned enterprises with considerable resources and operating within a highly unionized environment, Companies A and B arguably expended the greatest sums on Training and Development. However, the author was left with the impression that the part of these organization's challenge lay in the attitude of the workers coupled with the culture of being part of a state owned enterprise. This was somewhat verified by the Vice

President of the telecommunications provider who admitted that in an effort to deal with open competition the company was looking at implementing a TQM programme but the greatest challenges seemed to be culture and unionization.

Table 5.15 –
2.3 What has management done to combat this?

Company A:	Introduced measures to increase productivity, revenue; decrease cost, debt Implemented strategic plan Training and development – orientation of new staff; retraining of old staff; interdepartmental meetings
Company B:	New mgmt methods – strategic goals, consequence management ; customer care; risk taking Focus on being more customer oriented – Ritz Carlton Legendary Service; VSEPP – Malcolm Balbridge Index; TQM approach to business. Introduction of new technology; made necessary investments; started culture change.
Company C:	Action plan implemented Training at both the lower and supervisory level, even at the overseas branches Compensations in terms of benefits, training and development
Company D:	Proper strategic planning, more regular meetings with frontline stakeholders. Proper risk analyses and contingency planning Mgmt tries to instill a "do it right the first time" & "quality first" mindset in employees & to ignore the notion that we can get away with something, just because the rest of the industry is doing so Developed relationships with contractors so that we are both on the same page where quality is concerned. Developed teams at work where we have Engineers, managers & technicians working closely together, so that there is sharing of knowledge & experience
Company E:	Improved benefits to staff – in terms of medical, pension plans Greater focus on HR training and development Extension of facilities to add new services to offices
Company F:	Training and development in HR – worked on personality, inter-personal skills, coaching; empowering staff Development of Customer Care Centre Reviewed business model, branches and revised operational procedures/systems

Source: Author's own work

Most participants agreed that meeting customer's expectations was of paramount importance. They further believed that their organizations were not able thus far to meet the needs of customers and the general reasons for this were two-fold. Firstly, customers' expectations were high and diverse and the organization's resources were finite. Secondly, the internal infrastructure (staff, systems and procedures) did not seem to be wholly adequate to meet customer's needs. Maybe this could be explained by one participant's remark that *"customer's expect you to know immediately what they want and have it readily available as part of your offering"*. The Six Senses Model allows for

this in the sense that there is that interface between all stakeholders with that integration and feedback on a continuous basis.

Table 5.16 –

2.5 What are the expectations of customers with respect to the services being provided?

Company A:	Timely service with no conflict/disharmony (connections, payments etc.) Necessary infrastructure is in place for water supply High quality of water, efficient and effective service
Company B:	No errors or discrepancies on their bills and timely dispatch of bills Fast efficient, friendly service, greater quality Price comparable to competition
Company C:	Excellent service on par with the Hilton brand All facilities are equal to the Hilton Brand
Company D:	To deliver at the least possible cost and shortest possible time whilst maintaining / achieving highest possible quantity External – customers will get value for money. Internal – that we will provide the support systems etc. to enable staff to perform their jobs efficiently and effectively.
Company E:	Efficiency and timely service Customer care that is grounded in empathy Value for money
Company F:	Relationship banking - fast, efficient, quality, personalised and professional service Competitive rates Accurate and up to date/ timely information

Source: Author's own work

Apart from knowing what customer's needs were, there was also the need to track the extent to which these needs were being met. As mentioned previously, customer's needs were not wholly being met. The firms used a variety of measures to get feedback from both their internal and external customers, via the Voice of the Customer and Employee Surveys, independent surveys, telephone calls and feedback questionnaires.

In retrospect, the author believes that this was a key question, in that it provided answers as to how the organizations deal with "evaluation and feedback" from both internal and external stakeholders. This allows an organization to measure their performance in various ways and make requisite changes to their operations as may be necessary. "Evaluation and Feedback" are also integral parts of the Six Senses Model.

Table 5.17 –
2.5a To what extent are these expectations being met and how are they measured?

Company A:	77% of population has pipe borne water, measured by referral to customer base Old infrastructure, expectations are not met. No measurement for customer service Jobs are tracked using data base management system STORUS which records the no. of jobs done/ no. of jobs outstanding and how long they have been outstanding
Company B:	Use of the VOE – voice of employee survey and VOC – voice of customer survey 60% of customers satisfied with overall service Customer visits done by account representatives and management; customer expectations and feedback documented.
Company C:	Expectations are met to great extent but work still needs to be done Use of Guest Satisfaction Tracking Survey (GSTS) Expectations are impeded by the fact that the Hilton is an aged product; HR problems with inconsistent service – there is a gap between what customers expect and what they get.
Company D:	Majority of the projects executed have been successful. Success & customer satisfaction are measured by conducting regular reviews, comparing data developed at the planning stage and with actual data; conducting "lessons learnt" sessions To a great extent. However, given the amt of activity in the sector, there are many variables (raw materials, labour etc) beyond our control which have a negative impact on the above variables.
Company E:	Not always met – need to improve level of care Short staff negatively influences turnaround
Company F:	Expectations being met – MFO surveys by independent firm Customer Care Centre – monitors customer satisfaction "Listening Post" – customers are contacted to ascertain level of service

Source: Author's own work

Organization's are in existence as going concerns, i.e. for the long haul. Therefore measures needs to be in place to achieve this objective. This means that strategies need to centre on philosophies and practices that that are enduring and gives you a competitive edge. As one participant explained:

"Quality will be the differentiator that informs customer decision making with respect to service providers, those that don't have a quality offering will lose their customers and eventually their business."

An interesting explanation was offered by the Vice President of Company B, which was getting ready for the market to be opened up to competition as these questionnaires were administered:

"Without having real competition customers believe that we give them bad quality, they are convinced that they will get better quality and prices from the competition. Thus for us to have a chance of surviving, we must improve our quality, even though it is already at a high standard".

Table 5.18 –

2.6 Elaborate on your opinion on if the survival of your organisation depends on the quality of the service you offer

Company A:	The basic product i.e. water and wastewater quality have specific quality standards. Qualities of service standard that must be met to improve customer expectations Monopoly - so customers have no real choice, however if the company wants to be viable then quality service would be a step in the right direction If we do not improve our service, privatization may occur leading to job losses or poorer service. RIC can institute penalties against the authority for poor service
Company B:	Competition changes everything, as a monopoly it was not necessary to care much about our service, now that customers will have an option we need to be careful Service becoming homogenous among providers, the key differentiator becomes the customer experience- quality of service Quality service will keep the customer and ensure high market share
Company C:	Poor service will hand guests over to competitors Increased competition; international brands gave given guests the option standard there is a gap where the guest feels cheated, which is not good for the hotel Quality is the differentiator- people will not come back when service is bad. We want good referrals and happy returning customers.
Company D:	Not providing quality service could result in buildings collapsing/catching afire & ultimately death. No org's reputation could easily survive this especially a young org as ours Dissatisfied customer can always go to the competition Quality professional services would mean having to integrate with other construction professionals. In other words, partnerships between other professionals remain the key to improving quality. Survival means integration.
Company E:	Competition from public and private sectors. In healthcare you cannot make mistakes; it could cost someone their life. If you then have a reputation for "bad quality" people will go elsewhere
Company F:	Quality is the differentiator of the same products. Many customers, means you have to be innovative, creative, flexible, ethical and professional Quality attracts and maintains customers Customer service is the "engine" that propels us

Source: Author's own work

One of the key tenets of this thesis is that of strategy. Given the research topic it was necessary to ascertain if firm's had an existing strategy, hence the question "Does your firm have a strategy?" The answers to this question varied somewhat. However, generally participants revealed that there was a strategy in place. The general consensus on a firm by firm basis can be seen in Table 5.19.

Table 5.19 –
3.1 Does your organisation have a strategy? Describe

Company A:	No clear strategy, plans according to what Board of Directors wants to achieve.
Company B:	To become market driven and provide customer service, employee satisfaction and shareholder value. Has 20 strategic initiatives which focus on various issues. Superior Value proposition through customer service, range of services, competitive rates and service quality.
Company C:	As per strategic plan Revised strategy to make company more viable
Company D:	Our strategy is in line with our firm's objectives "Focus on the needs of our clients"
Company E:	Yes, set by Head Office
Company F:	To be the no. 1 bank of choice in the Caribbean. Driven by a model focusing on sales and service and having all branches become sales/service centres. "To satisfy customers, employees and stakeholders" as per the vision statement.

Source: Author's own work

Again, bearing in mind the research topic of "integrating TQM methods with corporate strategy" it was important to get the participants views on developing the organizational strategy around quality methods/practices, hence participants were asked to give their views on whether or not they thought that their organization's strategy should be built around quality practices. Most agreed that it should be and in their individual cases, they defined or spoke about quality related practices from the point of view of their industry. Table 5.25 provides a synopsis of this.

Given that these firms were providing a service, many believed that quality was something that was synonymous with service. In this regard, it was felt that quality related practices should be something that as factored into the organizational strategy.

Table 5.20 –

3.3 Elaborate on whether you think your organisation's strategy should be built around quality practices?

Company A:	High quality strategy ultimately translates into profitability. The strategy should be embracing to include all stakeholders. Quality practices improves quality of service
Company B:	Will lead to improved quality related service. In the end will lead to greater customer satisfaction. Yes because in the end it will differentiate us from the competition.
Company C:	Quality is what customers expect, so yes strategy should center on this Customers are knowledgeable on what the market holds and not afraid to shift Service demands quality, hence strategy should revolve around same.
Company D:	Once attention is paid to qlty, then everything falls into place. Costs are lowered, morale higher, customers happier. The org gets all the possible benefits Quality differentiates you from competitors, esp. in a competitive environment Quality is an important variable in the project mgmt realm "Time, cost, quality" Changing anyone of these variables affects the others.
Company E:	No room for error – always room for improvement To stay ahead of competition We have standards that we wish to conform to however with turnover etc. we are always retraining, always room for improvement, and customer expectations always changing Customer complaints are generally the same, this means that we are not seriously addressing them.
Company F:	To ultimately increase customer satisfaction and profits. Necessary to achieve goals and objectives set. Service revolves around quality and so should strategy

Source: Author's own work

Both in the public and private sector organizations studies, there was agreement that there needed to be an improvement in the level of customer satisfaction, especially given the challenges which the firms were facing in their industries. Training was thus highlighted as an important issue for all staff. Some related issues were also mentioned such as the fairness of supplying training, the quality and suitability of training. Many expressed the view that for quality to become a part of corporate, all employees needed some training in this area. One participant highlighted:

> *"Training must be continuous through seminars, lectures and workshops to all members of staff and not a select or elite few".*

Having identified that their organization's strategy should be built around quality related practices, participants were then asked to give an indication of the factors which were

critical to the quality aspect of their jobs. Table 5.21 gives a breakdown of the responses.

Most of the participants indicated that the three factors most critical to the quality aspect of their jobs were continuous training and development, required resources and management support. As one participant stated:

"It is nice to say and advertise that our number one goal is to be the no. 1 bank of choice in the region but if we don't have sufficient resources to support the quality of service that the customer requires then all our efforts will amount to zero".

Upon a closer examination of the answers to this question, the author was inclined to believe that there was a strong relationship amount the three most popular factors quoted; since management support is necessary to provide required resources which include continuous training and development. Managing these three factors are critical to the quality aspect of employee's jobs and by extension, ultimately customer satisfaction. This relationship is succinctly demonstrated in the Six Senses Model.

Table 5.21 –

5.14 What factors are critical to the quality aspect of your job?

Company A:	Continuous training and development Required resources Management support
Company B:	Continuous training and development Required resources Management support
Company C:	Continuous training and development Required resources Management support
Company D:	Having qualified and competent staff, with good work ethic Management support The ability to resist the temptation t compromise quality for profits.
Company E:	Keeping the needs of the customers in mind Continuous training and development Required resources
Company F:	Continuous training and development Required resources Management support

Source: Author's own work

The next section looks at the responses from the semi – structured interviews.

5.8 RESPONSES FROM THE SEMI – STRUCTURED INTERVIEWS

A total of ninety seven semi structured interviews were conducted with both members of top management and senior employees of the six participant organizations. A total of eleven questions were asked. A copy of the questionnaire for the semi – structured interview can be seen in Appendix D.

Of the eleven questions asked the answers only one of these will be reported in this section as it is considered most applicable to the development of the Six Senses Model. It must be noted however that given the abundance of information collected and the inherent nature and messiness and detail of qualitative data, it is really beyond the scope of this study to present all the findings. Additionally, as the research study unfolded the author believes that a great deal of the information collected can be used in post doctoral research.

Table 5.22
Is planning done formally or informally in your organization? Who are the people involved in the process and what are some of the issues discussed?

Company A:	Formally. Those involved includes the Board of Directors and the Executive Team
Company B:	Formally. Those involved includes the Board of Directors and the Executive Team
Company C:	Formally. Those involved includes the Board of Directors and the Executive Team. Planning is also largely influenced by directives from Head Office.
Company D:	Formally. Those involved includes the Board of Directors and the Executive Team. However, all members of staff are encouraged to provide their points of view to the Managing Director.
Company E:	Formally by the Board of Directors.
Company F:	Formally. Those involved includes the Board of Directors and the Executive Team. However all members of staff are encouraged to provide any suggestions to their respective branch managers for submission to the Executive Management team.

Source: Author's own work

From the interviews conducted it was seen that planning was done in a formal manner in all of the organizations. Furthermore, it was revealed that it was done via a team based approach. Those involved in the planning process included the Board of Directors, members of the top management team in some instances it was revealed that input was allowed from general members of staff.

Interestingly, the general consensus from the various organizations was that planning was closely aligned to the organization's strategy and more importantly, it was felt that the success of the organization was dependent upon the ability of the management team (inclusive of the Board of Directors) to carry out their core functions. Some of the interviewees were of the opinion that certain managers did not clearly understand their roles as managers and this was compounded by the fact that they were unclear as to what the concept and philosophy of management entailed. This feeling was especially prevalent in the two public sector organizations, Companies A and B, where it was felt that promotions to senior managerial positions were due to seniority, nepotism and even favoritism rather than qualifications and merit. At Company E (the private health care facility), there was also a strong indication that the Board of Directors which consisted only of medical practitioners were not the best "managers" and staff and the organization were disadvantaged because of this.

At Company C, employees felt constrained by their inability to make any great contribution towards the general management of the organization since their directives came from a parent company.

Interestingly, despite the differences in their respective sectors, resources and capabilities, both Company D and F shared a similar approach to planning, which entailed encouraging opinions from all members of staff. It was felt that this approach allowed the top management team to be mindful of the needs of all stakeholders in the planning process. It was also felt that by taking into consideration the needs of as much stakeholders as possible the organizations were better prepared to deal with market forces and competition.

5.9 SUMMARY

The data analysed in this chapter were gathered from two groups, top management and internal stakeholders by two means; the questionnaire, which entailed both close-ended and open-ended questions and semi-structured interviews.

The analysis of the quantitative data indicates that the majority of participants appeared to have a positive attitude towards the implementation of quality-related practices in their respective organisations. However, the results produced gave only a general feeling for the acceptability and implementation of quality-related practices. Semi-structured interviews were also conducted with the participants in order to gather further information on what they defined as quality from their industry's perspective, as well as the benefits they envisaged from integrating TQM methods into their corporate strategy.

From the results of the ANOVA analysis for each factor, the null hypothesis was rejected. Significant differences were observed between employee ratings from each firm.

ANOVA testing on the first factor – employee knowledge of the benefits of quality – revealed significant differences amongst firms because each construct in the factor had a p value of less than 0.05. Post hoc analysis revealed the differences between firms. In the area of greater efficiency, the highest mean rating (2.00) was given by Company F's (financial institution) employees, whereas the lowest mean rating (2.71) was given to both Company A and Company E. All companies for this construct were rated better than average in their current performance.

For the second factor – organisational culture – ANOVA analysis rejected the null hypothesis; there were significant differences in the current performance in the organisational culture of the firms under study. For the variables comprising this factor, in nine of the ten variables Company D had the best ratings. Moreover, the worse ratings were shared between Company A and Company B.

For this factor, significant differences occurred between firms in the ten constructs comprising this factor. Employees of the construction consultancy firm gave its company top ratings for the professional recognition of the organisation (1.44), whilst the telecommunications company had the lowest ratings in their opinion on the resistance to change within the company (3.54).

Most of the ratings for this factor were between good and average.

Factor 3 dealt with the ratings of the human resource support system of firms by their employees. All constructs were significantly different at the 5% significance level. Employees in all firms had different perceptions of their respective HR support systems, but the highest rating was given to the construction consultancy firm in the ability of its staff to deal with professional and technical issues (mean = 1.74). The lowest rating was given to the telecommunications provider on the level of feelings such as "my company" (mean = 3.29).

For Factor 4 – organisational structure – the highest ratings for current performance were given by the employees of Company D, which had the highest ratings in each variable. Once again, the worst ratings were split between Company A and Company B, with Company A having the lowest ratings in five of the seven variables. Analysis of this factor revealed six variables, all for which employee perceptions on the performance of their firms were significantly different. The highest rating was garnered by the bank (1.51) in the visibility of their mission statement, whereas the lowest rating for the level of strategic planning (3.41) was awarded to the private hospital. Overall, results for each firm in this factor ranged between a good and average performance

Factor 5 – the customer satisfaction services factor – was made up of seven variables, all of which employees rated significantly differently. The highest rating was given to the construction company (1.44) for management's involvement in dealing with customer complaints. The lowest rating was given to the water utility (2.59). Overall, all firms got higher than average ratings for their performance in this factor, suggesting that companies have made significant improvements in their customer services.

Factor 6 comprised five variables measuring the strategic planning process. ANOVA analysis revealed that employees in all companies did not have significantly different opinions in two of these variables (articulation of strategic planning and involvement in strategic planning). However, employees had significantly different opinions for the

other three factors. Overall, the average ratings for companies were between 2 (good) and 3 (average) based on current performance.

The highest rating in this factor was given to the level at which data are analysed and used to enhance customer relationships by Company F (the financial institution – mean 2.17), whereas the worst rating was given to the formulation of a strategic plan by the private hospital (Company E – mean 3.71).

For this factor, Company F had the highest ratings for each of these variables, whilst Company E ranked first in three of the five variables for the worst performance.

For all six factors, the highest ratings overall were shared between Company F and Company D (the financial institution and construction consultancy firm), whereas Company A (the water utility) and Company B (the telecommunications services provider) garnered the lowest overall ratings.

Equally important to this study, was the qualitative data gathered from the open –ended questions in the questionnaire and the semi-structured interviews. Given the nature of qualitative data and bearing in mind that in qualitative research, data analysis involves three main stages: familiarization and organization, coding and recoding and summarizing and interpreting (Ary et al, 2006), the author followed this three step approach to analyzing this data. This was followed by a discussion of the analysis supported by some quotations from the open-ended questions and semi –structured interviews to illustrate key findings. Additionally, where applicable, the summary of the responses from key questions was displayed in tables. This was again followed by discussion supported by some quotations from the respondents. Generally, the qualitative data results appeared to support the idea of the proposed Six Senses Model. Accordingly, the next chapter, chapter 6, will discuss the TQM Six Senses Model.

CHAPTER 6 – THE TQM SIX SENSES MODEL

6.1 INTRODUCTION

In Chapter 4, a comprehensive literature review was conducted on the concept of TQM, in an effort to gain a thorough understanding of its philosophies, principles and practices. The review included a brief study of corporate strategy, strategic management, competitive advantage and sustainability. As indicated in the title, this thesis proposes that by integrating TQM success factors with key organisational stakeholders through top management's core strategic functions, firms within the service industry in T&T can achieve sustainable competitive advantage. Chapter 3 detailed the process whereby data was collected to support this hypothesis, and research was carried out within six major service-based firms throughout Trinidad and Tobago. Chapter 5 provided a detailed report and interpretation of the data collected. The aim of this chapter is to develop a model that relates to the successful integration of TQM success factors with top management's core strategic functions, along with the various stakeholders within the service sector (and more specifically the construction sector) in Trinidad and Tobago, based on the findings and interpretation of the data as outlined in Chapters 3 and 5 respectively. To achieve this, a framework must first be developed to show the relationship involving interaction, integration and the successful achievement of TQM strategic outcomes. This chapter begins by considering the importance of a framework for TQM, with a view to establishing the benefits attached to said frameworks once successfully implemented.

6.2 THE IMPORTANCE OF A FRAMEWORK FOR TQM

Within the last four decades many academics and practitioners have seen TQM as a source of competitive advantage. During the 1980s, managers rushed to implement TQM programmes as evidence of their firms' quality problems increased (Cole, 1989). While some of these TQM programmes were successful (e.g. Byrne, 1992; Pascoe, 1992; Plumb, 1992; Ramberg, 1994; Numerof & Abrams, 1994), a large number of failures were reported (Eskildson, 1994). Tolovi (1994) also alluded to the four major categories as the main causes for the failure of TQM programmes: psychosocial,

educational, psychological and technical. Other researchers have also identified causes for the failure of TQM programmes, which are identified in Table 6.1 below.

Table 6.1: Main causes of TQM programme failures

Author(s)	Main causes of TQM programme failures
Early & Godfrey (1995)	Mission statement not focused Lack of definition and attention to critical points (vital few) Deficient implementation plans Lack of performance measurement
Resnick-West (1994)	Improper leadership TQM is not seen as new work system Lack of reference model of quality Lack of strategic focus
Wood and Urdan (1994)	Focus on company's image, not on facts and results Focus on known internal processes, not on critical ones Focus on minimum standards, already established Difficulty in maintaining the momentum of change caused by TQM
Valle (1995)	Search for and identification of existing problems Non-existence of quality information system Lack of continuity of programme Preventative activity not well developed Obstructed communication channels and weak coordination between departments

Source: Various authors

In an effort to avoid costly and de-motivating failures, it is useful to have a framework which guides the implementation of TQM within an organisation. It is in this context, and based on the findings of the data collection exercise, that a theoretical model will be developed for review. Notwithstanding the nature and complexity of TQM and its "newness" to Trinidad and Tobago, this research proposes that any model which is developed must be comprehensive, flexible and easy to adopt. Like many other

countries, Trinidad and Tobago is facing testing economic conditions that require innovative solutions based on thorough research. This lies at the heart of much of the work carried out via this research involving TQM methods, stakeholders, corporate strategy, competitive advantage, sustainability and integration. Additionally, bearing in mind that the proposed model will be theoretical in nature, it is important to review existing TQM frameworks and models and at the same time note that many authors and practitioners use both terms interchangeably.

According to the literature, many authors use the expression "framework" with the assumption that its meaning is understood; thus, forgoing the task of defining the term. Yusof & Aspinwall (2000) explain: "Frameworks are a structure for supporting, defining, or enclosing something; especially, skeletal erections and supports as a basis for something to be constructed" and also "a basic arrangement, form or system". They further posit that "a framework is also a set of assumptions or fundamental principles of intellectual origin according to which discussions and actions can proceed". Yusof & Aspinwall (2000) also believe that one can assume that a model provides an answer to the question "what is TQM?", with the overall concept or elements put together, whereas the framework answers "how to" questions and provides an overall way forward.

As stated previously, this research study entails the development of a theoretical model to depict how critical TQM success factors can be successfully integrated with the vision, objectives and strategies that have been translated to the stakeholders in an effort to achieve sustainable competitive advantage. However, this cannot be done in a vacuum. If TQM is to be theoretically "designed and constructed", the overall picture and structure for implementation, referred to as the "framework", is necessary for carrying out pertinent and important activities as a means of improving and enhancing performance. Accordingly, the author was motivated to make further propositions to derive a new model for TQM deployment within the service industry in Trinidad and Tobago. More importantly this model has been developed based on the empirical studies used to validate the hypothesis. This new model has been named the "TQM Six Senses Model" (Six Senses Model).

According to Aalbregtse, Heka & McNeley (1999), a framework is a clear picture of the leadership goal for the institution and should present key characteristics of the to-be style of business operations. From a TQM perspective, this means that a framework should be designed to represent the modus operandi, the systems to be developed, the activities to be carried out, and the ultimate vision of the new style of managing quality in an institution. Furthermore, a sound implementation plan should define what the institution does, what it is trying to do and how it is going to do it. Each of these steps must build on the previous one. In other words, Aalbregtse, Heka & McNeley (1999) agree that a sound framework secures the link between theory and practical application. Aalbregtse, Heka & McNeley (1991) further identify the following reasons why a framework is needed for TQM implementation:

1. To illustrate an overview of TQM in order to communicate a new vision for the organisation
2. To force management to address a substantial list of key issues which otherwise might not be addressed
3. To provide insight into the organisation's strengths and weaknesses
4. To support implementation and improve the chances that the adoption of TQM will be successful

Aalbregtse et al. (1991) and Yusof & Aspinwall (2000) are of the same opinion that the development of a sound implementation framework is critical and should thus be one of the first things undertaken when embarking on the TQM journey, since it will make the organisation more conscious of TQM and lend to a more controlled and comprehensive introduction to the subject, which the author proposes to address in future research.

However, for the purposes of this research study, a comprehensive literature survey was carried out to select TQM frameworks and models for review. Extant literature revealed that many countries have adopted TQM frameworks in the form of quality awards, albeit with different titles. Interestingly, today, hundreds of quality awards exist in different countries. By and large, all of these quality awards are derived from three basic and prestigious awards, namely the Malcolm Baldrige National Quality Award

(MBNQA), the European Quality Award (EQA) and the Deming Prize. Since a review of all TQM frameworks developed over the years is beyond the scope of this research study, this research will examine only the three aforementioned TQM frameworks (the reference frameworks) in some detail as a means of setting the scene for the introduction of the Six Senses Model. The next section will examine the details of the reference frameworks.

6.3 AN OVERVIEW OF MAJOR TQM FRAMEWORKS

In the 1980s, quality created quite a stir in the corporate world. As a result there were several attempts to develop frameworks and models to help the process. In the US, Deming, Juran and Crosby articulated management's fourteen points, four steps and four absolutes (in addition to fourteen steps), respectively. In the late 1980s and early 1990s came global realisation of the strategic importance of quality, which resulted in many countries establishing programmes to recognise quality and excellence. However, up to the present time, the people of T&T still view TQM as operational as opposed to strategic, as is the case in many other developed countries around the world.

With the objective of helping industries to enhance competitiveness in their respective countries, several national governments and industry associations came forward and established national and regional quality awards to serve as business excellence models (Talwar, 2008). The structure and criteria for these award programmes elevated quality programmes to a strategic level and was the genesis for many of the now familiar concepts of business excellence. Since then, many of these programmes have undergone continuous improvement in the design of their framework and the administration of their award. It was then discovered by these organisations that these frameworks offered more than just a vehicle for recognition, and they were seen as best practice models for implementing excellence strategies, performing self-assessments, benchmarking and ultimately delivering improved performance. Details of these frameworks are discussed in the following sections.

6.3.1 The Deming Prize

The Deming Prize in Japan was the first formal quality award framework. It is a prestigious annual award given to individuals or groups who have contributed to the development and improvement of total quality control. This award is given to commemorate Dr. W Edwards Deming's advances in the field of quality control, and the examination viewpoints include: top management leadership and strategies, TQM frameworks, concepts and values, human resources, utilisation of information, scientific methods, organisational powers and realisation of corporate objectives.

