THE IMPACT OF TQM ON A TRADITIONALLY SEGREGATED WORK ENVIRONMENT:

AN EMPIRICAL STUDY OF THE HEALTHCARE SECTOR IN THE KINGDOM OF SAUDI ARABIA

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In Memory of My Father,

To my most Beloved Mother and Husband

Abstract

The Impact of TQM on a Traditionally Segregated Work Environment: An Empirical Study of the Healthcare Sector in the Kingdom of Saudi Arabia

In the last decade, the rapid development in the Kingdom of Saudi Arabia (KSA) has forced its government to implement modern management styles such as Total Quality Management (TQM) to ensure continuous improvement in the provision of healthcare. There is a considerable body of literature that shows the benefits of implementing TQM in hospitals, but there is few empirical studies that show TQM implementation efforts in the healthcare sector. Furthermore, the healthcare literature did not explore the implementation of TQM in a context of gender segregated environment such as the case in KSA.

This research project is an exploratory investigation assessing the impact of TQM in a gender segregated healthcare environment such as KSA. The research design used triangulation methods to investigate the problem at hand. A combination of quantitative and qualitative methodologies were used through field-work and external comparisons. The approach was based on the following: (1) Assessing the level of perception and understanding of TQM principles in several KSA hospitals, taking into account the differences and similiarities between the different gender population; (2) Examining the approach to TQM implementation and its degree of effectiveness in four Saudi hospitals to highlight critical factors for effective implementations using the Baldrige assessment method; (3) Benchmarking the Saudi hospital experiences to UK and USA hospitals to highlight key facilitating and inhibiting factors; (4) Using key findings from the previous steps to identify the critical factors and propose a model for TQM implementations in a segregated healthcare environment such as the case in the KSA.

The survey research findings show a weak appreciation, awareness and understanding of TQM in managing healthcare organisations by the respondents in the KSA. It clearly shows that many employees in the organisations do not understand TQM. The degree of emphasis for each quality activity varied and thus more research needs to be done to investigate the importance of each quality activity to a TQM implementation process, as there are varying degrees of emphasis across the board.

The KSA case studies show that in implementing organisations, TQM intentions and TQM policy frameworks are generally acceptable. However, the implementation process is generally weak and lacks coordination in the majority of these organisations. It is clear that the majority of the KSA cases have not succeeded in total commitment towards a total quality culture. When compared to the UK and USA hospitals, the majority of the KSA cases show deficiencies in most of the critical activities that form the foundation of a successful quality process. Furthermore, the study indicates three critical factors in KSA hospitals that either did not exist or were not given full attention. The importance of these factors were further validated in the literature. The factors were continuous top management commitment, continuous education and training, and culture awareness. These factors were then used to develop a model for TQM implementation for a segregated healthcare environment.

Keywords: Total Quality Management (TQM), TQM implemetation, Healthcare, Hospital, Kingdom of Saudi Arabia (KSA), Gender Segregation, MBNQA, Benchmarking.

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Chapter Eight

Chapter One

Introduction

1.1 Background

The rapid development in the Kingdom of Saudi Arabia (KSA) has forced its government to implement modern management styles to ensure continuous improvement in the provision of health care for all citizens. This included the adoption of the Total Quality Management philosophy (TQM), a philosophy which has gained strong acceptance world wide in the health care industry (Bigelow and Arndt, 1995; Brannan, 1997; Sherman and Malkmus, 1994). This is due to the many benefits which TQM promises to deliver, such as quality patient care, improved patient satisfaction, lower costs of service, and higher morale among employees.

The KSA health care system adopted the TQM philosophy for a number of reasons First, the health care systems worldwide are facing a growing demand for services combined with high costs and shortage of finance. With its growing population, Saudi Arabia also faces this problem. Therefore, the provision of high quality services to all the population is placing a burden on the government budget. Second, the health care workforce has increased rapidly to match the overall expansion of the health services. In 1997, there were over 14,700 doctors, about 34,739 nurses, and more than 19,000 health technicians. The proportion of these positions filled by Saudi nationals is very low, being only 19% of doctors, 24% of nurses, and 53% of health technicians. Current indications from the education and training institutions are that the supply of Saudi nationals into the healthcare industry will not be sufficient to reduce this gap significantly by the end of the Sixth Development Plan in 2000. Thus, an emphasis

must be put on training programmes for the Saudi manpower in the health care sector (Ministry of Planning, 1995).

The TQM programme was implemented in KSA in 1987 by administrative decision (number 23/78). The purpose of such a programme is to continue to upgrade the health standards of citizens and provide preventive and curative health care efficiently. The Ministry of Health developed TQM programmes in chosen hospitals, and each hospital was to implement its own programme.

According to Bigelow and Arndt (1995), TQM had gained prominence in the health management literature. Their study on the amount of research done on TQM in healthcare found a considerable body of literature that shows the benefits and the necessity of implementing TQM in hospitals, but also found that there is very little data confirming such claims as improved performance, quality, or competitiveness. The study shows that no comparative research has been published, and the few exceptional case studies are anecdotal. Shortell (1994) agrees with them. He states that there have been few empirical studies of TQM implementation efforts in healthcare.

TQM has been stated in the local literature to be very beneficial, but the amount of empirical studies to support such claims is minimal. Saeed's (1994) study measured the effectiveness degree of quality programmes in hospitals in the Ministry of Health. His sample was made up of the nursing staff of six public hospitals. His research concluded that one-third of the sample believed the TQM programmes were non-effective.

One issue that the literature did not explore is the implementation of TQM in a segregated environment. Saudi Arabia is a segregated country. The definition of segregation in this case is the separation between male and female in any public organisation. For example, there exist girls' schools and boys' schools, male universities and female universities. Males teach the males, and the females are taught by females. In the work environment, there are separate locations for the offices that are used by the different genders so they do not physically mix. Most communications between the two genders are done through telephones and faxes when working in a segregated organisation. In the hospital environment, there exists a different kind of segregation. There is integration (mixing of gender) in the workspace, yet there are limitations in the communication process. The reason for the lack of communication is the traditions and customs, which have been brought in from the external culture.

Management approaches that are seen as essentially western in origin are viewed with some suspicion in many Middle Eastern and Islamic countries, and this represents an obstacle to their acceptance (Al-Zamany et al., 2000). Many researchers suggest that the differences between the Islamic values and Western values represent the main barrier to implementing western management theories and the main reason for the failure of such implementations (Bjerke et al., 1993; Al-Meer, 1999).

Al-Zamany et al. (2000) examined the cultural acceptability of quality management exemplified by the European Business Excellence Model (EBEM) in the context of Yemen (a similar culture to the KSA). The study also investigated the barriers to the implementation of such a model. Al-Zamany et al. (2000) indicated that there was no mismatch between the activities proposed by the model's criteria and the Islamic

culture, since all respondents perceived them as generic terms that reflect good management practices. One obstacle that the organisations in this study encountered was the resistance to changing the culture. Hence considerable work needs to be done to set priorities for implementation and to facilitate gradual change which will be accepted more readily.

Due to the rapid development of the country, the segregated culture and the limited research available, this research will attempt to measure the effectiveness of TQM implementations in a segregated culture and thereafter propose a TQM model for this particular environment. An area which has not yet been explored in the literature. The researcher will attempt to fill a gap that is beneficial to many organizations in the KSA.

1.2 Research Problem

In order for TQM implementation to succeed, certain characteristics must be acquired in the organization such as teamwork, employee participation and involvement, effective communication, and open suggestion schemes. The TQM philosophy can not be implemented adequately without these characteristics. The problem to be explored in this research is therefore how these characteristics and others of TQM can be implemented in a segregated environment.

1.3 Research Questions

The following research questions emerge from the above research problem,

What are the critical factors of an effective TQM implementation in a segregated environment, and what are the impeding inhibiting factors that stop individuals from working effectively with TQM?

- What are the critical factors in TQM implementation in healthcare?
- What are the inhibiting factors in TQM implementation in healthcare?
- What is the current situation of healthcare in the KSA?
- How is TQM applied in healthcare in the KSA?
- What is a segregated organisational culture?
- Does segregation affect TQM implementation?

1.4 Research Objectives

The research objectives of this study, which will answer these questions, are as follows:

1. To study understanding of TQM in the Saudi Arabia healthcare context.

   (a) To assess the level of perceptions and understanding of TQM principles in several KSA hospitals, taking into account male and female populations.

   (b) To compare and contrast in 'intra' and 'inter' approaches, likely differences, where they occur, and why they might occur.

   - 'intra' (same hospital or same category of hospitals)
   - 'inter' (between different hospitals)
   - External benchmarking analysis using secondary data.

2. To examine in detail the approach to TQM implementation and its degree of effectiveness in a sample of carefully selected hospitals.

   - To assess the degree of systemisation (against an objective methodology).

- To highlight critical factors for effective implementation.
- To highlight inhibiting factors.
- To document types of benefits achieved against the degree of maturity.

3. To analyse, using secondary case studies in a healthcare context and drawing from similar research outside the KSA, factors conducive to:

- Culture of continuous improvement
- Effective employee participation and involvement
- Employee education and development
- Top management commitment
- Teamwork

4. To use this analysis as the basis for the key elements of a model for effective TQM implementation in a 'segregated' environment.

5. To develop a model for TQM implementation in a segregated environment in the KSA

1.5 Contribution and Originality of Study

Although TQM research in the KSA has increased in the past years, it is still generally very limited, and especially in the healthcare area. Most studies have investigated general TQM issues. There is no study which has explored the special Islamic segregated environment in the culturally diversified hospitals in the KSA. The literature states that to implement the TQM philosophy, revolutionary changes in values, methods, and attitudes must be made. The effects and acceptance of such changes in the KSA segregated healthcare arena have yet to be discovered.

1.6 Importance of Study

There are five main reasons why this study is important:

- The rapid growth of the KSA has been requiring advanced managerial skills in order to compete internally and globally. These skills must be adopted in all industries, particularly the healthcare industry. The proposed TQM model in this research is one which attempts to customise a successful management philosophy to fit the KSA culture profile.
- TQM implementation in the service sector in the Kingdom has been facing obstacles because it does not take into account the effect of the societal culture. This research will deal with this issue.
- The consumer in Saudi Arabia has become well educated and well informed. This enlightenment has led him/her to demand better services from the health care industry. This research will supply the health care industry with an answer to how to implement the quality that the customer demands.
- To compete in today's market, hospitals are finding themselves adopting the concept of quality. They are hoping to be more effective in allocating their resources, which includes humans, technology, and profit. This study intends to help them implement the TQM philosophy.
- All the previous studies that have been done in TQM implementation did not mention the issue of segregation in organisations. This unique study will attempt to develop a methodology that will successfully implement TQM in a segregated environment. Thus, all segregated organisations in the Kingdom will benefit from it.

1.7 Research methodology

This research is both exploratory and comparative in nature. It will be based on a combination of two approaches. First, the researcher will conduct a questionnaire survey to establish the level of TQM understanding and perception to assess the progress of maturity of TQM in individuals in the Kingdom of Saudi Arabia. Second, the researcher will adopt the case study method in a sample of hospitals in order to measure the different degrees of segregated environments of TQM implementation taking into account its effectiveness, the critical factors and the inhibiting factors. The results of both methods will be benchmarked against secondary data from regional hospitals, global hospitals and other organisations where the results may be comparable to arrive at the final objective, which is a proposed model for a segregated environment.

The unit of analysis in the first phase is the employee of the hospital. This is because the researcher is measuring the depth of the individual perception of TQM. In the case study phase, the unit of analysis is the hospital. This is because the researcher is trying to analyse the different approaches used in the different degrees of segregated hospitals.

The population in phase one will be all employees of hospitals based in the Kingdom of Saudi Arabia and under the supervision of the Ministry of Health. In the second phase, the population will be all hospitals practising TQM in the Kingdom of Saudi Arabia under the Ministry of Health.

This study will concentrate on large size hospitals. In the first phase, a random sample of larger hospitals will be selected and then from each selected hospital, three departments will be selected randomly. The questionnaires will then be distributed to the employees of the selected departments. For the second phase, the researcher will use the selected hospitals in the first phase to randomly select four different hospitals, each hospital representing a category: a public hospital, a private hospital, a specialist hospital, and an armed forces hospital.

1.8 Limitations of Study

All research studies have limitations or constraints imposed or recognised at the outset, and this study is no exception. The following limitations apply in this case:

- The sample concentrates on large-size hospitals. This directly affects the validity of the research. However, this research is exploratory in nature, and because TQM implementation is still a new phenomenon, it has not been embraced by many smaller hospitals in the KSA.

- One major difficulty with this research is that there are no studies done previously regarding the implementation of TQM in a segregated environment. Although this will add to the originality and value of this study, the research will not have the benefit of learning from others' mistakes.

- The Baldrige self-assessment technique suffers from lack of empiricism. This study however looks at the application of TQM in hospitals, and the Baldrige model offers the best and most complete means of conducting such a study.

- Also, this study will only research one side of the equation, the employees. To determine the true success of TQM implementation, another study would need to be done regarding the satisfaction of the real customer, the patient.

1.9 Structure of Thesis

The thesis is presented in nine separate chapters, which cover the following aspects:

Chapter One: This chapter has presented an introduction to thesis, the research problem, the research questions, the research objectives, the importance of the study, and the limitations of the study

Chapter Two: This chapter presents the definition of TQM and discusses all aspects of TQM in the healthcare industry. It includes the major problems of TQM applications in the healthcare arena and the critical success factors. Also, it discusses approaches to implementing TQM models in healthcare and presents some case studies from the literature. A section discussing the different categories of the Malcolm Baldrige National Quality Award Criteria for healthcare is also presented.

Chapter Three: This chapter will present the healthcare situation in the Kingdom of Saudi Arabia. Issues such as gender segregation, the early years of healthcare, the Ministry of Health, healthcare providers, and the healthcare budget will be discussed.

Chapter Four: This chapter discusses the research methodological issues and design and argues for the approach adopted and its usefulness and compatibility.

Chapter Five: This chapter discusses the level of perception and understanding of TQM in the healthcare organisations in the KSA. This is then compared and contrasted with other cultural and geographical settings to highlight any gaps in the level of perception and understanding.

Chapter Six: This chapter discusses through a case study method and using the Baldrige healthcare criteria, the degree of effectiveness and maturity in different types of hospitals in the KSA, UK, and USA.

Chapter Seven: This chapter discusses the results of the case-studied hospitals. First, the hospitals within the KSA are compared and contrasted. Then, the KSA hospitals are benchmarked against those in the UK and USA. Afterwards, a proposed model is presented that will be suitable for the implementation of TQM in the KSA health organisations.

Chapter Eight: This chapter sets out the main conclusions and recommendations.

Chapter Two

TQM in Healthcare

2.1 Introduction

Total Quality Management (TQM) is a modern administrative concept. Its objective is to improve performance by answering to customer requirements. TQM began to impact organisational strategy in the 1980s. It has profoundly affected business performance of western organisations and continues to change management strategies in these days. Companies adopting TQM increase quality and efficiency, attain higher productivity, enhance customer satisfaction, and decrease waste (Waldman, 1993). TQM is a long-term investment, and it should not be viewed as an instant solution to organisational problems (Laszlo, 1998).

One of the fastest growing industries in the service sector is the healthcare industry. This rapid growth has been accompanied with some significant changes, which have placed dramatic pressures on healthcare providers to re-evaluate their strategies. Such changes include the rising standard of living and education, competitive pressures, advancement in medical breakthroughs, alternate healthcare delivery mechanisms, changing cost structures, better informed customers (Lim and Tang, 2000), and the pressures from the Joint Commission for Accreditation of Healthcare Organisations (JCAHO) (Motwani et al., 1996). This has created a difficult task for healthcare providers. Healthcare organisations need to be reprogrammed and renewed, so that they can face the future without uncertainties. Some researchers argue that the application of Total Quality Management (TQM) may solve some of the healthcare organisations' problems (Anderson, 1992; Geber, 1992;Bergman, 1994).

TQM has become more or less a household term (Rao et al., 1996), and it has been applied in all sorts of industries. Service industry applications include educational institutions (Chin and Che, 1982), hospitals (Lin, 1980), hotels (King, 1988), and a host of other places (Stevens and Unal, 1992). In recent years, there has been significant interest in the application of TQM in healthcare organisations around the globe. This is evidenced by the proliferation of academic and practitioners' papers in reputable journals. Chaufournier and St. Andre (1993) report that about 44 % of 1,083 hospitals in the US have already embraced the continuous improvement approach to improve the care delivery process. The hospital industry has embraced the concepts of TQM in the belief that these concepts and programmes will lead to an improvement in both the quality and efficiency with which health services are delivered (Carman et al., 1996).

The application of TQM in healthcare is a challenge that has not been easily met by many organisations (Nance, 1995). The introduction of TQM ideals in the hospital environment has come to imply various attempts to re-direct the traditional conception of medical treatment among practitioners away from a detached and strictly professional doctor-patient relationship to a more service-minded and customer-focus perspective. These efforts have introduced various systems for measuring quality of services delivery, as perceived by the patient, and using the results as an instrument for quality management (Hansson, 2000).

This chapter will attempt to explore TQM in the healthcare sector. First, a definition of TQM and TQM efforts in healthcare will be presented. This will be followed by a discussion of the importance of the application of TQM in healthcare and the major

problems encountered. A discussion of the application and the implementation techniques of TQM will follow. Next, a comparison of TQM in healthcare and TQM in other fields will be made. Afterwards, discussion of the obstacles to TQM applications will be presented, concentrating on the many subcultures in healthcare organisations. This will be followed by the major critical factors in healthcare and a literature review of the case studies in TQM in healthcare. A discussion of the ISO 9000, the Joint Commission and Accreditation of Healthcare Organisations, the Malcolm Baldrige Quality Award, and benchmarking will be presented next. In conclusion, the failures and forecasted future of TQM in healthcare will be presented, and a summary of the chapter.

2.2 Definition of Total Quality Management (TQM)

Before discussing TQM, we need to define the term "quality". *The Oxford Dictionary* (1999) defines quality as concerned with " the value and degree of excellence". Leading thinkers in the TQM field define quality as:

- Conformance to requirements (Crosby, 1979).
- The characteristics through which the product and service meet the expectations of the customer (Feigenbaum, 1983).
- Whatever the customer needs and wants (Deming, 1989).
- Fitness for use. Product features which respond to customer needs, and freedom from deficiencies (Juran, 1951).

What all of the above definitions have in common is that quality meets the customer needs and expectations that are within an acceptable range of the service or product.

These approaches reflect the many definitions of TQM by the leading thinkers in the field. TQM is the work of many scholars and gurus like Deming (1989) and Juran (1951) in the past, and Oakland (1993) and Garvin (1988) in the present. They believe that TQM is a means by which organisational effectiveness can be improved through goal setting and efficient use of resources, and that TQM provides the overall concept of continuous improvement for an organisation. TQM philosophy concentrates on an organisation-wide perspective involving everyone and everything. It focuses on both the internal and external customer of the organisation, and it seeks to improve the entire organisation's systems and processes. The concept of TQM requires fundamental changes in the use of management tools, and in organisational structure, attitudes and behaviours (Camison, 1998). Lakhe and Mohanty (1994) define TQM philosophy as:

> "A continuous quest for excellence by creating the right skills and attitudes in people to make prevention of defects possible and satisfy customer/users totally at all times."