The Deming Prize was established by the Board of Directors of the Japanese Union of Scientists and Engineers (JUSE) in 1951. JUSE was formed in 1946 as part of a US-sponsored attempt to develop Japanese industry. The primary purpose was to spread the quality philosophy by recognising performance improvement issued from the successful implementation of company-wide or total quality control based on statistical quality control techniques (Ghobadian & Woo, 1996). As quality awareness and thinking developed, so did the Deming Prize, as it later proved to be an effective instrument for spreading quality management practices throughout Japan. Today, the award is also available to non-Japanese companies, albeit usually operating in Japan, and to individuals recognised as having contributed to the advancement of quality.

Three categories of this prize are made annually: the Deming Prize for Individuals, the Deming Application Prize and the Quality Control Award for Operations Business Units. The Deming Application Prize takes into account four primary elements, each with a number of subcategories or checklist, which is also used to evaluate the performance of senior executives (Ghobadian & Woo, 1996).

The checklist stresses the importance of group management's involvement in quality management practices and their understanding of the main requirements of quality improvement programmes. The Deming Application Prize is an annual award presented to a company, or division within a company, that has achieved distinctive performance improvements through the application of company-wide quality control. The detailed

criteria are listed in Table 6.2. Past winners of Deming's Application Prize include Fuji Iron and Steel, Toyota Motor Company, Bridgestone Tire Company, Nippon Carbon Company, AT&T Power Systems and Krishna Maruti Limited, to mention just a few.

Table 6.2

The Deming Application Prize Categories

No.	CATEGORIES
1	Policies
2	The organisation and its operations
3	Evaluation and dissemination
4	Information gathering, communication and its utilisation
5	Analysis
6	Standardisation
7	Control / management
8	Quality assurance
9	Efforts
10	Future plans

Source: (Costin, 1999)

6.3.2 The Malcolm Baldrige National Quality Award

The Malcolm Baldrige National Quality Award (MBNQA) is an annual formal quality award which recognises U.S. businesses. It was the first major formal quality award framework in the West. According to Talwar (2010), the MBNQA helped US industry in revitalising its competitiveness and slowly gained recognition as a de facto global standard on customer oriented management systems and practices.

The MBNQA framework seeks to promote performance excellence and improvement in competitiveness through a framework of seven categories used to assess organisations. The model defines "excellence" in terms of the overall quality of an organisation. The MBNQA defines core values and concepts – a "framework" or model establishing the relationships between the "driver, system, goal and measures of progress" – and an

implicit hierarchy of priorities and values (points assigned to each category of the award, which totals 1000). More importantly, unlike other similar models, the seven guidelines are used extensively by organisations trying to understand and implement "quality" as a key internal driving force, in an attempt to achieve sustainable competitive advantage (Costin, 1999). The MBNQA scoring criteria, along with maximum scores, are depicted in Table 6.3.

It is also administered by the Baldrige National Quality Programme, which is based at and managed by the National Institute of Standards and Technology, an agency of the U.S. Department of Commerce.

Table 6.3

The Baldrige Scoring Criteria

Criterion	Score	Sub-criteria	Score
Leadership	125	Organisational leadership	85
		Public responsibility and citizenship	40
Strategic Planning	85	Strategy development	40
		Strategy deployment	45
Customer and Market Focus	85	Customer and market knowledge	40
		Customer satisfaction and relationships	45
Information and Analysis	85	Measurement of organisational performance	40
		Analysis of organisational performance	45
Human Resource Focus	85	Work systems	35
		Employee education, training and development	25
		Employee well-being and satisfaction	25
Process Management	85	Product and service processes	55
		Support processes	15
		Supplier and partnering processes	15
Business Results	450	Customer satisfaction results	115
		Financial and market results	115
		Human resource results	80
		Supplier and partner results	25
		Organisational effectiveness results	115

Source: CPE (1997)

Since its establishment in 1987, this award has been presented to companies such as 3M, The Ritz Carlton, Motorola, Cadillac, AT&T, Caterpillar, MidwayUSA and Honeywell Federal Manufacturing & Technologies, to mention a few. It is believed that successful recipients of this award tend to show a relationship between successful business practices and quality. Theoretical studies in the U.S. have shown that stock investment in companies that apply for assessment under the Baldrige criteria, usually outperform U.S. stock market indices.

A particular feature of the MBNQA which must be mentioned rests with its overall hierarchy. The relative number of points assigned to each category establishes a hierarchy of importance of quality principles and values. It is important to note, therefore, that one of the categories with the strongest weight is "customer satisfaction" - a key principle to be found throughout the current literature. By and large, it can be argued that this award has made one of the greatest contributions to TQM and the practice of self-assessment in organisations within recent times through the development of a holistic performance excellence framework and a well-defined assessment process.

6.3.3 The EFQM Excellence Model

Based on both the Deming and Balridge awards, the European Community, under the auspices of the Commission and the European Foundation for Quality Management, instituted the European Quality Award. This award was given for the first time in 1992 to companies demonstrating excellence in the implementation of TQM.

According to Eskildsen & Dahlgaard (2000) it is the most widely used organisational framework in Europe and thus the basis for the majority of national and regional quality awards. It is considered Europe's most prestigious award for organisational excellence. It is closely related to the political status, the law, the interaction and dependence between the state on one hand and the private and public sectors on the other, and finally the business and administrative philosophy (Mavroidis et al., 2007).

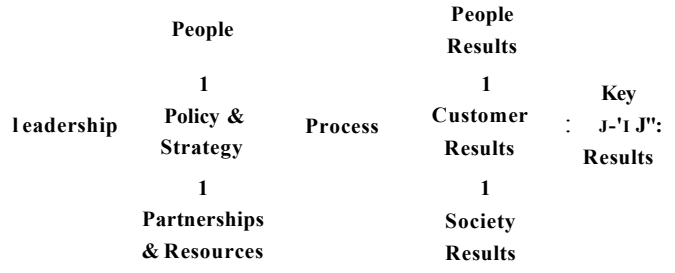
In part, the final outcome, The European Foundation for Quality Management (EFQM Excellence Model), is an update of the Business Excellence Model, which was launched

in April 1999 by the European Foundation for Quality Management. The EFQM Excellence Model was developed out of the concept of TQM and provides the focus and internationally agreed framework for assessing an organisation's progress towards excellence within their respective undertaking. It has the advantage that the firm can actually benchmark itself against other similar organisations.

The EFQM Excellence Model is a non-prescriptive framework based on nine criteria, as shown in Diagram 6.1. Five of these are enablers (leadership, people, policy and strategy, partnership and resources and processes) and four results (people results, customer results, impact on society results and business results). The enablers criteria cover what an organisation does, while the results criteria cover what an organisation achieves. Results are brought about by enablers, which are improved using feedback from results. The model, which acknowledges that there are many approaches to achieving sustainable excellence in all aspects of performance, is based on the premise that:

Excellent results with respect to Performance, Customers, People and Society are achieved through Leadership driving Policy and Strategy that is delivered through People, Partnerships and Resources, and Processes (EFQM, 2002)

Fig. 6.1 The EFQM Excellence Model



Source: www.bqf.org.uk/ex_framework.htm

Within the context of this research the author is led to believe that the EFQM Excellence Model is perhaps the best model (thus far) for aligning all contributors with an organisation's performance and the achievement of TQM practices. Additionally, although the EFQM Excellence Model appears to be flexible and easily adaptable, the author is of the view that it practically addresses all aspects of the organisation. Similar to the EFQM Excellence Model, there are several categories in the MBNQA that are critical and appear closely related to the aforementioned research and resulting model.

The nine elements/criteria identified in the EFQM Excellence Model can be used to assess an organisation's progress towards excellence. Each of the nine elements as outlined in Table 6.4 is a criterion that can be used to appraise an organisation's progress towards the successful implementation of TQM through the results obtained from data collection.

Table 6.4:

Criteria of the Excellence Model

(based on British Quality Foundation, 1999)

Leadership How leaders develop and facilitate the achievement of the mission and vision, develop values required for long-term success and implement these via appropriate actions and behaviour, and are personally involved in ensuring that the organisation's management system is developed and implemented.
Policy and Strategy How the organisation implements its mission and vision via a clear stakeholder-focused strategy, supported by relevant policies, plans, objectives, targets and processes.
People How the organisation manages, develops and releases the knowledge and full potential of its people at an individual, team-based and organisation-wide level, and plans these activities in order to support its policy and strategy and the effective operation of its processes.
Partnership and Resources How the organisation plans and manages its external partnership and internal resources in order to support its policy and strategy and the effective operation of its processes.

Processes

How the organisation designs, manages and improves its processes in order to support its policy and strategy and fully satisfy and generate increasing value for its customers and other stakeholders.

People Results

What the organisation is achieving in relation to its people.

Customer Results

What the organisation is achieving in relation to its external customers.

Society Results

What the organisation is achieving in satisfying the needs and expectations of the community at large.

Key Performance Results

What the organisation is achieving in relation to its planned performance.

The first five enablers are concerned with the results being achieved, while the four results are concerned with what the organisation has achieved and is achieving. The basis of the model is that leadership drives people, policy and strategy and partnership and resources. Through processes it then achieves people (employees) results, customer results and society results, which ultimately lead to excellence in key performance results (Moullin, 1999). Bear in mind that the objective of a comprehensive quality management, self-appraisal and self-improvement programme, is to regularly review each of these nine criteria and, thereafter, to adopt relevant quality improvement strategies (Costin, 1999).

Table 6.5

Award Descriptions

	Malcolm Baldridge Award (U.S.A.)	EFQM Award (Europe)	Deming Prize (Japan)
Objectives	• To help improve performance practices & capabilities. • To facilitate communication& sharing of best practices among U.S. organizations. • To serve as a working tool for understanding & managing performance, planning, training & assessment.	• To stimulate & assist European organizations in improving customer & employee satisfaction, impact on society & business results. • To support European managers' efforts to initiate total quality management & achieve global competitive advantage.	• To evaluate & recognize methods of companywide quality control for Japanese businesses.
Quality Principles	• Companies must have direction & customer focus. • Quality & performance are judged by customers. • Organizational & personal learning are required. • Employees & partners are vital to company success. • Success requires capacity for change & flexibility. • Market leadership requires a future orientation. • Making meaningful change requires innovation. • Management requires factual analysis. • Public responsibility is important. • Performance measurement should focus on results. • A systems perspective is required.	• Customer focus. • Supplier partnerships. • People development & involvement. • Processes & facts. • Continuous improvement & innovation. • Leadership & consistency of purpose. • Public responsibility. • Results orientation.	• Create a vision, and demonstrate commitment. • Learn the new philosophy. • Understand inspection. • Stop making decisions purely on the basis of cost. • Improve constantly & forever. • Institute training. • Institute leadership. • Drive out fear. • Optimize the efforts of teams. • Eliminate exhortations. • Eliminate numerical quotas & management by objective. • Remove barriers to pride in workmanship. • Encourage education & self-improvement. • Take action.
Criteria	1. Leadership. 2. Strategic planning. 3. Customer & market focus. 4. Information & analysis. 5. Human resource focus. 6. Process management. 7. Business results.	1. Leadership. 2. Policy and strategy. 3. People management. 4. Resources. 5. Processes. 6. Customer satisfaction. 7. People satisfaction. 8. Impact on society. 9. Business results.	1. Policies (hoshin). 2. Organization. 3. Information. 4. Standardization. 5. Human resources. 6. Quality assurance. 7. Maintenance. 8. Improvement. 9. Effects. 10. Future plans.

Source: Costin (1999).

Table 6.6

Common Award Criteria

	Malcolm Baldridge Award (U.S.A.)	EFQM Award (Europe)	Deming Prize (Japan)
Leadership	Executive, company and community leadership.	Inspiration, support and promotion of TQM	Policy, organisation and helpful supervision.
Planning	Strategic direction, plan development, plan deployment and performance tracking.	Product of policy and strategy.	Future plans, quality control initiatives and policy focus.
Customers	Market requirements, customer Relationships and satisfaction.	Measurement of customer satisfaction.	Service activities & customer relationships.
Employees	Human resource development and participatory environment.	Release of full potential through people management.	Training and motivation of skilled labour personnel.
Processes	Process design, implementation, management and improvement.	Identification, management, review and improvement.	Standardisation, quality assurance, maintenance and improvement.
Suppliers	Improvement of partnering process and evaluation of supplier performance.	Leadership involvement with and management of supplier resource.	Vendor training and associations of related companies.
Results	Customer, financial, human resource, supplier, operational and competitive.	Objective achievement, stakeholder satisfaction, financial success and impact on society.	Quality, delivery, cost, profit, safety and environmental effects of quality control.

Source: Author's own work

6.3.4 Summary

With over 30,000 businesses using the EFQM Excellence Model to improve their performance, it is the most widely used business excellence framework in Europe (www.qualityscotland.co.uk). Given that the reference frameworks are most popularly

used as a benchmark for implementation, Tables 6.5 and 6.6 provide descriptions and comparisons of the frameworks and list their commonalities. In the case of the Malcolm Baldrige National Quality Award (MBNQA), up to 18 awards are given annually across six eligibility categories – manufacturing, service, small business, education, healthcare and non-profit. As of 2009, 84 organisations had received the award. On the other hand, the Deming Prize is the world's oldest and most prestigious quality-based award. At the end of 2009, 143 companies had won the prize. Among them, only once has the Deming Prize been awarded to a non-Japanese company, Florida Light and Power in 1989.

6.4 THE TQM SIX SENSES MODEL

6.4.1 An Introduction

There is a lot of documentation on the reference frameworks. Many find them similar, while others see them as being different, mainly because of the period in which each was developed. In general, past research has relied on the works of Japanese and U.S. models of quality management which are based on the framework of business/excellence awards namely award criteria developed for the U.S. Malcolm Baldrige Award, the Japanese Deming Prize and the European EFQM Model. However, the literature reveals that many authors have indicated that the TQM gurus have provided only guidelines for TQM implementation and not a specific framework. Moreover, the literature reviewed on TQM in the construction industry showed that there is no specific model or framework for implementing TQM in this industry. The Six Senses Model which has been deduced from empirical findings, case analysis and theoretical review and is being presented in this chapter, aims to be applicable and easy to implement within the context of the service industry and specifically the construction sector. More importantly, unlike other research work, the model emanates from the author's past and present experiences within the service sector. Additionally, it can also be used as a self-assessment tool. The model focuses on the principles of corporate relationships and sustainable competitive advantage, emphasising the significance of integration between corporate strategy involving top management's core functions,

organisational stakeholders and TQM success factors, as opposed to focusing exclusively on strategy formulation, articulation and implementation.

It is believed that the single most important determinant of the success of the Six Senses Model is its ability to integrate top management's vision, mission, objectives and strategies (which have been translated to the stakeholders) with TQM success factors, ultimately allowing the firm to achieve a sustainable competitive advantage. This can only be achieved through successful integration. In this case, management's vision, mission and objectives are enshrined in the firm's corporate strategy, which has evolved from the principles and functions of management and is concerned with the operations of the entire organisation. However, the key challenge lies in how to integrate these constructs effectively to achieve a sustainable competitive advantage.

As mentioned in Chapter 1, the focus of this research study is to prove that by integrating TQM success factors with various stakeholders, firms within the service industry in Trinidad and Tobago have a greater chance of achieving the desired outcome. An examination of the existing literature showed limited information available on said subject matter. Furthermore, research findings on the development of a general model of TQM are by no means in agreement. However, various studies have shed light on the building blocks or constructs underlying TQM. The findings of these studies have been diverse, and consequently there is a lack of consensus among researchers and practitioners in some important areas.

Firstly, there is limited agreement and a range of ideas as to which constructs should be included in TQM models. Second, there is a lack of empirical research findings to support a theoretical model capable of explaining the pattern of relationships among the TQM constructs, i.e. the manner in which practices interact to finally effect enhancement in organisational performance measures such as employee and customer satisfaction, enhanced productivity and financial results. Thirdly, whilst many studies have undeniably made a contribution to the body of TQM knowledge, they have generally fallen short of offering a comprehensive explanation of how it can be included in an organisation's strategy and lead ultimately to sustainable competitive advantage.

Still, most researchers agree that TQM is a useful philosophy for management, if properly formulated, articulated and implemented (Black & Porter, 1996; Flynn & Saladin, 2006). However, it can sometimes be felt that TQM has limited strategic involvement. While we may agree that implementing TQM requires a transformation in the culture, processes, strategic priorities, beliefs, etc. of an organisation (Motwani, 2001), at the same time it must be viewed as being strategic and can assist firms in improving their competitiveness within the marketplace.

To date, researchers have proposed several models and implementation frameworks. Some are complicated, while others are not. Some have worked, others have failed. Notwithstanding the abundance of literature on TQM implementation, if one is to develop a model that is to be successful, it must be easy to implement in that it is effortlessly understood by relevant stakeholders and the top management team. At the same time, it must also be something in which all stakeholders can participate or "buy into". In this regard, after reviewing existing models, coupled with approximately twenty years of experience at a senior management level, the author has developed the Six Senses Model, which will be tested with a view towards validating the research objectives.

This Six Senses Model is based largely on the author's previous work, as well as the philosophy of the EFQM Model, and is shown in Diagram 6.2. The pillars of this proposed framework model are: top management's core functions, stakeholders, TQM success factors, the process (of integration), implementation and TQM strategic outcomes. Accordingly, the following section discusses the Six Senses Model in detail and subsequently addresses the core elements of successful implementation that will be achieved.

6.4.2 The TQM Six Senses Model

The TQM Six Senses Model (Six Senses Model) is a practical self-assessment tool which proposes to offer several advantages upon implementation. Through the process of integration, it provides a framework for the relationships between the top management team, stakeholders, TQM success factors (the drivers), integration,

implementation and TQM strategic outcomes. The model's criteria are arranged in a logical sequence for ease of understanding and successful implementation.

The TQM Six Senses Model succinctly explains the process which organizations ought to consider when engaging in a TQM/performance related programme, from conception (involving top management) to implementation. The steps discussed below are in logical order. However, while some of the top management functions and stakeholders may vary among organizations, it is advisable to move the process from left to right as this would allow for the successful achievement of the TQM outcomes. Depending on the level of involvement in previous TQM programmes, some organizations would have covered issues previously in similar programmes and some issues may not be applicable for certain organizations. Additionally, time and money restraints will also cause some organizations to slightly deviate from (or exclude certain aspects of) the model. For example, in the case of stakeholders, a bank may exclude other stakeholders, contractors, sub-contractors and perhaps the entire project team and replace with directors and shareholders etc.

The Six Senses Model is developed simply to present the current scenario of TQM implementation within Trinidad and Tobago. In the case of the first construct "top management's core functions", this was added as the findings from the research suggest that emphasis ought to be placed on the recognition and adoption of the basic principles and functions of management when engaging in a process such as this. The Six Senses Model is divided into four stages:

1. Strategy Generation
2. Integration
3. Implementation and
4. Achieving Sustainable Competitive Advantage

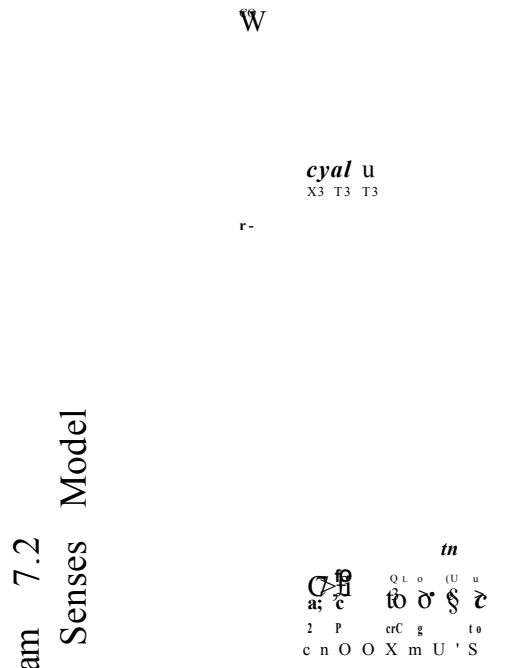
In developing the Six Senses Model, a systems approach has been adopted to demonstrate that through effective interaction and integration involving stakeholders, top management and TQM success factors, as shown in Diagram 6.2, an organisation

can realise the benefits to be derived through the linkages among the six TQM strategic outcomes (improved quality, enhanced productivity, increased customer satisfaction and retention, reduced time, reduced costs and sustainable competitive advantage). The effect of the linkages among the TQM strategic outcomes would impact significantly on the overall performance of the organisation, resulting in the enhancement of a sustainable advantage specific to top management's corporate strategy, which is centred on the philosophy, principles and practices of TQM.

The Six Senses Model therefore addresses common practices through integration, leading further to successful TQM implementation, namely top management team, stakeholders and the TQM critical success factors. This practical approach is also characteristic of the researcher's previous experience gained over the past two decades, during which working relationships were established between clients and stakeholders.

Fig. 6.2

The TQM Six Senses Model



1.0 Corporate Strategy: this represents the basis of traditional thinking which is embodied in the principles of management and forms part of the top managements' core functions. It is at this stage that TQM is introduced and subsequently incorporated into the core strategy of the firm. No longer are the firm's corporate strategies a means of fulfilling or achieving the series or objectives of the top management team, they need to be integrated with the new philosophy and practices of TQM for the incorporation between TQM and strategy allows for a new paradigm shift.

2.0 Integration: Stakeholders at the second stage are introduced to the TQM Success Factors as identified in the research and are subsequently integrated as a result of management's involvement in the overall process. Management is fully aware that if TQM methods (success factors) are used properly and fully integrated with both the stakeholders and the firm's corporate strategy, this will certainly assist in the implementation process.

3.0 Implementation: top management commitment influences and facilitates integration and implementation. Thus the process of integration between the stakeholders and the TQM success factors contribute towards the TQM strategic outcomes. These outcomes are achieved through the following:

1. Improved Quality
2. Enhanced Productivity
3. Increased Employee Satisfaction & Retention
4. Reduced Time
5. Lower Cost

} = 6. Sustainable Competitive Advantage

4.0 The direction in the "TQM Strategic Outcomes" box shows actual direction of the performance indicators. For example, the downward direction suggests that cost is being reduced of lowered. Through the implementation of the TQM Success Factors, an organization can realize the benefits of the linkages among the six TQM strategic outcomes. The effect of the impact positively on the overall performance of the organization, resulting in sustainable competitive advantage being achieved in the long term.

Source: Author's own work

6.4.3 Components of the Six Senses Model

The Six Senses Model is founded on a framework of six pillars, and offers a comprehensive yet simple explanation of how TQM methods can be incorporated into a firm's corporate strategy, ultimately resulting in sustainable competitive advantage. The six pillars of the Six Senses Model are:

1. Top management core functions
2. Stakeholders
3. The process of integration (between Stakeholders and TQM Success Factors)
4. TQM success factors
5. Implementation
6. TQM strategic outcomes

The following sections aim to provide a synopsis of the importance of each of the above mentioned pillars, in order to set the stage for subsequent discussion on the overall self-assessment of the model for TQM.

6.4.4 Top Management's Core Functions

One of the primary responsibilities of management is delivering results in a cost-efficient manner that is in line with customer expectations and profitability. In today's dynamic business environment, this is easier said than done. The need to coordinate the input of the many diverse stakeholders (internal and external customers) requires enormous patience as well as exceptional managerial skills.

Exceptional managers know how to bring the right people together and, by asking the right questions, draw the best solutions out of them. They also understand that they need to work very closely with all relevant stakeholders. Bearing in mind Mary Paker Follett's definition of management as "the art of getting things done through other people", one can imply that how well managers carry out their responsibilities depends on their ability to understand and execute key management functions. Furthermore, since these key management functions must be carried out by members of the top management team, who are responsible for establishing a TQM-based culture they must be defined and understood if the process is to be seamless and successful. Accordingly, top management's core functions of: planning, organising, leading (directing), co-ordinating and communicating organizational resources must be understood from a TQM perspective and subsequently articulated to the various stakeholders.

According to the Department of Trade and Industry, TQM is an approach to improving the competitiveness, effectiveness and flexibility of an organisation for the benefit of all stakeholders. Given the holistic nature of TQM, it is thus a way of planning, organising and understanding each activity, and of removing all the wasted effort and energy that is routinely spent in organisations (Oakland, 1995). It also ensures that a company's leaders adopt a strategic overview of quality and focus on the prevention and not the detection of problems. Whilst the process involves everyone, to be successful the process must start at the top, with the leaders of the organisation communicating to the stakeholders their vision, mission values, objectives and strategies, which are then integrated with TQM success factors for the purpose of implementation.

All senior managers must demonstrate their seriousness and commitment to quality, and middle managers must (as well as demonstrating their commitment), ensure they communicate the philosophy, principles, practices and benefits to the people for whom they have responsibility. Only then will the right attitudes spread throughout the organisation. A fundamental requirement is a sound quality policy, supported by plans and facilities for its implementation. Leaders must take responsibility for preparing, coordinating, reviewing, controlling and monitoring the policy. Additionally, they must take part in regular quality improvements and ensure these are understood at all levels of the organisation. Furthermore, since these key management functions must be carried out by members of the top management team, the next section will examine these within the context of the research study and the Six Senses Model.

6.4.4.1 Top Management Involvement

Top management involvement is at the very heart of the Six Senses Model. Top management sets the organisation's strategic agenda and is thus responsible for ensuring that there is the necessary integration between the stakeholders and TQM success factors. This research proposes that the synergy created by these two, coupled with the driving force of top management's support, ultimately leads to the organisation achieving a sustainable competitive advantage through the apparent linkages of strategic TQM outcomes. This in turn could only have been possible through the successful integration between the stakeholders and TQM success factors. It must be borne in mind

that top management provides the vision, mission and values while the stakeholders are merely translating the same, together with the knowledge received, into workable plans of action.

According to Metri (2005), although most quality tools associated with TQM do not generally produce an advantage, tacit behavioural features such as top management commitment and involvement can reap rewards. Metri further indicated that the failure of many TQM initiatives can be attributed to senior management's lack of commitment to the quality process. Since top management is at the core of the Six Senses Model, this clearly demonstrates that this is perhaps the most critical element to the success of any TQM implementation programme, since their ability to manage (plan, organise, lead, coordinate, communicate and control the organization's resources) is directly related to the successful implementation of TQM (Pheng & Teo, 2004). Clearly, if top management were looked upon as a single function, then surely it would be given the highest weighting. In other words, top management cannot operate in a vacuum, and being able to carry out these functions is critical to the organisation achieving its objectives, TQM-centred or otherwise.

According to the literature, in TQM organisations top management take personal responsibility for implementing, nurturing and refining all TQM activities. This research proposes that this group's ability to manage is the glue that holds together the various stakeholders and TQM success factors through the process of integration. Therefore, its support and commitment acts as the key driver for TQM implementation within the organisation. Top management must, therefore, understand and be committed to the objectives and methodology of TQM and be prepared to adopt them at all times.

At the strategic level, it is expected that the top management team will discuss the relationship among the various stakeholders and the overall philosophy and strategy within the context of promoting a TQM-based culture. It is important to note that they also promote the relationship, not least by demonstrating commitment to the initiative and supporting and leading from the front.

Given the transcending nature of TQM implementation within an organisation, the philosophy must flow seamlessly from the strategic level to the operational level. For the purposes of this research study, at the operational level it is expected that the TQM success factors have been identified and interaction between the top management team and stakeholders has begun, with emphasis being placed on integration with TQM success factors, as they are considered essential in achieving successful TQM outcomes. It is not possible to achieve sustainable competitive advantage without linkages among TQM strategic outcomes, as doing so will undermine the interaction and integration between the top management team, stakeholders and TQM success factors. More importantly, it would become impossible to establish a TQM-based culture without addressing the interdependencies and interrelationships among the TQM success factors.

6.4.4.2 Planning

Planning, as a management function, involves setting objectives and determining a course of action for achieving these objectives (Piercy, 1991). Planning requires that managers be aware of environmental conditions facing their organisation, forecast future conditions and be good decision makers.

Those involved in planning must establish objectives and then identify alternative courses of action for achieving objectives. After evaluating the various alternatives, decisions on the best courses of action must be made. Subsequently, management must move to formulate the necessary steps to ensure the effective implementation of plans. Finally, constant attention must be paid to evaluating the planners and the success of the plans, and corrective action must be taken when necessary.

Notwithstanding the difference between tactical, operational and strategic planning, this research focuses on strategic planning, which involves analysing competitive opportunities and threats, as well as the strengths and weaknesses, of the organisation, and then determining how to position the organisation to compete effectively in its operating environment. Strategic planning is often based on the organisation's mission, which is its fundamental reason for existence and often conducted by members of the top management team. Specifically, strategic planning is meant to lead an organisation

from where it is now to where it would like to be in five or perhaps ten years. In other words, strategic planning allows for the TQM paradigm shift.

6.4.4.3 Organising

Once an organisation's strategic plan is in place, management need to organise their team and resources according to the plan. Correspondingly, organising is the managerial function of making sure there are available resources to carry out the plan. According to Daft (1995), "Organising involves the assignment of tasks, the grouping of tasks into departments, and the allocation of resources to departments. The top management team is ultimately responsible for bringing together individuals and tasks to make effective use of people and resources. By and large, there are three elements essential to organising:

1. Developing the structure of the organisation
2. Acquiring and training human resources
3. Establishing communication patterns and networks

Determining the method of grouping these activities and resources is classed as the organising process and inevitably plays a critical role in moving the process forward.

6.4.4.4 Directing (Leading)

Top management, and by extension line managers, need to do more than just plan, organise and staff their team to achieve a goal. They must also lead by example. Leading involves motivating, communicating, guiding and encouraging, coaching, assisting and problem solving with employees. According to Daft (1995), "Leading is the use of influence to motivate employees to achieve organisational goals". In order to be truly successful, management must be able to make employees want to participate in achieving an organisation's goals. The three components of the leading function are as follows:

1. Motivating employees
2. Influencing employees

3. Forming effective groups

It is believed that the leading process helps the organisation move towards the attainment of its goals and objectives. If a manager fails to direct the organisation in the right direction, that manager should be prepared to fail.

6.4.4.5 Coordinating

Fayol (1916) listed coordination as one of his five elements of management, defining its essence as binding together, unifying and harmonising all activity and effort. On the other hand, Brech (1975) was of the view that coordination involves "balancing and keeping together the team by ensuring suitable allocation of tasks to the various members and seeing that the tasks are performed with the harmony among the members themselves". In other words, coordinating is monitoring and adjusting resources and processes to achieve goals and objectives in a highly effective and efficient fashion. It is hardly an exaggeration to say that organisational coordination involves taking a systematic approach to figuring out what exactly has to be done. Fundamentally, co-ordination is part of planning, after the organisation has decided what it intends to do.

6.4.4.6 Communicating

Communication plays a major role in the development and success of organisations. Today, many innovative and modern techniques can be followed to achieve excellent communication in an organisation. For example, conventional techniques such as complaint and suggestion boards are used to enhance communication. However, regardless of the techniques in place, all of these will fail to improve communication if there is no direct contact and interaction between the members of the organisation. People need to integrate.

Communication can be effectively established in a company, but only when there is eye to eye contact between management and the employees. Thus, the leadership of an organisation should ensure that proper training has been given to employees in developing adequate communication skill, since, through effective communication, an organisation can provide solutions to many tedious problems.

In building a bridge between top management and employees, it is important to remember that the prime communicator is management. Thus, in defining the responsibility of the top management team, and in setting the standards of their performance, they must consider and possess the skill of good communication. We must never forget that the most powerful communication is not what you say, but how you act. What counts in the final analysis is not what people are told, but what they accept. It is a concept of the role of communication, in any field, that it characterises an effective leadership.

Effective communication is a critical factor for the success of TQM. The delicate nature of a continuous quality improvement programme requires an atmosphere of open and honest communication throughout the institution. Before embarking upon the formal TQM programme, the institution and its top management have to open up all channels of communication – horizontal and vertical, upward and downward –as employees feel encouraged and empowered using an open communication system. All the stakeholders should have knowledge about the quality policy, vision, mission, values, objectives, strategies, etc.

6.4.4.7 Controlling

Even after the other core management functions are in place or have been taken care of, management's job is not finished, as they need to continuously check results against goals and take any corrective actions necessary to make sure that their plans remain on track. According to Henri Fayol (1949), "Control consists in verifying whether everything occurs in conformity with the plan adopted, the instructions issued and principles established". Brech (1975) explains control as "checking current performance against predetermined standards contained in the plans, with a view to ensure adequate progress and satisfactory performance, and also recording the experience gained from the working of these plans as guide to possible future needs". Therefore, controlling entails the following steps:

1. Establishment of standard performance.
2. Measurement of actual performance.

3. Comparison of actual performance with standards and establishing deviations, if any.
4. Corrective action.

Controlling implies the measurement of accomplishment against standards and the correction of deviation, if any, to ensure achievement of organisational goals. The purpose of controlling is to ensure that everything conforms with set standards. An efficient system of control helps to predict deviations before they actually occur, which is why it is a core function of management.

6.4.5. Stakeholders

It is critical to identify the importance of all of the stakeholders to the organisation, and more important to understand their roles, since these are critical to the implementation process and will affect the end results. The stakeholders within the construction setting are as follows:

1. Client/employer (inclusive of the top management team)
2. The project design and management team
3. Key Suppliers
4. Main Contractor and nominated sub-contractor
5. Other stakeholders (statutory bodies, NGOs, etc.)
6. Customers (internal and external)

Given that the Six Senses Model is meant to be implemented in a holistic manner within the organisation, with the ultimate effect of circulating to all stakeholders, (internal and external), it is indeed important to identify all of the stakeholders and, essentially, to understand their roles, since these are all critical to the implementation process and will affect the end results. Top management must work with the human resources department and all employees with a view to understanding the importance of each stakeholder to the ultimate success of the organisation. It should be noted that whilst stakeholders may vary depending on the industry within which the organisation operates, the critical factor is to identify and pay attention to the needs of all of them.

What is evident in this research is that the vision, mission, values, objectives and strategies of the organisation have to be communicated and at the same time embraced by all stakeholders if success is to be achieved, hence the reason why emphasis has to be placed on the above mentioned functions of the top management team.

6.4.6 Critical TQM Success Factors

In their research paper entitled "Critical Factors of TQM: An International Comparative Benchmarking Analysis", Al-Nofal, Zairi & Ahmed (2004) identified three types of quality factors in TQM research, namely critical, important and minor, with the clarification that critical factors determine the progress of an orientation. An analysis of some of the most prominent TQM frameworks revealed common critical success factors in most of the frameworks. The analysis further pointed out that none of the frameworks is comprehensive. For example, apart from the Black & Porter (1996) framework, quality culture-critical success factors do not exist in other frameworks, even though there is ample evidence in the literature on the culture and success of quality initiatives.

Among other statistical methods employed in the analysis of the author's raw data, factor analysis was conducted. The following are the six critical success factors for the successful deployment of TQM in various firms in Trinidad and Tobago:

1. Employee involvement
2. Organisational culture
3. Organisational structure
4. Strategic planning
5. Human resources support systems
6. Customer satisfaction services

These factors are consistent with the findings throughout the literature on the critical success factors which contribute to project success. Rockhart (1982) introduced the idea of critical success factors; however, for the construction industry, although numerous studies have been performed, there seems to be little agreement on them, particularly given their variable nature and discrete objectives (Phua, 2004), differences in the

perceptions of success for those involved at the micro and macro levels (Chua et al., 1999) and the fact that most construction projects are context-specific. However, critical success factors can be used to direct an organisation's efforts in developing strategic plans (Munro & Wheeler, 1984), to formulate a set of strategies and to identify critical issues associated with implementing a plan (Boynton & Zmud, 1984).

The critical success factors identified from the research findings are key cornerstones of the Six Senses Model and are referred to as TQM success factors, as follows.

6.4.6.1 Strategic Planning

A critical element throughout quality management is strong commitment from top management. Commitment can be considered an attribute which comes from within the individual; it cannot come from outside. As such, in order for TQM to be implemented successfully, top management must be committed to it. Once they have done this, the need arises for them to demonstrate their commitment, to show their employees that they believe in quality and that their company exemplifies their business strategies with their beliefs. Top management support is vital to quality within a construction project. After all, top management must be competent enough to choose a suitable project design and management team in the execution of the project. Once top management has shown that they are confident in the abilities of the project manager and all other team members, employees are empowered to perform to their best. Top management support is essential, since they set all policy issues (including quality policy), control resources and arrange training for all people involved in the project (Jha & Iyer, 2006).

Additionally, the company's vision and mission statements usually describe how it wants to be seen in its chosen business. It describes standards, values and beliefs. A vision is the advertisement of the intention to change (Zhang, 1997b, 1999b). According to Kanji & Asher (1993), a statement of values and behaviours is a powerful motivating force which can be used to drive a process of change. For a firm implementing TQM, employees must realise the ways in which they can contribute towards the vision. The firm must also make statements which endorse and support the direction the company wishes to pursue. This is where mission statements, quality policies and quality planning

come into play for successful TQM implementation. Hence, the author is of the view that strategic planning remains critical in achieving all other TQM-based success factors, as identified in the Six Senses Model. Additionally, TQM is of significance in formulating the company's corporate strategy, strategic plan and other sub-plans such as marketing, sales, production, etc. However, integrating TQM practices with top management's strategic agenda requires a shift in thinking, especially throughout the Caribbean region. Perhaps this may be the reason why many writers have overlooked the importance of TQM as an ideal strategy for obtaining sustainable competitive advantage.

6.4.6.2 Organisational Structure

The fit between strategy and organisational structure is essential for the success of any given objective. Many authors have attributed the failures of TQM initiatives to the presence of organisational structures that are incompatible with TQM culture. Organisations that are on a TQM implementation path should thus be mindful of this possible pitfall.

Organisational stakeholders and processes do not exist in a vacuum, but are embedded in a larger organisational system with distinct structural characteristics. According to the literature, organisations have employed a wide range of structural options in dealing with the increased complexity, uncertainty and interdependence which accompany TQM implementation. In this regard, understanding the company's structure should provide a greater insight into the effective implementation of TQM. Although a few researchers have suggested that TQM effectiveness necessitates changes in organisational structure and design (Dean and Bowen, 1994; Laza and Wheaton, 1990), altogether there has been a lack of research in this area.

Extant literature suggests TQM emphasises empowering employees to make decisions and use their own intelligence, and requires them to identify and diagnose quality problems and take corrective actions without going through the management hierarchy (Burdett, 1994; Crosby, 1979; Deming, 1986; Juran, 1989; Pulat, 1994). Participation is encouraged by recognising employee accomplishments and providing continuous feedback. These aspects of TQM suggest that it is less likely to be effective in

companies with mechanistic structures that centralise decision-making authority in managerial hands and use direct, inflexible control mechanisms. In organic structures, however, employees are given the latitude to make appropriate decisions within system parameters. Several studies (e.g. Harris & Purdy, 1998; Johannesson & Ritchie, 1997) suggest that a participative structure can improve TQM outcomes. Hence, organisations with flexibility-oriented organic structures appear to show a better fit with TQM practices such as employee involvement, empowerment and responsibility for quality at source.

The very nature of TQM also requires a move away from vertical lines of communication, toward communication across departments, organisational levels, functions, product lines and locations. These open and informal lines of communication can help solve problems and enable more rapid implementation of change. Horizontal coordination is encouraged based on the flow of work processes across functional areas, through mechanisms such as cross-functional teams (Burdett, 1994; Deming, 1986; Pulat, 1994). These characteristics are unlikely to find a match in mechanistic structures, which emphasise hierarchical chains of command. In contrast, organic structures stress coordination (Burns & Stalker, 1961) through horizontal communication networks and horizontal job dependency. Several studies suggest that a team-based structure (a component of the organic structure) improves TQM effectiveness (Crom & France, 1996; Whalen & Rahim, 1994). Consequently, companies with flexibility-oriented organic structures and existing horizontal coordination and communication networks are more likely to be effective at implementing TQM. The importance of top management's involvement cannot, therefore, be understated, as without their involvement in committing to the strategic planning agenda, it may be exceedingly difficult to establish the most appropriate structure necessary for moving the TQM process forward.

However, frameworks on structure as proposed by past researchers (Galbraith, 2000; Mintzberg, 1999), sometimes prove useful in formalising trades, grouping members into effective teams and linking these various processes and stakeholders to produce the final output of a firm – sustainable competitive advantage.

6.4.6.3 Organisational Culture

As indicated above, the structure remains critical in defining individual responsibilities within the normal activities of the business, whereas an appropriate culture will ensure that individuals carry out these responsibilities with the right attitude. According to Hofstede (2001), organisational culture is the collective programming of the mind that distinguishes the members of one organisation from another. Schein (2004) defines organisational culture as a pattern of shared basic assumptions learned by an organisation as it solves problems of external adaptation and internal integration and which has worked well enough to be considered valid and therefore taught to new members as the correct way to perceive, think and feel in relation to those problems. Various researchers such as Cameron & Quinn (1999) and Dellana & Hauser (1999) allege that organisational culture affects the performance of TQM. However, according to Mohammad and Rad (2006), cultural support has been missing as an essential element for the successful implementation of TQM. Furthermore, Al-Khalifa and Aspinwall (2001) and Dellana & Hauser (1999) imply that failure in the implementation of TQM is caused by a mismatch of organisational goals with culture. By and large, organisational culture can be regarded as the shared values and beliefs among the people in an organisation. As such, it will affect people's beliefs when TQM is being implemented. How then does the management team influence an organisation's culture?

Gryna and Watson (2001) advocate several factors for the development of a positive quality culture, namely the creation and maintenance of the awareness of quality at all levels, the encouragement of self-development and empowerment, providing opportunities for employee participation to inspire action and providing recognition and rewards.

Prior to the implementation of TQM, it is important to understand the dominant culture of an organisation. Environmental changes produce different emphases within an organization, therefore, new approaches in learning and adaptation are required. Cultural dynamics are a natural evolution, since there is constant pressure exerted on any culture for growth and evolvement (Schein, 2005). This research shares the view of Trice and Beyer (1995), who suggested that cultural change can be initiated by top

management. Furthermore, leaders should pay attention to the objectives of the organisation and implement different strategies for their stakeholders in order to facilitate continuous success.

For a quality mindset to permeate throughout an organisation, employees must undergo changes in their behaviours, which in turn lead to attitudes towards quality. Employee participation towards quality implementation is essential, as once they participate, they become empowered, which allows them to acquire greater knowledge and a subsequent sense of achievement in solving quality problems. Participation brings about improvement in their personal capabilities, increases their self-respect and helps them to change certain personality traits. Participation may increase managers' and supervisors' respect for employees, and increase the employees' understanding of the difficulties faced by management and supervisors (Zhang et al., 2000). Participation is therefore seen as a catalyst in the development of a quality-oriented organisational culture.

To motivate employees into a participative environment, reward and recognition should be commonplace. It almost goes without saying that an important feature of any quality improvement programme is the showing of due recognition for improved performance by any individual, section, department or division within the company or organisation (Dale and Plunkett, 1990). Rewards can take the form of bonuses, increased salaries, benefits, etc. – anything which effectively assures employee support in the quality initiative and supplements a quality-based work ethic.

In their 2006 study, Jha & Iyer found that some high-ranking failure attributes affecting product quality included "tendency to pass the blame to others" and "conflicts among team members". These findings underline the fact that in order to achieve product quality, a team effort is required. An organisational culture which promotes team-building and allows members to work in unison, fostering collaboration and innovation, makes attainable the goal of achieving quality in a construction project. However, this can only be possible if the appropriate structure has been achieved, and this involves top management's direct involvement.

6.4.6.4 Human Resource Support System

According to Graf (2007), human resource management (HRM) is known to be a subset of a wide-ranging management process that is oriented towards and incorporated in a company's strategy. Consistent with this perspective, the area of HRM is known, including the processes and practices such as recruiting, selecting, motivating, training, compensating and retaining workers (Stone, 2007). The complex nature of the workplace today demands that the human resource support system within an organisation be synchronised with the needs of the organisation, as well as those of employees, in order to maintain a fit that is acceptable to both parties. Where an organisation has the objective of implementing TQM, the Human Resources function can and must play an integral role in the achievement of this objective. A failure on the HR department's part to recognise this opportunity and act on it may result in the loss of TQM implementation responsibilities to other departments with less expertise in training and development. The ultimate consequence of this loss is an ineffective "piece-mealing" of the TQM strategy. Thus, the HR department must act in tandem with top management for the successful implementation of TQM, which can be achieved in three fundamental ways. First, by modelling the TQM philosophy and its principles within departmental operations, the HR department can serve as the facilitator for the TQM process throughout the company. Second, the HR department, with top management's support, can take the process company-wide by developing and delivering the long-term training and development programmes necessary for the major culture shift required by TQM. The HR department also has major strengths in terms of recruitment, selection, appraisals and reward system development. Finally, the HR department can restructure and reorient their recruitment policy in line with their new shift in management thinking.

6.4.6.5 Employee knowledge of the benefits of quality

In many organisations, employees are often subject to management's adoption of the latest trends and programmes. This translates into them being weary of such schemes, and often programmes fail to achieve their desired outcomes because they are not openly embraced by employees. Programmes involving quality initiatives are no

different. In fact, the literature shows that lack of knowledge and information on the quality programme, lack of motivation and complacent attitude, and the quality programme perceived to cause more burden rather than benefit are major reasons for employee resistance. The findings from the data collected show clearly, that in order for TQM initiatives to be successfully embraced and implemented, employees must be cognisant of the potential benefits, which must be aligned with the core strategic management function of planning and organising and then integrated within the human resources support system and other functions of the organisation.

Salegna & Fazel (1995) are of the view that the success of TQM depends on the organisation's implementation plan and the congruency that exists between the TQM plan and the organisation's goals and culture. They suggest that a careful plan is, therefore, required to integrate TQM into the organisation's core values, but the implementation process must be approached from an integrated system viewpoint and not piecemeal. To this end, it is recommended that everyone in the organisation be informed not only of the strategic direction of the business, but also of the current imperatives and current performance. Everyone should also understand where they fit in when working toward those imperatives and achieving those goals. Employees ought to be part of the overall vision, mission and strategy of the organisation. Involvement allows ownership, which aids in successful implementation.

6.4.6.6 Customer Satisfaction Services

Customers are vital to any decision made in the quality improvement process. A close relationship with the customer ensures that their needs are fully understood and through strong feedback mechanisms, the extent to which these needs are met. Communication between customers and the firm, allows the likelihood of quality-related problems decreasing. As Kanji & Asher (1993) state, the ultimate measure of company performance is customer satisfaction, which may very well predict the future success or failure of an organisation.

According to Dvir et al. (2003), project goals and deliverables cannot be achieved without customer or end-user involvement in the project. This is because there must be positive interaction, integration and communication, utilising efficient feedback mechanisms, at all times throughout the project's lifecycle between all participants (both internal and external), which will benefit the project process immensely. A short and informal line of communication, as well as regular construction control meetings among project teams, further support the achievement of the desired quality level (Jha & Iyer, 2006).

While it is essential that every member of the project team has a clear understanding of what is expected, it is the obligation of the owner to set his objectives in an unambiguous and precise manner. Once this is done, only then can the contractor fully understand what is expected of him and his team in the project process. Efforts, in terms of the continuing involvement of all stakeholders (inclusive of customers and end-users), and comprehensive contract documentation, are needed to ensure the existence of general agreements and the collective genius of professionals in concerned organisations, as well as proper project control (Nguyen et al., 2004).

Traditionally, in a construction environment, everyone is concerned with getting "their" job done, so very little attention is paid to how this fits into the bigger picture. The author proposes that the ability of the top management team to carry out the core strategic management functions will greatly assist in creating the TQM-based culture that is required, and that this culture will have a cascading effect on all stakeholders. In order to better understand the importance of the above mentioned TQM success factors, the next section briefly looks at the core stakeholders specific to the construction industry.

6.4.7 The Process: Integration

The Six Senses Model is premised and designed on the concept of integration as a means to obtaining a sustainable competitive advantage. The integration process ensures that all members from within the "Stakeholders" dimension commit to the TQM process and eventually develop the right attitude necessary for the successful achievement of the

perceived TQM strategic outcomes. Unfortunately, many have failed to understand the importance and relevance of integration. For the purposes of this research, integration is referred to as the creation of linkages between various aspects of the organisation, previously separated from top management's mission, vision and strategy. Through management support, integration would inevitably facilitate continuous improvement of every aspect of the organisation's operations, with a view to achieving a sustainable competitive advantage that aligns itself with stakeholder and TQM success factors.

Thus, top management is meant to drive the entire TQM process through their inherent core management functions, further creating the atmosphere and culture which translates and integrates their vision, enshrined in the firm's corporate strategy, with that of the TQM success factors identified in the research findings. The research outlined the following processes as being critical in order for a firm to be labelled as a TQM-oriented organisation, eventually being able to achieve a sustainable competitive advantage through the process of integration. Likewise, having garnered the support of the employees and started the planning process, the need arises for an appropriate structure in an effort to deliver the TQM culture, which dictates the way that things should be done with minimum resistance and means that the organisation has placed a value on their support system. Thus, the linkages among planning, employee involvement, structure, culture and organisational support systems would ultimately impact positively on customer satisfaction, which is necessary in moving the process forward to the next phase.

It is believed that the primary objective in establishing a total quality environment that will inevitably lead to the successful implementation of TQM methods rests solely on the shoulders of top management (Pheng & Teo, 2004). It has become clear from the onset that top management's support and involvement through planning for change, organising on resources and allocation of budgets, coordination of activities and methods and systems of communicating and controlling the process; which translates their vision and integrates with the critical TQM success factors as identified in the research study. It is worth noting, however, that commitment, support and ownership will determine the successful outcome of the TQM success factors identified in this

pioneering research study. Success at this level, which involves interaction and integration between the TQM success factors and participating stakeholders, would automatically translate to the subsequent and final level, which involves TQM strategic outcomes.

According to the literature, the benefits of effective TQM implementation can be studied from three different perspectives, namely operations, financial and knowledge management. From an operations perspective, the reason why TQM is so topical in both industry and academia is that it can be applied to improve and enhance global competitiveness (Flynn et al., 1995; Samson & Terziovski, 1999). Firms with effective TQM implementation can accomplish internal benefits such as improving quality, enhancing productivity or realising better operating income (Corbett et al., 2005; Hendricks & Singhal, 1997).

As mentioned in Chapter 4, in terms of financial performance, careful design and implementation of consistent and documented quality management systems can contribute significantly to superior financial performance (Corbett et al., 2005). Further, a firm with an effective TQM implementation strategy can significantly outperform against others on stock price performance (Hendricks & Singhal, 2001).

Thirdly, although this has not been discussed in this study thus far, there is a growing body of literature which suggests that from the knowledge management (KM) perspective, the implementation of TQM can also increase and enhance organisational knowledge, which in turn helps to understand more about how quality management practices can affect firm performance (Linderman et al., 2004). Therefore, it is believed that TQM contributes to the competitive nature of firms engaged in such practices.

Notwithstanding the above three categories of benefits, this research study identifies the following outcomes of TQM implementation: increased employee satisfaction and retention, reduced delivery time, enhanced productivity and increased quality at reduced cost, which allows for the achievement of sustainable competitive advantage. All of these are discussed in detail in the following subsections.

6.4.8 TQM Outcomes

Before organisations can begin to embark on the implementation of a TQM plan, they need to answer one fundamental question: What exactly are the objectives of adopting TQM? This is simultaneously the most controversial area and the easiest to dodge. For organisations to succeed in their quest to adopt TQM, they need to know where they are now as well as where they would like to be.

According to Price & Chan (1993), TQM practices are considered a powerful, holistic approach that simultaneously affects customers, employees and processes, while, achieving continuous improvement. The author lists some of the benefits of implementing TQM practices:

1. Cost savings
2. Productivity increases through process improvements
3. Marketing focus
4. Product development effectiveness
5. Organisational decentralisation
6. Employee empowerment

Whilst the author of the present study is not in disagreement with the above mentioned benefits, in addition to the ultimate benefit of sustainable competitive advantage, he is of the firm view that by incorporating TQM methods with corporate strategy, the following TQM outcomes will also be achieved: enhanced productivity, improved quality, reduced cost, reduced lead time and improved employee satisfaction and retention. All of these outcomes will be discussed in more detail within the context of the Six Senses Model.

6.4.8.1 Reduced Cost

Baden-Hallard (1993) defined the cost of quality as costs associated with conformance to requirements and costs associated with non-conformance to requirements. Often, those involved in the construction industry tend to perceive TQM as an extra cost, not

realising that it is not the quality that costs, but rather the non-conformance to quality that is costly. The sources of costs associated with the non-achievement of quality include the costs of rework, correcting errors, reacting to customer complaints, having deficient project budgets due to poor planning and missing deadlines (Culp, 1993). Biggar (1990) was of the view that the costs associated with implementing a TQM system could be substantial, depending on the size and nature of the company. However, he also pointed out that the costs incurred from not achieving quality can cost owners up to 12% of the total project cost. As mentioned in Chapter 4, this research proposes that TQM implementation does not necessarily mean increasing costs, especially if management is able to drive home the importance of "doing it right the first time". How do we complete the project on time and within budget? Quite often, as clients and by extension stakeholders, we fail to be objective about time schedules, which ultimately leads to failure of the budget and ultimately gives rise to disputes which have to be settled inside the courtroom.

6.4.8.2 Increased Employee Satisfaction and Retention

With the implementation of TQM methods driven by the organisation's corporate strategy, employees become empowered. As a result of the integrated nature of TQM implementation, they will feel a certain degree of "ownership" with the actual process and consequently, the organisation. Employees are encouraged to present improvement and cost-saving suggestions to management and, to a certain degree, are allowed to self-implement solutions. Employees of the organisation must be oriented to the philosophy of the company to never-ending improvement. They must also be informed of the strategic goals of the company made to feel that they are part of a team, and training must be extended to all employees. All of these factors are somewhat non-existent within the workforce in the construction industry, as it is highly transient.