Oakland (1993) defines TQM as:

> "An approach to improving the effectiveness and flexibility of business as a whole. It is an essential way of organising and involving the whole organisation; every department, every activity, every single person at every level."

Oakland conducted a comparative study of the works of Crosby, Deming, and Juran (Oakland, 1989). The results are presented in Table 2.1. The last column in the table shows the common ground of the different works.

A similar study was conducted by Ghobadian and Speller (1994). This study compared the works of Deming (1989), Juran (1951), Crosby (1979), Feigenbaum (1961), and Ishikawa (1985). Their analysis highlights the following nine points:

1. It is important to control the process, not the product.
2. It is important not to forget the human process.
3. Top management, not the workforce, is responsible for quality; provide leadership and commitment.
4. Management determines the climate and organisation for quality.
5. Education and training are highly important.
6. Emphasis is on prevention of defects, not inspection.
7. Quality is a long-term process of continuous improvement.
8. All parts of the organisation must be included; quality is not a separate function.
9. Quality is a company-wide activity.

Table 2.1 Comparison of Gurus' Works

	Crosby	Deming	Juran	Common ground
Definition of Quality	Conformance to requirements	A predictable degree of uniformity and dependability at low cost and situated to the market	Fitness for use	Focus on customer satisfaction
Degree of senior management responsibility	Responsibility for quality	Responsible for 94% of quality problems	Less than 20% of quality problems are due to workers	Top management must be committed
Performance standard motivation	Zero defects inspection	Quality has many scales, use statistics to measure performance in all areas; critical of zero defects	Avoid campaigns to 'do perfect work'	Long-term journey. Avoid campaigns. Everyone involved measure performance
General approach	Prevention, not inspection	Reduce variability by continuous improvement; cease mass inspection	General management approach to quality, especially human elements	Prevention/right first time, continuous improvements of processes, people empowerment
Structure	14 steps to quality improvement	14 points for management	10 steps to quality improvements	Organise for quality
Statistical Process Control (SPC)	Rejects statistically acceptable levels of quality	Statistical methods of quality control must be used	Recommends SPC but warns that it can lead to 'tool driven' approach	Use of SPC or zero defects
Improvement basis	A 'Process', not a Programme; improvement goals	Continuous to reduce variations Eliminate goals without methods	Project-by-project team approach; set goals	Continuous improvement of process
Teamwork	Quality improvements teams;quality councils	Employee participation in decision making;break down barriers between departments	Team and quality circle approach	Participation teamwork approach leadership human relation skills cross-functional teams
Costs of Quality	Cost of non-conformance; quality is free	No optimum, continuous improvements	Quality is not free, there is an optimum	Measures-Cost of non-conformance, process improvements and waste.
Purchasing and Goods Received	State requirements, supplier extension of business, most faults due to purchasers themselves	Inspection too late; allow defects to enter system through AQLs; statistical evidence and control charts required	Problems are complex; carry out formal surveys	Supplier seen as an extension of business
Vendor rating	Yes, and buyers; quality audits useless	No, critical of most systems	Yes, but help supplier improve	Supplier seen as an extension of business
Single Sourcing of Supply		Yes	No, can neglect to sharpen competitive edge	Build lasting relationships, Price not sole determinant

Source: Oakland (1989)

2.3 Definition of Quality in Healthcare

According to Milakovich (1991), the definition of total quality healthcare is as follows:

> "A unique combination of applied modern high technology, access to facilities at reasonable cost, patient centred quality primary and specialised clinical care, and low tech holistic human healing skills."

TQM programmes in the healthcare industry have been defined by Ummel (1991):

> "A highly scientific or structured system for creating hospital wide or health wide participation from the bottom up, including the rank and file, doctors, mid-level managers, senior executives – all working together to plan and implement continuous improvement in work systems and work processes."

According to Sewell (1997), it is not clear yet what constitutes quality in healthcare, yet many are tempted to search for a complete definition of it. He believes it is inappropriate to have a fixed definition of quality for universal application, because quality is linked to individual values and expectations. These values and expectations belong to the community which the healthcare organisation serves. It includes groups such as the patients and the professional staff (physicians, nurses, administrators, technicians, etc.) involved. He concluded that quality could be defined only by explicitly exploring these values and expectations in the actual individual setting. Sewell (1997) links the definition of quality to defining the quality standards within the healthcare quality programme. Although widespread, the usage of standards is dangerous if they are placed at minimal levels, and become the expected norms; or if they are seen at a fixed level, rather than being treated in a dynamic fashion. Sewell (1997) also stresses the importance of processes rather than standards in the delivery of services to patients. The healthcare arena possesses an extremely complex matrix of processes with the special feature that patients are not outside the key processes,

but an essential part of them. The design, operation, and improvement of processes should include the staff of the hospital.

Zabada et al. (1998) reinforce the difficulty in defining the concept of quality in the service industry, and agree that it has been even more difficult to define quality in the healthcare sector. This is due to the many participants involved in the delivery of healthcare services; all believe that quality should emerge from their group. For example, the tax payer is likely to consider cost containment as the most important thing while assessing the quality of healthcare delivery, while the patient is likely to consider the degree of recovery from his/her initial state of health as the most important thing (Zabada et al., 1998). Zabada et al (1998) define quality in the healthcare services to be achieved when the "outcomes matches or surpasses the patient expectation." Their definition assumes that the patient knows in advance all the possible outcomes. They believe that without the knowledge, quality cannot be measured from the patient perspective.

Palmer (1976) points out to the existence of multiple definitions which incorporate only certain dimensions, corresponding to the values of particular interest groups. This of course causes confusion. Hamilton (1982) believes that in healthcare services the quantity and quality of the information available limit the consumer. The reasons for this include the complexity of the healthcare practices and the ethical issues involved.

The word 'total' refers to the concept of system and wholeness. In the healthcare system, the activities of TQM have many components and processes that need to be involved in the organisation; they include physicians, nurses, management, etc..

Another concept that needs to be emphasised in healthcare is 'commitment and dedication'. This means that hospital staff need to look at TQM as the normal way of running things on a daily basis and not as a one-time activity. TQM should be seen by the staff as the way to run things during the life of the organisation. In addition, the concept of 'culture' is very important in the healthcare industry. Commitment can only come from a shared belief. It is crucial to find a common ground among all the employees of the healthcare organisation in dealing with TQM implementation. The entire organisation culture must have precedence over any other professional subgroup's culture for TQM to be successful. A final and very important concept of TQM is 'tools and methods', such as variation and measurement. These are used in TQM to provide a systematic way of carrying out each activity and measuring it. This means that physicians and other staff should accept and learn to use these tools in decision making (Zabada et al., 1998).

2.4 Importance of TQM in Healthcare

The benefits of TQM in the manufacturing industry were the first to become evident. This was seen through the improvements of performance in organisations. TQM in the manufacturing industry eliminated product defects, enhanced attractiveness of product design, speeded service delivery, and reduced cost. According to Asubonteng et al. (1996), TQM in healthcare encompasses a number of strategies designed to improve quality and reduce cost. These strategies include:

- Identifying and meeting customer needs
- Reducing the cost of non-compliance with standards
- Striving for zero defects
- Reducing outcome variability

- Using statistical methods to identify and monitor processes
- Continually working for improved quality

In the quality chain reaction, as previously discussed, Deming (1989) emphasises the point that improvement is followed by reduction in cost because there is less rework, fewer mistakes, fewer delays, better use of machine time, etc.. This in turn increases productivity and competitiveness. Using the same chain reaction in the healthcare industry will result not only in cost reduction in the administrative function but also prevent costly or fatal mistakes that generate loss of life and law suits (Zabada et al., 1998). According to Hamilton's (1982) report, 90% of drugs prescribed result in waste of money, risk of serious side effects, unnecessary surgery which wastes billions of dollars, and causes thousands of death each year.

Although TQM promises to deliver many benefits in the healthcare industry, Zabada et al. (1998) believe that the application of TQM principles is faced with major obstacles that are apparently inherent to the nature of healthcare organisations. They believe that for TQM to have the full impact on healthcare organisations, those obstacles must be removed.

2.5 Major Problems in Healthcare Systems

In a study performed by Mercer et al. (1996), it was reported that the major problems in the healthcare system include:

- Unclear access points
- Inadequate information
- Inconsistency and inequity of services

- Fragmentation
- Multiple assessments
- Duplication
- Inadequate complaints and appeals mechanism
- Lack of holistic approach
- Lack of planning and strong linkages between institutional and community care
- Information technology under-utilised
- Inadequate staff training.

2.6 TQM Application in Healthcare

The key concepts used by healthcare organisations differ. Several studies (Sahney, 1991; Asubonteng, 1996) outlined the key concepts used by the Henry Ford System to implement TQM. They include:

- *Top management leadership*. TQM application needs a strong leadership that must be initiated by top management commitment at the time of implementation. Employees should be convinced that TQM is the way of life in their particular organisation and it is not just a fad.
- *Creating a corporate framework for quality*. TQM must be part of the strategic plan of the organisation. This needs the creation of a definition of quality and the incorporation in both the vision and mission statement of the organisation.
- *Transforming corporate culture*. To arrive at the full benefits of TQM, an appropriate culture must be created. Top management must play an important role in changing the culture throughout the organisation. Employees should be allowed to participate in problem solving and discussions. Management style should move

away from an authoritative style to more flexible and participative management systems. Full implementation of TQM requires an average of five to ten years.

- *Customer focus*. Every activity within the organisation must be tied to and must contribute towards the total satisfaction of patients. This is an important factor in succeeding in the implementation of TQM. The patient is influenced by the services provided, and thus mechanisms should be developed so the need of all customers should be identified and adopted in the organisation strategies.
- *Process focus*. Efforts must be made to formalise each activity in terms of process; a process is more measurable and controllable than guesswork. The organisation should focus on the major processes rather than on the people involved in them. Emphasis should be put on improving the process rather than blaming the employees. The first step in any process improvement is to bring the process under statistical control by removing all cause of variation. This requires a detailed study of the process at every stage.
- *Collaborative approach to process improvement*. Top management should strengthen the collaborative ethos by serving on teams. Involvement of employees in process improvement is crucial. The collaboration can result from teams studying processes and from individual employees who develop an understanding of the needs of their internal customers.
- *Employee education and training*. Employee training and continuous education must be institutionalised in order to deal with subjects such as usage of TQM tools and profound knowledge acquisition. Also, a manager quality forum should be established, with guest speakers from outside the organisation sharing their experiences and ideas with the group. All employees should be invited.

- *Benchmarking.* Benchmarking is a powerful motivational tool. It compares the organisation's performance with that of its competitors. For this to take place, the organisation must have a complete understanding of its own processes and capabilities.
- *Quality measurement and statistical report.* TQM statistical tools must be used on a regular basis to monitor and measure progress and performance. The amount of data generated by hospitals is great, but there is very little shared between departments. This makes it difficult to transform the data into useful information. If the data are to be integrated, then quality indicators can be established. These indicators are important because they reveal if quality improvements are occurring. Thus, all employees should be trained to use these measurement techniques at some level.
- *Recognition and reward.* Rewarding employees is an important aspect of the TQM process. The recognition and reward system should be revised and made compatible with the TQM philosophy. Senior management must play a strong role in the recognition activity. This recognition can be articles in newsletters or team presentations at top level meetings.
- *Integration with the process.* The quality management process will only succeed if it becomes part of every employee's activity. Managers at all levels play an important role on moving the organisation forward in this process. Each manager must develop a plan for the quality progress in his or her specific area.

Robbins (2000) outlines five powerful myths that need to be confronted to create a successful customer-driven culture when implementing TQM in healthcare services. They are:

- *Better quality costs more*. Healthcare providers tend to believe that improving clinical outcomes requires costly tests and procedures. This however has been proven to be incorrect in every industry. Today, consumers expect better quality at lower healthcare costs. Lower costs should improve value, customer satisfaction, and clinical outcome.
- *We know what is best for you*. The communication barrier between the patient and the practitioner should be abolished. Practitioners need to recognise that patients play a key role in the healing process and they must assume responsibility for their own health.
- *People will always come to the doctor*. People will always get sick, and while they trust their personal physician, they will consider other alternatives. They will educate themselves on potential treatments and search for professional intervention. This new shift must be acknowledged in the patient-physician relationship.
- *Patients can't judge clinical quality.* People are not ignorant, they are capable of understanding and making educated choices. The faster the healthcare organisations adopt the public's desire and the right to know, the more successful they will be in creating a superior experience for their patients.
- *Healthcare is a local phenomenon.* The public continues to rely on recommendations from family and friends and usually use physicians in their community. But with the Internet now, choices are getting wider, and shopping for physicians is becoming more evident.

2.7 Critical Success Factors of TQM

Few rigorous empirical studies have been conducted identifying the critical success factors of TQM implementation (Saraph et al., 1989, Black and Porter, 1996, Savolainen, 1998). The pioneer study by Saraph et al. (1989) developed and empirically validated a measurement instrument for quality management practices. Based on extensive literature review of quality gurus, practitioners and academics, and using 20 companies in the Minneapolis/St. Paul area, the study developed and empirically tested a quality management instrument in which eight critical factors of quality management were identified. The Saraph et al. (1989) instrument, well grounded in the literature, was then validated by empirical research using a questionnaire survey. The eight critical factors include:

- Role of management leadership and quality practices
- Role of the quality department
- Training
- Product/ service design
- Supplier quality management
- Process management
- Quality data and reporting
- Employee relations

In a study of 25 plants from the electronics transportation components and machinery industries across the United States, Flynn et al. (1994) developed an empirical framework consisting of seven quality dimensions and eleven constructs. Ahire et al. (1996) identified 12 constructs of integrated quality management strategies, and based

their study on the vehicle parts and accessories industries, which were mostly located in the US.

Black (1993) surveyed 'quality experts' in the UK and Europe. His study produced ten critical factors of TQM, which turned out to be reliable and valid. Their relative importance was obtained from the ratio scaling technique in which participants were asked to rank significant factors that were obtained from published works and personal interviews with a small 'panel of experts'. The ten validated critical factors were divided into 32 sub-items, which were segregated into major, intermediate, and minor categories. Black's ten factors are: people and customer management; supplier management; communication of improvement information; customer satisfaction; orientation; external interface management, strategic quality management; teamwork structures for process improvement; operational quality planning; improvement measurement systems; and corporate quality culture.

In addition, Black (1993) compared his results with those of Saraph et al. (1989). He concluded that though there was strong agreement between them, two new factors, customer orientation and teamwork infrastructure were introduced. These differences were due to a shift in emphasis at the operational level. These findings are illustrated in Table 2.2, which shows the relationship between different factors highlighted in different studies.

Porter and Parker (1992) designed a list of eight critical factors. They conducted surveys and interviews in ten organisations to examine and support their findings. In addition, Porter and Parker (1992) conducted a comparative study of critical factors

using Saraph et al. (1989), and the criteria of the Malcolm Baldrige National Quality Award. They concluded that while there was a close match with Saraph et al., two differences emerged when compared with the MBNQA. Their explanation of both differences related to measurement of results (required by the award criteria), while Porter and Parker and Saraph had treated them as consequences, rather than as critical elements of TQM.

A similar survey by Ramirez and Looney (1993) covered organisations in the US, which have achieved success using the MBNQA, as well as experts in the field renowned for their quality accomplishments. The validated questionnaire asked managers of 37 quality award winning organisations, including Baldrige winners, and 26 quality consultants to rate the level of importance of 22 items which are critical to TQM. After the ranking of the critical factors, Ramirez and Looney (1993) were able than to rank the quality factors according to the level of criticality.

Table 2.2 illustrates several areas of similarities between the studies. There is agreement on the need for strong leadership in TQM, and that TQM must form a part of the planning process, as well as be a part of the corporate strategy. There is agreement on effective people management, as well as on commitment and organisation of resources. Black (1993) stresses teamwork structures and integration as critical factors of quality management.

Validated and agreed-upon key factors drive a quality management programme and form the basis for success of TQM implementation. These factors are used to determine the level of maturity of TQM in organisations.

Table 2.2 Critical Success Factors Compared

Porter & Parker (1992)	Saraph et al. (1989)	Black (1993)	MBNQA (2002)	EQA (2002)
Management Behaviours	Role of Top Management & Quality Policy	Corporate Quality Culture	Organisational Leadership	Leadership & Constancy of Purpose
Strategy for TQM	Role of Top Management & Quality Policy	Strategic Quality Management	Strategic Development & Deployment	Policy & Strategy
Organisations for TQM	Role of the Quality Department	Teamwork Structures Operational Quality Planning		
Communication for TQM	Quality Data & Reporting	Communication of Improvement Information	Measurements & Analysis of Organisational Performance	Continuous Learning, Innovation & Improvement
Training for TQM	Training	People and Customer Management	Staff Work Systems, Development & Satisfaction	People Development & Involvement
Employee Involvement	Employee Relations	People and Customer Management	Staff Work Systems, Development & Satisfaction	People Development & Involvement
Process Management & System	Process Management & Operating Procedures	Operational Quality Planning	Process Management	Management by Process & facts
Management of Process Quality	Product / Service Design			
Quality Technologies	Quality Data and Reporting	Quality Improvement Measurement System	Measurements & Analysis of Organisational Performance	
	Supplier Quality Management	Supplier Partnerships External Interface Management		Partnership Development
		Customer Satisfaction Orientation	Customer Market Knowledge, Satisfaction and Relationship	Customer Focus
			Organisational Performance Results	Results Orientation
			Public Responsibility & Citizenship	Public Responsibility

2.8 Critical Success Factors of Healthcare

Integrating TQM into the strategy of the healthcare organisation requires the transformation of the organisation culture. Hospitals need to adjust the organisation structure and culture to the changing hospital environment. A TQM culture requires certain critical success factors. Among these factors is the commitment from senior leaders to the quality journey; the purpose of the leadership is to improve patient care and patient/customer satisfaction through efficiently managing the hospital's organisational process. A key critical factor to TQM implementation is the employee. Leadership must concentrate on employee development and growth through increased employee empowerment and boundary spanning. Another factor is the patient who is the ultimate consumer of the healthcare service and the ultimate arbiter of quality and value. Thus, if you do not deliver quality and value to the patient in the form of positive outcomes and services that generate satisfaction, then the remaining successes in operating the healthcare organisation are pointless (Barber, 1996). The cost of quality factor also is crucial. The hospital must deliver high quality services while maintaining lower costs. This will increase the competitiveness of the hospital (Godiwalla et al., 1997).

2.8.1 Culture in Healthcare

The TQM literature stresses the need for the transformation of the entire organisation culture when implementing TQM (Lengnick-Hall, 1995; Shortell et al., 1995, Rago, 1996). It seems to be the ultimate success factor for all other quality critical success factors (Carman et al., 1996), meaning that without the transformation of an organisation's culture, other success factors cannot be implemented successfully. Deming's 14 points do not refer solely to the function of a quality department but

rather to the function of a quality organisation. This is why a healthcare organisation should not limit its application of TQM to the administrative and other supportive activities. TQM should be applied organisation-wide, throughout all activities and functions. It should be the manifestation of a fundamental and shared belief in total customer satisfaction. TQM is a basic philosophy of management rather than a set of tools that can be learned and applied in an organisation (Legnick-Hall, 1995).

The quality efforts of any organisation must incorporate quality into daily processes and organisational culture (Lopresti et al., 1993). In healthcare organisations, a strategic transformation is needed for quality initiatives to be successful (Nance, 1995). Culture change within hospitals and its relationship to patient care is an important issue now being addressed in the literature (Klingle et al., 1995). Patient care will benefit if an organisation fosters a culture that promotes widespread commitment to service quality improvement and facilitates improved communication and employee training and development (Casalou, 1991). Harber et al. (1997) investigated the effects of organisational culture, communication and climate on service quality in the healthcare sector. It was found that culture for quality service determines climate for change, and recognition of the quality programme determines communication of service quality improvement. Climate for change and communication of service quality improvement were found to affect employee outcomes.

According to Huq (1996), when patient care activities become the focus of TQM energies, major inroads will begin to take place towards changing the healthcare organisation culture. Key aspects of developing TQM culture include management

commitment, because it provides the staff with the necessary resources to participate in quality improvement activities.

There are a growing number of studies that support the importance of organisational culture in quality healthcare. The correct organisational culture can help facilitate empowerment of the workforce. For example, Counte et al. (1992) studied 5,174 employees in academic medical centres. One-half of the employees were exposed to TQM principles, practices, and values, and the other half were not. It was found that those that were exposed had increased job satisfaction, and more favourable opinion of the organisation and their work. Also, a study done by Shortell et al. (1995) reported that hospitals scoring high on group-developmentally-oriented cultures (emphasise teamwork, consensus building, adaptability, flexibility, and growth) are significantly more developed in employee-reported quality improvement activity than hospitals with cultures emphasising hierarchy and bureaucracy. This was measured by the Baldrige Award categories.

Among all the obstacles in the application of TQM in healthcare organisations, cultural obstacles are the hardest to remove. Shortell et al. (1995) documented obstacles to the application of TQM in healthcare organisation. These obstacles include:

- Healthcare organisations are inward-looking; they tend to focus more on the needs of care-givers and professionals than on the needs of external customers.
- Large healthcare organisations are typically organised on a relatively hierarchical basis, exemplifying bureaucratic cultures that are resistant to employee empowerment.

- There is a lack of senior management commitment to TQM in most healthcare organisations.
- In healthcare organisations, leadership styles are based on command and control and hero/ heroine models, rather than empowerment and 'manager as developer' models.
- In general, middle managers perceived TQM as a threat that might eliminate their jobs. Therefore they resist its introduction to their organisation.

According to Milakovich (1991), achieving the goal of creating a positive culture for total quality healthcare requires a greater degree of horizontal cross-functional coordination and vertical integration than exists today between most medical, managerial, and support staffs in many quality assured healthcare facilities. Also, top management is responsible for articulating a consistent vision and initiating the training to change attitudes and behaviour. Managers must themselves recognise the diseases and obstacles preventing a transformation to a total quality healthcare culture, and then change their behaviour to reflect this new quality-oriented culture.

2.8.1.1 Culture in Healthcare in Middle East and KSA

Management approaches that are seen as essentially western in origin are viewed with some suspicion in many Middle Eastern and Islamic countries, and this represents an obstacle to their acceptance (Al-Zamany et al., 2000). Many researchers suggest that the differences between the Islamic values and Western values represent the main barrier to implementing western management theories and the main reason for the failure of such implementations (Bjerke et al., 1993; Al-Meer, 1999).

Wong (1998) stressed that many of the TQM programmes implemented in the developing countries fail due to the lack of a real understanding of the principles. Al-Khalifa (2000) suggests that the general way to move forward in developing countries in terms of quality practices is to create a driving force, which is usually associated with pressure from customers or an initiative from the owner or the managing director.

Al-Zamany et al. (2000) examined the cultural acceptability of quality management exemplified by the European Business Excellence Model (EBEM) in the context of Yemen. The study also investigated the barriers to the implementation of such a model. Al-Zamany et al. (2000) indicated that there was no mismatch between the activities proposed by the model's criteria and the Islamic culture, since all respondents perceived them as generic terms that reflect good management practices. One obstacle that the organisations in this study encountered was the resistance to changing the culture. Hence considerable work needs to be done to set priorities for implementation and to facilitate gradual change which will be accepted more readily.

The KSA is a country of rich culture and enormous diversity. Harris and DeSimone (1994) described cultural diversity as "the existence of two or more persons from different cultural groupings in any single group or organisation." KSA healthcare organisations rely heavily on foreign labour and expatriate technical and medical expertise from the USA, Europe, and other developed countries. TQM implementation in this context therefore has to take into account 'cultural diversity', as well as cultural differences.

Although general TQM research in the KSA has increased in the past years, it is still very limited in the healthcare arena. Most studies investigated general TQM issues. There is no study which explored the special Islamic segregated environment in the culturally diversified hospitals in the KSA. The literature states that to implement the TQM philosophy, revolutionary changes in values, methods, and attitudes must be made. The effects and acceptances of such changes in the KSA segregated healthcare arena have yet to be discovered.

2.8.2 Top Management Commitment in Healthcare

In the Quality Management literature, top management's role is considered pre-eminent, indispensable and crucial to the success of TQM implementation (Crosby, 1979, Feigenbaum, 1983, Juran and Gryna, 1988, Deming, 1989, Lascelles and Dale, 1990, Savolainen, 1998). The central role of leadership and senior management commitment to implementing TQM or Organisational Excellence programmes has been well documented (EFQM, 1999; MBNQA, 2000), and superior leadership styles have been identified (Oakland, 1993; Zairi, 1999). Commitment from the top is considered the most important prerequisite for successful implementation of any major initiative within an organisation. It is the responsibility of management to establish strategies towards the objectives of the organisation as well as to set priorities in accomplishing goals. It must be recognised that no matter how noble a cause may be, unless management include priority-setting in its strategic plans and set goals, all efforts which are not sanctioned by management are considered to be distractions from other priorities (Laszlo, 1998).

As discussed before, the pursuit of TQM requires senior management to think and act in ways that are very different from their previous modes of operation (Thompson, 1998). Many studies indicate that key behavioural characteristics of top management are necessary for TQM to be properly implemented (Waldman, 1993; Johnson, 1994; Spencer, 1994; Krumwiede et al., 1995). It is now becoming obvious to state that strong leadership through top management commitment is the most critical requirement for introducing change in an organisation. There is an agreement amongst academics, management consultants, and award givers that without this crucial support, any initiative is likely to fail (Prabhu & Robson, 2000).

The concept of TQM has so many different aspects that it appeals easily to management. It is more difficult however to retain management's ongoing support for TQM within the organisation. TQM is based on the recognition that management has a social responsibility to all stakeholder-owners, customers, employees, suppliers, and society, as well as a need for leadership that is capable of motivating others around them to share their holistic vision. Everyone likes the concept of TQM; however, there needs to be an active commitment from and participation by management, otherwise TQM will fail (Laszlo, 1998). Lamsa and Savolainen (2000) put it in these words:

> "Prescriptions of management's duties include shaping organisational culture by promoting quality values, strategic quality management, the development and communication of quality policy, setting and measuring quality systems development. The well known quality gurus underscore upper management's role and commitment and, in the literature, managerial commitment appears as a self-evident prescription widely regarded as a crucial requirement for successful quality improvement efforts. However, this prescription has hardly been called into question."

The fulfilment of Total Quality objectives requires the transformation of organisational culture, which starts with the change of management style from the traditional style to the Total Quality style. Leaders must both manage and initiate change in the organisation. Management teams need to show commitment, leadership, and willingness to change processes (Albrecht and Zemke, 1985).

As already explained, Tate and Prasad (1998) believe the concept of TQM cannot work in organisations with control-oriented cultures and mechanistic structures in which management plans, organises, directs, and controls employees. TQM suggests that management should lead to create a vision rather than plan one, and partner and delegate rather than organise and control. TQM philosophy directs management to create a vision that incorporates quality as integral to business, and to establish policies, practices, and structures consistent with that vision (Crosby, 1979; Deming, 1989; Juran, 1989; Pulat, 1994). TQM is more likely to succeed in companies with flexibility-oriented cultures and organic structures, where vision replaces fear as the motivator, and management's role is to create overall guidelines and parameters for employees (Tata and Prasad, 1998).

Abraham et al. (1999) surveyed fourteen companies who were winners of the Australia Quality Award between 1989 and 1993. They identified a number of factors that were important for successful transformation to a quality culture and practice. Although clarity of vision, participation, cultural communication, and resource support were all important, the most critical factor appeared to be active management support for change. Managers must be clearly perceived to be supportive of change, and this perception must be established through communication, resource allocation,

and recognition/reward. They must be prepared to provide sponsorship and orchestration of the change process and to 'walk the talk' (Abraham et al., 1999). Dawson (1995), in a study of eight Australian and New Zealand manufacturing and service organisations, found that the introduction of quality management was viewed as an ongoing process which needed continuous senior management input.

Employees who are highly committed to their employer and who have confidence in their top management deliver higher returns to shareholders. The WorkUSA (2000) survey found that over a three-year period, highly committed employees had produced a 112% return to shareholders, compared to a 90% return by those with average commitment.

In the 1970s and 1980s, there was a perception that US managers were less committed to TQM than Asian managers (Ohmae, 1982). Recent studies comparing the quality perception of US and Asian managers indicate that successful quality programmes require that the entire company adopts the agreed-upon quality concept, and that the work environment supports the concept that managerial commitment is critical. This commitment was found to be more pervasive among US managers than among Asian (Yavas, 1995).

2.8.3 Patient Satisfaction

In healthcare, as in other service or good-producing industries, there is an increased emphasis on judging quality based on consumer feedback (Marr, 1986; Graham, 1987; McMillan, 1987). Donabedian (1988) stresses that patient satisfaction should be considered one of the desired outcomes of care, and information about the satisfaction

of patients should be an assessment of quality in the healthcare system. The use of patient satisfaction surveys has increased in the healthcare arena. This increase is due to the belief that the perception of quality is an important factor in the demand for services, and the survey result may have a significant effect on provider behaviours (Nelson et al., 1990).

In a healthcare organisation, it is important to keep in mind that the patient is the ultimate consumer. Thus, whenever the organisation is considering any aspect of performance, it should ensure that everything ultimately contributes to the goal of quality patient care (Barber, 1996). It is important to keep in mind that patients are not the only customers. Customers in the healthcare organisation include families of patients, community, physicians, employees, medical students, faculty, regulators, etc. These stakeholders are as important as the patient in the long run, and are a necessary element for excellence.

Nelson et al. (1990) studied the deficiencies in the design and administration of patient satisfaction surveys and their actual use in institutional assurance programmes. Their study analysed the survey instruments and practices of five teaching hospitals, three community hospitals, and two health maintenance organisations. They found a considerable gap between the content of many patient satisfaction surveys and what prior research has indicated to be important determinants of patient satisfaction. Their study also showed that insufficient attention is directed to patient satisfaction with technical competence, outcomes, continuity, or patient expectations, and that non-systematic approaches and weak methodologies similarly limit the value of many patient surveys and inhibit their use in total quality improvement efforts.

2.8.4 Cost of Quality Healthcare

Sewell (1997) believes that developed healthcare systems are facing similar problems today in how to respond to increasing patient and professional quality expectations with increased governmental pressures to contain the cost of service delivery. In order for the efforts for containing and reducing the cost of healthcare to continue, Gerber (1992) believes that the healthcare industry must adopt a TQM orientation.

Quality and cost are linked in all services industries, especially in the healthcare industry. The healthcare reform objective is to reduce cost and ensure accessibility to all citizens while not jeopardising the quality of the system. Healthcare in some ways is a normal business in that quality must be maintained or improved, and cost must be contained if the business is to survive. Burke (1990) writes, "Hospitals are learning that quality improvements techniques borrowed from other businesses not only improve quality of care, but also help lower costs and improve marketability." It differs from other industries like the manufacturing industry in that it is a service-driven industry and a great deal is at stake. This is why TQM has become a vital ingredient to strategic planning in the healthcare arena. It can contain cost while not sacrificing the quality of care. To ensure excellence, quality must be defined, measured, and evaluated. At the heart of high quality is the issue of measurement. It is impossible to ensure quality if it cannot be measured. And it is more difficult to manage the cost of quality if quality cannot be measured (Anderson and Zwelling, 1996).

There is a strong misunderstanding that quality produces higher cost. On the contrary, the primary cause behind the increased awareness of service quality has been the link

between quality and profitability (Reepmeyer, 1991; Shycon, 1992). Organisations that provide high level of quality can distinguish themselves from other competitors. This is of course crucial in the healthcare industry.

According to Anderson and Zwelling (1996), TQM techniques can be used in healthcare, but they should not interfere with productivity or cost, especially if managed care, or limit the prices that can be charged for healthcare services. They believe that costs can be cut but not at the expense of technical or functional quality. These measurements and their relationship with one another will require novel quantitative approaches of quality assessment. These measurements can become a competitive weapon for healthcare organisations in the managed competition arena. With the known cost and the understanding of cost and quality, the hospital can distribute its limited resources according to its personal profile, usually in the areas where quality improvement is most needed. At the same time, the hospital is trying to maintain its underlying basic objective of increasing profitability while maintaining control. Appleby (1995) stresses, "Whoever has the best quality will have the lowest costs and if you are not improving the quality of healthcare, your future in the market is suspect."

2.9 Approaches to Implementing TQM in Healthcare (Models)

Based on the inputs from a review of the literature, Motwani et al. (1996) generated a model for implementing TQM programmes in hospitals from start to implementation. Their model is composed of five stages, which include awareness and commitment, planning, programming, implementing, and evaluation (Figure 2.1). First, top management needs to develop an overall understanding of and commitment to the

TQM philosophy, and how to achieve it. In the second stage, the administration must perform an internal quality assessment of the organisation to identify strengths and weaknesses, provide education to key personnel including physicians, set visions and objectives in writing, and design a new system. The hospital administrators must review the suitability of the organisation culture to ensure that TQM values and vision can be incorporated and adopted.

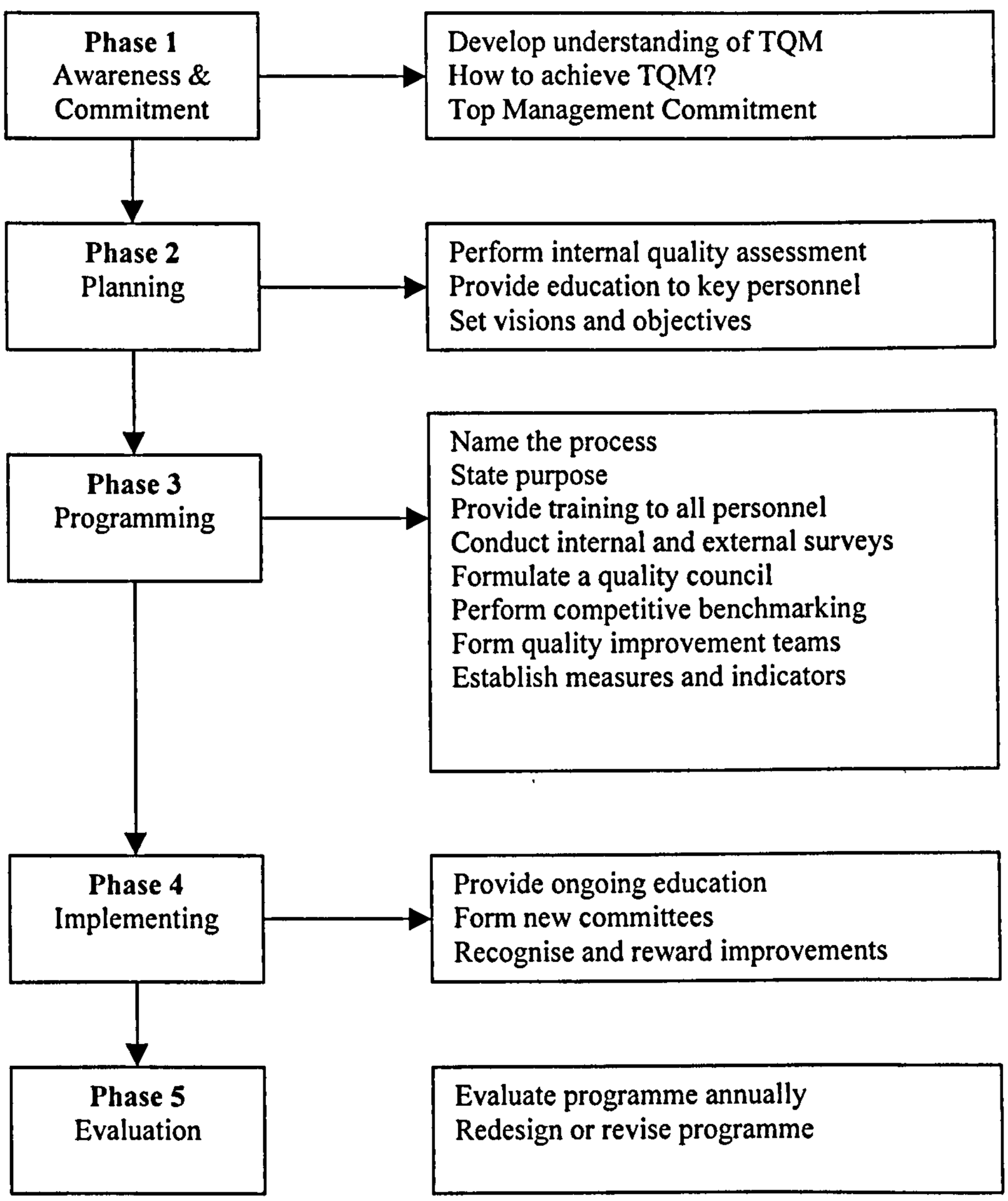
In the third stage, management should programme the process. Efforts should be made to disassociate TQM in the healthcare sector from other industries, because medical employees view themselves very differently from emphasis in other industries like manufacturing. The third stage includes:

1. establishing a statement of purpose through a new TQM framework
2. providing training to all personnel
3. conducting inside and outside surveys to evaluate and adjust the current process
4. formulating a TQM council to overlook and regulate the quality process
5. benchmarking the competition to compare their performances
6. forming quality improvements teams, and
7. establishing quality indicators to measure the objectives of the organisation.

The fourth stage is the implementing stage. It should provide an ongoing education and training. Also, it should form new committees, teams, and departments, and hire specialists to help the implementation of the process. Recognition and reward are quality improvements that are crucial to the success of this stage. This valuable tool can improve employee morale and raise the level of interest in TQM. The last and final stage of the model involves the evaluation of the TQM programme. It will check

if the programme is successful or not, and lead to altering and redesigning the programme according to the needs.