Regardless of the industry, it is in the best interests of organisations to put measures in place to encourage employee satisfaction. The high cost associated with retraining staff is one of the many reasons why organisations will want to retain their current cohort. From a TQM perspective, organisations must also acknowledge that much of their success lies with how well employees understand the benefits of TQM and are able to

translate this into every facet of their operations. When employees have achieved this mindset, they and the organisation will benefit from "TQM branding". When this is passed on to the customer, who remains loyal to the organisation, then "TQM brand loyalty" will have been achieved in essence.

Organisations are increasingly encouraging employees to embrace their role as brand ambassadors (de Chernatony et al., 2006) and, as such, brand equity research from an employee perspective is warranted. According to the literature, brand management necessitates that due consideration be given to employees (de Chernatony & Cottam, 2006) because it is the employees' skills and knowledge (i.e. operant resource) that provide the competitive advantage for an organisation. It is considered essential that all employees have the opportunity to understand the brand as it relates to their roles, so that they in turn can deliver the brand promise. It should be noted that it is becoming increasingly critical for employees to consistently demonstrate positive organisational behaviours, for organisations to perform effectively (Parker, 2007). In addition, this area remains unexplored in the realm of TQM and provides an interesting aspect for future research.

6.4.8.3 Reduced Time

One common definition of quality is "getting it right the first time". One of the greatest benefits of this philosophy is that it saves time (which results in saving money) carrying out reworks and experiencing delays, which, if not managed properly, can have a negative effect on profits and customer satisfaction.

In the construction industry, clients often demand that projects be completed at a whirlwind pace. This is aggravated by their lack of understanding of pre-construction services and a shortage of labour and building materials, which often results in time delays. With the implementation of "getting it right the first time" and the whole process of integration, this study proposes that the interrelationships between consultants, contractors, employees, end-users and the client allow for the timely delivery of projects. Perhaps it would be a miracle if a project was actually delivered without getting greatly distorted on time, cost, or on a concept basis.

In this regard, TQM can be viewed as an organisation-wide philosophy requiring all stakeholders on every level of a project to focus his/her efforts to help improve each process between project conception and completion.

6.4.8.4 Enhanced Productivity

Generally, the construction industry focuses on reducing costs and improving productivity. Experience has shown that achieving these objectives can be challenging. The author believes that the key to achieving these objectives lies with project process integration. If project managers are able to integrate their clients, other consultants, suppliers, contractors and other internal and external stakeholders throughout the various project processes within the built environment with the underlying principle "team", there would, in principle, be very few problems, if any at all. However, this is easier said than done.

6.4.8.5 Quality Enhancement

According to Hart (1994), in construction, quality has a three-fold meaning. It means getting the job done on time, within budget and ensuring that the basic characteristics of the final project fall within the required specifications (this is largely considered the quality aspect of the project). Given the holistic nature of TQM and the Six Senses Model, it might be fair to say that while some firms are considered inefficient, there is always the chance for them to improve their current practices in an effort to increase their level of quality, without actually increasing costs. The author is in agreement with other advocates that increasing quality without actually increasing cost remains the core interpretation of the goals of TQM.

Likewise, it is obvious that if you continue to expand your business operations but fail to address ways and means of increasing quality, the organisation will run the risk of being left behind. In simple terms, quality awareness is the ability to observe and understand customer needs. Therefore, failure to identify customers, their comments, future expectations and their level of satisfaction can lead the organisation in the wrong direction.

6.4.8.6 Sustainable Competitive Advantage

We have come to realise that apart from increasing efficiency and customer satisfaction, increasing the levels of quality without actually increasing overall costs, remains the major objective of Total Quality Management. Similarly, one of the main ways in which firms attempt to achieve competitive advantage is by providing products or services that buyers perceive as being superior to those offered by the immediate competition. That is to say, if the prices of the firm and its rival's products are comparable, the firm's products are preferred by the consumers on the basis of superior perceived quality. All of this was discussed in detail in Chapter 4.

Clearly, the above initiatives (TQM outcomes) through integration between stakeholders, and TQM success factors directed by top management, can play a significant role in achieving competitive advantage. However, even if customer requirements are accurately identified and organisational processes enhanced, an advantage created in the marketplace will not necessarily be sustainable unless the resulting product or service attributes are unique, valuable and difficult to imitate (Barney, 1991). How vulnerable the organisation is to imitation depends on the nature of its advantage. By extension, if a firm's competitive advantage is based on its capabilities, in this case TQM practices, a sustainable advantage requires either that it be difficult for rivals to imitate, duplicate or implement or that the firm can improve its capabilities before its rivals can become equal. Bear in mind that the process of integration can be viewed similarly to that of continuous improvement.

In more recent times, Porter (1996) has described the foundation of strategy as the activities an organisation must pursue in order to excel. As such, practices such as quality improvement have long been considered part of the strategy formulation process (Pfar, 1989). Clearly, the objective of any given strategy is to achieve a competitive advantage over immediate competitors, which is further supported by Spitzer (1993), who described TQM as the only source of competitive advantage. Surprisingly, the findings from this research indicate that integration, especially between stakeholders and TQM success factors, would lead to the successful implementation of TQM outcomes.

In a slightly different view of the strategy/quality interface, a relationship can be drawn from the resource-based theory of competitive advantage. Grant (1991) argues that an organisation's resources and capabilities serve as the foundation for the development of its strategy. Sometimes, however, even resources or capabilities that depend on human capital cannot be separated from the business. For example, if the ability of the firm to solve problems is embedded in the patterns of communication and interaction of the firm, rather than with the individuals themselves, then the capabilities reside with the firm and not the individuals. In essence, individuals can leave, but they cannot take this capability with them. However capabilities are built from resources that yield competitive advantage. Therefore, strategies, in turn, should be built around competitive advantage. It may be safe to conclude that TQM practices developed by individuals may be viewed as a core capability in the strategy formulation process. According to Waldman and Gopalakrishna (1996), TQM needs to be integrated with a complementary asset in order for it to achieve a competitive advantage.

Within the context of this research, the author hypothesises that the successful implementation of TQM practices can be considered most difficult to imitate, especially when they are deeply embedded in organisational processes or it is difficult to figure out the firm's success. The author is also inclined to believe that continuous improvement of processes, focusing attention on the customer, ownership, management involvement, adoption of a quality philosophy, employee empowerment, the implementation of TQM methods and training and good supplier relationships are all difficult to figure out as they can appear a bit ambiguous to a firm's competitors. This is especially so when everyone involved in the process is committed to and supported by, sound leadership qualities.

As mentioned previously, the foundation of an effective and sustainable TQM strategy rests with employee and management commitment (Garvin, 1986). Bearing in mind that an advantageous position is sometimes sustainable, but quite often it is not, the challenge for further research remains a distinct possibility. Nevertheless, most of the literature presented thus far has identified TQM as a useful tool for management, if

properly planned and implemented (Black & Porter, 1996; Flynn & Saladin, 2006). Given that the Six Senses Model can be used by organisations as a self-assessment tool, the following section looks at how this can be achieved.

6.5 THE SIX SENSES MODEL AS A SELF-ASSESSMENT TOOL

According to one author, truly excellent organisations are measured by their ability to achieve and sustain outstanding results for their stakeholders. Achieving outstanding results is hard enough, but to sustain them in a world of increasing global competition, rapid technological innovation, ever-changing working processes and frequent movement in the economic, social and customer environments is even more challenging. Whilst Trinidad and Tobago-based companies may be at the developmental stage of creating true quality models for local use, it is believed that the Six Senses Model is a prescriptive model which can be used as a self-assessment tool to ascertain their progress, as it relates to the integration of corporate strategy and TQM methods.

In the 2002 publication "The Quest for Global Competitiveness through National Quality and Business Excellence Awards", Dr. Luís Ma. R. Calingo reported that at the firm level, a growing number of companies worldwide have adopted self-assessment as a continuous improvement approach by measuring an organisation's current performance against a model that represents a position of "organisational excellence". He further stated that the establishment of comprehensive sets of criteria to evaluate award applicants has provided businesses with a consistent set of standards by which they can evaluate and monitor quality performance.

Whilst it is evident that the previously mentioned quality gurus have made their case for the universality of expectations concerning an ideal system for quality management and business excellence, according to Dr. Calingo (2002) the literature supports the view that contextual variables do have an impact on quality management practice. Translated, this means that whilst a number of countries may have modelled their respective national awards after the Baldrige Award and the Deming Prize in developing their own systems, others may very well have evolved their own evaluation criteria and systems, taking socio-cultural backgrounds into consideration. Whilst it is tempting to say that

the Six Senses Model has been fashioned after the Baldrige Award, the Deming Prize (or even the EFQM Model), as indicated previously, it has actually been developed solely on the research findings of the present study.

Table 6.7

The Six Senses Model: Criteria, Sub-Criteria and Point Distribution

Criterion	Description, Sub – Criteria and Points
1	*Top Management (12 points)* Top management's ability to understand key management functions and deliver results in a cost efficient manner that is in line with customer expectations and profitability. Bearing in mind that whilst the TQM process involves everyone, to be successful, it must start at the top with the leaders of the organization communicating to the stakeholders their vision, mission, objectives and strategies. Top Management is also responsible for ensuring that there is that integration between the stakeholders and TQM success factors. 1a. Planning (2 points): Top Management must be aware of environmental conditions facing their organization, forecast future conditions and be good decision-makers. 1b. Organizing (2 points): Top Management must ensure that organizational resources are organized in accordance with the firm's strategic plan. 1c. Leadership (2 points): Top Management must lead by example, involves motivating, communicating, guiding, and encouraging and requires coaching, assisting, and problem solving with employees. 1d. Co-ordinating (2 points): Top Management is responsible for monitoring and adjusting resources and processes to achieve goals and objectives in a highly effective and efficient fashion. 1e. Communication (2 points): Top Management has to open up all the channels of communication, horizontal and vertical, upward and downward. Employees must be able to feel encouraged and empowered by using open communication system. All stakeholders should have knowledge about the quality policy, vision, mission, goal, plan etc. 1f. Controlling (2 points): Top Management must ensure that everything occurs in conformity with the standards set.
2	*Stakeholders (12 points)* The organization's focus on and interaction with all stakeholders and the ability to ensure that its operations meet the needs and expectations of: External Clients (2 points) Employees(2 points) Contractors(2 points) Other Stakeholders(2 points) Suppliers/Sub-Contractors(2 points) Project Design and Management Team(2 points)
3	*The Integration Process(21 points)* How well Top Management is able to drive the TQM process through their core functions to create an atmosphere and culture which translates and integrates their vision with that of the TQM critical success factors by interaction with the stakeholders. 3a Processes are systematically designed and managed; 3b Improvements are made to the processes, as necessary, in order to fully satisfy and generate increasing value for customers and other stakeholders; 3c Goods and Services are designed and developed based on customer needs and expectations; 3d Goods and Services are produced, delivered and serviced;

	3e Relationships with all stakeholders are managed and enhanced. 3f There is continuous feedback among the stakeholders.
4	*TQM Success Factors (25 points)* 4a. Strategic Planning (5 points): How the organization implements its mission and vision through a focused strategy which is supported by relevant policies, plans, objectives, targets and processes. 4b. Organizational Structure (4 points): Top Management must recognize that the fit between strategy and organizational structure is essential for the success of any given objective and the organizational structure must be modified as necessary to be in sync with the aims and objectives set. 4c. Organizational Culture (5 points): Current culture must be understood and where necessary employees must undergo changes in their behaviours, which in turn lead to attitudes, towards TQM. Top Management must ensure that the culture being fostered is being facilitated by the organizational structure. 4d. H.R. Support Systems (3points): Synchronize the needs of the organization with those of employees in order to maintain a fit that is acceptable to both parties. The HR department must develop and deliver the long-term training and development necessary for the major organizational culture shift required by TQM, assisted by its major strengths in terms of recruitment, selection, appraisal, and reward system development to institutionalize a TQM orientation. 4e. Employee Innovation (3 points): Employees must have the knowledge of what the benefits will be. Employees must be informed not only of the strategic direction of the business but also of the current imperatives and current performance and must be made to understand where they fit in working toward those imperatives and achieving those goals. 4f. Customer Satisfaction and Services (5 points): What the organization is achieving in terms of its external customers. Both perception and performance measures must be developed and utilized.
5	*TQM Strategic Outcomes (30 points)* Examines what the organization is achieving in terms of its people, external customers and planned performance and specifically in terms of: 5a. Quality Enhancement (8 points) 5b. Improved Productivity(4 points) 5c. Increased Employee Satisfaction & Retention(7 points) 5d. Reduced Time(7 points) 5e. Lower Cost(4 points)
TOTAL SCORE	**100 points**

Source: Author's own work

6.5.1 The Six Senses Model Scoring System

Given that the Six Senses Model is meant to be used as a self-assessment tool for organisations wishing to achieve sustainable competitive advantage through the integration of top management, stakeholders and TQM success factors, a scoring system

has been developed for internal use by organisations. The criteria within each of the items identified in Table 7.7 above are assessed against four dimensions: approach, deployment, results and improvement (commonly known as ADRI). This system is used for assessment of the Australian Business Excellence Award and the Fiji Quality Awards. In essence, it is a simple assessment system, which encourages the assessor to think about how work is done and how it can be improved, as opposed to only looking at the outcome. Each item is assessed using the ADRI technique:

i. Approach – plans, strategies, processes, and infrastructure
ii. Deployment – actual implementation of activities
iii. Results – measures or achievement associated with the approach
iv. Improvement – review and improvement of the approach and its deployment

Despite the fact that this research study is pioneering in T&T, it is believed that the use of this system will be easy for both management and employees.

Table 6.8

Approach, Deployment, Results and Improvement Dimensions

Dimension	Interpretation	Assessment Questions
Approach	Thinking and planning	• What are you trying to achieve for the criteria - what is your intent? • What goals have been established? • What strategies, structures and processes have been developed to achieve your intent, and why did you choose these? • What quantitative and qualitative performance indicators have been designed to track progress? • How does your approach align with the TQM principles?
Deployment	Implementing and doing	• How have those strategies, structures and processes been put into practice? • What is the depth and breadth of their implementation throughout the organisation? • To what extent have they been accepted and integrated as part of normal operations?
Results	Monitoring and evaluating	• What are the trends in the performance indicators for this item?

		• How do these results compare with best-known performance? Give examples. • To what extent are these results indicative of the entire organisation's performance? • How do you know that these results flow from the approach and its deployment? • How do you communicate, interpret and use these results?
Improvement	Learning and adapting	• What process is used to review the appropriateness and effectiveness of the approach and its deployment for the criteria? • How do you use the results for the item to do this? • What have you learned, how have you captured this learning, and how have you used the learning to improve the approach and its deployment?

Source: Authors own work

A scoring matrix for each of these dimensions provides a basis for generating a scoring profile across all items and categories, as well as an aggregate score out of 100 points. Once an organisation has carried out its assessment as per the dimensions above, it must evaluate itself in order to ascertain what progress has been made and if this is in keeping with its goals and objectives.

6.5.1.1 The Six Senses Model Scoring Guidelines

Most quality and business excellence awards carry their own scoring criteria. After a pervasive review of the literature, the scoring criteria for the Six Senses Model have been adapted from the Singapore Quality Award. The evaluation process for the Singapore Quality Award is a structured, analytical method for evaluating an organisation's business health. A three-dimensional scoring system is used to look at the approach taken by an organisation to address the criteria, the deployment of the approach and the results achieved. The scoring guidelines are shown in Table 6.9.

Table 6.9

Scoring Criteria

Scoring Range	Evaluation Dimension		
	Approach	Deployment	Results
0 - 19%	• No approach or some form of approach exists but it is not systematic	• No deployment or approach is deployed to few functional/ operational areas of the organization	• No results or poor results • Improvement trends and/or good performance level in few areas of importance to the organization. • Results not reported for most areas of importance to the organization
20 - 39%	• Direction for approach is defined • Beginning of a planned and prevention-based approach	• Approach is deployed to some major functional/operational areas of the organization	• Improvement trends and/or good performance levels in some areas of importance to the organization. • Early stages of developing trends and obtaining comparative information • Results reported for most areas of importance to the organization
40 –59%	• A sound, effective approach is in place with evidence of prevention activities • Approach is aligned with basic organization needs identified in other criteria categories	• Approach is deployed to most major functional/ operational areas of the organization	• Improvement trends and/or current performance levels are good in most areas of importance to the organization • Favorable comparisons with external organizations and/ or benchmarks in some areas • Results address most key customer, market and process requirements
60 – 79%	• A proven and well defined approach which is prevention-based with evidence of refinement through learning and improvement • Approach is well integrated with organizational needs identified in other Criteria categories	• Approach is deployed to all major functional/ operational areas of the organization • Practiced consistently by all levels	• Current performance levels are good to excellent in most areas of importance to the organization • Improvements trends are sustained in most areas • Favorable comparisons with external organizations and/ or benchmarks in many to many to most areas • Results address most key customer, market and process requirements
80 –	• Exceptionally well	• Approach is deployed	• Current performance

100%	defined, innovative approach • Approach is accepted as best practice in the field • Approach is fully integrated with organizational needs identified in other criteria categories	to all functional/ operational areas within and outside the organization • Practiced consistently by all levels	levels are excellent in most areas of importance to the organization • Excellent improvement trends and/or excellent sustained improvement in most areas • Excellent comparisons with external organizations and/or benchmarks in many areas • Results fully address key customer, market and process requirements

Source: Author's own work

It is believed that this adapted evaluation score sheet and process provides a comprehensive guide to firms wishing to evaluate their progress in the field of TQM principles and practices.

6.6 THE SIX SENSES MODEL: IMPLEMENTATION AND FRAMEWORK

6.6.1 Introduction

According to Kanji & Barker (1996), TQM implementation is considered a complex and difficult process. Mersha (1997) further explains that it involves introducing a major change to an organisation's culture and thus, to succeed, it must be based on the objective analysis of the specific organisation's internal and external environment. In this regard, a number of writers including Dale (1999) and Kanji (1990) are of the view that implementing TQM should be a top priority for all corporate leaders. Notwithstanding the critical role of top management in the implementation process, because of the fact that it involves everyone, its success hinges on a commitment by everyone to be actively involved. However, given the inherent complexity of TQM implementation within organisations, and bearing in mind differences across industries, organisation size and culture, as well as its far-reaching implications on all stakeholders, the author is of the view that the Six Senses Model provides a clear blueprint for implementation and can easily be applied to any service-based organisation in Trinidad and Tobago. Bearing in mind the author's constraint of resources, this section attempts

to provide a detailed explanation on how the Six Senses Model can be implemented within firms in the service sector in Trinidad and Tobago.

The literature reviewed in Chapter 4 revealed that the TQM gurus provide mostly guidelines and not a specific framework for the implementation of TQM. Furthermore, the literature reviewed on TQM in the service sector showed that no specific model or framework is available for implementing TQM in service-based organisations. Thus, the objective of the implementation framework for the Six Senses Model developed in this research study is to make the model significant within the context of the service industry in Trinidad and Tobago, and specifically the construction sector, with the ultimate view towards translating the Six Senses Model into working actions.

Another objective of the implementation framework is to include a number of initiatives which address the Six Senses Model's principles in a manner that nurtures a willingness to develop and create positive attitudes in the minds of all stakeholders. This will be done by combining some basic ideas of change management theories and the TQM philosophy. In many instances, TQM is implemented in an uncoordinated manner, which can lead to problems. Moreover, if too many people are involved and no clear leader comes to the fore, there can be contradictions and confusion. Thus, for the purposes of this research, TQM must be implemented through a well-defined framework to achieve the objectives outlined above. To achieve these objectives, the author has developed a five-stage framework which includes (see Diagram 6.3):

1. Top management commits to TQM
2. Setting the scene
3. Implementation
4. Evaluation
5. Feedback and continuous improvement

As TQM can only progress when it involves every employee in the organisation, top management must inspire quality confidence among employees and assign clear roles and responsibilities to them. To inspire all levels to implement TQM, they must have a

clear understanding of what constitutes TQM, which can only be achieved through the use of the implementation framework. All of the stages of this framework will now be explained in detail.

6.6.2 Stage One: Top Management Commits to TQM

At this critical stage the top management team must make a decision on the implementation of TQM and then commit unconditionally to the process. Garvin (1991) emphasised that TQM will only be successful if the entire organisation becomes involved. Quality advocates further argue that to achieve its objectives, TQM requires the coordinated effort of many different kinds of activities (Leonard, 1988). More importantly, and for the purposes of this research, there is some degree of agreement among managers, consultants and academics that TQM and, by extension, TQM strategies will only be successful if the top management of the organisation exhibits sustained commitment and becomes directly involved in the implementation phase (Sims et al., 1992).

Juran (1993) further states that it is the responsibility of senior management to develop an appropriate vision, mission and philosophy which supports quality-related practices or continuous improvement. Once a firm has settled on a set of attainable objectives and targets, it becomes necessary to commence the process of strategy development, which can ultimately lead to the successful implementation of TQM success factors. In turn, it is the responsibility of everyone to develop a sense of commitment to the new TQM direction. The change needed to develop this new TQM mindset will be driven by both top management and the change agent. Strategy development and implementation, inclusive of success factors and barriers to implementation in the service sector, were discussed in detail in Chapter 4.

According to Andrews (1980), the implementation of any given strategy is comprised of a series of primarily administrative sub-activities. Accordingly, this research takes the view of Andrews (1980), Giles (1991), Piercy (1991), Cole et al. (1993), Kano (1993), Hauser & Clausing (1998), Cole (1999), Covin et al. (1994) and others, in hypothesising that if a firm's vision, mission, objectives and strategies are established or

conceptualised, then, certainly, the resources of the firm can be mobilised to accomplish its overall purpose. The author wishes to add to this by suggesting that it is the responsibility of top management to ensure that adequate resources are allocated to the TQM implementation programme.

Top management need to commit to implementation, and must not only be ready to implement and support the change, but also be ready to implement changes proposed by other stakeholders. Furthermore, they must also be willing to delegate authority to improve quality and stakeholder satisfaction. This can be achieved through a deep understanding of all key ideas contained in the Six Senses Model.

According to the literature, in many instances top management supports the implementation of TQM, but only at the beginning, following which they do not follow through with the process, or instead, become bedazzled by the next new management craze. This must not be allowed to happen. In this regard, the change agent will play an integral role in keeping top management committed to the process.

Once the commitment is made by the top management team, the organisation's vision, mission and objectives must be revised to reflect the new strategic direction. At this stage, top management must also make concrete actions, such as formulating revised strategies, policies and operational objectives. All of these will need to be aligned to the TQM plan in order to achieve the benefits of synergy.

Therefore, top management cannot implement TQM in isolation. Whilst successful implementation hinges on the involvement of everyone, certain persons and groups are expected to play a key role in the process. These will include:

1. **The change agent:** The change agent must work closely with the top management team and, most importantly, the Chief Executive Officer/Managing Director of the organisation. All things being equal, whilst the change agent cannot tell top management "how" to implement TQM within their organisation, it is believed that if he works with them and makes the effort to understand their aims and objectives, it is then

easier for him to demonstrate the benefits of TQM. Next, once he is able to convince top management to "buy in" to the process, then the task of getting the entire organisation on board becomes easier. The change agent should be an experienced top manager and risk-taker. In addition, he may also be the Chairman of the TQM Committee. The change agent must also be able to assist, lead and guide the TQM Committee and quality teams in discovering new ways to solve any issues which may arise during the process.

According to Fullan (1993), the implementation of TQM is all about introducing a new mindset and bringing about educational change rather than introducing innovation. In this regard, external consultants (in this instance, the change agent) can be used to train and raise top management's enthusiasm for TQM. By and large, this can take the form of reading, discussion and site visits to similar organisations that have adopted TQM. At this "unfreezing" stage, the role of the change agent is, therefore, of utmost importance.

One of the key responsibilities of the change agent will be to highlight the fact that existing practices are no longer effective and at the same time promote the importance and inherent benefits of TQM. The author believes that this will greatly assist in encouraging top management's vision about TQM, in line with both the current and desired (future) positions.

2. **The TQM Committee**: Since change is usually best carried out as a team-wide effort, it is believed that in addition to having the change agent on board as the facilitator, it will be necessary to commission a "TQM Committee" to assist with company-wide implementation. The TQM Committee will comprise of members from all departments across the organisation (inclusive of top management) and may, from time to time, include external stakeholders such as suppliers and contractors. Additionally, as per the research findings, the organisation's HR support system will play an integral part in the implementation process (Section 6.4.3.4 refers). The responsibilities of this Committee will be to:

i. Plan quality improvement efforts for the whole organisation.
ii. Drive and support the TQM plans.
iii. Create ideas and initiate plans.
iv. Determine the strategy and techniques for implementing and evaluating the TQM plans.
v. Focus on the satisfaction of stakeholders.
vi. Follow up on the TQM methods being implemented.
vii. Provide feedback through the change agent.
viii. Ensure that the plans are continuously updated and evaluated.
ix. Co-ordinate and monitor the TQM implementation plan.

The formulation of the TQM Committee must include some degree of flexibility. This means that when TQM plans change, the Committee might change according to the responsibilities and qualifications necessary to achieve the plans. The organisational structure must also be flexible enough to adapt to these changes.

The TQM Committee is expected to facilitate the development and institutionalisation of the organisation's TQM process infrastructure. Its main function is to ensure that the TQM Plan is understood and implemented. The author also recognises the need for coordination, and so the TQM Committee will be responsible for establishing a system of stakeholder feedback and involvement, coordinating the benchmark process, soliciting problems for review and improvement, establishing quality improvement teams and coordinating the inclusion of quality improvement goals into the TQM plan. At this stage, the TQM Committee must be established with clearly defined roles and responsibilities.

3. **Quality Teams:** These teams will be necessary for organisations that operate out of more than one location. Key members of staff of the branch/regional offices will be required to be part of the TQM Committee, and additional support may be required in terms of increasing the number of change agents. It needs to be borne in mind that the effectiveness of the quality improvement process will depend in great part on the ability

of the team to work together, and particularly on their ability to work well with the rest of the project team and stakeholders.

6.6.3 Stage Two: Setting the Scene

After top management commits to the implementation of TQM within the organisation, there is the need to translate this to everyone within the organisation. Given that the implementation of TQM will be driven from the very top, as a strategy it is necessary that members of the top management team and the TQM Committee are clear in their understanding of the concept and how it is expected to work within the organisation. Training and development for the top management team and the TQM Committee, as well as the development of a TQM plan, are key factors in the implementation process.

Training and development is an important feature of the TQM implementation process. The author believes that the programme provided must be specific to the TQM process and the operations of the organisation's business. At this stage, special, intensive education and training must be provided to members of the top management team and the TQM Committee, as this is a prerequisite towards achieving successful implementation. It must be remembered that TQM implementation requires the support of skilled and well-trained implementers. More importantly, according to the literature, an understanding of TQM will increase the commitment of the implementers and reduce opposition to any changes brought about by the implementation of same.