Figure 2.1 Proactive Model to Implementing TQM

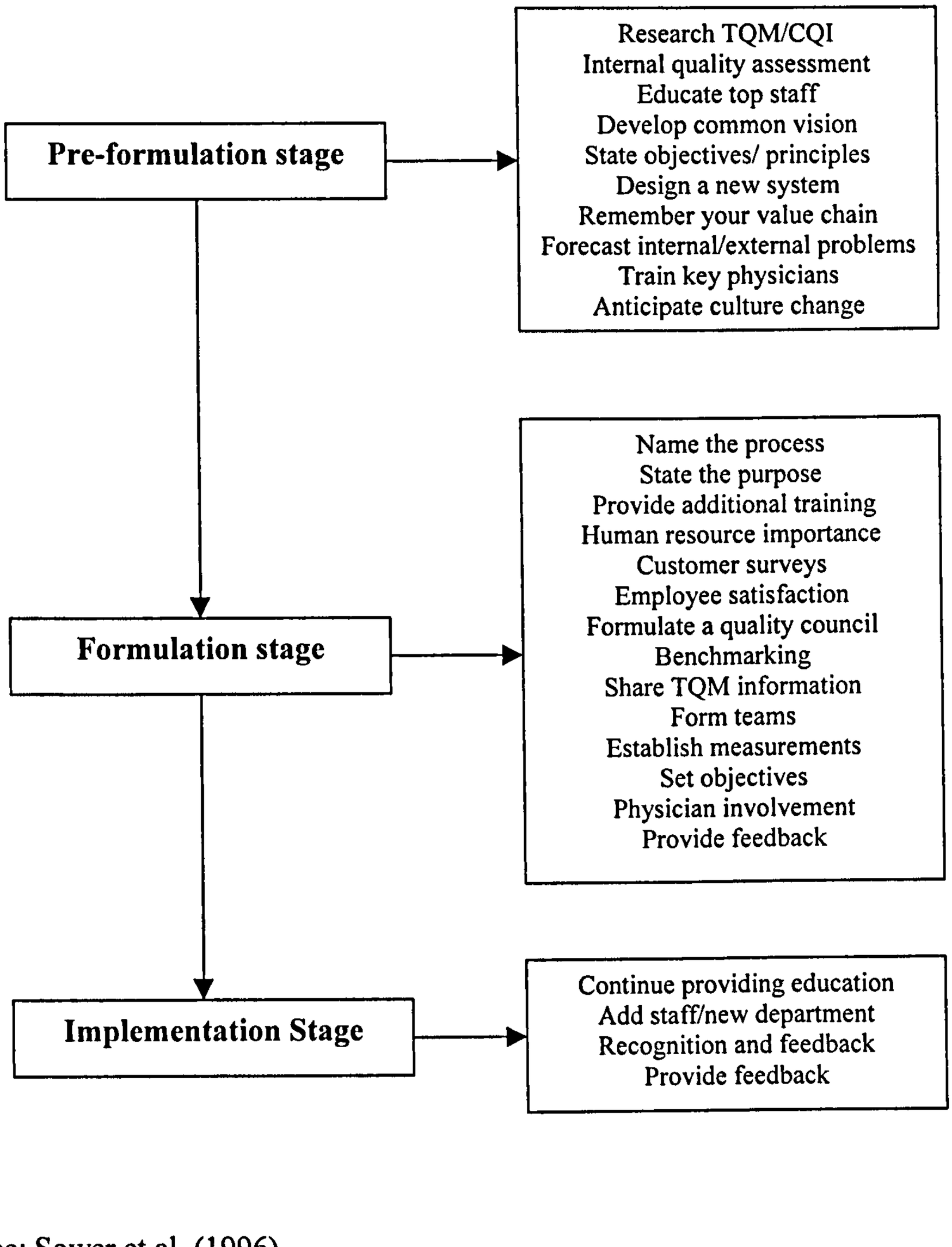


Source: Motwani et al. (1996)

Sower et al. (1996) presented a model (Figure 2.2), which states issues which healthcare organisations should consider when applying a TQM programme from start to implementation. It presents the current prevailing process of TQM implementations. The model takes into account several issues that are recognised as good management concepts, and is divided into three stages. There are pre-formulation, formulation, and implementation. Each part is expected to take one full year to complete, but this can vary from one organisation to another. The steps of the model are placed in logical sequence, but it is not necessary to apply them in this order. Some organisations will have accomplished some of the issues previously in some other programmes, and some issues may not apply to the organisation. Also, time and money will cause the organisation to leave out parts of the model.

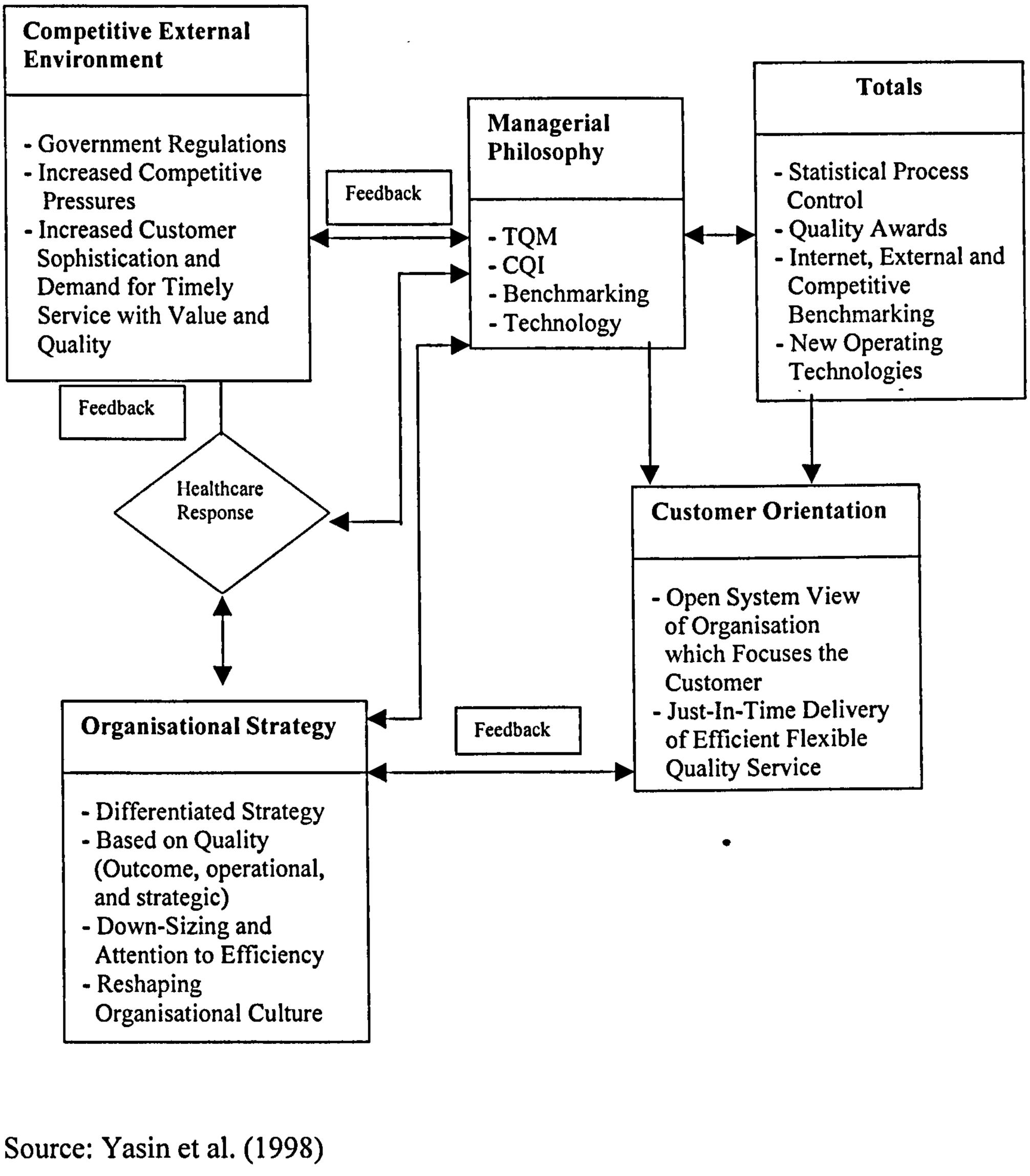
Based on a literature review, Yasin et al. (1998) proposed a framework (Figure 2.3) that is intended to give healthcare administrators and managers a context where they can examine and understand the relationships between their organisations' operations, strategy, benchmarking efforts, and TQM efforts to promote a customer orientation. They stress that this understanding is critical, due to the increased competitive pressure in the healthcare marketplace. The Yasin et al. (1998) framework is based on an open system approach to the management of the modern health organisation.

Figure 2.2 Conceptual TQM Model for Healthcare Organisation



Source: Sower et al. (1996)

Figure 2.3 Facets and Organisational Role of TQM in Healthcare Organisation



Source: Yasin et al. (1998)

Recker and Oie (1994) described a model called Quality in Daily Work (QIDW), shown in Figure 2.4. This model can assist in the implementation of TQM at the unit level. QIDW is patterned after Juran's Trilogy of quality planning, quality control, and quality improvement.

Figure 2.4 Flow Diagram of Quality in Daily Work

Source: Recker and Oie (1994)

2.10 Difference between TQM Applications in Healthcare and other Fields

Mueller (1992) believes that the healthcare industry is significantly different from its manufacturing counterparts. The manufacturing industry is assembly line-oriented, and as such has many more barriers to the successful implementation of TQM. Review of the literature suggests one major difference between TQM applications in healthcare and other fields. Most applications in other fields of endeavour have been directed at the core processes of the firm in areas of greatest strategic priority. In the healthcare sector, the majority of applications have been in functions providing administrative support to patient care activities rather than directly addressing clinical processes themselves. This correlates with the belief among healthcare organisations that TQM is for cutting costs, and this is why it is usually applied in administrative and other support functions (Shortell et al., 1995).

In addition, Sower et al. (1996) identified several important elements that separate TQM in the healthcare industry from TQM in other industries. They include:

- The workforce is fragmented. A simple task requires the communication and co-operation of a number of different departments and employees.
- Work flows across many different departments in a wide variety of ways.
- Every situation and every patient is different. You cannot treat patients like an assembly line manufactured product.
- Nurses cannot be handled like assembly line workers because every situation is different.
- The healthcare industry is highly regulated, and regulations may get in the way of some TQM/CQI programmes.

- It has always been the industry goal that quality comes first, so quality efforts should attempt to blend in.

2.11 Obstacles to application of TQM in healthcare organisations

Healthcare organisations should not limit TQM application to administrative and other support activities. TQM should be applied to the entire organisation in all its processes and functions. The major and most difficult obstacle in TQM applications in healthcare is culture (Zabada et al., 1998). Section 4.14 discusses some of the Shortell et al. (1995) obstacles, which relate to culture.

In addition, Shortell et al. (1995) believe there is an under-involvement of physicians in TQM efforts. This is due to the lack of time, the belief that they are already doing quality work, their inexperience or unwillingness to work as members of teams, and the perception that TQM is primarily for cost-control. Lopresti et al. (1993) agree with Shortell et al. (1995) that the perception of the physician's role as a leader and the definition of successful outcomes are the two key areas that are challenging the implementation of quality initiatives in the healthcare organisations. Lopresti et al. (1993) added that quality education should begin in the medical classroom. Geber (1992) notes that physicians believe that they are not employees of the hospital, instead they are customers of the administration process. Without doctors supplying medical services there will be no patients for the hospital. This key challenge for the hospital administration justifies the pampering of the doctors (Geber, 1992).

Reinertsen (1995) believes the most common obstacle in TQM application in healthcare organisation is the compensation system. He stressed that piecework

reimbursement systems constitute a powerful obstacle to the application of TQM, since it places individuals at risk from being innovative. Reinertsen (1995) mentions other obstacles such as fuzzy mission statements, poor communication skills in the transfer of the organisation purpose and strategy, lack of commitment to employee training and learning, and corporate symbols, such as parking spaces.

Greene et al. (1976) discussed approaches to the measurement of the quality of medical care. They think that healthcare organisations do not give enough attention to the presence of patients as both product and participant. They are the product in the sense that work is done on their physical or mental state, and they are participants in the sense that their knowledge and collaboration are required. This is the reason why their behaviour has a great effect on the outcome of quality in the healthcare organisation.

According to Hamilton (1982), the rigid authoritative and hierarchical structures in most healthcare systems make it very difficult for employees to suggest changes. He added that those who were sympathetic to consumers and spoke out and demanded changes were exposed to harassment, such as getting fired or losing their licence to practise their profession. Hamilton (1982) also reported that the majority of healthcare providers strongly oppose consumer involvement in the healthcare system. Their reasons include:

- Healthcare is too esoteric for the consumer to understand or control.
- There are differences of opinion among consumers on how to change the healthcare system, so that there is no one who can represent consumers in general.

- Patient involvement in the delivery of the healthcare process will hamper the consistency of operation of some programmes.

Zabada et al. (1998) found some other obstacles in the healthcare organisation settings. They believe that physicians in most healthcare organisations do not feel concerned by TQM activities. They feel that TQM is not applicable to their job. Shortell et al. (1995) did a study at the Northern Telecom Plant, and they found that workers' inability to see beyond their own department's goal to the organisation-wide objective and strategic quality issues was a major reason for TQM implementation failure. The same would apply to the hospital environment.

Another barrier is the high turn-over in the executive ranks in the healthcare organisation. The average tenure is four years (Geber, 1992). Gopalakrishnan et al. (1992) note that lack of job security is another barrier to quality improvements in the healthcare organisation. Lopresti et al. (1993) stress that if the employees see the TQM efforts as decreasing the headcount, they will resist it.

The above barriers should not stand in the way of continuous quality improvement. TQM has a lot to offer to the healthcare industry, such as eliminating waste, rework, and unnecessary complexities (Fried, 1992). Geber (1992) suggests that the start of TQM should be small, team-based, and use a slow improvement process.

Short and Rahim (1995) compared the hospital professional model to the TQM model. This comparative analysis is illustrated on Table 2.3.

Table 2.3 Comparison of Hospital Professional and TQM Models

Professional	TQM
Individual responsibilities	Collective responsibilities
Professional leadership	Managerial leadership
Autonomy	Accountability
Administrative authority	Participation
Goal expectations	Performance and process expectations
Rigid planning	Flexible planning
Responses to complaints	Benchmarking
Retrospective performance appraisal	Concurrent performance appraisal
Quality assurance	Continuous improvement

Source: Short and Rahim (1995)

2.11.1 Subcultures in Healthcare Organisation

According to Zabada et al.(1998), in the healthcare environment there exist various powerful subcultures (e.g. physicians' subculture). Each has an individualistic point of view of what quality ought to be, and how the work should be done, and this has created a situation where management has little control over the most strategic areas where TQM could have greater results. Both the heroism factor of physicians and the human life factor involved in the healthcare services have placed a rational decision-making in jeopardy. The existence of many participants with different, sometimes opposing interests in the healthcare system makes it very difficult to arrive at a definition for the quality of healthcare (Zabada et al., 1998).

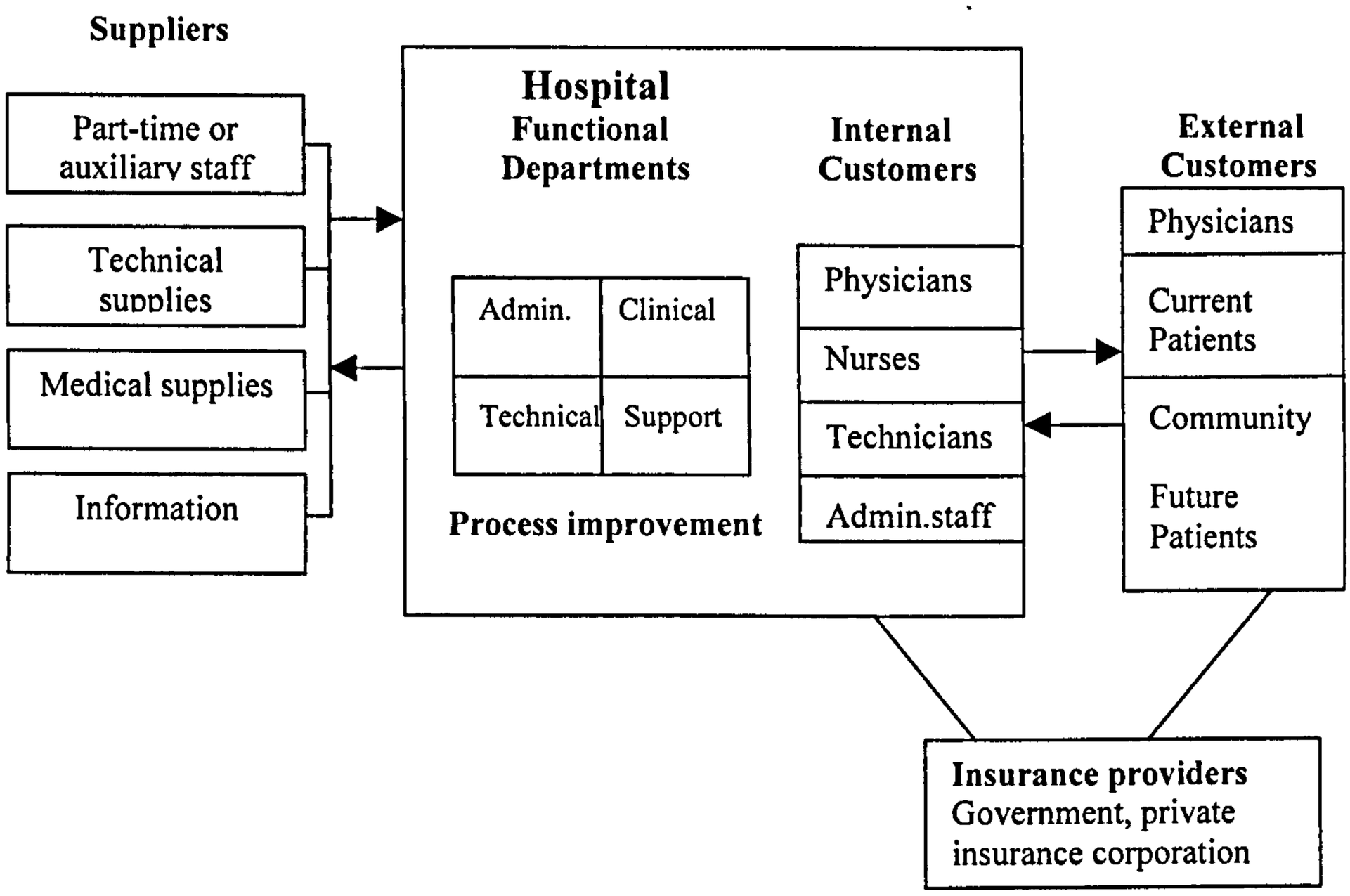
The healthcare environment (hospital) possesses a special kind work environment. This environment is usually organised by occupation. The groups within this

environment can be called occupational subcultures (Zabada et al., 1998). According to Zabada et al. (1998), these subcultures share in common a distinctive ideology and identifiable cultural forms or practices that are inherent to their occupation. In a typical nursing station, for example, we can find registered nurses, pharmacists, secretaries, nurse assistants, and house-keepers, each doing their independent job. These groups or subcultures are different from each other, but they all have the same common denominator, which is the hospital. They all have a certain belonging to the organisation (hospital) for which they are working.

The hospital needs to bring these various groups to work together as one in order to improve its performance (Figure 2.5). This is a very difficult task. According to Zabada et al. (1998), the feeling of the common denominator often seemed to take a back seat in most healthcare organisations, thus hindering the introduction and development of TQM in hospital. These subcultures seem to let their professional needs take precedence over everything else, including TQM. Arndt and Bigelow (1995) pointed out that TQM assigns responsibilities to management that are vast under any circumstances. They stated:

> "The special role of physicians, the behavioural and political aspects of decision making in hospitals and the ambiguities surrounding definition of quality make the job of creating unity of purpose and of enforcing rational decision-making even more daunting and perhaps unrealistic in hospitals."

Figure 2.5 Extended Healthcare Organisation



Source: Milakovich (1991)

2.12 TQM Case Studies in Healthcare

There are many examples of healthcare organisations which successfully implemented TQM into their operating philosophies (Bergman, 1994). George Washington University Medical Centre was able to save $75,000 annually in linen expenses, and waiting time in the pre-admission surgical-screening service decreased from several hours to an average processing time of 50 minutes (Chaufournier et al., 1993). Orlando's Florida Hospital, where 2,000 open-heart surgeries were performed in 1992, expects to reduce the length of stay in five cardiac wards, and implement other cost-cutting measures. This will save the hospital nearly $4 million annually (Lumsdon, 1993).

Carman et al. (1996) studied the implementation of TQM programmes in 10 hospitals for a period of two years. Their study was designed to identify and assess the ingredients that lead to the successful implementation of TQM programmes in acute care hospitals. Their findings were:

- An empowered work force will create greater outcome gains than the effects of specific team process improvement alone.
- The influence of culture and QI output on overall performance was much less than anticipated.
- Starting with a project-dominant approach and transitioning to a strategy or cultural approach produced the greatest QI outputs.
- The early involvement of physicians in the TQM programme through clinical process and improvement teams early in the programme would have positive effects on implementation success.
- The time required to achieve TQM results or the so-called 'depth of involvement' had very strong significant influence on both the measures of QI outputs and on customer satisfaction.

Lagrosen (2000) completed a study in a hospital in Motala, Sweden, the maternity clinic of which has received the Swedish Quality Award for the health sector. This hospital was trying to implement TQM. The purpose was to assess the effects of using TQM, thereby judging whether this use could be valid, and to find some success factors for implementing TQM in this kind of organisation. Certain quality dimensions have been defined. Based on them, the results of quality have been assessed and found to be positive. The major positive effects were better evaluations, increased ability to implement changes, and increased creativity. Only two negative

effects were found: a temporarily increased workload, and envy from the other clinics. Since the positive effects greatly outweigh the negative ones, this gives indications that the use of TQM in hospital could be valid. Furthermore, some success factors for implementing TQM were found. The foremost of these include sufficient information, commitment by management, and evaluations of the operations.

Rago (1996) describes the efforts undertaken and lessons learned by the Texas Department of Mental Health and Mental Retardation as it began the transformation of its agency culture in keeping with a TQM model. He lists the lessons that were learned during this transformation. They include:

- The need to recognise that the spontaneous reaction of most people to change is negative. Also, the need to recognise that employees must overcome their personal struggles with change. Both needs must be recognised and addressed by the mechanics of change, such as installing appropriate tools, training, and communication, and most important is that leadership needs to demonstrate a constancy of purpose and the efforts of personal struggles are worth winning.
- The major barriers to transforming the organisation are, in actuality, the pillars upon which the old culture was built. This makes change difficult and personal.
- The agency vision and goals need to be clearly communicated throughout all levels of the agency, and leadership needs to be actively involved and visible in this effort. If senior managers do not become leaders of the agency, it is unlikely that efforts to transform the agency will be successful.
- Training must be made real as seen from the perspective of the employees receiving the training. It needs to be directly applicable to the demands of the job, and this is true at every level, from leadership down.

Chow-Chua and Goh (2000) studied the road to quality that was taken by the National University Hospital (NUH), a restructured hospital in Singapore. This hospital embraced and continued to embrace TQM concepts and believes that it is only the beginning of a long journey. The major difficulty with this process was to overcome the resistance to change from the departments. The quality improvement process has brought a number of changes for the NUH, which include:

- The realisation that the organisation needs to compete on the strategic dimensions of quality.
- An understanding of the importance of the internal customer to the supply chain to the delivery of quality patient services.
- The realisation of the need to break away their isolated professional shells and began a multidisciplinary mode of co-operation and understanding.

Ovretveit (1997) studied the experience of nine public hospitals in different European countries, which describe themselves as implementing TQM programmes. One of the aims of the research was to evaluate the hospitals' progress in implementing TQM, and compare their actions to a model definition of the aims and sub-aims of TQM using quality experts such as Deming and Juran. Their findings indicate:

- *Quality was not viewed as an integral part of daily work.* The main reason given was lack of time, but the underlying reason was that the quality methods and approaches used in hospital were mostly concerned with documentation, or activities that were not directed at improvements to clinical care.
- *Emphasis on results.* There appeared to be a lack of 'performance orientation' to quality activities, and no clear results were expected from groups, or targets set for them.

- *Management component of TQM.* Only two hospitals put effort into ensuring that managers were developed for their new role, and these hospitals were trying to ensure that quality was a joint management and professional activity. Other hospitals found that their quality programme highlighted weaknesses in hospital management as a whole
- *Quality structure.* All hospitals studied had recognised the need for and worked out ways of employing quality expertise; they also found ways to integrate this expertise into the organisations' management process.
- *Measurement.* The hospitals employed different types of quality measures. These included staff satisfaction surveys, quality award assessments, patient complaints' surveys, professional quality measures, cost of quality measures, and specific quality projects.
- *Scientific methods for systematic improvement.* The hospitals studied used different methods to assure and improve quality, but there was little awareness of a disciplined scientific approach to quality improvement. Too much time was spent on documentation, planning, policy making, and formulating and checking standards, but there was little scientific basis for many of the standards and methods being implemented.
- *Quality methods for the quality programme itself.* None of the hospitals studied applied quality principles and methods in a reflective way when they established and implemented their quality programme.
- *Training in Quality Methods and theory.* All hospitals had spent some time and money on training programmes.

- *Physician contribution to the quality programme*. All hospitals found that physician leadership and involvement in quality activities is both essential and difficult to achieve.

Klein et al. (1998) studied St.Mary's Hospital, which had made a strong commitment to TQM. Their findings indicate a positive significance in terms of time and cost saved, higher employee morale, and customer satisfaction.

Counte et al. (1992) did a quasi-experimental study that examined the effects of one such TQM programme on employee job satisfaction, perception of organisational climate, and general opinions that dealt with the work stations. Two years after a large-scale TQM programme was implemented, responses of participants and non-participants were compared. Participants in the programme showed a high level of job satisfaction and more positive opinions regarding both the organisation and their work.

In the USA, the Mayo Clinic (1995) is focusing on reducing healthcare costs by treating more patients on an outpatient basis, reducing hospital visits, consolidating services and jobs to serve more patients, and merging with other providers to form networks to serve people in geographic regions. Also, it continues to develop guidelines to help its physicians' high quality efficient care. Dr. Robert Waller, CEO of the Mayo Foundations, writes (Mayo Clinic, 1995):

> "As the world of healthcare continues to change, Mayo cannot stand still. We will not wait for healthcare reform from congress or state legislators to dictate change. The nation is seeking high quality, cost-effective care, and Mayo is responding. We will meet the challenges next week, next year, and beyond."

The Columbia / HCA Healthcare Corporation in Nashville, Tennessee has been a leader in full TQM integration and a shift in their business culture (Koska, 1990). It owns and operates over 320 hospitals and healthcare facilities with over 36,000 beds in 36 states, England and Switzerland (Columbia/ HCA, 1995). This quality-driven corporation started its journey with basic changes in its organisational culture (Koska, 1990). The Malcolm Baldrige National Quality Award recognised the corporation's ambulatory surgery division and 125 centres for their continuous efforts to improve quality through process improvement and performance measurements (Columbia/ HCA, 1995).

There are few case studies in the literature available on quality in developing countries (Djerdjour, 2000). Although in the Middle East, TQM in healthcare is still young, there are some studies published which report their TQM experience. Benjamin and Seaman (1998) studied the implementation of TQM in a primary health project sponsored by the Ministry of Health in Bahrain. Their findings confirmed that TQM improves healthcare organisations. They found that participation, empowerment, and accountability are the foundation of TQM success, organisational decisions must be based on relevant data, strategic commitment of top management must underpin improvement efforts, and threats to power and status can derail change efforts.

In Kuwait, Adrees (1996) studied the perceptions and expectations of TQM in the healthcare sector using SERVQUAL measurement. The results indicate there is a negative relationship between patient expectation and senior management expectations. Also, the findings showed a stronger negative relationship between the

patient expectation and the actual performance for the services received. This conveys that quality is not up to the patient's standard.

In the Kingdom of Saudi Arabia, Saeed (1994) measured the degree of effectiveness in quality programmes in hospitals in the Ministry of Health. His sample was made up of the nursing staff of six public hospitals. Saeed's (1994) research concluded that one-third of the sample believed that TQM programmes were non-effective. Alsaloom (1997) studied the TQM system as applied in Al-Amal Hospital in the KSA. The findings illustrate there are many problems in trying to apply the TQM system, namely:

- Failure to follow one specified work plan.
- Lack of regular assessment of the overall quality control system.
- The absence of incentives' regulations to prompt staff to improve their performance.
- A need for a careful establishment for setting-up performance criteria and to involve staff decision-making.

2.13 ISO Standards

ISO standards were first published in 1987, and were revised in 1994. ISO, the International Organisation for Standardisation, is an international agency consisting of over 120 member countries (Praxiom Research Group Ltd., 2000), each with one vote. The ISO objective is to establish a universal testing and certification standard to encourage the trade of quality services and products around the world.

The basis for the ISO 9000 quality systems is a series of five international standards, which provide guidance in the development and implementation of an effective management quality system. The standards and specifications are not particular to one product or service, but are written for all product and service industries. The requirements apply to the complete organisation, not just the product or service.

The ISO series provides the methods that can be used in an organisation to ensure that the customer and the organisation are satisfied at the lowest costs, while maintaining ideal use of resources (material, people, technology). In short, the ISO 9000 include: (Ho, 1995):

- A documented system to interpret customer requirements
- Commitment to meeting customer requirements
- Total company involvement
- A nationally accepted standard
- A method of cost reduction
- A "springboard" for more management control

Presently, the standards consist of three levels (Praxiom Research Group Ltd., 2002):

- ***ISO 9003:*** is for organisations that assure quality through final inspection and testing.
- ***ISO 9002:*** is for organisations that produce, install, and service product.
- ***ISO 9001:*** is for organisations that design, develop, produce, install, and service products.

The ISO 9000, ISO 9004, ISO 10011, and ISO 10013 are supportive documents. They are intended to provide guidelines for the application of the above three sections and to assist in improving the quality system. Najmi and Kehoe (2000) reviewed the literature on the implementation of the ISO 9000, and found that while certification has produced a number of both qualitative and quantitative business benefits, it does not in itself lead to continuous improvement or promote a customer-oriented culture.

2.13.1 ISO 9000: 2000 Standards

In 2000, an updated version of the ISO 9000 was published. The ISO 9000: 2000 Standards apply to all kinds of organisations, dealing with all aspects. These updated standards are focused more on quality management as opposed to merely quality assurance. Areas which ISO 9000: 2000 Standards focus on include customer focus, leadership, involvement of people, process approach, system approach to management, continual improvement, factual approach to decision making, and mutually beneficial supplier relationships (Russell, 2000). Also, in the ISO 9000: 2000, the ISO 9002 and the ISO 9003 have been dropped (Praxiom Research Group Ltd., 2002).

2.13.2 ISO 9000 in Healthcare

Many healthcare institutions world-wide are benefiting from the ISO 9000 guidelines. When implemented, the ISO 9000 ensures Continuous Quality Improvement (CQI) because it deals with problems and process variations quickly and permanently. When registered with ISO 9000, periodic audits are needed to monitor continuous compliance. It has been proven to healthcare institutions that once they adopt the ISO 9000 series, other survey processes will be much simpler and less costly.

2.14 Joint Commission and Accreditation of Healthcare Organisations (JCAHO)

In the early 1950s, in the USA, the Joint Commission and Accreditation of Healthcare Organisations (JCAHO) introduced to its member hospitals a ten-step quality assurance model. This model served as a guide to healthcare organisations in terms of changing the behaviours of individuals whose practices deviate from the acceptable norm (Anderson, 1992). According to Chaufournier et al. (1993), in 1992, JCAHO required member hospitals to begin a quality improvement process in its agenda for change. This agenda called for developments of new approaches to respond to the challenge they faced. Analysts in healthcare felt that this agenda was a good start for quality improvements. In a 1993 survey, it was revealed that only 44% of 1,083 of the JCAHO hospitals in the USA had adopted an organised quality improvement management programme (Chaufournier et al., 1993).

2.15 Malcolm Baldrige National Quality Award (MBNQA)

2.15.1 Historical Perspective

According to Loomba and Johannessen (1997), during the late 1970s and 1980s, American manufacturing growth decreased, while growth from overseas competitors increased. The effect on the USA as a whole was negative, and triggered a serious recession, which lasted many years. The recession affected all manufacturing industries, and caused Americans to want to learn from their fast-rising competitors, Japan in particular. Japanese products became known for their high quality. Many American organisations sent representatives to study the Japanese way of conducting business, and discovered something that was very hard for them to believe. The product defect level was much lower than in the USA, sometimes 500-1,000 times

lower (Haavind, 1992). US manufacturing plants examined Japanese techniques, and discovered that Japanese used just-in-time (JIT) manufacturing as well as total quality control (TQC). Over time, US industries began to understand that JIT and TQC are not simply techniques, but holistic management philosophies. Interestingly, Japan's quality award created in 1951, the Deming Prize, honours the American quality guru. Thirty years later, Deming's thinking began to be appreciated in the USA (Hildebrand, 1989).

The early 1980's saw increased efforts, both in the private and public sectors, to restore American productivity growth. In 1982, President Reagan signed a bill recommending the government reward competition and productivity. In 1983, the National Productivity Committee (NPC), a group appointed by the President, recommended the establishment of a national medal for productivity achievement. In the private sector, the American Society for Quality Control promoted among labour, management, and government, the creation of a national quality award as the centrepiece of the quality revolution (Hart, 1992). Finally, in 1987, President Reagan signed into law the Malcolm Baldrige Quality Improvement Act, named after the recently deceased US Secretary of Commerce.

2.15.2 Objective of Programme

After the Improvement Act was signed into law, the award became the responsibility of the Department of Commerce, which then passed it on to the National Institute of Standards and Technology (NIST). Their purpose is to maintain quality and related matters in developing and utilising technology. The legislation describes the state of product quality in the USA in 1987, and identifies ways for the national quality award

to improve it. The Findings and Purposes section of Public Law 100-107 states the following (US Department of Commerce, 1995):

(1) The leadership of the United States in product and process quality has been challenged strongly (and sometimes successfully) by foreign competition, and our Nation's productivity growth has improved less than our competitors' over the last two decades.

(2) American business and industry are beginning to understand that poor quality costs companies as much as 20 % of sales' revenues nationally, and that improved quality of goods and services goes hand-in-hand with improved productivity, lower costs, and increased profitability.

(3) Strategic planning for quality and quality improvement programmes, through a commitment to excellence in manufacturing and services, is becoming more and more essential to the well-being of our Nation's economy and our ability to compete in the global marketplace.

(4) Improved management understanding of the factory floor, worker involvement in quality, and greater emphasis on statistical process control can lead to dramatic improvements in the cost and quality of manufactured products.

(5) The concept of quality improvement is directly applicable to small companies as well as to large ones, to service industries as well as manufacturing, to the public sector as well as private enterprise.

(6) In order to be successful, quality improvement programmes must be management-led and customer-oriented, which may require fundamental changes in the way companies and agencies do business.

(7) Several major industrial nations have successfully coupled rigorous private-sector quality audits with national awards, giving special recognition to those enterprises which the audits identify as the very best.

(8) A national quality award programme of this kind in the United States would help improve quality and productivity by:

- helping to stimulate American companies to improve quality and productivity for the pride of recognition, while obtaining a competitive edge through increased profits,
- recognising the achievements of those companies that improve the quality of their goods and services, and providing an example to others,
- establishing guidelines and criteria that can be used in business, industrial, governmental, and other organisations in evaluating their own quality improvement efforts, and
- Providing specific guidance for other American organisations that wish to learn how to manage for high quality, by making available detailed information on how winning organisations are able to change their culture and achieve eminence.

The Malcolm Baldrige National Quality Award was established by the US federal government for the best practice of quality in organisations. It was implemented in the USA to improve global competitiveness. The stated purposes of the award are to promote (Rao et al., 1996):

- Awareness of quality as an increasingly important element in competition;
- Understanding of the requirements of performance excellence;

- Sharing of information on successful performance strategies and benefits derived from implementation of these strategies.

2.15.3 Malcolm Baldrige National Quality Award for Healthcare

In 1999, a version of the Business Criteria for Performance Excellence was revised specifically for use by healthcare organisations. It is expected that the adoption of this comprehensive approach to excellence will reinvigorate healthcare as it has helped business, therefore increasing 'fitness' and decreasing 'extinction'. The Malcolm Baldrige National Quality Award Healthcare Criteria for Performance Excellence and scoring guidelines are powerful assessment instruments that help top management identify organisational strengths and weaknesses. The objective of healthcare leaders is to identify key areas for improvement and use the information to achieve higher levels of performance (Blazey et al., 2000).

The Baldrige Criteria, as previously discussed in Chapter Two, were validated by a number of studies, including Saraph et al. (1989), Black (1993), Flynn et al. (1994), and Ahire (1996). The criteria are based on eleven core values that describe high performing organisations. These underlining values yield high performance and hold the organisation together. The values are important for all healthcare organisations because they optimise their performance. Blazey et al. (2000) stress that as the competition gets stronger, nothing less than optimisation will do, and "no organisation will be immune from the ravages of poor quality, diseases of waste and errors, sub-optimisation, and failing to satisfy knowledgeable and demanding customers." The eleven core values underlying the Baldrige healthcare criteria include (Blazey, 2000):

-The first core value is *visionary leadership*. Healthcare provider leaders need to set directions and create a patient focus, clear visible values, and high expectations. They need to ensure excellent health care by creating strategies, systems, and methods. Stimulation of innovation and building knowledge and capabilities are among the leaders' responsibilities. Values and strategies should direct their decisions and other activities. Top leaders should motivate and encourage staff involvement, learning, development, innovation, and creativity. They should act as the role models of the organisation.

-The second value is *patient-focused.* This is a critical value that must be met by the healthcare provider. The quality and performance of the healthcare organisation can determine patient satisfaction. Many factors can affect the patients while they are being provided with the healthcare service. They include a clear understanding of health and functional status outcome, patient relationship with healthcare providers and staff, cost, responsiveness, and continuing care and attention. Another important factor is the patients' ability to participate in their own healthcare decisions. Of course, this requires educating them so that they can make a sound decision. Also, being patient-focused is a strategic concept which can increase market share, give an edge over the competition, maintain loyal patients, and increase referral of new patients. Thus, in order to be patient-focused, patient desires should be met and old technologies should be upgraded to meet the market demand.

-The third value is *organisational and personal learning.* This refers to continuous improvement of existing approaches, processes, and adaptation to change leading to new goals and approaches. An important responsibility of visionary leadership is to create a climate for organisational and personal learning. Organisational learning can result in enhancing value to patients through new and improved patient care services,

developing new healthcare opportunities, reducing errors and defects, improving responsiveness and performance time, improved usage of resources, and ensuring a more active role in its community. On the other hand, personal learning can result in more satisfied and versatile staff, greater opportunity for organisational cross-functional learning, and an improved environment for innovation.

-The fourth value is *valuing staff and partners.* This refers to committing to staff satisfaction, development, and well being. This involves high performance work practices that are flexible to deal with a diverse staff. Development of both internal and external partnership is needed. This in turn will create a basis for mutual investments and respect.