Often, there is a gap between planning and improvement needs, which is why the TQM plan is necessary. The TQM Committee must identify the areas for improvement within the organisation. To do this, stakeholders' needs and expectations must be identified (internal and external) by conducting a stakeholder survey, which will make any decisions more realistic and based on actual data collected. In addition, specifying objectives and goals is essential at this point. This is an integration of stakeholders' expectations with the translation of the TQM Plan formulated in the first stage. Next, the TQM Committee, in conjunction with the change agent, should use the information to develop a more detailed action plan with a description of the needed tools and techniques, bearing in mind that all of this must be aligned to the Six Senses Model. The

aim of collecting information from the stakeholders' survey at this stage is to make sure that the plans are going to meet their needs and to solve existing issues, rather than having some plans that are not suitable for the organisation. This should help in solving the problem of unrealistic decisions and plans which may have been put forward.

Finally, and before or even concurrent with moving towards implementation, a documented TQM implementation plan must be developed. At this stage, the total involvement of all staff at all levels is essential, because TQM can only progress when it involves every employee in the organisation. This is not always the case in implementation programmes, though. Accordingly, the author believes that with every employee designing and deciding about the implementation plan, their attitude will be more positive toward the formulation and subsequent implementation phase. This is in addition to ensuring the cooperation and empowerment of all levels as a team. This would possibly lead to inspiring confidence among internal and external stakeholders toward TQM and increasing their commitment. This stage of TQM implementation is similar to the double-loop learning of Argyris and Schon (1996) inasmuch that it includes change in values besides change in strategies.

In order to design the final TQM implementation plan, it should be integrated into the corporate strategy of the organisation, which is the responsibility of the change agent and the top management team. It should be noted that one of the reasons behind the failure of quality efforts in many organisations is due to it being treated as a separate system. In planning, integrating TQM into the strategy of the organisation ensures its consistency with set objectives, thus avoiding the prevalence for stakeholders to believe that this new concept involves extra work, which was one of the key findings from the data analysis in this research. In the documented plan, there must be a comprehensive training plan, which makes the roles of employees involved in the TQM implementation process clear. Moreover, it should include concrete actions to overcome any barriers to quality improvements.

Bearing in mind that sometimes training is carried out in an ad hoc manner and is therefore unsystematic and does not meet trainees' needs and responsibilities, the

training plan must be systematic and in line with the TQM plan. It should follow the following steps:

1. Outline training objectives. All members of the TQM Committee need knowledge of some basic tools including teamwork, evaluation methods, problem-solving, collecting data and decision-making techniques. These are connected to the content of the training and will be used to evaluate the training.
2. Formulate and organise the training programme. This should include the content of the training. For example, it includes the key elements of the Six Senses Model, the need for its implication, areas for improvement, quality tools and techniques and the roles of the implementers and the need for their commitment. It should also identify the timing and place of training.
3. Assign specific training roles to specific members of the quality teams.
4. Organise materials within the available budget.
5. Evaluate the effectiveness of training by checking the achievements of the objectives and opinions of the trainees.

As the Six Senses Model includes continuous improvement as a main principle, training must be an ongoing process to ensure that the members of the TQM Committee are well-qualified to carry on the change in conjunction with the change agent. As the implementation of TQM in the organisation will result in changes in the existing work processes, some conflicts, tensions or confusion might happen. In order to overcome this, the plan must be flexible enough to adapt to any emerging issues. The plan should be also comprehensive in nature. In the documented plan, quality standards against the identified objectives are set and measures to ensure compliance with the objectives are established. Moreover, the training programme and materials are specified. Involvement of stakeholders and the linking of different aspects of the organisation were key issues from the research, which established that some respondents did not feel fully involved. It is essential at this stage to point out that staff empowerment begins when the vision and the goals have already been set by top management (Murgatroyd & Morgan, 1993), so the organisation's vision should reflect the aspirations and general direction that will ensure the success of the organisation. Every member of the organisation should share

in the formulation of the vision, according to which they should formulate objectives and action plans. Additionally, they should establish a daily management system and make use of TQM tools such as quality function deployment, the Deming cycle, the check sheet, the fishbone or Pareto analysis.

6.6.4 Stage Three: Implementation

This could very well be considered the most critical stage of the execution framework. Again, drawing from the literature, the author proposes that the following steps be followed for seamless implementation:

1. **Training:** After educating and training top management and the members of the TQM Committee, education and training of all members of staff is necessary. Training should be carried by the change agent, with assistance from external consultants, as necessary. Without adequate training at all levels, those involved in the implementation process will not be empowered to carry out their duties in an efficient and effective manner. This could then lead to failure, as revealed in the literature review (Chapter 4).

As indicated in Chapter 4, many TQM programmes have failed because there were misunderstandings about the purpose of change. Clarifying the Six Senses Model should always be considered throughout the implementation process, by reviewing the quality policy and implementation objectives. This can be achieved through having sufficient training and an emphasis on quality's importance in official speeches, meetings and workshops. When assigning clear roles and responsibilities, those involved in the implementation process should be informed about the limits of their responsibilities, so that there is no confusion over the issue of who should do what.

2. **Communication:** In implementing TQM, it is essential that there is a wide sharing of information and knowledge among all of the stakeholders, especially those involved in the implementation process. Effective communication plays a vital role in the success of the implementation and can be achieved through newsletters, reports, email and regular meetings. The types of information that need to be communicated

effectively include the roles and activities of the change agent and TQM Committee and regular achievement reports.

3. **Scheduling:** As mentioned previously, often TQM initiatives begin but are not completed. In order to combat this problem, the author recommends that a detailed schedule be drawn up for all activities and their related actions, including what exactly will be done, by whom and by what method, and the methodology to be used (tools and techniques).

6.6.5 Stage Four: Evaluation and Rewards

At this stage the implementation plans need to be evaluated by the TQM Committee through the objectives set at the beginning of the programme. This step focuses on data collection and the achievement of the TQM objectives in general, and plan objectives specifically. At this stage, it is important to obtain information about successes and weaknesses, as this will help to review the achievements and obtain better understanding about the requirements for continuous improvement.

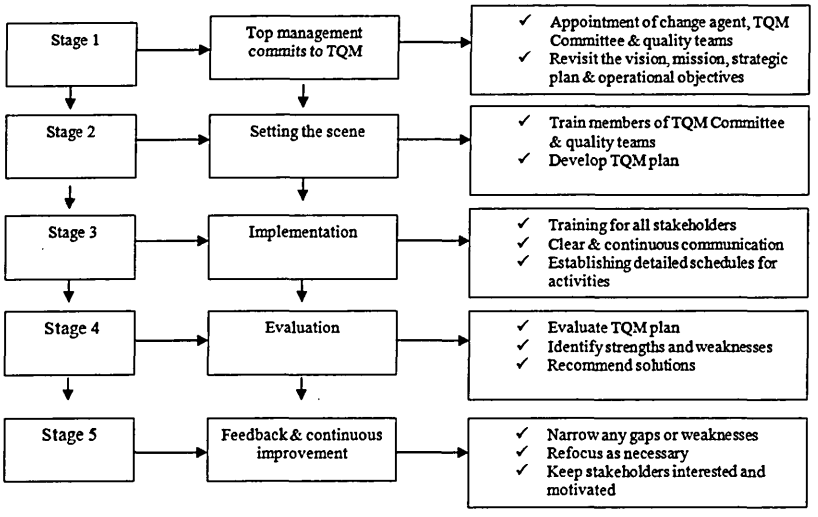
6.6.6 Stage Five: Feedback and Continuous Improvement

At this final stage, it is important to sustain momentum and interest in the process. Many TQM programmes have failed because of implementation problems, so everyone must be mindful of the fact that if the implementation process is not carried out to the end, it will be deemed a failure. At this stage, successful processes need to be repeated and any barriers or weaknesses avoided; only then can the whole TQM implementation programme be assessed and evaluated.

The scheme of continuous planning and evaluation is a very important aspect at this stage, as it allows continuous improvement to become a basic operating concept within the organisation. This perpetual process of improvement will help in narrowing the gap between the current situation and the desired one. Moreover, the TQM Committee should be refocusing and reinvigorating quality principle actions, since the lack of regular feedback or evaluation can lead to failure.

These five stages of the Six Senses Model's implementation framework place emphasis on the other five constructs of the said model: core management functions, stakeholder involvement, critical TQM success factors, the process of integration, TQM success factors and TQM strategic outcomes. Having explained the Six Senses Model in detail, it is now necessary to validate it. The next section outlines the author's mechanisms for carrying out this process.

Fig. 6.3: Six Senses Model – Implementation Framework



Source: Author's own work

6.7 VALIDATING THE SIX SENSES MODEL

According to the literature, TQM is expected to mature into a sustainability phase to support a universal business strategy. The inherent critical success factors will vary, in order to accommodate changes in the environment in which organisations operate. Despite the fact that TQM initiatives have been recognised by many organisations as capable of transforming quality culture and producing competitiveness, as we progress into the new millennium, new initiatives or their improved versions are being suggested to retain TQM vigour and its sustainability.

From the data collected, a framework for the proposed implementation of a TQM model has been developed. In developing the enabling framework, strategies for effectively sustaining TQM implementation have been highlighted. A number of theoretical enablers and inhibitors for sustaining TQM have been discussed, a theoretical Six Senses Model has been proposed and the implementation strategy has been outlined.

Contributions by practitioners such as Deming, Juran, Crosby, Ishikawa and Black & Porter have served to project the practices of quality management ahead of the theoretical development and understanding of models by which the quality management process can be explained. Furthermore, quality management was not developed by academics, nor was it programme tested prior to adoption by the business community. A review of the quality management literature reveals a paucity of research related to the development of theoretical models that account for quality management's influence on measures of organisational performance. Given that this study is pioneering within T&T, and by extension the wider Caribbean region, it is precisely this void which the Six Senses Model will address. It is expected that this integrated model will lend to easy implementation.

Chapter 7 will test the theoretical model for validation. This will be done by:

1. Benchmarking the Six Senses Model from a theoretical perspective
2. Having the model reviewed by a focus group from the construction industry and top management team members from the organisations studied.

The feedback generated from these reviewers will then be used to redefine the Six Senses Model, as necessary, and the conclusion from the entire study will then be presented in Chapter 8.

CHAPTER 7 - VALIDATING THE MODEL

7.1 INTRODUCTION

This research study has utilised both qualitative and quantitative research methods. The merits and demerits of each method have been discussed in Chapter 3. As mentioned in Chapter 3, researchers pay great attention to the reliability and validity of all research methods, since the lack of rigour deems research worthless making it a work of fiction (Morse et Al., 2002). Accordingly, Bosk's (1979) question, "All field work done by a single fieldworker invites the question, why should we believe it?" has already been answered in Chapters 3 and 6. However, since the overriding aim of this thesis is to develop a theoretical model for TQM, it is not enough to present data, references, variables, diagrams and hypotheses. The Six Senses Model must be theoretically sound and implementable.

To demonstrate that The Six Senses Model is sound, the author has adopted a two-fold approach for its validation. Firstly, it has been benchmarked from a theoretical perspective (comparison with other models) and secondly it has been reviewed by two focus groups (one from the construction industry and the other comprising top management team members from the other organisations studied). The next section examines the benchmarking of The Six Senses Model from a theoretical perspective.

7.2 THEORETICAL VALIDATION OF THE SIX SENSES MODEL

7.2.1 Introduction

Having presented The Six Senses Model for TQM (Chapter 6), one must determine how it compares to the Reference Models and other TQM models. To answer this question, it is necessary to compare The Six Senses Model with the Reference Models as well as other TQM Models.

7.2.2 EFQM Excellence Model, the MBNQA and the Deming Prize/Model

According to the quality literature, the EFQM Excellence Model, MBNQA and the Deming Prize/Model are the most utilised quality management models for improving organisational performance. Tan (2002) compared 16 national quality awards including the most successful programmes – the Deming Prize, MBNQA and EFQM – and developed a comparative framework that could be used to develop national quality awards in countries which did not have any programmes for promoting excellence. Kumar (2007) compared the Deming Prize and the Western models of quality awards on the basis of their objectives, quality principles and criteria.

Similarly, and more specific to this research, Metri (2005) examined 14 important TQM frameworks inclusive of the Deming Prize, MBNQA, Oakland, Black & Porter, EQA, etc., for the purpose of establishing TQM critical success factors (CSFs) for the construction industry. The comparison shows the commonalities among different quality awards. A major commonality is that they all use a minimum of seven criteria, namely:

1. Leadership
2. Strategic planning
3. Customer and market focus
4. Information and analysis
5. Human resource focus
6. Process management
7. Business results

How does The Six Senses Model compare with these criteria, all of which are integral components of the model? In this regard, The Six Senses Model compares well with past research and thus paves the way for its use within the service industry in T&T. It should be noted however, that whilst it is at its conceptual stage and has no developed award criteria, given the fact that it is a self-assessment tool, the author proposes to use the self-assessment criteria as a means of comparison with the reference models. This comparison can be seen in Table 7.1.

Table 7.1 Common Award Criteria

Criteria	Malcolm Baldridge Award (U.S.A.)	EFQM Award (Europe)	Deming Prize (Japan)	The Six Senses Model (Trinidad and Tobago)
Leadership	Executive, company and community leadership.	Inspiration, support and promotion of total quality management.	Policy, organisation and helpful supervision.	Executive, involved, inspirational and promotion of total quality management.
Planning	Strategic direction, plan development, plan deployment and performance tracking.	Product of policy and strategy.	Future plans, quality control initiatives and policy focus.	Strategic direction, plan development, plan deployment and continuous performance tracking.
Customers	Market requirements, customer relationships and satisfaction.	Measurement of customer satisfaction.	Service activities and customer relationships.	Continuous assessment of customers needs to ensure satisfaction.
Employees	Human resource development and participatory environment.	Release of full potential through people management.	Training and motivation of skilled labour personnel.	Human resource development and participatory environment.
Processes	Process design, implementation, management and improvement.	Identification, management, review and improvement.	Standardisation, quality assurance, maintenance and improvement.	Integration of all stakeholders with the strategy of top management.
Suppliers/ Stakeholders	Improvement of partnering process and evaluation of supplier performance.	Leadership involvement with and management of supplier resource.	Vendor training and associations of related companies.	Improved communication, understanding of role and responsibilities and greater involvement in the process.
Results	Customer, financial, human resource, supplier, operational and competitive.	Objective achievement, stakeholder satisfaction, financial success and impact on society.	Quality, delivery, cost, profit, safety and environmental effects of quality control.	Improved quality, improved productivity, increase internal and external satisfaction and retention, reduced time, lower cost and sustainable competitive advantage.

Source: Author's own work

As mentioned in Section 6.4.1, The Six Senses Model is based largely on the philosophy of the EFQM Model. It is thus necessary to specifically note any difference or similarity between these two models. One of the major distinctions is that the EFQM Excellence Model is a non-prescriptive framework based on nine criteria, as shown in Diagram 6.1, whilst The Six Senses Model is a prescriptive model based on a simple framework of six constructs. The six constructs namely top management core functions, stakeholders, integration, TQM success factors, the process of integration and TQM strategic outcomes. The EFQM entails five enablers (leadership, people, policy and strategy, partnership & resources and processes) and four results (people results, customer results, impact on society results and business results). Within its prescriptive framework, The Six Senses Model clearly indicates the critical success factors required for the achievement of strategic TQM outcomes and the process by which sustainable competitive advantage can be achieved.

Similarly, the EFQM Model highlights people as a major criterion for achieving key results. Through proper training channels, employees are encouraged to participate more in the achievement of quality goals. This allows them to become empowered once they have attained the required skills of problem identification and solving. Additionally, teamwork will allow employees to come together to show their ideas. The Six Senses Model follows a similar concept, and the author is of the view that once the foundation has been properly laid, employees will soon become committed and actively involved and a sense of ownership will ensue. In the case of the construction industry, by allowing the participation and ownership of all employees from the design phases to the construction process, the formation of a cohesive workforce occurs, where each person knows the values and the vision of the quality goals of the organisation and enthusiastically tries to attain them.

The reference models are not without criticism. Ghobadian & Woo (1996) assessed the weaknesses of the Deming Prize, the MBNQA and the EFQM Model and criticised them because of their weak focus on business results, arguing that the awards are too process-oriented. They lamented the high cost of implementing these models and the process of applying for the awards, citing Xerox spending $800,000 to win the

MBNQA. They also questioned the amount of effort and investment required to participate in the award process and asked an important question: "Are small businesses and non-multinationals seriously able to take part?" Whilst the Six Senses Model has no award criteria in terms of implementation costs, it is expected that it will be relatively inexpensive and straightforward to implement.

Although the reference models are the most widely used quality management models for improving performance, there are a number of other key models which have been developed over the years. The next section reviews some of these models, but it must be noted that whilst organisations contemplating adopting TQM practices stand to benefit from these models, they are not as comprehensive or integrative as the Six Senses Model.

7.2.3 The US General Accounting Office Model of TQM

The model depicted in Diagram 7.1 was developed by the US General Accounting Office in 1991. Since then, many firms have used this model like a "road map" in an effort to provide clarification and direction when adopting TQM practices. This model is based on a GAO study of the top twenty finalists in the 1988 and 1989 MBNQA competition. The major advantages of this model are that it is useful in describing what is required to achieve TQM and the benefits to be derived.

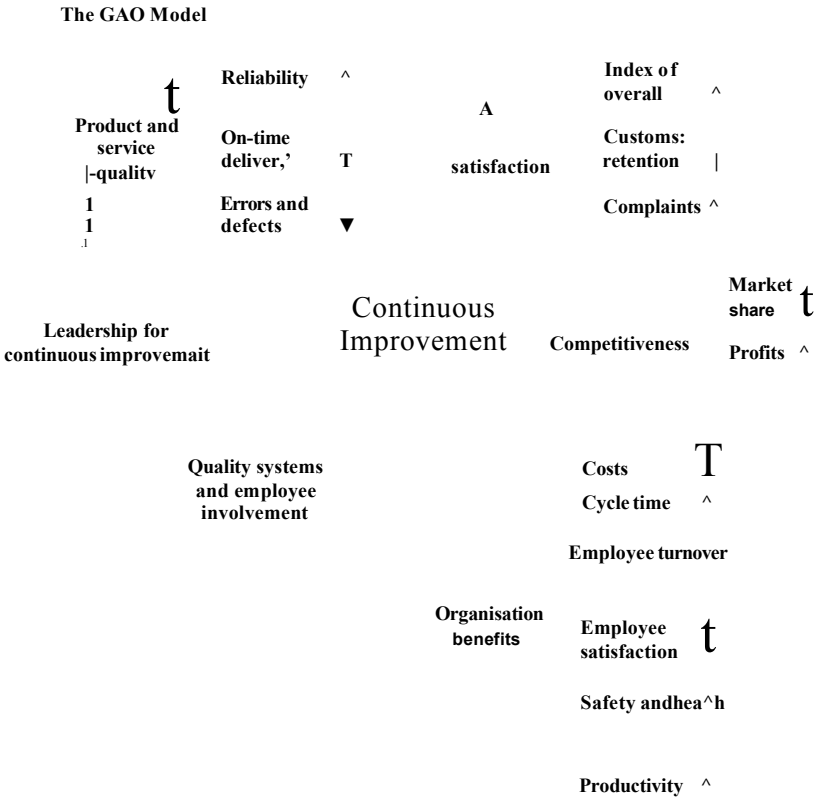
According to Diagram 7.1, the solid line shows the direction of the processes necessary to improve competitiveness. This starts with leadership dedicated to improving products and services, quality systems and employee involvement. Improvements in these areas lead in turn to improved customer satisfaction and benefits to the organisation, both of which can assist in sustaining a competitive advantage. The dotted line shows the information feedback necessary for continuous improvement, while the arrows in the boxes show the expected direction of the performance indicators.

The GAO Model and the Six Senses Model both share the philosophy that top management plays an integral role in driving the entire process. Other similarities shared are results in greater customer satisfaction, the combination of organisational and

customer benefits culminating in increased profitability and employee involvement leading to lower costs, lower cycle time and greater employee satisfaction. However, there are two distinct differences between the models. Firstly, the GAO Model does not take into account external influences, whereas the Six Senses Model deals with external influences head on and on a continuous basis, since there is integration with external stakeholders at all levels of the organisation. Secondly, the GAO Model looks specifically at product and service quality, whilst the Six Senses Model encompasses all facets of quality within the organisation.

Fig. 7.1

The US General Accounting Office Model of TQM

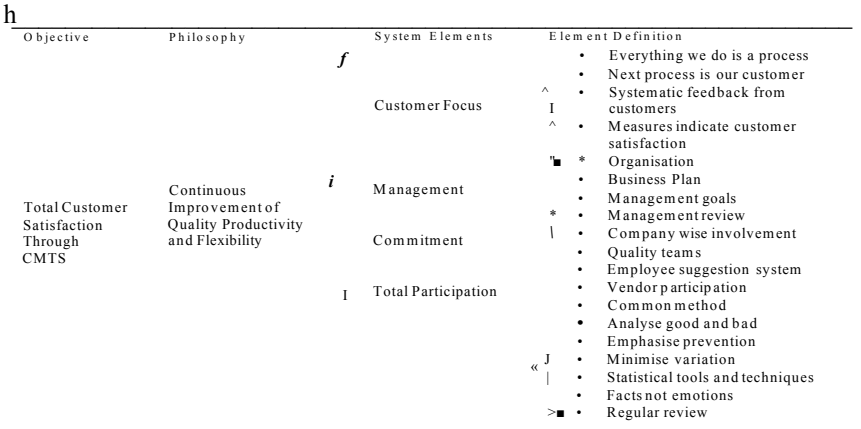


Source: US General Accounting Office (1991)

7.2.4 Hewlett-Packard's Model

The Hewlett-Packard Model also provides classification and direction for those contemplating embarking on the TQM journey (Diagram 7.2). Shores (1989) explained that the model is particularly useful in linking the more specific elements required to achieve total quality to one of four more general categories: customer focus, management commitment, total participation and system analysis.

Fig. 7.2
The Hewlett Packard Model



Source: (Shores, 1989)

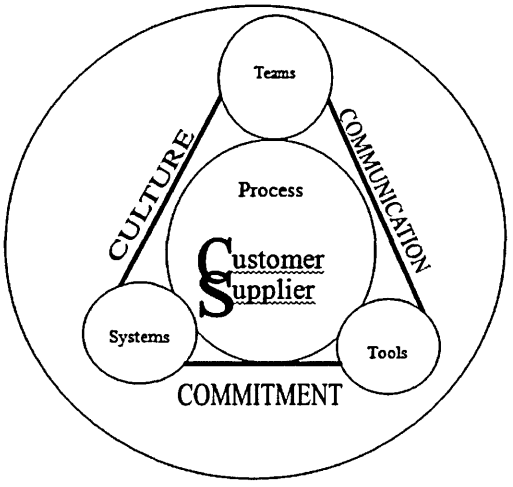
It should be noted that the core objective of "total customer satisfaction" remains one of the key principles of TQM, as was similarly identified in the author's Six Senses Model under "Critical TQM Success Factors".

7.2.5 The Oakland Model

John Oakland's Model (Oakland, 1995) develops further from earlier works conducted by Deming, Joiner and other notable writers on TQM (Diagram 7.3). As explained in Chapter 4, through the works of Deming, Juran and Crosby, the core of TQM is the customer-supplier interface. Oakland's Model takes this one step further, with the core being processes. This focus on processes has led to the process costing model in an attempt to measure accurately costs of quality and to assess the cost-effectiveness of TQM. Where the processes must be managed, next comes what Oakland calls the "soft"

outcomes of TQM – culture, communication and commitment. These are the cornerstones of the model.

Fig. 7.3: The Oakland Model



Source: (Oakland, 1995)

Additionally, surrounding the process use and connecting to "soft" outcomes are some "hard" management necessities:

1. Systems: perhaps based on ISO 9002 or some other internationally recognised standard.
2. Tools: statistical and other tools to analyse/improve the overall process.
3. Teams: Quality improvement teams and quality circles, to mention just a couple.

Moullin (1999) was of the view that the Oakland Model provides a framework against which an organisation's adoption of and subsequent progress to TQM can be examined and measured. The Six Senses Model provides a similar type of framework, albeit in more detail. Additionally, unlike the Oakland Model, the Six Senses Model provides clear criteria against which an organisation can conduct self-assessment.

Like the Oakland Model, the Six Senses Model notes the importance of commitment, culture and communication to its success. Whilst the framework of the Oakland Model suggests a cycle of continuous improvement, it gives no clear guidelines on how it is supposed to work/be implemented. The prescriptive Six Senses Model, clearly outlines the process to be followed and identifies the key functions of management and the critical success factors necessary to achieve desired outcomes.

7.2.6 The Baidoun and Zairi Model

When developing their model (the Baidoun & Zairi Model), Baidoun & Zairi (2003) noted that knowledge of TQM was still very limited, and they were of the view that providing a complex model for TQM implementation was improper and unscientific. Hence, a logical and simple model closely based on the empirical evidence derived from the analysis of the three levels of investigations was developed (major top management actions, organisational activities and guidelines for effective implementation). Two of their objectives in conducting their research and developing their model were to address a major gap in the literature by empirically investigating TQM implementation in a developing country, in this case Palestine, and to provide a model with non-prescriptive implementation guidelines.

The Baidoun & Zairi Model identifies four separate but interrelated constructs: demonstrate top management commitment and involvement, ensure employee commitment and involvement, manage by customer-driven systems and processes and create a continuous improvement culture (see Diagram 7.4). In Baidoun & Zairi's view, these constructs represent what Palestinian organisations must do to delight the customer by consistently meeting customer requirements, and then achieve a reputation of excellence; bearing in mind that the findings of their study revealed that continuous customer satisfaction is a value for which most Palestinian organisations strive.

The Baidoun & Zairi Model is also founded on the basis that practical assistance, training, recognition and participation should be given to ensure that all employees, in order to attain the quality goals of the organisation, acquire the relevant knowledge and

experience. The model is meant to be based on a TQM implementation framework, the components of which can be seen in Diagram 8.5.

Diagram 7.4
Constructs of TQM implementation framework

Source: Baidoun & Zairi (2003)

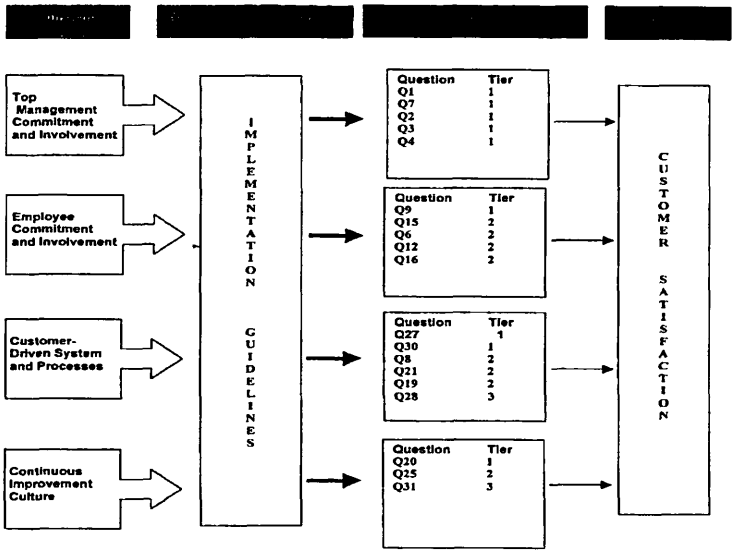
The Six Senses Model shares a number of similarities with the Baidoun & Zairi Model. Both have been created for use in a developing country and agree on the importance of the key constructs of demonstrating top management commitment and involvement, ensuring employee commitment and involvement, managing by customer-driven systems and processes and creating a continuous improvement culture. Finally, both models carry their own implementation framework, which clearly defines how the process is to be implemented within an organisation.