-The fifth value is *agility*. The healthcare industry is affected by the speed of change in technology in medical advances and the dynamics of the Internet. Agility can make a key difference in this highly competitive market. The healthcare delivery process needs to follow continuously new discoveries and new patient demand. Today, the speed of information required by both the patient and the physician is critical. Timely availability of accurate information is essential for agility because it helps the reliability of the decision-making process.

-The sixth value is *focus on the future*. Healthcare excellence requires a strong future orientation and a willingness to make long-term commitments to stakeholders who include patients, staff, communities, employers, financial supporters, and health students. Healthcare organisations should anticipate many changes in the future. They can include changes in the healthcare delivery systems, resource availability, technology developments, new partnering opportunities, etc.. Healthcare organisations also need to develop long-term measurable goals and action plans, and then

communicate them to the entire staff to allow everyone to work in the same direction towards the same goal with less repetitive work.

-The seventh value is *managing for innovation*. Innovation should concentrate on leading the organisation to new dimensions of performance. Visionary leadership encourages innovation and risk-taking to help achieve future objectives in this fast developing industry. Thus, healthcare organisations should seek out and learn from best practices and be open to new suggestions and ideas.

-The eighth value is *managing by fact*. A successful healthcare organisation depends on measurement and analysis of performance. These measurements should be derived from key processes, outputs, and results. Analysis uses data to determine trends, projections, and cause and effect. Facts from measurements and analysis can help in the planning, reviewing of performances, improving operations and general outcome, and benchmarking against best practice.

-The ninth value is *public responsibility and community health*. The healthcare organisation plays a critical role in the community. This role is the protection and improvement of public health, safety, and environment. Another role is the ethical practices performed by the healthcare organisations, which include protection against harm from hazardous wastes, radiation, and other biohazards.

-The tenth value is *focus on results and creating value*. Results should maintain a balance for all the stakeholders, including patients and families, staff, the community, financial supporters, businesses, health profession students, suppliers, partners, stakeholders, and the public. The loyalty of the stakeholders becomes greater when the value of the organisation increases. All stakeholders want to ensure that the value of the service received equals the cost of the service, and they want evidence of the results.

-The last value is *system perspective*. This refers to managing the entire enterprise, including all its components, to arrive at improved performance. High performance can be accomplished if the entire system is optimised. Every part is necessary for its success. The Baldrige Healthcare Criteria can provide system perspective for managing the organisation and achieving performance excellence. Senior and middle management understanding of the Baldrige framework is critical for its success.

2.15.3.1 Healthcare Criteria

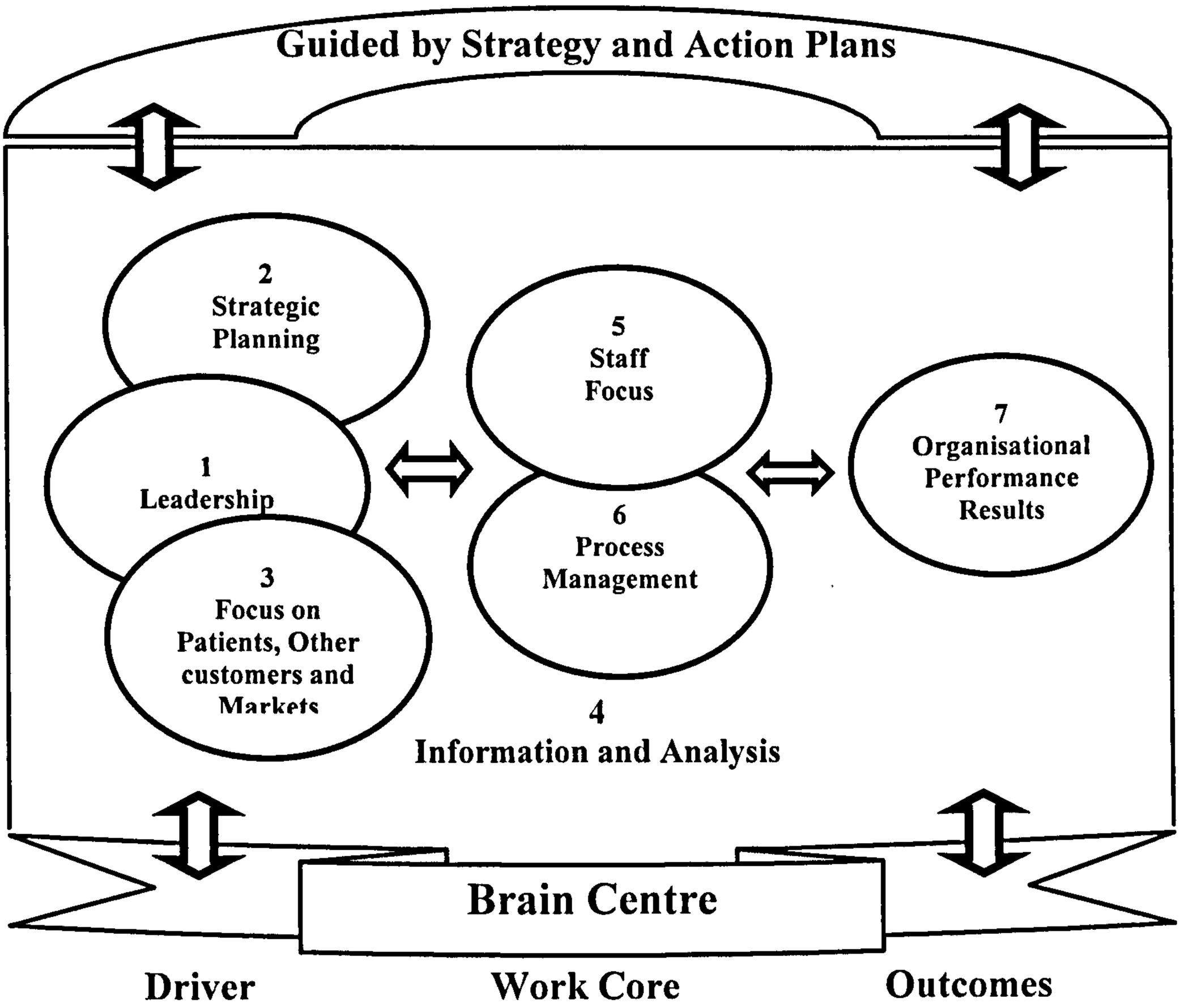
According to Blazey et al. (2000), the Baldrige Criteria contain three basic tenets. These are illustrated in Figure 2.6, and include:

- Strategy and action plans - the context for aligning work and achieving performance excellence.
- System - consisting of the driver triad and work core, producing business results.
- Information and analysis – the brain centre of high-performing organisations.

The Baldrige Criteria concentrate on organisational performance outcomes and the processes required in achieving them. Organisational performance outcomes are made of the following (Blazey et al.,2000):

- Patient/ customer satisfaction and retention
- Financial and market performance
- Health care performance
- Productivity, operational effectiveness, and responsiveness
- Staff performance and development
- Public responsibility and good citizenship.

Figure 2.6 Criteria by Strategy and Action Plans



Source: Blazey et al. (2000)

These results cover the entire organisation performance. The Criteria support a total system approach to organisation-wide goal alignment. This is evident in the structure of the criteria in the linkage between the parts. The measures are directly related to patient value and overall performance that relate to internal and external requirements of the organisation. These measures can serve both as a communication tool and as a basis for deployment of consistent overall performance requirements. This will ensure consistency of purpose and supporting innovation and decentralised decision-making.

The seven Criteria categories are subdivided further into items and areas to address. There are 19 items, 27 areas to address, and 88 subparts in the 2000 criteria. Items focus on major requirements. The titles and point values are shown in Table 2.4. Each item consist of one or more areas to address, and each area consists further of one or more subparts. Each subpart requires an individual response.

By following the structure of the criteria, at whatever level of detail, an assessment of any important area and function can be reached in any health organisation (Barber, 1996). The seven major categories cover the full scope of the healthcare organisation. The categories are all-inclusive and when put together can produce a model that effectively describes the operation of any organisation. The seven categories will be discussed in the next section.

4.13.2.2 Leadership

Senior leaders play an important role in all organisations. Their role is crucial to the success of their organisation. This was best explained by George et al. (1998):

> "Leadership holds the key to the door of continuous improvement. If the key stays in the leadership pocket, the organisation has no chance of becoming a quality leader. None. Zero. The company may implement scattered improvements through the diligence of a quality champion. It may train everyone in the fundamentals of quality and urge their involvement. It may achieve ISO certification for the documentation of its processes. It may even win an award from a customer. But without clear and consistent leadership, the company will never be a quality leader. Its management system will never be sound and efficient, and its improvement efforts will eventually be replaced by an intriguing new management fad" (George et al., 1998).

The leadership category examines how the healthcare organisation's senior leaders address values and performance expectations, and how they focus on patients and

Table 2.4 Baldrige Healthcare Criteria Categories and Point Values

Examination Categories / Items	Maximum Points
1 Leadership (125 points)	
1.1 Organisational Leadership	80
1.2 Public Responsibility and Citizenship	45
2 Strategic Planning (85 points)	
2.1 Strategy Development	40
2.2 Strategy Deployment	45
3 Focus on Patients, Other Customers, and Markets (85 points)	
3.1 Patient/ Customer and Healthcare Market Knowledge	40
3.2 Patient/ Customer and Satisfaction and Relationships	45
4 Information and Analysis (85 points)	
4.1 Measurements of Organisational Performance	40
4.2 Analysis of Organisational Performance	45
5 Staff Focus (85 points)	
5.1 Work Systems	35
5.2 Staff Education, Training, and Development	25
5.3 Staff Well-Being and Satisfaction	25
6 Process Management (85 points)	
6.1 Healthcare Service Processes	55
6.2 Support Processes	15
6.3 Supplier and Partnering Processes	15
7 Organisational Performance Result (450 points)	
7.1 Patient and Other Customer-Focused Results	200
7.2 Financial and Market Results	75
7.3 Staff and Work System Results	75
7.4 Supplier and Partner Results	25
7.5 Organisational Effectiveness Results	75
Total Points	**1000**

Source: Blazey et al. (2000)

other customers and stakeholders. This area deals with empowerment, innovation, learning, and organisational directions. Also, it deals with how the healthcare organisation addresses its responsibilities to the public and supports its key communities.

This category addresses how the senior leaders guide the organisation in setting directions and seeking future opportunities, and how senior leaders set and deploy clear values and high performance expectations that address the needs of all stake-holders. Included in this category is the responsibility of the organisation to the public and how the healthcare organisation practises good citizenship.

When implementing TQM programmes in organisations, the leadership of senior executives is the main focal point (Chan, 2000). Organisational leadership includes communicating and reinforcing clear values, performance expectations, and focusing on creating values for patients and other key patient/customers and stakeholders. The communication should be done through the leadership structure. Healthcare senior leaders should reinforce an environment for empowerment, innovation, and staff and organisational learning. Senior leaders should set direction and seek future opportunities for the organisation. Their responsibilities include reviewing organisational performance and capabilities, competitiveness, and progress relative to goals and changing healthcare service needs, and setting priorities for improvement. Also, they are responsible for evaluation and improving the effectiveness of senior leadership and management throughout the organisation, including staff input in the process.

According to Zairi and Peters (2000):

> "The key drivers for adding optimum value to society and the communities in which specific business organisations operate is through having strong commitment to corporate and social governance, having an open dialogue with external stakeholders and having the determination to achieve environmental sustainability."

The public responsibility and citizenship is for regulatory and other legal requirements in areas such as safety, environmental protection, and waste management. In addition, it is for anticipating public concerns and addressing risks to the public while ensuring ethical business practices. This to strengthen and support the healthcare organisation key communities. This area calls for information on how the organisation addresses its public responsibility in planning current and future services and operation, and on how the organisation practises good citizenship in support of its key communities, as a contributing member and as a positive influence upon other organisations.

2.15.3.3 Strategic Planning

According to George and Weimerskirch (1998), the main function of strategic planning is to align all the efforts of the organisation to customer satisfaction, quality, and operational performance goals. When strategic planning is deployed to its fullest, the organisation will have a world class planning process that would make it possible for all employees to match their tasks to specific company objectives. This category addresses strategic and action planning and the deployment of plans. It examines the healthcare organisation's strategy development process. This includes how the organisation develops strategic objectives, action plans, and related staffing plans. This category also examines how plans are deployed and how performance is tracked. The critical role of this category is to align clinical and administrative work processes

with the organisation's strategic directions to ensure that improvement and learning reinforce organisational priorities.

This category emphasises the key strategic issues that need to be integral parts of overall planning. These issues include patient/customer-driven quality and operational performance excellence. It focuses on the drivers of patient/customer satisfaction, patient/ customer retention, new markets, and market share, which are key factors in competitiveness, profitability, and business success. Also, it focuses on operational performance improvement that contributes to short-term and long-term productivity growth and cost/ price competitiveness.

The strategic planning category examines the understanding of the key patient/customer, healthcare market, and operational requirements as an input to setting strategic directions. This will ensure that the ongoing process improvements are aligned with the organisation's strategic directions. Also, this category investigates the optimisation of the use of the resources while ensuring the availability of a trained staff and ensuring bridging between short-term and long-term requirements that may entail capital expenditures, supplier development, etc.. Mechanisms to transmit the requirements must be deployed on all levels (organisation level, key process level, work-unit/ individual-job level) to achieve alignment. Strategic planning can be highly effective because it allows organisations to do the right thing at the right time, every time (Besterfield et al., 1995)

The requirements for this category are intended to encourage strategic thinking and acting and to develop a basis for a distinct competitive position in the healthcare

market. An effective improvement system requires clear strategic guidance that combines improvements of many types and degrees of involvement. Strategic planning consists of the planning process, the identification of goals and actions necessary to achieve success, and the deployment of those actions to align the work of the organisation.

2.15.3.4 Focus on Patients, Other Customers, and Markets

According to George and Weimerskirch (1998), organisations that get close to their customers and develop strong customer loyalty can anticipate strong financial performance, and the proof is the numbers. In the healthcare organisation, calling the patient the customer is still not deemed fitting in the modern 21st century as far the medical staff is concerned (Barlow, 2000). This category examines how the organisation determines requirements, expectations, and preferences of patients, other customers, and markets. Also, it examines how the organisation builds relationships with patients/customers and determines their satisfaction. This category attempts to understand the voices of patients, other customers, and the market place. It stresses relationships as an important part of an overall listening and learning strategy. Patient satisfaction results provide meaningful and important information for understanding the negative aspects of the organisation.

This category contains two items that focus on understanding patient/customer and market requirements, and determining satisfaction. The first item is patient/customer and healthcare market knowledge. This item includes determining market or patient/customer segments, patient/customer requirements through sound listening and learning approaches, important healthcare service features, and using complaint

information and data from current and former patients/customers. The second item is patient/customer satisfaction and relationships. This second item includes: making patient/customer contact and feedback easy and useful, developing and deploying patient/customer contact requirements, ensuring complaint data are used to eliminate causes of complaints, building patient/customer relationship and loyalty, systematically determining patient/ customer satisfaction and the satisfaction of competitors' patients/customers, and following up with patients/customers after healthcare service delivery. Besterfield et al. (1995) emphasised the importance of this category:

> "TQM implies an organisational obsession with meeting or exceeding customer expectations, to the point that customers are delighted. Understanding the customer's needs and expectations is essential to winning new business and keeping existing business. An organisation must give its customers a quality product or service that meets their needs, a reasonable price, on-time delivery, and outstanding service. To attain this level, the organisation continually needs to examine its quality system to see if it is responsive to ever-changing customer requirements and expectations."

In a rapid changing competitive world, many factors may affect patient/customer preference and loyalty, making it necessary to listen and learn on a continuous basis. These learning and listening strategies must connect with the healthcare complete organisation strategy. The information gathered from these strategies supports marketing, business development, and planning. A focus on how organisations identify healthcare service features which influence patient/customer preference and loyalty is included in this item. Organisations must be able to determine which features of healthcare service patients/customers value most. In addition, this category seeks information on how organisations recognise market segments, patients/customers of competitors, and other former and potential patients/customers.

2.15.3.5 Information and Analysis

The information and analysis category examines the healthcare organisation's performance measurement system and how it analyses performance data and information. This category measures the organisation performance and manages to drive the improvements of performance and competitiveness. This is one way to manage by fact rather than by 'gut-feeling' (Besterfield et al., 1995). Information and analysis evaluate the selection, management, and effectiveness of use of information and data to support processes, action plans, and the performance management system.

Measures play an important part in the success or failure of the organisation (Besterfield et al., 1995). The measurements of organisational performance refers to the data, information, and measures for planning, decision making, improving performance, and supporting action plans and operation. This item addresses the organisation's selection, management, and use of information and data for performance measurements in support of organisational planning and performance improvements. Major components of an effective performance measurement system are examined, including the selection and use of measures and indicators for tracking daily operations, and those for tracking overall organisational performance. This item examines all information regarding competitive comparisons and benchmarking information to drive performance improvements. In addition, this item examines how requirements are met to keep the organisation's performance measurements system up to date, especially in the fast changing needs and directions of healthcare services.

Analysis of organisational performance refers to analysis of data and deploying the findings throughout the organisation to support organisation level review, decision

making, planning and alignment of action plans. This item is the principal basis for assessing the organisation's overall health and supporting daily operations. Analysis guides an organisation's process management towards key business results and attaining strategic objectives.

According to Oakland (1993), there are major reasons why measurement is needed, and why it plays a key role in quality and productivity improvements. These include:

- To ensure customer requirements have been met.
- To be able to set sensible objectives and comply with them.
- To provide standards for establishing comparisons.
- To provide visibility and provide a score board for people to monitor their own performance levels.
- To highlight quality problems and determine which areas require priority attention.
- To give an indication of the costs of poor quality
- To justify the use of resources.
- To provide feedback for driving the improvement effort.

2.15.3.6 Staff Focus

According to Schonberger (1994), organisations will only become world class if extensive, continuing, and interlinked changes in the management of their human resources take place. Hamzah et al. (1996) stress that the core of competitive advantage will be innovation, and creativity-driven organisations need to focus more and more on people management. This category examines how the health organisation enables all staff to develop and utilise their full potential, aligned with the

organisation's objective. Also, the staff-focus category examines efforts to build and maintain a work environment and a staff support climate conducive to performance excellence, full participation, and personal and organisational growth. This category addresses key staff practices and staff development.

Staff focus concentrates on three items. These are work systems; staff education, training and development; and staff well-being and satisfaction. The work systems deal with designing, organising, and managing of work and jobs to optimise staff performance and potential. Also, it deals with recognising and rewarding practices, which support objectives for patient/customer satisfaction, performance improvement, and staff and organisation learning goals. Also, this item identifies skills needed by potential staff, recruits, and employees.

The second item is staff education, training, and development. This item delivers, evaluates, and reinforces appropriate training to achieve action plans and address organisation needs, including building knowledge, skills, and abilities to improve staff development and performance, as well as ongoing training for staff to retain respective certification. The information for this item comes from how education and training are designed, delivered, reinforced, and evaluated. The item emphasises the importance of the involvement of staff and their supervisors and managers in the design of training, including clear identification of their employees' specific needs.

The third item in staff focus deals with the well-being of the staff and their satisfaction. This item includes the improvement of the workplace health, staff safety, ergonomic factors, staff well-being, development, satisfaction, and maintaining a

work environment free from distractions from high performance. Leaders at all levels should encourage and motivate staff to reach full potential, and systematically evaluate staff well-being, satisfaction and motivation to identify improvement priorities that promote key healthcare service results.