Conversely, there are also a number of differences between the Six Senses Model and the Baidoun & Zairi Model. Perhaps the major distinction is that the Six Senses Model is a prescriptive model, whilst the Baidoun & Zairi Model is non-prescriptive. Another difference lies in the outcomes of implementing the models. The Baidoun & Zairi Model ultimately results in customer satisfaction, which is a central goal in the Palestine context, but the Six Senses Model lists a number of outcomes, which ultimately lead to

sustainable competitive advantage. These include increased satisfaction and retention of both internal and external customers, improved quality, enhanced productivity, reduced time and reduced costs.

Diagram 7.5

Components of the TQM implementation framework



Source: Baidoun & Zairi (2003

7.2.7 Summary and Conclusion

According to the literature, although TQM is regarded as one of the most effective ways to improve quality and enhance productivity (Oakland, 1993; Becker et al., 1994). No single TQM model has been unanimously established and recognised. It has been the general practice of firms to adopt TQM frameworks based upon the assessment criteria from key quality awards such as the Deming Prize, the EFQM Business Excellence Award and the Malcolm Baldrige National Quality Award, all of which were discussed earlier.

Each of the models discussed offers some interesting insights into the adoption of TQM practices. The General Accounting Office (GAO) model demonstrates the benefits of TQM most clearly, while the Hewlett-Packard (HP) Model is considered the most

tangible since it provides a bit more detail about what is required for a company to be labelled a quality provider. On the other hand, Oakland's Model places particular emphasis on processes and the customer-supplier interface, while also indicating the various requirements for TQM. Therefore, an amalgamation of the key benefits of the above mentioned models are considered critical factors for the construction of TQM.

The EFQM Model, the Baidoun & Zairi (2003) Model and the Six Senses Model have all identified top management as being critical for the adoption of quality within the organisation. The EFQM Model emphasises leadership, the Baidoun & Zairi model targets top management commitment and involvement and the Six Senses Model names top management as the driver of the entire TQM implementation process. Furthermore, The EFQM Model also identifies policy and strategy, partnerships and resources as enablers to achieving excellence in quality. Additionally, Baidoun & Zairi (2003) propose the construct of management by a customer-driven system and process, associated with the concept of the internal customer supplier relationship. Accordingly, the customer-supplier relationship must be managed to add value to customer satisfaction, which makes measurement of capability vital. The Six Senses Model is founded on a framework of five pillars, which specifically show what must be done to achieve the desired outcomes.

Likewise, for Baidoun & Zairi (2003), customer satisfaction is the end product of the TQM implementation framework. This was also reiterated in the EFQM model, where people results, customer results and society results encompass key performance results. The Six Senses Model also identifies process outcomes of enhanced productivity, improved quality, reduced cost and reduced time, consistent with the findings of the studies chosen.

Once implemented properly, the delivery method set out by the Six Senses Model will result in a process which will enable the client to reap the benefits of timely delivery, high quality, reduced cost, overall value for money and sustainable competitive advantage, thereby setting a new industry standard – an anomaly in the current environment. The implementation approach via an integrated process will lend to

ultimate success. Senge's (1990) belief that the "most successful corporation of the 1990s will be something called the learning organisation. The ability to learn faster than your competitors may be the only sustainable competitive advantage" encourages the researcher to propose that the need to transform an organisation into an active learning entity can be achieved through the implementation of the Six Senses Model.

7.3 VALIDATING THE SIX SENSES MODEL VIA FOCUS GROUPS

According to Boddy (2005), a focus group discussion is defined as a group of people brought together to participate in the discussion of an area of interest. The aim of the focus group is to provide an environment in which all members of the group can discuss between each other the area being studied. Members of the focus group may argue with each other, try to persuade each other of their point of view, agree or disagree, ask each other questions and generally discuss the topic in an open and usually friendly manner. This results in a broad breadth of discussion as well as discussion in depth. The direction of interaction is between each group participant (including the moderator) and each of the other group participants individually or collectively. The moderator, acting as first among equals, intervenes.

In this study, two focus groups were used as the second part of the validation process for the Six Senses Model. The first comprised members of the construction industry and the second members from all the other firms/industries surveyed (health care, banking, hotel, telecommunications and water). The groups comprised a total of 18 participants. The composition of these groups is considered to be critical to the validation of the Six Senses Model. The researcher's selection strategy for participants is discussed in the next section.

7.3.1 Composition of Focus Group

Given the pervasive nature of TQM, the author believes that for the purposes of this research study, it was necessary to include a wide cross-section of persons within the group. However, this was limited by the general practice in terms of the number of people comprising a focus group.

The focus group for the construction industry was comprised of ten persons and included:

1. Employees (members of top management teams, HR, finance and technical support)
2. Consultants
3. Suppliers
4. Contractors

The members of the other focus group were all senior members of staff at their respective organisations and had previously been interviewed by the researcher at the data collection stage. The members of both groups were selected after careful consideration of group composition, as discussed in Chapter 3. As espoused by Krueger (1994), the author believes that the groups offer the following benefits:

1. The interaction among the group members provided a social context for participant input that would otherwise have been lacking in individual interviews.
2. The cost per respondent was less than for individual interviews, both in terms of time and money.
3. The open-ended questioning format afforded the researcher the flexibility to pursue ideas through probes and pauses in ways that closed response survey techniques do not permit.

Although several authors have suggested that five to seven participants provide an optimal balance of "air time" and logistical considerations for focus groups, the author believes that the use of a skilled and experienced facilitator was useful in controlling the focus group's discussion in terms of the research objectives and the planned implementation of the Six Senses Model for TQM.

7.3.2 The Focus Group Facilitator

The role of the focus group facilitator was assumed by a Management Consultant who has over thirty years' experience, owns his own management consultancy business, is Chairman of a state-owned enterprise, a lecturer at the University of the West Indies (UWI) and is pursuing his PhD at UWI.

During the focus group sessions, the facilitator worked closely with the groups in an effort to keep everyone focused on the purpose of the session. Discussions were mainly directed between the facilitator and the group respondents individually, rather than between respondents themselves.

The role of the facilitator was key to the successful use of the focus group. Because of his academic and professional expertise, he was able to guide discussion without controlling it, and he possessed sufficient interpersonal skills to manage participants who attempted to dominate the discussion, as well as to draw out participants who were relatively less forthcoming.

7.3.3 General Format of Questions Asked

Krueger (1994) was of the view that a focus group interview works because it taps into human tendencies; attitudes and perceptions relating to concepts, products, services or programmes are developed in part by interaction with other people. He further explained that we are a product of our environment and influenced by people around us. In this regard, although the questions asked seemed deceptively simple and were the kind of questions which an individual could answer in a few minutes, in a group environment these questions, if subject to skillful probing, could provide enlightening and honest results. The author followed Kreuger's format for questioning as follows:

1. An opening question, which is factual in nature and establishes the participants' commonality.
2. A series of introductory questions which acquaint participants with the topic and initiate conversation.

3. Transition questions which move discussion to the focus group's central topics.
4. Two to five key questions which are central to the analysis.
5. An ending question to accomplish one of the following objectives:

i. encourage participants to state their final position on key topics;
ii. give participants the opportunity to comment on the accuracy of a facilitator-generated summary of the key input generated by the group or
iii. enable participants to offer any additional comments relevant to the group's key purpose.

It must be noted that all questions asked during the focus group session were pre-tested on people who did not serve as focus group participants. It is believed that pre-testing helped to address the following key concerns about validity (Dreachslin, 1996):

i. Is the meaning of the question clear?
ii. Do the questions use terminology that is understandable to the participants?
iii. Does each question ask only about one topic?
iv. Do the questions reflect any hidden bias or lead the participants?

The atmosphere of both sessions was fairly relaxed and comfortable, with minimal distractions from telephone calls or other interruptions. Most of the participants were familiar with each other, so there was no difficulty in building a sense of trust and rapport between the group members and the facilitator. Each session lasted approximately four hours.

Once the focus group sessions were completed, the data was reported and analysed, and will be presented in Section 7.4.

7.3.4 Strategies for Analysing Results

For documentation purposes, and in order to allow a greater level of individual thought, "packages" including a cover letter (outlining the purpose of the focus group session), Chapter 6 (which introduces and explains the Six Senses Model), the aims and

objectives of the study, a diagram of the Six Senses Model and a feedback questionnaire, were given to the respondents two days prior to the session for review. The completed feedback questionnaires were collected at the end of each session.

As mentioned in Chapter 3, Krueger (1994) identified four strategies for analysing results, ranging from least to most time-intensive: memory-based, note-based, tape-based and transcript- based. The most rigorous approach is transcript-based analysis, which was used in the analysis of data for this study. The analysis of the data began with documentation during the course of the session. The findings from the focus group sessions are reported in the next session.

7.4 ANALYSIS OF DATA FROM FOCUS GROUP SESSIONS

7.4.1 Introduction

The main aim of this section is to present the analysis and interpretation of the quantitative and qualitative data collected. Ary et al. (2006) state that "the challenge facing the researcher at this stage is to make sense of the copious amounts of data and to construct a framework for communicating the essence of what the data reveal".

The quantitative data collected from the feedback questionnaire showed that the majority of participants had positive attitudes towards the Six Senses Model.

These results gave a broad outline of their general thoughts, which showed the criteria in the Six Senses Model were important and relevant.

In order to gain further information on what the participants of the two groups thought of the Six Senses Model, the feedback from the sessions will be reported within the framework of the major constructs, namely:

1. Top management
2. Stakeholders
3. The process (integration)

4. Implementation
5. TQM success factors
6. TQM outcomes

Additionally, since a number of questions were asked on the under mentioned factors, these will also be discussed:

1. Data collection
2. Validating the model
3. Ease of implementation
4. Training and development

7.4.2 Top Management

All of the individuals present agreed that top management's involvement was critical to the successful implementation of the Six Senses Model. One of the major differences between the two focus groups was their response to the functions of management. Members of the focus group which comprised members of the construction industry only, were largely unfamiliar with the actual functions of management, especially since their educational background were in the field of engineering and project management. However, they were appreciative that the functions of management as identified by the Six Senses Model would serve as a checklist for "management" to carry out.

On the other hand, members of the other focus group were familiar with the functions of management as identified by the Six Senses Model. Still, a few admitted that often people focus only on some functions to the detriment of others, thereby resulting in ineffective management. They consequently believed that if an organisation was to implement the Six Senses Model, the model itself would serve as a formula and roadmap for achieving the desired outcomes.

In addition, one of the points that emanated from the discussions was that the functions of management, as identified by the Six Senses Model need to be extended to include "entrepreneurship and innovation". It was argued that firms within the construction

industry are often founded on and become successful because of entrepreneurship and innovation, but the other traditional functions identified in the Six Senses Model are required for continued success within the industry, which is highly competitive. It was also argued that in the other firms studied (banks, state enterprises, hotel, etc.) it is this spirit of entrepreneurship and innovation which allows the firm to stay one step ahead of its competition.

Another question which was raised under this construct was, "Is the Six Senses Model premised on the assumption that management has made a decision to implement TQM methods within the organisation? The researcher indicated that the implementation framework for the Six Senses Model (Chapter 6) addressed all of these, further indicating that for TQM to be successfully introduced and implemented, commitment by management remains essential. In a sense, TQM fundamentally requires a new culture, and this is only possible through management intervention.

Another critical question regarding top management was, "If top management is weak, how will they be able to implement a model like this?" The researcher responded that the strength or weakness of management is dependent largely on how well they understand their core functions and are able to carry them out, especially as they relate to the formulation of the organisation's corporate strategy. Thus, this was another reason why the functions of management are clearly defined within the model. Additionally, it was also made known that top management's support, coupled with the use of a change agent in the implementation process, sets the scene for successful implementation of TQM methods.

7.4.3 Stakeholders

Some of the participants expressed confusion as to why "stakeholders" were shown as a separate construct within the Six Senses Model. Before answering this question, the researcher redirected this question to the participants as follows: "Who are the stakeholders with whom your organisation deals?" Varying answers were given, after which it became evident that no one had correctly identified their company's most

important stakeholders. Most had a prejudicial opinion, specific to their job or department.

The researcher then explained that TQM pervades all facets of an organisation and as such includes everyone with whom the organisation conducts business. Furthermore, if top management, as the strategic decision-makers, were unable to identify all of their stakeholders, then it would stand to reason that any strategy developed against this background would be lacking and therefore be unsuccessful, especially since firms compete at both the industry and global levels.

Another key point which arose under this construct was whether or not the construct "stakeholders" should be reclassified as "stakeholder involvement" and "relocated" under the construct "top management core functions" or "TQM success factors". It was then explained that "TQM success factors" were those critical success factors which all organisations identified in the data collection exercise. As such, it could not be arbitrarily included under "TQM success factors". In terms of including it under "top management core functions", it was agreed that this was beyond the scope of this research study. However, all agreed that it is necessary to have some level of stakeholder involvement within the decision-making process. Other questions raised with respect to stakeholders are discussed in the next section.

7.4.4 Integration

Nearly all of the participants clearly understood the concept of the process of integration. However, there were some questions regarding which construct was integrating with what. The first question asked was, "How exactly does the integration process work with respect to stakeholders and the TQM success factors?" The answer given was that the integration process actually included top management's core functions, stakeholders and the TQM success factors, bearing in mind that top management uses their core functions to get the process moving forward and, at the same time, gain stakeholders' confidence. Additionally, top management translates their vision, mission, objectives and strategy to these stakeholders.

Thus, it was explained that in developing their corporate strategy top management must identify their stakeholders and be aware of how they impact on the organisation. Additionally, there must be some level of integration between top management and stakeholders (stakeholder involvement) and some degree of integration between the organisation's culture and the actual project culture, as both co-exist. In a sense, there must be a thorough understanding between the stakeholders and the TQM success factors in order for integration to take place. Hence, without successful integration, especially between the key stakeholders and TQM success factors, it then becomes somewhat impossible to achieve a competitive advantage. In this case, "key stakeholders" are referred to the employees and project team (design and management). Quite often, large development-type companies have their own internal project manager and other project staff.

Despite the fact that most of the participants shared senior positions in their various organisations and were actively involved in decision-making, they did not believe that there was enough "integration" either up or down the hierarchal ladder to allow their organisations to reap the synergies of teamwork. There was consensus that although managers shared responsibilities with their staff, they did not share vision, mission, objectives and strategy. They thus welcomed the idea of top management driving the TQM implementation process through interaction with stakeholders and subsequent integration.

It was further explained that depending on their business with the organisation, and vice versa, there would also be integration between the stakeholders and the TQM success factors. One participant then asked whether the organisation would reveal the TQM success factors to the stakeholders. It was then revealed that the TQM success factors were to be considered part of the organisation's "trade/operation secret". As such, they would only be revealed to the organisation's internal customers (employees and project design and management team).

7.4.5 TQM Success Factors

The main questions asked about the TQM success factors were, "What do these factors represent?" and "On what basis have they been developed?" The researcher indicated that they were identified from the analysis of the data collected from the questionnaires. This was explained in detail in Chapter 6.

Notwithstanding the holistic nature of the Six Senses Model, a few of the participants asked the question, "If stakeholders are so important to the process, shouldn't stakeholder involvement be a critical success factor in the implementation of TQM?" Again, the researcher reinforced the point that the TQM success factors were identified as per the data analysis and could not be arbitrarily included within this construct.

The other critical question asked on this section was, "How exactly do the TQM success factors impact on TQM strategic outcomes?" To answer this question, the researcher first explained each of these factors in detail and then enlightened on how they would lead to the outcomes, in tandem with the entire process. He further went on to explain top management's commitment and involvement from inception. Top management further translates and integrates their vision, mission, objectives and strategies to the identified stakeholders through their core functions. Once the project objectives, problems, challenges, resources, impact on society and environment, etc. have been ironed out, the integration moves to the next stage, only this time key stakeholders are required to integrate with the TQM success factors. Hence, it may be safe to say that successful integration with TQM success factors allows for the implementation of same, eventually allowing the TQM strategic outcomes to emerge as a result of the above processes involving integration.

7.4.6 TQM Strategic Outcomes

Since the preceding constructs were all explained in detail, all participants were in agreement with the outcomes. However, there was some debate as to whether time would actually be reduced. It was suggested that whilst the time factor may not increase, it could remain the same, with the understanding that planning through interaction with

stakeholders would take longer but actual implementation time (construction, process etc.) would be reduced, as all unforeseen pre-construction, construction and post-construction issues would have been addressed during previous meetings involving top management and stakeholders.

Additionally, involvement from the beginning of the project allows for better understanding of the objectives and project deliverables. More importantly, ownership ensures that everyone takes a collective approach to solving complex problems, i.e. preventative actions are taken before defects occur. Meetings are held regularly and all progress and quality meetings are attended by the client.

7.4.7 Data Collection

Apart from questioning the data collection method employed by the researcher, participants were also interested in finding out how the process works in terms of theory development.

7.4.8 Validating the Model

The participants agreed that the Six Senses Model seemed to be theoretically sound and had taken into consideration the dynamics of the Trinidad and Tobago environment. However, from a comparative point of view, they were interested in finding out how it was going to be validated. They were told that validation was being done on a two-fold basis, through theoretical benchmarking and through the focus group sessions.

7.4.9 Ease of Implementation

Most of the participants admitted that the Six Senses Model was understandable and seemed like it could work in theory. However, given the fact that TQM is a relatively new concept in Trinidad and Tobago, there were some concerns about the ease of actually implementing the model within an organisation.

It is important to note that one of the participants is a senior member of the top management team at her organisation which embarked on a TQM implementation plan three years previously. She informed me that a comprehensive plan had been developed, however, implementation was shelved when a new Chief Executive Officer was employed. Given the intensity of her involvement in the development of her organisation, she admitted that the Six Senses Model had all the necessary ingredients for success – and even more. She noted that top management support and culture are two factors critical to the success of any TQM implementation plan.

In terms of the Six Senses Model's ease of implementation, the participants agreed that the framework and prescriptive nature of the model would allow for easy understanding; however, they also agreed that a change agent was necessary to facilitate the implementation, until such time as the process started to work and became institutionalised within the organisation.

7.4.10 Training and Development

Many of the participants were unclear as to what exactly "TQM methods" referred, although they grasped the basic idea of total quality management. They therefore expressed the view that once top management committed to the implementation of the Six Senses Model, all members of staff should be offered training and development in TQM methods. As one participant commented, "It is not enough that staff are told that a decision has been made to implement TQM; people must be trained on what TQM is and how it affects what they do within the organisation". There was general agreement that training would be a key facilitating factor.

The researcher assured that training and development on TQM methods was an integral part of the implementation strategy and would be under the purview of each organisation's HR department.

7.5 CONCLUSION

This chapter focused on the validation of the Six Senses Model through a theoretical comparison with various TQM implementation models, and presented the information

collected from two focus group sessions, which included a total of 18 participants and represented persons from all of the organisations studied. The participants were unanimous in their belief that the Six Senses Model could be implemented within the service industry in Trinidad and Tobago and that all of the criteria identified in the model were important and relevant.

In validating the Six Senses Model from a theoretical perspective, it was compared to the reference models (the EFQM Excellence Model, the Baldridge Award and Excellence Model in the USA and the Deming Prize and Model), the US General Accounting Office Model of TQM, the Oakland Model, the Hewlett-Packard Model, the Malaysian Model and the Baidoun & Zairi Model.

The findings from both approaches mentioned above suggested that the Six Senses Model compared well with the above named models in that it shared a number of similarities through core constructs and philosophies. In all instances where there were discrepancies, the Six Senses Model seemed to have the benefit. One of the questions listed in the feedback questionnaire given as part of the focus group session asked, "How would you compare the proposed framework model with other models and frameworks?" One participant answered, "The management role is of absolute importance. Culture plays a key role in approach, time and outcomes. This model seems to take those relevant items into consideration". It must be mentioned that this respondent belonged to an organisation which had embarked upon a TQM implementation strategy some time previously; thus, her comments had taken into consideration the theoretical tenets of TQM as well as the challenges faced in actual implementation in the local context.

The focus group sessions raised a number of important and interesting questions. Although most of these were addressed in the information package provided, both the researcher and the facilitator provided the necessary answers and clarifications. The major difference in the questions asked by the different groups stemmed from their difference in education as it pertains to management theory. This is a critical distinction

for the implementation process. However, it is believed that the use of a change agent for implementation will serve to address issues related to this element.

The issue of stakeholder involvement also emerged as an interesting point for discussion. However, consideration of this factor is beyond the scope of this research study.

Although a review of the literature shows that there is no universally accepted implementation model for TQM, upon the completion of validation from a theoretical perspective, and through the focus groups, it is believed that the Six Senses Model successfully bridges the gaps found in theory, research and practice, and can be successfully implemented within the service industry in T&T.

CHAPTER 8 - DISCUSSION, CONCLUSION AND RECOMMENDATIONS

8.1 INTRODUCTION

This final chapter summarises the findings and conclusions of the research study. It endeavors to form responses to the research aim and research objectives outlined in Chapter 1. In an effort to assist the reader, the research aim, research questions and methodology are briefly reviewed.

The primary aim of this research study was to investigate whether or not a firm within the service industry in T&T can achieve sustainable competitive advantage by incorporating TQM methods within corporate strategy. A summary of the research objectives, as well as the author's accomplishments with regards to each, are as follows:

1. *To assess and evaluate the current performance of firms within the service industry:* This objective was achieved via the use of the questionnaire and semi-structured interviews with the participants. The general finding was that firms in various sub-sectors are at differing levels of maturity in terms of quality-related practices.
2. *To identify the factors necessary for the successful implementation of TQM-based strategies*: At the beginning of the research study, it was envisaged that this would be done by examining the extant literature on TQM implementation and strategy formulation and implementation. As the study unfolded, factors necessary for the successful implementation of TQM-based strategies were also identified from the actual field research.
3. *To identify performance gaps between actual, current and best practices*: Collecting the data and information required for achieving this objective was achieved through the use of the questionnaires, semi-structured interviews and literature review.
4. *To formulate a TQM-based strategy model applicable for the service industry in Trinidad and Tobago*: Among other things, this research study has resulted in the development of the TQM Six Senses Model, which is based on synthesis of TQM

philosophy and strategy. The Six Senses Model is based on the five constructs of top management's core functions, stakeholder involvement, the process of integration, TQM success factors and TQM strategic outcomes. It is a prescriptive model which provides stakeholders within the service industry with a means to achieve efficiency and effectiveness within their operations, which will ultimately lead to sustainable competitive advantage.

5. *To thereby develop the academic research body of TQM current principles and practices*: The Six Senses Model compares well with other notable TQM-based frameworks and models such as the Deming Prize, MBNQA, the EFQM Excellence Award, the GAO Model, the Hewlett-Packard Model, the Oakland Model and the Baidoun & Zairi Model. As mentioned in Chapter 7, unlike many other models, the Six Senses Model is a prescriptive model which clearly identifies what must be done to achieve TQM success factors. In this regard, the research can be deemed successful in its contribution to knowledge.

The research methodology employed in this study was based on an "information gathering" approach, since there is no existing data on the concepts of TQM practices and implementation, the relationship between TQM and corporate strategy and sustainable competitive advantage in Trinidad and Tobago. The research methods employed included the administration of a questionnaire, semi-structured interviews, the use of focus groups and a comprehensive literature review of TQM, corporate strategy and sustainable competitive advantage. The details of the results and conclusions drawn from the data collection are provided in Chapters 5 and 6.

In the following section a summary of the overall research study is provided on a chapter-by-chapter basis. This section will highlight the main reason why certain approaches, techniques or methods were pursued. The limitations of the study, as well as recommendations for further and future research, are listed in Sections 8.3 and 8.6, respectively. Recommendations are outlined in Sections 8.4 and 8.5. Finally, this thesis concludes with Section 8.6's "Contribution to Knowledge".

8.2 DISCUSSION

As outlined in Chapter 1, Total Quality Management has gained significant acceptance throughout the global marketplace and is considered by many academics and practitioners as an approach to improving the competitiveness, effectiveness and flexibility of an organisation. However, while it has emerged and developed into a key management philosophy, its record of implementation has remained questionable. To date, TQM continues to be criticised, especially from the point of view of its ability to significantly improve a firm's financial performance and achieve sustainable competitive advantage.

Even though the concept itself remains highly credible, it would appear that there remains a certain degree of misunderstanding with respect to a proper understanding regarding implementation, TQM methods, or TQM success factors, corporate strategy and other related factors which impact on the overall position of a firm and its ability to achieve sustainable competitive advantage. The Six Senses Model has thus been developed after analysing and identifying the aforesaid pitfalls, in an effort to address and avoid future causes of implementation failures. One way of avoiding such implementation failures is through the process of integration. The author is convinced that integration is the missing link which is necessary in achieving sustainable competitive advantage, and as such, this process is an integral part of the Six Senses Model.

Although similar types of studies have been conducted in various parts of the world, no such study has been conducted in Trinidad and Tobago. It was thus necessary to provide an overview of the country, inclusive of the major environmental factors prevailing, bearing in mind that the organisation is considered a true reflection of society. The major components of the environment discussed in Chapter 2 were geographical background, social and cultural aspects, political background and a general review of the economy. It also provided a detailed description of the service industry in T&T, inclusive of the various sub-sectors and firms which participated in the study.

Achieving a sustainable competitive advantage was the focus of this research and as such was based on investigative works within the service sector of Trinidad and Tobago. Throughout the study, the author maintained that this could be achieved by integrating TQM methods through its success factors with corporate strategy. At present, TQM has never really been tried or tested in either service- or manufacturing-based industries throughout Trinidad and Tobago. In order to develop the model, it was therefore important to collect data pertaining to the existing and expected behaviour of firms. Accordingly, as outlined in Chapter 3, the research methodology adopted made use of both qualitative and quantitative methods. Primary data collection was undertaken via the use of questionnaires and semi-structured interviews with selected candidates. Two focus group sessions were also instrumental in the validation of the Six Senses Model, while secondary data was collected via a comprehensive literature review, as seen in Chapter 4.

From Chapter 4, the accepted criteria set for the Six Senses Model was derived from the literature review of the concepts of TQM, corporate strategy and sustainable competitive advantage. Specific analysis was carried out on a number of TQM models developed over the past three decades. Although the literature review proved useful in understanding the concepts and philosophies of TQM, as well as its implementation process, strategy and sustainable competitive advantage, it somehow failed to produce an accepted and comprehensive criteria set on which to develop the Six Senses Model.