2.15.3.7 Process Management

To succeed in quality, an organisation has to determine what are its core business processes that add value to customer satisfaction, and improve their effectiveness (George et al., 1998). Process management is a focal point within the criteria for all key work processes. The process management category examines the key aspects of the healthcare organisation's process management. This includes patient/customer-focused design, healthcare delivery processes, support, supplier and partnering processes, and research teaching missions, as applicable. This category deals with the central requirements for efficient and effective process management, such as effective design, a prevention orientation, linkage to suppliers and partners, operational performance, cycle time, and evaluation and continuous improvement.

In process management, flexibility, healthcare delivery cost reduction, and cycle time reductions are increasingly important. Flexibility refers to the ability to adapt quickly and effectively to changing requirements. Process management contains three items that evaluate the management of healthcare service processes, support processes, and supplier partnering processes.

The first item, the healthcare service processes, includes designing, developing, and introducing healthcare services to meet patient/customer requirements, operational

performance requirements, and market requirements. This item also includes ensuring a rapid, efficient, trouble-free introduction, and managing and continuously improving operating processes.

The support processes item includes designing, developing, and introducing healthcare services to meet patient/customer requirements, operational performance requirements, and market requirements, and managing continually to improve support processes. Support process design requirements are usually driven by internal requirements, and they must be co-ordinated and integrated to ensure efficient and effective linkage and performance.

The last item in this category is the supplier and partnering performance. This item ensures performance requirements are met, minimises supplier cost, and helps suppliers improve performance in their ability to help the organisation. The term 'supplier' refers to other organisations outside the healthcare company, as well as other units of the parent organisation that provide goods and services. Suppliers' and partners' goods and services may be used at any stage in the design, delivery, and use of organisations' healthcare services. Some examples include medical manufactures, pharmaceuticals distributors, and contractors.

2.15.3.8 Organisational Performance Results

The organisational performance results category examines the healthcare organisation performance and improvement in key business areas. These areas include patient/customer satisfaction, healthcare service performance, financial and marketplace performance, staff results, supplier and partner results, and operational

performance. Also included are performance levels, which are relative to competitors and organisations delivering similar healthcare services. Constant tracking of the results from all processes reveals whether processes are operating, and monitoring those results for trends reveals whether the improvement mechanisms are working effectively (Barber, 1996).

The organisational performance results category includes the results of the patient/customer evaluation of the organisation's healthcare services, overall financial and market performance, and results of all key processes and process improvement activities. This category provides measures of progress for evaluation and improving the processes of the healthcare services that can be aligned with overall organisational strategy. This category evaluates the organisation performance and improvements in areas that are important to the overall organisational success.

This item addresses the results of most significance to assessing the organisation's patient/ customer-related performance, such as patient/customer satisfaction, patient/customer dissatisfaction, patient/customer satisfaction relative to competitors, and service performance. This item calls for all relevant data and information to help explain and define the organisation's performance as defined by the patient/customer.

2.16 Comparison of JCAHO and Baldrige Criteria for Healthcare

Both JCAHO and the Baldrige Criteria examine healthcare performance. One is based on compliance to certain standards, and the other is an excellence model based on the extent of effective use of a complex management system (Blazey et al., 2000). The similarities between JCAHO and the Baldrige Criteria include (Blazey et al., 2000):

- Purpose in healthcare improvement
- Voluntary participation
- Not for Profit
- Have some sort of follow-up evaluations
- Use quantitative and qualitative information
- Valuable to customer

The differences between JCAHO and the Baldrige (Blazey et al., 2000) Criteria are shown in Table 2.5.

2.17 TQM around the World

Because TQM is receiving international acceptance, many organisations try to follow and implement its tenets (Lakhe and Mohanty, 1994). Sink (1991) believes that this rapid development shows that TQM is being adopted without a complete understanding of its philosophy. In addition, Dale and Lightburn (1992) stress that not all companies adopt the TQM fundamentals. Some argue that many organisations use the tools, procedures and techniques of TQM, but in a superficial manner. They argue that this superficial application misses TQM's original purpose, which is to direct the management process (Lakhe and Mohanty, 1994).

A comparative study by Lewis (1992) on attitudes of Spanish and American quality assurance managers revealed that many of the responses of both groups were incompatible with TQM principles. The conclusion was that management in both countries needed further education about TQM principles.

Table 2.5 Summary of Key Differences between JCAHO and Baldrige Healthcare Criteria

Topic	JCAHO (2000)	Baldrige (2000)
Value to customer	- Medicare certification requirement - State Licence requirement - Condition for reimbursement for certain payers - Reduction in liability insurance premiums	- Provides feedback report to guide organisation's senior leaders set priorities for performance improvement - Recognition for excellence
Scoring	- Must meet requirements of all items to move to next level 1 (substantial-compliance) –5 (non-compliance) scale. - Accreditation - Accreditation with recommendations - Conditional accreditation - Provisional accreditation - Preliminary non-accreditation - Not accredited - Accreditation watch	- Scoring is complex consensus process where evaluators examine performance of entire management system including: effectiveness of approach, extent of deployment, results, and continuous evaluation and improvement. - Score from 0 per cent (no systems at all) to 100 per cent on 1000 (world-class) points, in increments of 10 per cent.
Goal	- Meet minimum standards	- Be the Best/ Optimise
Sample assessment	- Care of Patients 1. Medication use 2. Management of error case design	- Process Management – Healthcare Services - Processes which includes health care service design and delivery processes that are efficient, consistent, and meet/exceed customer/ patient requirements
Sample feedback level of specificity	- "There were unlocked medications in the O.R., Urology, and Obstetrics departments at 5:45 on Tuesday." - "95 per cent of initial staff performance reviews were completed within the hospital's time frame – three months after start date".	- "The xyz clinic does not have a consistent system to ensure security of prescribed medications. This may result in legal, clinical and/or cost problems from lost medications." - "Staff performance reviews are tied to all key performance requirements necessary to meet the organisation's strategic objectives. Managers at all levels review performance consistently and provide complete and accurate feedback to staff. Opportunities for improvement are identified for each staff member and then a personal improvement plan is developed and used as a part of the next review. Resources are allocated to ensure the plan is carried out."

Source: Blazey et al. (2000)

Singh (1991) carried out a survey to assess the status of TQM in India. His findings revealed that only 39 organisations out of 1,000 surveyed practised TQM to some extent. Singh concluded that these organisations did not distinguish between TQM and quality control.

During the 1950s, 'made in Japan' was synonymous with poorly-made products. Today, the phrase means the exact opposite. Japanese quality, technology and ingenuity are much sought after by consumers internationally. The primary source of this accomplishment by the Japanese is the implementation of TQM in 'every walk of life' (Lakhe and Mohanty, 1994).

American management realised the threat from Japanese corporations only in the late 1970s. The realisation of the Japanese success led American industries to focus on quality management and statistical techniques proposed by Juran (1951), Feigenbaum (1961), Crosby (1967), and Deming (1982). Furthermore, Hayes (1981) identified the importance of such factors as daily 'preventive maintenance on equipment, less-than-maximum capacity product, and thinking quality into the product.' Garvin (1986) emphasised that management of quality has been a critically important element in the successful recovery of the market share by US firms. These ideas altered the traditional approach to quality management in the USA.

The UK, France, Germany, and Italy are some of the European countries that have taken an interest in adopting TQM (Lakhe and Mohanty, 1994). A UK study by Lascelles and Dale (1988) on the automotive industries indicates that companies maintained a traditional attitude towards TQM. Although firms in European industries

have a traditional approach towards quality matters, the adoption of BS 5750 and ISO 9000 gave new impetus to the quality movement in Europe (Lakhe and Mohanty, 1994).

Developing nations are synonymous with poor quality products. Studies in third world countries indicate that the concept of TQM is not understood by many organisations, and usually it is considered an optional extra. Lakhe and Mohanty (1994) believe that developing countries may have difficulty adopting TQM concepts for the following reasons:

- Lack of employee involvement and participation in quality improvement efforts.
- Lack of management commitment and motivation.
- Perception that quality is an optional extra and not a necessity for development.
- Traditional belief that 'quality costs money'.
- Lack of communication and trust between suppliers, dealers, management and trade unions.
- Unorganised and indifferent customers.
- Lack of political support.
- Lack of established quality standards and inadequate test facilities.
- Obsolete technologies.
- Low level of education.
- Negligible capital investment in technologies, research and development, and employees' education, etc.
- Disrespect to the people insofar as quality of life is concerned.
- Undesirable social tensions such as terrorism, violence, religious fundamentalism, etc.

However, with increased economic competition in the world, shifts in global markets, changes in import and export policies, and increased customer consciousness, some progress is being made in efforts to adopt quality in developing countries (Lakhe and Mohanty, 1994).

2.18 Benchmarking

In 1979, Xerox developed the benchmarking process (Rao et al., 1996). The purpose of this endeavour is to compare manufacturing costs. Over time, this process has developed into a significant strategic tool. Zairi (1992) defines the practice of benchmarking as follows:

- The measurements of performance against the best of the best through a continuous effort of constantly reviewing processes, practices, and methods.
- Emulating the best by continuously implementing change and measuring performance.

Benchmarking is the process of identifying and learning from the best practices world-wide. It is a continuous process of measuring products and services against those of the best organisations in the world. Its application shows the level of a local organisation against best practice organisations.

2.18.1 Benchmarking in healthcare

The objective of benchmarking is to improve performance so the organisation survives and flourishes in a competitive market place (Czarnecki, 1994). Thus, benchmarking is about comparing the organisation outcomes with other organisations,

and learning from these comparisons. The phases of benchmarking include developing an understanding of one's own performance, carefully studying the practices of superior performances, and then adopting the methods which improve performance (Anderson-Miles,1994). Gift et al. (1994) listed the basic steps of benchmarking to include planning, analysis, integration, and action. Detailed information such as reporting formats, service improvements, admissions processes and clinical procedures can assist hospitals in streamlining processes (Kaluzny et al., 1995). Capozzalo et al. (1994) state that when the appropriate people are involved and supported by top management and correct practices are implemented, benchmarking is one of the best tools for improving healthcare organisation internal processes.

According to Yasin et al. (1998), benchmarking starts with the assumption that healthcare quality is multifaceted. They include an operational facet, outcome facet, and strategic facet. The use of benchmarking with its different facets helps healthcare organisations in a number of ways. They include:

- Healthcare institutions that deploy benchmarking are forced to assess and evaluate customer requirements objectively, based on the realities of the market place, instead of relying on past history intuitions.
- Benchmarking provides a facet-based method for establishing goals and targets, since both metrics and the practices of internal and external processes are investigated and documented.
- A better understanding of the real measures of productivity, efficiency, quality, and effectiveness may also be attained through the process of benchmarking.

- Benchmarking has the potential for uncovering some revolutionary practices or technologies that may have a positive impact on the healthcare organisation customer orientation and, therefore, its competitive advantage.

Healthcare organisations should not limit themselves to benchmarking against other healthcare organisations. They should look outside the healthcare arena as well (Gift, 1994). For example, a local hospital could benchmark its hospital ward cleanliness and cleaning processes against the Marriott Corporation, a reputable and quality-driven corporation (Yasin et al., 1998). After the implementation of the benchmarking efforts, the healthcare organisation can begin to invest in communicating these efforts to the public through their marketing efforts (Sunday et al., 1992).

2.19 TQM Failures

Notwithstanding the popularity of TQM, some organisations have found it difficult to implement the programme successfully (Tata and Prasad, 1998). An examination of the literature suggests that only one-third to one-half of the organisations that have adopted TQM have observed significant improvements (Garvin, 1986; Burdett, 1994). According to Tate and Prasad (1998), this lack of significant success is often not a failure of the TQM concept, but a failure to pay sufficient attention to the cultural and structural variables that influence TQM. Unlike other programmes, TQM involves changing the way employees interact and work in organisations. It is a context-dependent programme, the success of which depends to a large extent on cultural and structural factors (Tate and Prasad, 1998).

Harari (1993) believes that "about one fifth -at best one third- of TQM programs...have achieved 'significant improvements'...," and he questions the success of companies such as Motorola, Xerox, Southern Pacific, and others. Harari (1993) stresses luck in the success of these companies, rather than the correct implementation of TQM skills. He gives ten reasons why TQM programmes often fail, even in organisations that seem destined for success. These reasons are:

- TQM focuses people's attention on internal processes rather than external results.
- TQM focuses on minimum standards.
- TQM develops its own cumbersome bureaucracy.
- TQM delegates quality to quality czars and "experts" rather than to "real" people.
- TQM does not demand radical organisational reform.
- TQM does not demand changes in management compensation.
- TQM does not demand entirely new relationships with outside partners.
- TQM appeals to faddism, egotism, and quick-fixism.
- TQM drains entrepreneurship and innovation from corporate culture.
- TQM has no place for love.

Becker (1993) disagrees with Harari (1993), asserting that TQM does work, and that failures are the result of misguided attempts. According to Becker (1993), Harari uses faulty logic to explain TQM failures. Becker does acknowledge that much of the behaviour observed by Harari does occur, and may indeed lead to negative results. Becker (1993), however, believes that the real questions to be asked are: Why do these failures occur? Any why are there more failures than successes? Becker

explains that these programmes fail because, in fact, they are not TQM programmes. He goes on to say that true TQM encompasses a variety of tools and techniques. Fishbone diagrams, affinity diagrams, brainstorming, Pareto charts, and JIT are all used by TQM, but the use of these tools does not constitute TQM. He adds that TQM is a philosophy of management, and without dedication to this philosophy, whatever the programme is, it is not TQM. He further says that TQM philosophy requires cultural change. Many organisations opt for using some TQM techniques without adopting the TQM philosophy. This strategy, Becker states, produces the kinds of effects documented by Harari.

Brown (1993) argues that most of the organisations that have failed in their implementation of total quality have not followed the basic rules outlined by Deming or any of the other TQM experts. He believes that an understanding of failure may well help many organisations succeed, and forestall a fruitless search for ways of effortless improvement. He gives ten reasons why two-thirds of the companies in America have failed in their implementation of total quality. They are:

- Disguising cost control as total quality.
- Measuring too many of the wrong things.
- Lack of support from the top.
- Too much, too soon (Some companies get so excited about TQ that they try to change everything in their company too quickly).
- Too little, too late (Some companies wait too long to start with the TQ effort, and commit far too few resources to make the necessary changes).

- Dual structures (Quality needs to be integrated into the way the company runs its business on a day-to-day basis, it is not a separate set of tasks performed by an organisation).
- Focus on activities versus results.
- Cannot get out of phase one.
- No one gets rewarded for quality and customer satisfaction.
- Total quality as a fad (The majority of companies that are currently working on total quality try it for a year or two, and let the effort die because it is too hard, too expensive, or because it has failed to produce the expected results quickly enough).

Many of Brown's reasons (1993) boil down to what he calls human nature. According to Brown (1993), it is human nature to take the path of least resistance, to look for a quick fix, and to do those things for which we are rewarded. It seems that the only companies motivated enough to stick to TQM are the ones that will be around during the next twenty years, which is a good reason to keep trying.

2.20 Future of TQM

TQM is alive and well, and considered a fully established and valued technique in commercial and industrial organisations (Reavill, 1999). It is viewed by many organisations today as essential for corporate survival. Organisations vary in the extent to which they adapt to the values, principles, and practices of TQM. According to Sinhu (1999), many organisations still have no clear idea of the power and purpose of TQM. Self-assessment of the status quo against a recognised model or standard, such as the Malcolm Baldrige National Award or the ISO 9000 quality management standard, can help bring about a better understanding of TQM.

The "new market campaign" suggests that TQM be exported to countries which have not yet adopted it, but which can do so to their benefit. Since TQM is well-established in the developed countries of the world, the area of interest moves to newly industrialised countries, and countries which are well on their way to increasing their Gross National Product and standard of living.

TQM is fast becoming popular in the public sector. According to Reavill (1999), public organisations should benefit from the adoption of TQM practices, but the transplantation of TQM to new environments with different cultures is unlikely to be free of problems.

Solid gains have been made internationally, yet the lack of organisational leadership is the main stumbling block for the adoption of TQM in many parts of the world (Sinhu, 1999). It is too early to tell how citizens of a particular nation will react to the direct benefits of the quality initiatives, but the race for quality is far from over.

According to Feigenbaum et al. (1999), organisations in the 21st century will see their basic objective as the continuous acceleration of benefit for customers, employees, investors, suppliers and the public, through the delivery of consistently improving customer quality and business results throughout all business conditions. In addition, they will emphasise that 'market driven' means that quality is what the customer not the organisation, says it to be.

In the future, Wilson (1996) believes the 'quality department' will disappear, because everyone in the organisation will need to be quality conscious and practise quality principles. The future of the quality profession must represent the collected body of

knowledge. It should provide valuable direction and co-ordination, and become an important team contributor. Thus, the growth of the quality profession will increase dramatically (Wilson, 1996). Gershon (1996) disagrees with Wilson on the certainty of the quality profession. He believes that whether there will still be a need for quality professionals is not clear, but unless the employees are trained to manage for improved quality, quality professionals will never be eliminated. Gershon (1996) added that there is no ideal job description for the quality professional of the future, because there are too many disciplines to master. One important attribute which the quality professional of the future must possess is to be able to work with others to meet the needs of society (Gershon, 1996).

According to Blazey et al. (2000), there is a good reason to be optimistic about the future of healthcare services and businesses. There is a great potential for the trade of healthcare via the Internet, and the opportunity for a global presence in healthcare services is very promising. Also, the continuation of learning is expected and accepted. With population growth, the demand for health services will also grow. Healthcare products will increase with new healthcare services derived from research, gene mapping, and more. With proper management, the future healthcare opportunities are promising, but Blazey et al. (2000) stress that there is an urgent need to improve healthcare services today.

Dighe and Bezold (1996) believe that as the role of healthcare is expanding beyond just the individual to the community, corporate participation in community health could become a major organisational function. They added that processes of how

corporate citizens can help to create healthy communities would need to be developed and implemented.

Motwani et al. (1996) identified issues of important value for future research in TQM for both managers and academic researchers. Managers can use the information to identify those areas where improvements should be made and resources should be allocated. In addition, comparison of different organisations or divisions can be made to help prioritise quality efforts. Researchers can use the information to build theories and models that relate these issues to the organisation performance and environment. Motwani et al. (1996) suggest where future research should be concentrated:

- More research is needed to determine whether implementation of TQM is viewed as the responsibility of the administrators, physicians, providers, or board of directors.
- More research to identify and eliminate the regulations, attitudes, policies, and practices that may be an impediment to continuous improvements.
- More comprehensive and comparative case studies of successful implementations would be helpful to those who are struggling with TQM.
- Elaborate studies that detail the steps in building a successful TQM system in the healthcare industry and outline specific healthcare measures in evaluating healthcare systems.

2.21 Summary

The concept of TQM has been welcomed by many health organisations, but few realise the practical difficulties faced when executing the process change, especially in the patient care delivery process. It is not clear yet what constitutes quality in healthcare, yet many are tempted to search for a complete definition of quality in healthcare (Sewell, 1997). TQM promises to deliver many benefits in the healthcare industry such as less rework, fewer mistakes, fewer delays, better use of equipment time, etc.. On the other hand, the application of TQM principles is faced with major problems that are apparently inherent to the nature of healthcare organisations, such as fragmentation and duplication.