A summary and analysis of the data collected considered questionnaire design and the reliability of this instrument and was presented in Chapter 5. Cronbach's alpha was found to be 0.961, which was greater than 0.7. Results from the 150 questionnaires were then placed under rigorous analysis in order to attain both descriptive and inferential statistics. The data collected was entered and analysed using the Statistical Package for the Social Sciences (SPSS) Version 12.0. Questions and their responses were coded appropriately and tests of analysis conducted.

Based on the findings set out in Chapter 5, combined with an in-depth analysis of the Reference Models, the manifestation of the Six Senses Model became a reality, as presented in Chapter 6 and specifically Diagram 6.2:

The Six Senses Model was developed with the guiding philosophy that it could be adopted by a company of any size within the service sector of any country. The Six Senses Model is prescriptive in nature and can be used as a self-assessment tool to ascertain progress, as it relates to gaining a sustainable competitive advantage in both local and international markets.

A comprehensive literature review was carried out in an effort to identify and classify the reference models. These frameworks were seen to be best practice models for implementing excellence strategies, performing self-assessment, benchmarking and ultimately delivering improved performance, eventually leading to sustainable competitive advantage. Comparative analysis of the Six Senses Model was carried out against the existing quality assessment award models of:

- ✓ The Deming Prize
- ✓ The Malcolm Baldridge National Quality Award and
- ✓ The EFQM Excellence Award

The Six Senses Model criteria set was considered more cost-effective, practical and straightforward to implement, and overcame the shortcomings of the existing quality award models, which have been observed by other notable quality advocates (see Section 7.2). The Six Senses Model compared well with the seven models, inclusive of the reference models (Table 7.1 and section 7.2.6). The six constructs identified in the Six Senses Model for TQM are as follows:

- ✓ Top management's core functions
- ✓ Stakeholder involvement
- ✓ The actual process involving integration
- ✓ TQM success factors

- ✓ The process of integration and
- ✓ TQM strategic outcomes

The Six Senses Model and the supporting self-assessment tool address shortcomings in the existing quality award models. Given the fact that this study is pioneering in Trinidad and Tobago, and bearing in mind that any assessment of TQM implementation requires a scoring scheme in order to quantify the quality achievement within the criteria identified in the self-assessment tool (Table 6.7), a scoring scheme was devised.

The Six Senses Model is intended to encourage stakeholders to focus on improving quality, enhancing productivity, increasing employee satisfaction, reducing time and lowering cost in an effort to achieve sustainable competitive advantage. Achieving these objectives is preferred to trying to obtain abnormal profits by providing the client with minimum requirements of quality. It should be mentioned that via the process of integration, the Six Senses Model can result in medium- to long-term profits.

In an effort to validate the Six Senses Model, Chapter 7 outlined the two-pronged approach adopted. Firstly, it was compared against the reference models identified in Section 6.3, the three frameworks identified in Table 7.1 and four other notable models. Further validation was done via two multidisciplinary focus groups; the first, comprising members from the construction industry and the second, comprising members from all of the other firms surveyed. This was an extensive and comprehensive validation process which led to some changes in the Six Senses Model.

Upon completion of the validation from a theoretical perspective, and through the focus groups, it is believed that the Six Senses Model successfully achieves its goals, since it is based on sound management principles working in tandem with TQM philosophy and practices. Thus, it is envisaged that it will greatly assist firms in overcoming problems associated with costs, quality, efficiency, productivity, customer satisfaction (internal and external) and scheduling, all of which are associated with achieving a sustainable competitive advantage.

8.3 LIMITATIONS OF THE STUDY

This was a ground-breaking study for the service industry in Trinidad and Tobago and specifically from an organisational management perspective. The study not only investigated whether or not firms within the service industry in Trinidad and Tobago could achieve sustainable advantage by integrating TQM methods with corporate strategy, but also considered the crucial issue of implementation according to the TQM and corporate strategy literature review with the respect to the existing issues that arose from the focus group sessions, the data analysis of the main study and the suggestions of the participants. However, whilst the study can be considered a success on many levels, there are, of course, some limitations.

One major limitation to this study is that it was validated only through theoretical comparison and feedback from two focus group sessions. Even though this is in some ways a strength, as it has allowed the development of the Six Senses Model to meet the needs of the service industry, it would be interesting to know whether the findings from this study would be similar if pilot testing was actually undertaken in a company. However, given the fact that TQM implementation is not a process that can occur overnight or quickly, and bearing in mind the author's constraint with respect to time, pilot testing was simply not feasible.

Another limitation regarding this study is the fact that it considered only the Trinidad and Tobago environment in its undertaking. To give the study a more regional flavour, it would have been interesting to have conducted a similar type of study in a neighbouring country which has achieved first world status (Barbados) and maybe another which is still considered to be a "banana republic" by many (St. Lucia), since the service industries in these countries appear to be facing similar issues with regards to quality-related practices.

8.4 RECOMMENDATIONS

The present study aimed to examine whether or not firms in the service industry in Trinidad and Tobago could achieve sustainable competitive advantage by integrating TQM methods with corporate strategy, and then to propose a TQM-based model for implementation within the industry. The findings of this study showed that TQM can assist in the development of organisations and, by extension, the industry. The participants in the study – top management, internal and external stakeholders and other key personnel – agreed that the specific Six Senses Model is suitable for developing the service industry in Trinidad and Tobago.

The participants of the focus group sessions also highlighted some obstacles that might face the implementation process, and suggested some facilitating factors for TQM implementation such as careful planning before starting implementation, providing stakeholders with feedback, stakeholder involvement and empowerment, providing a suitable budget for the implementation and providing training for all. Based on the conclusions reached, the following recommendations are brought to the reader's attention.

1. The Six Senses Model should be pilot tested within a firm from the service industry and the analysis should be used for further improvement and recognition of the model.
2. This thesis proposes a model for the service industry in Trinidad and Tobago, but any organisation may modify the model according to its own circumstances. It is important to ensure that any model used is realistic, workable and affordable.
3. Before introducing any change into an organisation, top management has to first obtain the agreement of those affected by the change.
4. The involvement and empowerment of all staff in the development of their respective organisations can increase their level of support and commitment.
5. The implementation of any development needs time and appropriate preparation, as any sudden change may end in failure as a result of strong opposition.
6. Flexible management planning is essential in managing change and development.

7. All implementers should have the necessary training. This will enable them to acquire new knowledge and implement the development effectively.
8. TQM is a long-term commitment, not something that can be done overnight. The process of implementation and cultural acceptance can take three to five years; therefore, the provision of time and patience is necessary.
9. The implementation of TQM needs careful and full planning to ensure things are done right first time.
10. Successful implementation of TQM requires a quality culture to be implemented within the organisation through education, training and support from the top.
11. Knowledgeable implementers and supporters need continuous TQM training.
12. Implementation of TQM needs the provision of sufficient resources and a suitable budget.
13. Regular feedback is essential to both correct unwanted results and to encourage successful implementation.
14. Further research is required and ought to be carried out with a view to developing the Six Senses Model for TQM within the international market.

8.5 RECOMMENDATION FOR FURTHER RESEARCH & STUDIES

Quality management in Trinidad and Tobago is still in its infancy. Therefore empirical research in this area is lacking. It is hoped that this study will help provide a foundation of knowledge on quality management in a holistic and local context, and encourage local academics and practitioners to increase their interest in this research area. As this study has covered a number of management issues, many recommendations for further research have arisen.

Firstly, it is important to further validate the Six Senses Model. It would be useful to empirically test it in a number of scenarios, for example in a number of firms of different sizes, which operate in different sub-sectors and are at differing levels of quality maturity. Obtaining cooperation between countries within the region to obtain primary data for a comparative study of a similar nature could be carried out to confirm the usefulness and applicability of the model in the English-speaking Caribbean and

developing countries. This will provide a helpful perspective for practitioners to apply in their organisations.

The study of TQM implementation in this research involved only companies within the service industry. It would be of interest to study those within manufacturing, agricultural and other sectors, which would provide useful information for TQM implementation for any company operating within the economy.

However, the Six Senses Model certainly needs to be refined, reviewed by individual quality advocates and tested at an organisational level involving a reasonable number of service-based firms experiencing quality at different stages of maturity. This would hopefully add credibility to the model and its relevance with respect to the various constructs identified. Issues pertaining to strategy, sustainability, competitive advantage, quality, critical success factors and integration will be explored further. Perhaps it will then be successfully used on a future case study in the self- assessment of service-based organisations.

8.6 CONTRIBUTION TO KNOWLEDGE

This final section summarises the results of this research study in terms of its contribution to knowledge. It is proposed that this research makes a worthwhile contribution to knowledge on theoretical and practical levels, as follows:

1. There has been no previous type of study in Trinidad and Tobago. The proposed framework and model developed during this study provide insights into quality management practices (or lack thereof) in Trinidadian organisations. This in itself contributes to academic knowledge. Moreover, both the framework and the Six Senses Model can be of use to local service-based organisations in terms of practical quality management development. An organisation that wishes to embark on or progress in its quality journey can examine its status against the framework in order to start, or improve, a particular aspect that is found to be unsatisfactory.

2. The Six Senses Model depicts comparative characteristics with respect to the philosophy and constructs of similar types of model developed in both developing and developed countries. This provides academics and practitioners with a new insight into the development and implementation of TQM from a global perspective, and supports the notion that regardless of a country's status (developing or developed), the demands of quality remain the same.

3. The Six Senses Model is one of the few TQM implementation models that are prescriptive in nature. This basic standard is arguably the greatest contribution at the practical level to the Trinidad and Tobago service sector resulting from this research. Based on the feedback of the focus group sessions, the Six Senses Model is easily understood and thus lends to smooth implementation.

4. The integrated survey, semi-structured interviews and focus groups used in this research have proven to be valuable and provide a choice of approaches which others may use when studying quality and strategic management issues.

Finally, to conclude, the primary aim of this research study was to demonstrate that by integrating TQM methods with corporate strategy, firms within the service industry in Trinidad and Tobago could achieve sustainable competitive advantage. The author would like to submit that this particular objective has been achieved.

There are many areas derived from this study in which further work might be carried out. Additionally, the present study is just the beginning of our TQM journey in Trinidad and Tobago and should be considered an invitation to other researchers to join in the investigation in the fields of strategic management and Total Quality Management. The scope and potential for future research are great and necessary to improve quality management and development. Some future studies that could be considered include:

1. The role of communication in making the work environment of firms in the service industry more effective.

2. An investigation into the feasibility of implementing Total Quality Management in firms within the service industry.
3. An investigation into the training needs of employees in service-based industries.
4. Authority delegation within firms of all sizes and how to make it more effective.
5. The importance of strategic and quality management programmes.

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http://www.republictt.com/1asp/default.asp

http:// www.resourcesystemsconsulting.com/blog/archives/1108

http://www.tstt.co.tt/

http://www.wasa.gov.tt/

APPENDICIES

APPENDIX A: Letter of Introduction:

Steve fyjpatty
78-79 Fairmont Drive, Fairways,

CMoSik: 1-868-689-5032
Email: srajpatty@yalioc.com

November 24th 2005.

Ms. Susan Noel,
Human Resources Manager,
Water and Sewerage Authority,
Farm Road,
ST. JOSEPH.

Dear Ms. Noei,

Re: Authorization to Conduct Research for Doctoral Researdi Programme

I am a PhD. student at the Sheffield Hallam University Business School (U.K.) conducting research under the supervision of Dr. Kadim Ai Shaghana. My research topic is *"Integrating TQM methods with organizational strategy: a source of sustainable competitive advantage.*

The fundamental aim of this study is to determine whether firms within the service sector can achieve sustainable competitive advantage through the integration and implementation of Organizational Strategy and Total Quality Management (TQM) methods.

To understand the impact and functioning of a TQM based strategy, firms must systematically review and evaluate their existing core strategy, structure and systems with emphasis on the implementation process and its effect on efficiency and effectiveness. This study therefore will not only focus on the actual strategy formulation and implementation but more importantly how TQM is introduced and implemented by those closest to the customer and by extension the general public.

As you would appreciate, this research study would most certainly have a positive impact on the service sector and more importantly would impact favorably on the overall operations of your company.

There are three (3) phases to this research study. Phase one (1) entails a Literature Review on the subject matters (TQM methods and organizational strategy}. Phase two (2) involves research at service based organizations. After much consideration and deliberation, I have concluded that your company is ideally suited for the purposes of this research study, for the following reasons:

1. Your company compares favourably with other seivice based institutions in developed countries;
2. Your company is considered by many to be the industry leader in the country (and perhaps the region). This augers well with the concepts of continuous improvement, customer satisfaction and sustainable competitive advantage; and
3. It is believed that findings from this research study will be beneficial to your organization and by extension the seivice sector of Trinidad and Tobago and the wider Caribbean.

To this end, I am seeking authorization to administer questionnaires to some of your senior managers.

Completion of the questionnaire would take *approximately thirty (30) minutes* of your employee's time, and may be completed at their convenience during a one -week period. Please be informed that participation in this project is completely voluntary, however your contribution would be greatly appreciated. Bearing in mind, the findings from this research would be used as the basis for the development of a practical model for Organizational Strategy and TQM implementation within the realms of the seivice sector on a local, regional and international basis. It is also worth mentioning that providing you consent to this proposal all findings may be published in leading management journals throughout Europe and North America.

In the second phase of the study, I would like to conduct some follow-up interviews with those who are willing from earlier participants. Participation in the aforementioned interviews would again be completely voluntary.

I would be thankful if you could determine as a matter of urgency if your organization would be willing to participate and if yes, then decide on a mutually convenient time.

Please be assured that all information that you provide through your participation in this study will be kept confidential and you will not be identified in this proposed report or any

publication arising out of the findings unless consent is granted. Additionally, there are no known or anticipated lisks to participation in this study.

If after receiving this letter, you have any questions about this study, or would like additional information to assist you in teaching a decision about participating, please feel free to contact Dr. Kadim Ai Shaghana at 0114 225 2820 or email at (K.Shaghana@shu.ac.uk) or myself, Steve Rajpatty at 689-5032 or e-mail at (srajpatty@iyahoo,com).

I would like to assure you that this study has been reviewed and received approval through the Research Degree Sub - Committee of the Sheffield Hallam University Business School.

Thanking you in anticipation for your co-operation. In the meantime, I await your invaluable direction and authorization to proceed.

Yours sincerely.

Steve Rajpatty BA, DBA, MBA, M.Sc.

APPENDIX B

Questionnaire

Code

Management / ProfessionafQuestionnaire

•Steve Rajpatty
Doctor of Philosophy Progrg.irjr.e (PhD)
School of B u a n s s i m i Finance
Sheffield Hallam University
U.K.

RF^FABfH TTTT F "Incorpoiadng TQM Methods with Corpaiare Strategy: a source of competitive advantage in the seivice industry"'-

Based on your experience as an administrator or professional at The W ater and Sewerage Authorin' - (WASA} please give consideration to the level of quality and organizational strategy implementation that are bemg practiced and delivered at your organization.

Please read each question carefully, keeping in nnnd that you are evaluating the levels of quality and its integration with strategy that you are presently delivering. We are interested m your feelings, good, bad or indifferent about your organization's quality practices and core strategy presently bemg used7

In accordance with the Data Protection Act (U.K.). responses are COMPLETELY CONTTDEXTLAL, Forms are numbered for research purposes only, but the names of respondents are kept separate at all times NO ONE AT ALL has access to both the names of individuals and their responses.

Thank you for your co-operation.

1-0 EMPLOYEE DEPARTMENT PROFILE

1.1 Management Supervisory Profile

a) Name Surname:_____ First:_____

b) Age:_____ c) Sex Male | | Female ☐

1.; Date of employment_____

1J Department: _____

i.4 No. of staff_____

1.5 Job Title:_____

1.6 Main Hesponsibdities Duties _____

1.7 TYLat is youi highest level of qualification''

iPleafe mark OXI ha:x **onn** *with an X)*

No fotmal qualification	Technical Vocational Diploma
High School Completed	Degree ot Equivalent
O' Levels (Five or more passes.)	Professional Designation
Up to and including A' Levels	Postgraduate Award

Other *(f!eaie Specfi)*_____

1 S Are you a dtiaen of Trinidad and Tobago" Yes □ No □

1-0 THE SERVICE INDUSTRY

This area addresses the overall competitiveness of the service industry.

2.1 What do you thmi is the greatest challenge presently farms your industry"

2.2 Hew is this affecting your organization"

1.3 What has management dona to contat this"

1.4 XVtat are the major service; terns provided by youi department"

1.5 What are the expectations of vour customer; with respect tc the services hems provided'

1.5a To whit extent are these etqtectanons being met and how are they measured to monitor customer satisfaction'

2.6 **Do you believe that the suivival of vour organization depends on the quality of the service you offer"**

Yes j j **No** ☐ **Don t Know** ☐

Please elaborate further:

2.7 Do you consider your organization to be a quality service provider"

es j j **No j j** **Don t Know j j**

Please elaborate further:

Please rose ihtfollowing:	**CURRENT PERFORMANCE** FcvjeUrrJ ?uc*	**EXPECTATION** Hxudjeni Puw	**N'A**
2.S The qualay of your services	I 1 : 1 1\ / 1 1|	I 1 I =I 11 * I	**ED**
2.9 Range of u n ic e s provided.	I 11 1 1 1I *I 3 1	1 » 1 »I 11 *I >I	I ** I
2. /0 Clarity of your organization * aims objectives	1 »I * I »I <I » I	| » | 1I 1 1 x | -\	I *» I
2.11 Degree to which die se aims objectives met.	**n ;i 1 h 'i**	**in-rri-i**	**e d**
2.12 The ament to which you are satished widi your level of involvement with respect to the aims objectives of the organization.	I 1 1 2 1 3 1 ^ 1 3 1	I *h h h l >1	**ED**
2.13 Level of motivation provided mom Board of Directors.	I I : I I ‘ I ~ 1	I I I I I~1	I ”» I
2.14 Professional recognition of your organization	I__j__| j__j J	I _i i i__I	**ED**
2.15 Level of staff interaction with clients public	I *I 2 I 1 1 1 1 3 1	i : i I t !	**ED**
2.1f The level of communication and information between management professionals and the lower level staff	**1 H " h H**	**EH E H**	**ED**

3.Q STRATEGIC GOALS & OBJECTIVES

3.1 Does your organization have a strategy"lIf so. please describe:

3.2 Do you think that your organization's strategy should be built around quality related practices'

v « n » n Don't Know □

3.3 Ifyes to **3.2 please elaborate further**

3.4 Do you believe that a quality related business strategy has the potential to lead eventually to high quality operational ana business performance'

Yes □ **No** ☐ **Don't Know** ☐

3.5 Ifyes to 3.4 please elaborate further

Please role thefoUoHmjr.	**CURRENT PERFORMANCE** F \ncUrri Ft	EXPECTATION Fajuc.Jcni Fuji	**N A**
3.6 Level of strategic planning.			
3.7 Involvement in strategic planning			
3.S Articulation of strategic planning.			
3.9 Formulation of a Strategic Plan			
3.10 Implementation of a strategic plan			I ^ I
3.11 Visibility of mission statement			I I
3.12 Communication of mission statement.		1 3 1 * 5	I ** I
3.13 Integration of quality related practice in strategic planning agenda.		iI:I iI*	I I

3.14 Integration α"quality railted practice; in trillion statement.	1 1 1 4 !			**ED**
3.15 Existence of 3 formal quality policy				**ED**
3.16 Adherence to quality policy	1 : 1 4 ⚑		3 4	i ᴠi i

4 0 CUSTOMER SATISFACTION SERVICES

P!eax rae (hefaHomng-.	**CURRENT PHUORMANd** FccɔcIIceJ Ptjc*	**EXPECTATION** F u e :tn ! Pout	**NA**
4.1 Importance of quality' in year department organization		12 14 5	I *» I
4.1 Importance of customer satisfaction myour department organization.			**ED**
4.3 Services provided by your department organization to customers.			i ** i
4.4 Level of customer feedback.			i ~ i
4.5 Level of follow-ops with customer after they have been discharged.			I *» I
4.6 Priority of dealing with customer complaints			i i
4." Level of management xvolvement m dealing with customer complaints.			i ** i

4 £ Does vour department have manaeers staff dedicated to customer satisfacr.on matters'1

Y“ □ No □ Don’t Know □

4.0 How often does your department track customer satisfaction1

- **Daily basis**
- **Monthly or more often**
- **Quarterly**
- **Semi-annually**
- **Yearly or less often**
- **Don’tknow**

4.10 Do vou think that customers should nav for a hieh level of service1

No | | Don’t Know □

4.11 Has your department organization initiated programmes to improve customer satisfaction within the pait year'

Yes | | No | | Don't Know j

4.12 Co you tk x i that your department organization need to improve as level of customer sansfm ton''

Yes | [2·o | | Coo t Know j i

4.13 If yes to 4.12. please elaborate further._____

4.14 If a customer is displeased with the sendees presided what actions are takes to address samel1

4.15 W lat are your two (2) most frequent complaints'

5.0 QUALITY' RELATED PRAC TICES

Please r a t thefo'lovimj:	CURRENT PERFORMANCE Pkjev	EXPECTATION	N A
5.1 Current quality practices	**I h i h i ■**		**GD**
5.1 Directors Management support m qualiTy initiation.	I J I 4 I S		l ** l
5.3 Directors Management commitment to quality related practices on an ongoing basis	2 1 4 1		**GD**
5.4 Level of your individual involvement m any quality related initiative	I I 2 I J I 4 I)		**GD**
5.5 The attitude and behaviour of co-workers toward quality in general	**1 I *2* I 1 I *I 8**		i ^ i
5.6 Education and training for staff along the lines of quality	I 2 1 4 J		**GD**

5.7 Your wilhsgness to participate x quality mrtianves practices I *I 1 1 1 I 4 1 ' I I 11 - 1 11 « I 5 1 n=n

5.8 Your involvement in any previous quality initiative h H l h b l I 1 1 »| A «| »l G D

5.9 If you have been involved in any way or die other with respect to question 5.8 please rate die successfulness of same I 1 : 1 1 I * I ' I \ l h i *l «l *l ED

5.10 Would you be willing to be mined x quality related practices?

Yes □ No □ Don't Know □

5.11 Do you thirl: the implementahon of quality pracnce would improve the overall performance in your departmentI

V u D No □ Don't Know □

5.12 If yes to 5.11. please elaborate farther:

5.13 Overall how would you rate quality practices in your department organisation" Ili 2 I 1 I 4 1 * I I 1 1 1 2 I * 1 * I I ** I

5.14 lYhai two (2) factors do you t a x i are critical to ± e quilrry aspect of thejob you perform^

6 0 COMMUNICATION

Please rate rhe/allotting:	CURRENT PERFORMANCE F.ueltaJ ?ix«	EXPECTATION F-Mjr.rnJ Pour	N'A
6.1 Extent to which customers ire informed about business procedures			**ED**
6.2 **Level of customer involvement in their individual tnusactions**			I I
6.**J Level of feedback provided to customers.**			I I
6.4 Customer Staff Management relationship			**ED**
6.5 Level at which data are analysed and used to enhance customer relationships			**ED**

7 QHUMAN RESOURCES SUPPORT SYSTEM

Please rase thefbUonmg:	CURRENT PERFORMANCE Fvjcilzri Pi	EXPECTATION F.-urfaml I	N'A
5 Availability o: stiff to deal wish:			
> **Customer Related issues**			**ED**
> **Ptofessional**			i »» i
> **Technical**			**ED**
> **Support Services**			**ED**
> **Administration**			**ED**
'.2 Depanmentilisir.cn of orgamaauon.			**ED**
7.3 Level of teamwork			**ED**
'.4 Frequency at which performance reviews ire conducted.			**ED**
".5 Training for staff members			**ED**
'6 Staff turnover.			l l
7.7 Reasons of staff turnover:____			

TS Have your organization department conducted an assessment o: human needs to identify die most pressure human resources related problem'

Yes □ **No Q** **Don't Know** □

'.9 **If yes to 7.S, rate the overall response**

"ID Level of staffinvolvement

'.II Level of employee staff satisfaction. i 1 1 1 ■i *i n » h i ^i « i n i ** i

'.11 **Competency level o: staff.** | 1l i 1 i <| *s* | I 1h I ' I 4h I I I

8.0 COMFUTERIZATIOX TECHNOLOGY

Please **rare** *thefollomng-.*	**CURRENT PERFORMANCE** Fvncllrrl ?uui	**EXPECTATION** Fau£icnl Puur	**N'A**
S.3 Level of computerization within your organization department.	1 11 ; I 1 I 41 1 1	I 1h I 11 4 h	I ** I
5.2 Frequency of upgrade of your computer software.	[j f ~J i |	f~~[| [j___	I *4 I

5.3 Do you have a functioning IT department"'

Yes Q **No Q** **Don't Know** □

£.4 Do you have access to the Internet" ___ ___

Yes □ **No** □ **Don't Know** □

If no, please go on to quesrion S.6)

5.5 How often do you visit your competitors' web sites'

1 |**Daily** | |**Weekly** | |**Monthly** [|**Quanerly** 1 1**Never**

5.6 Please state the evtent to which you are sar.sfie d with the following aspects of the compuhn? services at WASA then rate how important they are to you in the discharging of your duties

S.7 Computer Services:

	Training m the use of computers.	I h i l h l ~ H	I ' h i ' h l"H	I ** I
>		| |, 1. 1. , . ,	I ! I t-1 n	ED
”		I H'H-I	I I I i•	ED
”		L H T H	IDD Ll-I	ED

SS lofcware Accessibility:

> Ease ofpurchasing

obtaining sofiware

« Amiability of software

> Cost o: software

I I
TT FH
I I

g o ORGANIZATION RESOURCES

9.1 How many people are employed by your orramiir.cn department'

50 or less

51 to 100

101 to 300

301 to 500

Greater than 5-D0

9.1 Is there a formal organizational structure m place'

Yes Q] No Q Don't Know ☐

9.3 Is tt visible and consistent'

Y « D No □ Don't Know □

9.4 How many managers are employed m your organization department'_____

9.5 How many supervisors are employed m your organization department"_____

9.6 How many technical and other support staff rs employed m your organmation department'

9.' Do vou have adequate resource equipment to perform Tour job efficiently and effectively'

v « □ No □ Don't Know □

P!eaw re.te (he fyUomng-.	CURRD4T PBtFORMANCE FjoedkH Pour	EXPECTATION Fxoc c u Put*	N.A
9.S Equipment Resources	[I j j-] j		1 1
9.9 Range of equipment	j j J j | -j		I I

9.10 How often is new and upgraded equipment introdured'

Often □ Don't Know □ KA ☐

10.0 SUPPLIERS

101 **U lio are your major suppliers'"**

1 ____________________

3 ___________

4. ___________

5. ___________

Please rase thefbUamng:	CURRENT PE1FORM.4NCE Fwdbri Plas	EXPECTATION Fxuakri Pu>	Y A
10.2 Your orgamzatioc department relationship with ±eir major suppliers.	: 2 1 4 J	1 1 1 1 4 5	I ** I
10.3 Hie timely delivery o: supplies.		1 1 1 * 5	1^ I

10.4 Has untimely delivery affected your operations in die pan"

Yes **Yo EH** **Don't Know** □

*Please specif}::*____

10.5 Did you communicate this problem to youi supplier:

Yes □ **Yo** □ **Don't Know** □

10.6 If ves. what was their reaction'' _________________

10." Do vou dunfc that eood supplier relationships would enhance YOUJ opexmoni''

Yes □ **Yo** □ **Don't Know** □

*Please specify:*____

11-0 ORGANIZATION & FEKFQRALA.VCE

111 **Who do you consider** TO **be your nrir.adiste competitors?**

> **In the Local Market:**_____

> **In the Regional International Mailer:**

L1.2 Would VOTI **describe youi industry as van- competitive'**1

Yes □ **No** □ **Don't Know** □

11.3 What axe the requirements for euenne your industry" Is it difficult prohibitive''

11-4 How ss market share allocated'

11.5 Do you tenchmids against your competitors"

Yes Q No Q Don't Know I I

*Please specify:*_____

Pleasem e the fbllcmng:	**CURRENT PERFORMANCE** F-*adksi Ptjor	**EXPECTATION** FxfrZrqj Ptut	**N.A**
11.6 Level of success anabasr your immediate competitei	rTTTTrm		**ED**

11 * 3 c you believe that the adoption of quality related practices will assist youi orsauzar.oQ in **achieving the coHowinE''**

Greater efficiency H E

Staff effectiveness

Reducing cost

Enhancing customer

satisfaction

Company w~.de maze

Increased profitability

Reputation

Competitive Advantage

Improved Management participation

Improve i market share

Increased productivity ,

Increased emtslovee motcvancn L

12.0 SERMC-E CULTURE

Please rase thejbttomng:	**CURRIKT BEHAVIOUR** Fiuucoi! ?kJor	EXPECTATION FMT-"rnl Pn*	X A
12 1 Even: to which the employees at all levels realize that the real purpose of then existence is "service to the customers"		: I 1l 4	I v* I
12.2 Degree to which the employees believe that quality plays a vital role m strenrthenmz the organisation's ability to compete in a highly competitive market place	□nr		E D
12.3 Resistance of employees to chinee			I~ I
12 4 Trust openness and good relationships among employees			I ** I

12.5 Level of prevalence among employees, feeling; such a; "my company"

12.6 Event to which team spirit dominates individualistic preferences ana projections

12 ~ Strong belief in the philosophy of "right first time" ana "right ever}' time"

12 £ Event to which the organizational sracruie facilitates fast decision miking md quid response to customer requirements

13.0 OVERALL EMPLOYEE SATI5FAC TIOX

13.1 Please rate the event to which each of the following has met your especatens.

	Dcfirt-'xa*. Nsn			.Ac injkri» te a	
> Worimg at WASA met with your expectations.	1		3	4	3
> Interaction with management.	1		3	4	3
> Staff communication and interaction with customers	1	T	3	4	3
> Involvement m the plans and direcr.cn of vour organization department	1		3	4	5
> Level of communication	1		3	4	3
> Communication of Strategy	1		3	4	3
> Implememauon of Strategy	1	2	3	4	3
> Quality related practices	|	2	3	4	3
> Implementation of Quality related practices	1	2	3		I. : .1

13.2 Overall, how could WASA improve their services to the general public"

Thank you for your Suable feedback.

APPENDIX C

Request for Comments on “Proposed Model for TQM”

Sttve Qgjpatty
#44 *VaCsayn. Ivenue, 'Va&<rm.y&rt&.* **TaiSavn**
TXINS.I®c6 T&B4gO
TeUptume: 1-S6&-645-1447
Mob:ic: 1-S6S-6S9-5032
*Xauuf srojpattyQas&t.***r a**

Date:

Attention;

Re; Request *tor* Comments on "Proposed Model far TOM"

I am a fna year PhD. student at the SheFeld Business School, Sneffied Hallam University (U.K.) conducting research under trie supervision *rj* Professor Kad m Al Shaghana (Director of Studes). Vy research tope is *"Integrating TQM methods with organizational strategy: a source of sustainable competitive advantage within the service Industry in Trinidad and Tobagol,* **I have a developed a "Proposed Model for TQM' (see attached) and would be honored if you would ta-e the time to review this model and provide ire with your feedback on same.**

Do note the following with regards to my research study:

1. **Pom the review of available iterature the follow ng 12 variables were consideied for the research survey**

i. **Environment - the Service Industry**
ii. **Stiateg c goals and Objectives**
iii. **Customs ■Sat sfacrion Servi ces**
iv. **Qjalty Related Practices**
V. **Comm un cat on**
vi. **Human Resouree Suppo-t System**
vii, **Computerisation,Techno'ogy**
viii. **O-ganirational P.escuroes**
ix. **Supoiers**
X, **Comperiton**
xi, **Orgamizati onal Culture**
>ai, **Overall em ocyee satisfaction**

2. Data was col ected from 6 organizations within the service industry in Ton dad and Tobago, within toe heath care, banking, hotel, construction, telecommunications and water distribution sectors.
3. The main instrument of ana yss was the questionnaire, which was administered to sen cr managerial staf wth n trie se ected organ zaticns.
4. Questions were cosed and opened ended, wrth dosed ended quest ons based on a 5 point Likeit sea e, "Tie scaled quest cos snvestigated current and expected perceptions of employees on the organization's leve of performance, with the following lacings:

   1= excellent, 2 = good, 3 = average, 4 = between average and poor and 5 = poor.

   The questionnaire was dvided into sections, each collecting information on tne specr ed variables.

5. In addition to the adm nistration of questionnaires, most cTtne esoondents were also interviewed to elid* mere deta led information,
6. Once the data was collected, it was analysed using SPSS (Statistical Package *:or* the Soda Sdences),
7. Among othe- statistical methods employed n tne anaysis of the author's raw data, factor analysis was conducted and tne fcl owing are the si:-: chtica success factors for the successm implementation of TQM in the various firms in Trnidad and Tobago:

   l, Strategic planning
   H. Organiiatunal culture
   a. QfijdliiidtJCridl Structure
   iv. Hu'rian ftesuurues. Supper! Systems
   V. Empioyee Involvement
   vl. Customer Satisfaction Serviues

8. The citical success factors as pe^ 7 above have been used to deve op the P-cposed Mode for TQM (attached],

I would be thankfu f you cou d determine as a matter of urgency if you would be able to provide me with you feedback no later than September 3<T 2010, I have also attached a 'Feedpack FomT for ease of com,mentis).

Please be assuied that al i›formaton that you piwde through your patapaton in ths study wll be -.esc confidential and you wil net be identified n this proposed -epot or any pjbl cation ahsing out of the f'nd ngs jn ess consent is granted, Additionally, there are no knwn o' anticpated risks to participation n this study,

If afrer receving ths letter,- you have any questions about this study, or would ike additcna information to assst ycu in reach ng a decision about participating,, olease feel free to contact Processor Kad-n Al Shagnana at 0114 225 2S20 or erna I at (ICShaqhanast'shu.ac.uk} or myself, Steve Rajpatty at 589-5032 or e-mail at Israjpatty-rr-asitt.comi. I 'would like to assure you that ths study has oeen reviewed and receved apprcva through -he Research Deg ree Sub - Comrrttee of the She" eld Business School.

Than- ng you in antic pat on for your co-cpeiaticn. In the meantime, I loo*; forward to your most uigent and favorable reply,

Vours sincerely,

Steve Rajpatty

APPENDIX D

Academic /Practitioner Feedback Form.

Code

ficddemk/<Pt'dctitionerTeed6ac({JForm

Steve Rajparn
Doctor of Philosophy Progrsirjr.e (PhD)
School of Busmesi and Finance
Sheffield Haliam University
U.K

RESEARCH TTTT F : "Incorporating TQM Methods with Corporate Strategv: a source of competitive advantage in the service industry".

Based on youi experience as an academic or practitioner please provide your feedback on the Proposed Framework Model for TQM which has been developed for the purposes of this thesis.

In accordance with die Data Protection Act (UK.), responses are COMPLETELY CONFIDENTIAL. Forms are numbered for research purposes only, but the names of respondents are kept separate at all times. NO ONE AT .ALL has access to both the names of individuals and then responses.

Thankyou for your co-operation.

1-0 RESPONDENT PROFILE

1.1 Personal and Professional Informa tion

a) N in e Surname:_____ **_ First:**_____

b) A ge:_____ **c) Sex Male** ☐ **Female** ☐

1.2 Cl£3LlZir.CIL _____

1.3 Dace of employment _____

1.4 No. of staff_____

1.5 Job T itle _____

1.6 **Main Responsibiliriei'Dtiiies** _____

I T What is youi behest level of qualification''

/Please mark OX1 box **o.nh** *wish an* **A)**

No formal quak r o n o r	**Technical Vocational Diploma**
Hieh School Completed	**Degree or Equivalent**
O' Levels (5 or more passes)	**Professional Designation**
Up to and including A' Levels	**Postgraduate Award**

Other *(Pleas* Specify)*_____

1.S A ie you a citizen of Trtmdad and Tobago' Yes □ **No**

1.9 If no to 1,S above please indicate your country of residence

2-0 M O D E L C O N S T R U C T S

This area addresses the coo:tracts of the Proposed Framework Model.

Please rate the constructs as per the following:

1 - Relevant *2 = Very* **Relevant 3 = Irrelevant**

1 = Important 2 = V ery Important 3 = No: Important

No	Construct	Relevance	Importance	Comments
*■	**Core Strategic Management Function:** **PlamunE** **Orgaanizmg** **Leading** **Co-eidintinz** **Communicating** **Controlling**			
2	**Critical TQM Success Factor:** **Scrater.: Planning Process** **Orzisnizacional Structure** **OTzamzattonal Cuinne** **HJIL'L Resources Support Svstem** **Employee Knowledge on ±e** **Benefits of Quality** **Customer Satisfaction Services**			
3.	**Stakeholders** **Cunomen,** **Employees** **Project Design and Management Team** **Contractors** **Suppliers** **Other Stakeholder:**			
4.	**Process** **Inteeration** **Feedback**			
	TQM Outcomes **Increased Productivity** **Improved Quality** **Reducad Cost** **Reduced Time** **Improved Employee Saris&cnon and P.elention** **Sustainable Competitive Advantage**			

3.0 Hew would you compare tie Proposed Framework Model with other frameworks and model-n

3.1 If uo :o 3 above, what are your reasons for voui answer"'

4.0 Do you ±mk that the Framewori Model is applicable to the service industry?

J j No | j Boat Know j~|

Please elaborate farther:

5.0 *Do* **you tick that the Framework Model can be implemented within the service industry?**

Yes j j **No** j j **Don't Know** j j

"lease elaborate further:

6.0 D*o you believe that mteeraaon and subsequent implementation the proposed Fnmewcrk Mode] for TQM can assist x achieving the TQM Outcomes'

7.0 What other factors would your suggest be included in the Framework Model?

Thank von for vonr valuable feedback!

APPENDIX E

Trinidad and Tobago: Major Economic Indicators

		2004	2005	2006	2007	2008	2009
A	REAL SECTOR						
1	GDP at current market prices (TT$Mn)	83,652.50	100,682.00	115,951.10	136,952.50	170,937.50	124,115.60
2	GDP at current market prices (USSMn)	13,338.50	16,068.50	18,460.90	21,735.70	27,322.50	19,701.90
3	Real GDP Growth (%)	7.9	5.8	13.4	4.8	2.4	-3.5
4	GDP per capita	10,334.80	12,413.00	14,223.20	16,678.90	20,879.40	15,038.40
5	Inflation (%) (period average)	3.7	6.9	8.3	7.9	12	7.2
6	Inflation (%) (end-of-period)	5.6	7.2	9.1	7.6	14.5	1.3
7	Unemployment Rate (%)	8.4	8	6.2	5.5	4.6	5.3
8	Gross Capital Formation/GDP (%)	19.3	28.8	15.6	12.9	11.4	NA
9	Gross National Savings/GDP (%)	31.7	51.2	41.3	37.8	36	NA
	COMMODITY PRICES						
1	Petroleum (WTI $US/bbI)	41.5	56.5	66	72.3	99.6	61.7
2	Natural Gas (Nymex Henry Hub $US/mmbtu)	6	8.9	6.8	7	8.9	4
3	Ammonia ($US/tonne	252.5	280.7	278.4	291	545.1	227.6

4	Urea ($US/tonne)	190.5	231.6	226.5	297.6	564	265.4
5	Methanol ($US/tonne)	264.5	284.1	376.4	434.2	504.3	241
C	**EXTERNAL SECTOR**						
1	Exports (USSMn)	6,403	9,672	14,217	13,391	18,686	9,175
2	Imports (USSMn)	4,894	5,725	6,517	7,670	9,622	6,973
3	Balance of Payments - Current a/c balance/GDP (%)	12.3	22.4	39.4	24.7	31.2	8.9
4	Balance of Payments - Overall balance/GDP (%)	4	9.2	6.1	7.1	9.9	-3.6
5	Private Foreign Direct Investment(FDI) (US SMn)	972.7	598.7	512.7	830	2,100.80	699.4
6	FDI/GDP (%)	7.3	3.7	2.8	3.8	7.7	3.5
7	Gross Official Reserves (GOR) (Net HSF) (US SMn)	2,539	4,015	5,134	6,674	9,380	8,652
8	GOR in months of Imports of goods and services	6.9	8.9	9.9	9.4	11.5	12.4
9	GOR/Extemal Debt (%)	183.7	295.4	388.4	462.6	602.2	622.2
10	Gross International Reserves (Net HSF) (US SMn)	3,801	5,422	7,080	8,633	11,583	11,391
D	**FOREIGN CURRENCY LONG-TERM SOVEREIGN CREDIT RATINGS**						

1	Standard and Poor's	BBB+	A-	A-	A-	A	A
2	Moody's	Baa3	Baa2	Baal	Baal	Baal	Baa2
E	**DIVERSIFICATION**						
1	Petroleum sector/GDP (%) of which Petrochemicals/GDP (%)	38.7 6.2	45.9 7	47 7.2	45 7	49.1 6.8	35.8 4.5
2	Non-petroleum Sector/GDP (%)	61.2	54	52.4	54.5	50.4	64.6
F	**FISCAL**						
1	Government Revenues (TTSMn)	20,630	29,648	38,911	40,064	56,848	39,045
2	Government Expenditures (TTSMn)	19,120	24,641	31,198	37,766	44,715	45,731
3	Overall Fiscal Balance (-/+) (TTSMn)	1,510	5,007	7,713	2,298	12,133	-6,686
4	Overall Fiscal Balance/GDP (%)	1.9	5.2	6.9	1.7	7.5	-4.9
5	Non-Energy Fiscal Balance/GDP (%)	-8.7	-11	-14.6	-15.1	-12.7	-19.1
6	Revenue/GDP (%)	25.6	30.7	34.7	30.4	35	28.7
7	Expenditure/GDP (%)	23.7	25.6	27.8	28.7	27.5	33.7
8	Income Tax/GDP (%)	17.3	22.9	26.2	22	26.8	19.4

Source: Central Bank of Trinidac and Tobago (2010)

APPENDIX F

The Five Main Actions for Successfully Implementing a TQM Tool

Macro action	Detailed actions	Considerations / reasons
Set up a steering committee	Form the infrastructure to support implementation Establish processes Assign individuals to teams Allocate resources Need to be responsible for the evaluation process	Need representation from all the major functions Reflect that the leaders are committed to total quality management Members need to be chosen and valued by the Chief Executive
Develop a vision for total quality management	Determine desired organisational norms, values and behaviours Clarify what successful implementation looks like and develop quality indicators	Desired norms, values and behaviours need to reflect the views of internal and external customers Support the development of a performance management culture
Agree a strategy for implementation	Include the following elements: People are kept informed People are involved in decision-making Re-emphasise the values of the organisation Self-assess to determine baseline Set priorities	Avoid uncoordinated activities Be clear about the reason for using the chosen total quality management tool
Implement the strategy	Ensure visible Chief Executive commitment Launch programme Commit ongoing resources; include human, financial and informational resources Ensure expert facilitation Phase the introduction of the total quality management tool Integrate the total quality management tool	Walking the talk improves everyone's motivation Only launch the programme if leaders feel it will aid success Appreciate energy, commitment and creativity are important resources Can align implementation approach to values and avoid common pitfalls Secures a culture change rather than a tick-box mentally

	Secure quick successes and avoid over enthusiasm Celebrate successes Provide good communications Ensure everyone is involved Recognise staff Provide intense education and training Use quality tools but not at the expense of common sense	Maintains some element of the comfort zone Aids motivation and avoids burnout To minimise resistance to change Aligns to values and overall goals Avoids confusion and aids intellectual growth To secure tangible improvements
Assess and review progress	Undertake interim progress reviews	Ensure that action plans are realistic and make timely amendments to secure success

Source: Jackson (2001).

APPENDIX G

Average Rating for Each Firm for Factor 1

Factor 1 - Employee knowledge of the benefits of quality	**A**	**B**	**C**	**D**	**E**	**F**
Greater efficiency	**2.71**	**2.52**	**2.35**	**2.26**	**2.71**	**2**
	0.75	*1.06*	*0.49*	*0.76*	*0.47*	*0.64*
Staff effectiveness	**2.83**	**2.55**	**2.59**	**1.96**	**2.71**	**2.14**
	0.64	*0.99*	*0.51*	*0.59*	*0.47*	*0.69*
Reducing cost	**3.04**	**2.76**	**2.65**	**2.52**	**2.53**	**2.03**
	0.81	*1.06*	*0.49*	*0.8*	*0.8*	*0.57*
Enhancing customer satisfaction	**3**	**2.59**	**2.24**	**1.81**	**2.65**	**2**
	0.98	*1.18*	*0.44*	*0.48*	*0.61*	*0.59*
Companywide image	**3.21**	**2.59**	**2**	**2**	**2**	**1.83**
	1.02	*1.3*	*0.35*	*0.73*	*0.5*	*0.66*
Increased profitability	**3.08**	**3.03**	**2.47**	**2.26**	**2.53**	**1.94**
	0.93	*1.15*	*0.51*	*0.81*	*0.51*	*0.64*
Reputation	**3.25**	**2.69**	**2**	**1.93**	**2**	**1.77**
	0.94	*1.31*	*0*	*0.68*	*0.5*	*0.6*
Competitive advantage	**3.17**	**2.38**	**2.29**	**2**	**2.82**	**1.94**
	0.92	*1.2*	*0.47*	*0.75*	*0.53*	*0.54*
Improved management participation	**3.13**	**2.34**	**2.41**	**1.78**	**2.24**	**2**
	0.85	*1.01*	*0.51*	*0.51*	*0.56*	*0.54*
Improved market share	**2.92**	**2.21**	**2.29**	**2.15**	**2.59**	**2.03**
	0.93	*0.98*	*0.47*	*0.72*	*0.51*	*0.62*
Increased productivity	**2.92**	**2.62**	**2.47**	**2.11**	**2.71**	**2.09**
	0.88	*1.15*	*0.51*	*0.7*	*0.47*	*0.61*
Increased employee motivation	**3**	**2.41**	**2.82**	**1.78**	**2.71**	**2.29**
	0.88	*1.15*	*0.39*	*0.51*	*0.59*	*0.71*
Overall factor mean	**3.03**	**2.94**	**2.8**	**2.09**	**2.62**	**2.19**

Source: Author's own work

APPENDIX H

Average Rating for Each Firm for Factor 2

Factor 2 – Organisational Culture	**A**	**B**	**C**	**D**	**E**	**F**
Extent to which the employees at all levels realise that the real purpose of their existence is to "service the customer"	**3**	**3.28**	**2.88**	**2.15**	**2.76**	**2.23**
	0.59	*0.649*	*0.485*	*0.534*	*0.437*	*0.731*
Trust, openness and good relationships among employees	**3.17**	**3.24**	**2.76**	**2**	**3**	**2.54**
	0.761	*0.912*	*0.437*	*0.555*	*0.612*	*0.701*
Degree to which the employees believe that quality plays a vital role in strengthening the organisation's ability to compete in a highly competitive marketplace	**2.83**	**3.03**	**2.82**	**2.22**	**2.82**	**2.26**
	0.637	*0.778*	*0.393*	*0.698*	*0.393*	*0.611*
Resistance of employees to change	**3.54**	**3.32**	**3.41**	**2.41**	**3.29**	**2.71**
	0.833	*0.945*	*0.712*	*0.888*	*0.47*	*0.667*
Strong belief in the philosophy of "right first time and right every time"	**2.79**	**3.1**	**2.71**	**2.19**	**2.41**	**2.29**
	0.588	*0.772*	*0.47*	*0.736*	*0.618*	*0.75*
The attitude and behaviour of co-workers toward quality in general	**3.04**	**3.03**	**2.82**	**2.48**	**2.76**	**2.2**
	0.55	*0.89*	*0.393*	*0.58*	*0.437*	*0.719*
Customer/Staff/Management relationship	**2.78**	**3**	**2.24**	**1.85**	**2.88**	**2.29**
	0.902	*0.83*	*0.437*	*0.456*	*0.697*	*0.622*
Level of staff interaction with public	**3.25**	**3**	**2.59**	**2**	**2.53**	**2.09**
	0.737	*1.083*	*0.507*	*0.734*	*0.8*	*0.658*
Extent to which the organisational structure facilitates fast decision-making and quick response to customer requirements	**3**	**3.24**	**2.06**	**1.89**	**2**	**2.54**
	0.78	*1.091*	*0.429*	*0.698*	*0.612*	*0.78*
Professional recognition of organisation	**3.08**	**3.07**	**2.06**	**1.44**	**2.06**	**1.74**
	0.974	*1.112*	*0.659*	*0.751*	*0.429*	*0.701*
Overall factor mean	**3.09**	**2.68**	**3.04**	**2.29**	**2.54**	**2.07**

Source: Author's own work

APPENDIX I

Average Rating for Each Firm for Factor 3

Factor 3 – Human Resources Support System	A	B	C	D	E	F
Availability of staff to deal with customer related issues	**2.92**	**2.6**	**2.53**	**1.96**	**2.59**	**2.2**
	0.929	*0.894*	*0.624*	*0.759*	*0.507*	*0.868*
Availability of staff to deal with professional issues	**2.75**	**2.47**	**2.35**	**1.74**	**1.82**	**2.2**
	0.847	*0.973*	*0.606*	*0.594*	*0.529*	*0.759*
Availability of staff to deal with technical Issues	**2.67**	**2.67**	**2.71**	**1.74**	**2.53**	**2.46**
	0.816	*0.844*	*0.588*	*0.594*	*0.8*	*1.421*
Availability of staff to deal with support services	**2.71**	**2.8**	**2.88**	**1.81**	**2.76**	**2.51**
	0.69	*0.847*	*0.6*	*0.681*	*0.562*	*0.887*
Availability of staff to deal with administration	**2.67**	**2.63**	**2.53**	**1.81**	**2.71**	**2.23**
	0.702	*0.928*	*0.624*	*0.681*	*0.588*	*0.77*
Level of employee/staff satisfaction	**2.5**	**2.71**	**2.82**	**2**	**2.65**	**2.83**
	1.351	*0.6*	*0.393*	*0.62*	*0.493*	*0.707*
Training for staff members	**2.29**	**2.8**	**1.76**	**1.78**	**2.82**	**1.94**
	0.69	*1.064*	*0.831*	*0.641*	*0.393*	*0.725*
Level of prevalence among employees, feelings such as "my company"	**3.29**	**3.17**	**2.94**	**2.07**	**3**	**2.86**
	0.69	*0.805*	*0.243*	*0.55*	*0*	*0.733*
Overall factor mean	**2.73**	**2.74**	**2.57**	**1.87**	**2.61**	**2.41**

Source: Author's own work

APPENDIX J

Results of the ANOVA for Factor 4

Factor 4 – Organisational Structure	F Stat	p value
Existence of formal organizational structure	13.66	0.000**
Visibility and consistency of organizational structure	14.35	0.000**
Adequacy of resources to perform job	8.168	0.000**
Departmentalization of organization	10.27	0.000**
Frequency of performance reviews	10.53	0.000**
Competency level of staff	7.938	0.000**

** significant at the 1% level

Source: Author's own work

Table APPENDIX K

Average Rating for Each Firm for Factor 5

Factor 5 - Customer Satisfaction Services	**A**	**B**	**C**	**D**	**E**	**F**
Importance of customer satisfaction in your department	**2**	**2.1**	**1.65**	**1.35**	**1.71**	**1.74**
	0.78	*0.96*	*0.606*	*0.485*	*0.772*	*0.657*
Importance of quality in your department or organisation	**2.29**	**2.1**	**1.65**	**1.7**	**2**	**1.86**
	0.859	*0.845*	*0.786*	*0.609*	*0.935*	*0.648*
Priority of dealing with customer complaints	**2.42**	**2.59**	**1.88**	**1.52**	**1.76**	**1.49**
	0.654	*0.867*	*0.697*	*0.7*	*0.664*	*0.612*
Services provided by your department or organisation to customers	**2.54**	**2.3**	**1.88**	**1.81**	**1.94**	**1.94**
	0.658	*0.837*	*0.485*	*0.483*	*0.748*	*0.684*
Level of customer involvement in their individual transactions	**2.78**	**2.2**	**1.71**	**1.7**	**1.82**	**2.29**
	2.088	*0.887*	*0.588*	*0.953*	*0.529*	*0.825*
Management involvement in dealing with customer complaints	**2.58**	**2.52**	**1.76**	**1.44**	**1.88**	**1.49**
	0.83	*0.911*	*0.437*	*0.577*	*0.6*	*0.818*
Extent to which customers are informed about business procedures	**2.48**	**2.53**	**2.24**	**1.74**	**2**	**2.46**
	0.593	*1.008*	*0.752*	*0.764*	*0.612*	*0.78*
Overall factor mean	**2.45**	**2.34**	**1.83**	**1.61**	**1.88**	**1.9**

Source: Author's own work

APPENDIX L

Average Rating for Each Firm for Factor 6

Factor 6 – Strategic planning process	**A**	**B**	**C**	**D**	**E**	**F**
Articulation of strategic planning	**3.04**	**3**	**2.94**	**2.89**	**3.53**	**2.74**
	0.624	*0.871*	*0.429*	*1.311*	*0.717*	*0.741*
Involvement in strategic planning	**2.88**	**3.1**	**3**	**2.96**	**3.47**	**2.71**
	0.992	*1.062*	*0.5*	*1.427*	*0.874*	*0.667*
Formulation of strategic plan	**2.71**	**2.7**	**2.94**	**2.74**	**3.71**	**2.59**
	0.806	*0.952*	*0.243*	*1.43*	*0.588*	*0.783*
Implementation of strategic plan	**2.88**	**3.03**	**2.76**	**2.7**	**3.59**	**2.37**
	0.537	*0.809*	*0.562*	*1.436*	*0.507*	*0.731*
Level at which data are analysed and used to enhance customer relationships	**2.91**	**3.03**	**2.24**	**2.78**	**3**	**2.17**
	0.793	*0.85*	*0.562*	*1.528*	*0.791*	*0.822*
Overall factor mean	**2.89**	**2.98**	**2.78**	**2.81**	**3.46**	**2.52**

Source: Author's own work