The literature identified certain key critical factors for TQM to be implemented successfully in hospitals. The crucial factors of correct organisational culture and top management support can help facilitate the implementation of TQM. Reduction of cost while maintaining the quality of the healthcare system is an important factor. Most importantly, the factor of patient satisfaction should be considered one of the desired outcomes of healthcare services. The quality journey is without a destination and is everyone's responsibility. Its successful implementation requires participation and involvement of all employees in the organisation (Zairi, 1993).

This chapter reviewed some of the TQM healthcare implementation models including a proactive model by Motwani et al. (1996) and a conceptual model by Sower et al. (1996). The differences between TQM in healthcare and TQM in other fields have been highlighted, such as every situation and every patient is different. Patients can not be treated like an assembly line manufactured product, and nurses cannot be

handled like assembly line workers, because every situation is different. In addition, there exist various powerful subcultures (e.g. physicians' subculture). Each has an individualistic point of view of what quality ought to be, and how the work should be done. Many case studies of TQM implementations have been presented to show success stories and lessons to learn from them.

TQM alone can not cure all of the ills of the healthcare system, yet it has the potential to significantly improve its performance (Yasin et al., 1998). By reducing the cost and improving the quality, hospitals are sure to be in a better competitive position (Geber, 1992). Lawrence and Early (1992) stated that "there is always room for improvements - an organisation does not need to be bad, in order to get better." Many assessments, programmes, standards and awards can help develop the efforts of TQM in healthcare, such as the ISO 9000, Joint Commission on Accreditation of Healthcare Organisations, and the Malcolm Baldrige National Quality Healthcare Award.

Chapter Three

Healthcare in Kingdom of Saudi Arabia

3.1 Introduction

The Kingdom of Saudi Arabia healthcare system is struggling like other systems in the world to provide the best possible care for its citizens. To understand the nature of the healthcare system in the Kingdom, it is necessary to examine the system's origins, developments, achievements, and problems. This chapter will analyse several aspects of healthcare in the Kingdom of Saudi Arabia. It starts with some geographical and historical background information, and proceeds with a description of the Ministry of Health and other healthcare providers in the Kingdom. Next, the development of the health budget is discussed, followed by an examination of the growth of the health services and the present healthcare system. A discussion of the private sector is followed by an analysis of the Kingdom's healthcare strategies and policies. The chapter continues with an examination of the latest five-year Development Plan targets and healthcare programmes, and concludes with a summary.

3.2 Background

This section of the chapter provides a general background of the Kingdom of Saudi Arabia. It starts with some geographical information, and then gives a short history of the Kingdom. Next, it discusses an important aspect of the social organisation of Saudi society, i.e. gender segregation.

3.2.1 Geography

The Kingdom of Saudi Arabia comprises almost four-fifths of the Arabian Peninsula, an area approximately one-third of the size of the continental USA. The capital city of Riyadh is located in Najd, the heartland of the Peninsula, which is known for its sand deserts. Southwest of Najd and running parallel to the Red Sea is a mountain range called the Hijaz. The Hijaz region includes the holy cities of Makkah and Madinah, the port city of Jeddah, and the resort city of Taif. The eastern part of Saudi Arabia is a plateau that comprises the great Nafud desert in the north, and the world's largest sand desert, the Rub Al-khali, in the south.

3.2.2 History

The Kingdom of Saudi Arabia grew out of the First Saudi Empire, which was established by the Al-Saud family in the southern Najd in the early eighteenth century. In 1932, King Abdul-Aziz Bin Abdul-Rahman Al-Saud created the modern Kingdom of Saudi Arabia. The country began to see rapid economic growth upon the discovery of oil in the 1930s. Oil revenues provided for modernisation of the country and a rise in the standard of living of the people. King Abdul-Aziz began his modernisation efforts by building the country's infrastructure. After roads had been built and a system of basic communications been established, his policies focused on introducing modern technology and improving education, healthcare, and agriculture.

Upon his death in 1953, his son Saud succeeded. King Saud established the Council of Ministers, including the Ministries of Health, Education, and Commerce. He also initiated the education of girls, and founded the first Saudi institute of higher education in 1957, King Saud University, in Riyadh.

In 1964, Faisal Bin Abdul-Aziz acceded to the throne. King Faisal combined inspirational leadership with sound management skills. He took firm control of the country's fiscal policies, and in 1970 initiated the first of the Five-Year Development Plans, which gave a major impetus to Saudi Arabia's socio-economic development.

In 1975, Khalid Bin Abdul-Aziz succeeded King Faisal. During his leadership, Saudi Arabia continued to prosper and develop at a rapid pace. The Kingdom's monumental second and third Five-Year Development Plans were launched in 1975 and 1980, and major improvements were made in the infrastructure. The standard of living continued to increase, while the Kingdom achieved both political and economic prominence regionally as well as internationally.

The current leader of the Kingdom, King Fahd Bin Abdul-Aziz, succeeded King Khalid in 1982. King Fahd's strong leadership directed Saudi Arabia's economy away from its dependence on oil. He encouraged the private sector to develop and today, the private sector produces more than one third of the country's GDP. King Fahd has focused his efforts on continuing to build prosperity in Saudi Arabia, stressing educational opportunities for men and women, a diversified economy, as well as resource conservation. He introduced extensive reforms in higher education and healthcare. In higher education, he decreed bylaws to better meet the country's growing need for educated and skilled citizens in the twenty-first century. Also, he gave high priority to improvements in the healthcare industry. A very advanced and comprehensive healthcare system was developed, which includes specialised hospitals equipped with up-to-date equipment. Specialist hospitals in the Kingdom include

facilities for the treatment of eye problems, heart disorders, kidney failures, burns, cancer, tuberculosis, and a range of other diseases.

3.2.3 Segregation

The Kingdom of Saudi Arabia is an Islamic country practising gender segregation. Males and females do not mix in the affairs of public life. Moreover, while Saudi men are only expected to wear the traditional *thobe* (floor-length robe) and *gutra* (headscarf), women do not have a choice in this matter. All women have to wear the *abaya* (black cloak) in public, and if they are Saudi citizens, cover their head as well. Obviously, this strict demarcation of male and female spheres has important consequences for the organisation of work, school, and other social activities. In education, for example, there are schools for girls and schools for boys, universities for male students and universities for female students. Males teach male students, while females receive instruction from female teachers. In the work environment, there are separate offices for both genders, so that they do not mix physically. Most communication between the two genders is conducted through telephone and faxes. In the healthcare environment, segregation standards are more relaxed. Yet, there are limitations to cross-gender communication stemming from cultural traditions and customs. A majority of the population continues to embrace these traditions and customs, so that segregation is considered a positive rather than a negative aspect of the country's social organisation. Most agree that females are not disadvantaged by segregation, and that it makes no difference in the treatment and respect women receive from men. This has been the way of life for a long time, and it is unlikely to change in a major way at any time soon. It is important to note that segregation does not appear to have put a brake on modernisation processes in the Kingdom.

Al-Dakheel's (1988) study sampled female university students to try to identify variables that affect the participation of Saudi females in the labour force. The study findings indicated several variables that affect their employment. These include:

- *Mixing or 'seclusion'.* Minimal interaction between woman and men has always been an integral component of the Islamic religion. Results from the Al-Dakheel (1988) study show a marginal attitude towards working with men in non-segregated environments. 48% as compared to 37% opposed the proposition that "women should avoid working in non-segregated environment such as hospitals." Moreover, 49% as compared to 35% opposed the proposition that "dealing with men professionally is unacceptable." A majority (56%) of the sample thought that women should try to work in segregated work settings regardless of their profession.

- *Veiling.* This is a dress code recommended for woman in the Islamic religion. The interpretations of this dress code vary in Islamic countries. However, the KSA has always insisted on one of the most conservative interpretations of the code: so conservative that it is almost synonymous with the total seclusion of women. In the Al-Dakheel (1988) study, almost the total sample (93%) saw veiling as a necessity when working with men. Moreover, 75% think not only veiling but covering the face is also a necessity when working with men. In determining to what degree veiling is a barrier to female employment, 91% do not see veiling as an obstacle, and 63% saw that many jobs can be performed with the veil.

- *Family Responsibilities.* This variable measures the attitude of women towards the dual female roles of work and family. Although 73% of the women in this study think that it is possible to fulfil dual obligations of family and work, 85% think that a woman's first responsibility is the home.

- *Imitations.* This variable measures attitudes of woman towards the social preference of preserving employment for men only. The majority (80%) of the sampled women agree that both men and women should work.

- *Rumour.* If female employment is perceived as a source of vicious gossip, it could affect the attitude of the Saudi people towards woman who work. The sensitivity encompassing female honour and the ensuing protective behaviour have generated a conservative consensus against any actions taken by woman. According to Al-Dakheel (1988), this attitude might partially explain the low participation in jobs open to women in the health area. 89% of the woman in this sample do not view female employment as harmful to a woman's honour. Also, 49% of women believe that women should avoid any job, regardless of its credibility, if it presents any possibility of bringing dishonour to them or to their families.

- *Family Restriction.* This variable explores women's perceptions of families' influence on female participation in the labour force. 73% of the women in this sample see family restrictions as a major obstacle to female employment. 35% specified the male guardian as the main obstacle, and 73% attributed this restriction to misperceptions of female employment.

The management literature generally has overlooked such an important factor as gender. There is a strong interest in research that suggests how male and female employees might respond differently to workplace events. Until recently, studies that investigated gender dealt mostly with gender-related differences in levels of important organisational constructs (Babin et al., 1998).

3.3 Early Years of Healthcare

Organised healthcare in Saudi Arabia goes back to the early 1940s, when most people lived in rural areas, were illiterate, and lacked the basic requirements of hygiene and public health. The water was often contaminated, nutrition inadequate, and sanitation non-existent. To ameliorate some of these conditions, the Directorate of Public Health implemented a healthcare plan with services ranging from preventive care to advanced surgery. Medical services were offered at no charge in a number of community centres and public hospitals throughout the country (Faraidy, 1982). In these first years, however, things developed rather slowly. In 1949, there were only 111 physicians and about 1000 hospital beds in the entire Kingdom. Most healthcare facilities were concentrated in major cities and urban areas. But even if they were not, few would have known about the existence of these services and facilities. A WHO report prepared in 1963 estimated that 60% of the total population at that time were still semi-nomadic, with 20% completely so.

The Directorate of Public Health was one of the first departments established by King Abdul-Aziz. Although it became the Ministry of Health in 1951, it was not until two years later that the Ministry got its own minister. This was Prince Abdullah Al-Fasil, whose appointment as first minister of health in 1953 marks the birth of the country's

health services. In 1953, the Ministry of Health budget was SR 6,519,670. At that time, there were in the Kingdom:

- 11 non-specialist hospitals
- 25 health care clinics
- 8 pharmacists and 48 pharmacist-assistants
- 179 general nurses and 96 special nurses
- 33 lab technicians
- 36 physicians

This was the start of a promising future. The above-mentioned numbers gradually increased with the years, so that by the end of the first Five-Year Plan period in 1970, for instance, there were 47 hospitals. Although the Ministry of Health is responsible for public health services in the Kingdom, it is not the sole provider of healthcare in the Kingdom. Other organisations joined the healthcare industry, such as the Saudi Crescent Society, the Ministry of Defence, and the National Guard.

In 1967, Sebai conducted a study of health conditions in three communities in the Kingdom. His findings (Sebai, 1984) support the conclusions of the 1963 WHO report, which emphasised the importance of people's attitudes to healthcare. In 1967, most people in the three communities expected that a physician simply provides treatment, preferably injections. They did not recognise the importance of preventive measures such as maternal care, vaccination, sanitation, etc.. Sebai did not notice any major differences in this respect between settled people, semi-settled nomads, and nomadic Bedouins. He also found that health services that were accessible to people were not very effective, but he had more positive things to say about the malaria control programme started in 1950 by the Ministry of Health, WHO, and ARAMCO

(Sebai, 1987). This was the first preventive healthcare programme on a large scale in the Kingdom. A series of other preventive programmes followed (Sebai, 1987). The success of these programmes was not immediately apparent, but when Sebai revisited these communities thirteen years later in 1980 (Sebai, 1987), he found that although material conditions had improved, people's attitudes to healthcare had not changed significantly. It became clear that this would occur only after a long period of health education of all citizens.

3.4 Ministry of Health

The Ministry of Health (MOH) is led by a Cabinet Minister who is responsible for the formulation and implementation of health policies. Two deputies assist him. One is responsible for planning and development, the other for finance and administration. Planning and administration of the health services are centralised, but there are eleven health regions, which vary considerably in size. The largest region encompasses the capital of Riyadh and is called the Central Region; the smallest is Najran in the extreme southwest, and Hail in the northern part of the country. In 1997, the Central Region had 30 hospitals and 4,929 beds. The total number of MOH facilities for each region can be seen in Table 3.1

The period from 1990 to 1997 saw a dramatic increase in funding for MOH. The MOH budget grew from SR 7,591,000 million in 1990 (or 5.4% of the total government budget) to SR 10,746,975 million in 1997 (or 5.9% of total governmental expenditure).

Table 3.1 Total Number of MOH Facilities by Region in 1997

Region	Hospitals	Primary Health Centres
Riyadh	30	280
Jeddah	11	75
Makkah	7	76
Eastern	13	108
Medinah	15	123
Aseer	16	206
Taif	9	99
Qaseem	15	137
Al-Ahsa	5	54
Hafer Al-Baten	1	27
Bishah	3	30
Tabouk	9	44
Hail	7	84
Northern	4	40
Jizan	12	135
Najran	5	61
Al Bahah	8	81
Al Jouf	4	29
Qurayyat	3	18
Qunfudah	2	30
Total	180	1737

Source: Ministry of Health (1997)

In 1980, the MOH created a comprehensive network of facilities that was to bring high quality, free health services within the reach of all citizens, in rural as well as in urban locations. The goal was to provide a health centre for every community with 1,000 or more inhabitants. Smaller villages were to be served by dispensaries and ambulatory services: fully equipped clinics that provide straightforward treatment and refer more serious cases to the nearest health centre or hospital. The health centres were graded from 1 to 4 according to the numbers they served. Grade 1 was for 1-5,000 people; grade 2 for 5,000-10,000 people; grade 3 for 10,000-20,000 people; and grade 4 for 20,000 people or more. Each health clinic was linked to a city hospital, and became part of the hospital's outpatient clinic structure. This system enabled the MOH to plan more effectively for the provision of its facilities. The Ministry also introduced standards for organisation and output of the health centres, including staffing levels for doctors, nurses, and medical technicians, with definitions of their functional duties (Government KSA, 1980).

In the late 1970s, the MOH began to give considerable attention to preventive services. The result was an increase in the number of operational offices. One of their duties is to ensure that young children are vaccinated against infectious diseases, a measure precipitated by a Royal consent to have the birth certificates of new-borns retained by the MOH until after they have been vaccinated. In addition, there has also been an increase in the number of quarantine centres, 'health culture units' in major cities, and programmes to fight various endemic diseases including malaria. The MOH has also been active in the reform of drug services in the Kingdom. It required drug companies to register, and regulated the operation of pharmacies and pharmaceutical trading in general. A Saudi Code of Drugs was introduced to ensure

the control and proper supply of drugs to all facilities. One other MOH-initiated reform was the increase of staffing for health services, which has been accomplished through a two-step policy: first, increase employment of medical staff from friendly foreign countries, and then establish faculties of medicine and medical institutions to produce doctors and other trained medical personnel from among Saudi nationals and recruits.

Although the MOH has the primary responsibility for all health sector planning, other providers of healthcare in the Kingdom have a role in the planning process as well. Co-operation between the providers and the MOH has been a strong theme of government policy in all of the last Five-Year Development Plans. In addition, other powers directly influence the healthcare planning process, including the Council of Ministers, the National Health Council (also representing the private sector), and the Ministry of Planning.

3.5 Healthcare Providers in Saudi Arabia

As mentioned, the MOH is not the sole provider of healthcare in Saudi Arabia. Although the Health Ministry is the largest, there are at least ten other ministries or governmental organisations involved in the health services (Carter, 1979). These healthcare providers can be categorised into two groups. The first serve certain eligible groups, while the second deliver specialised care to the community as a whole.

The Kingdom's health services include a wide range of institutions with many different functions. Generally, healthcare is organised through a referral system into a

nation-wide network of primary health centres, and general and specialist hospitals. In addition, there are a number of government agencies providing health services directly to their employees. For example, the National Guard, Ministry of the Interior, and Ministry of Defence and Aviation all provide primary, secondary, and advanced levels of healthcare to their staff, as well as segments of the general population. The Red Crescent Society provides emergency services during the Haj season, when millions of pilgrims from all over the world visit the holy city of Makkah. Specialists offer high-level specialist healthcare throughout the Kingdom, while the Royal Commission for Jubail and Yanbu (the two major industrial cities in the KSA) operates health facilities for employees in two industrial cities. School health units attend to the immediate primary healthcare needs of students. The General Organisation for Social Insurance and the Presidency of Youth Welfare run health facilities for certain groups of the population. In addition, universities provide primary and specialised healthcare through their programmes and medical colleges, conduct essential health research, and provide medical education programmes. Finally, medical services of the private sector play an increasingly important role in the Kingdom. They are subject to regulatory requirements for the health sector as a whole. In sum, the providers of health services other than the MOH include:

- Saudi Red Crescent Society
- Ministry of Higher Education
- King Khaled Eye Hospital
- King Faisal Specialist Hospital and Research Centre
- Ministry of Education
- General Presidency for Girl's Education

- Ministry of Labour and Social Affairs
- The Royal Commission for Jubail and Yanbu
- The Ministry of Defence and Aviation
- ARAMCO
- Private Healthcare sector

3.5.1 Saudi Red Crescent Society

The Saudi Red Crescent Society was founded in 1966. Its objective is to provide medical services in five administrative regions. The Red Crescent is primarily known for the provision of first aid, ambulance, and emergency medical care to road traffic accident victims. The Society is also active during Haj, when it treats the sick and transports patients to hospitals. In addition, the Society co-operates with the MOH in operating facilities for preventive medicine, training nursing staff, and running public health education programmes (Faraidy, 1982). In 1997, the Red Crescent employed 2,495 persons including 1,198 nurses, and operated 152 first aid centres. In that year it also operated 543 ambulances and assisted 58,708 patients (Ministry of Health, 1997).

3.5.2 Ministry of Higher Education

The Ministry of Higher Education is responsible for supervising the college of medicine teaching hospitals. In 1997, there were four university hospitals in the Kingdom, employing 4,838 persons, including 916 physicians, 88 pharmacists, and 2,182 nurses. The total number of beds was 1515 (Ministry of Health, 1997). The Higher Education Ministry controls the third highest number of hospital beds in the Kingdom, which are free for eligible patients.

3.5.3 King Khaled Eye Hospital

King Khaled Eye Hospital was established in 1984 in Riyadh. It is a specialised independent hospital accepting patients on a referral basis from other hospitals. The bed capacity is 263, and the hospital accepts approximately 80,000 patients yearly (Ministry of Health, 1997). Known for the quality of its service, King Khaled Eye Hospital attracts patients from all over the world.

3.5.4 King Faisal Specialist Hospital and Research Centre

King Faisal Specialist Hospital and Research Centre was established at the end of the first Five-Year Plan period, in 1975. At that time, it was the first specialised independent hospital in the Kingdom. By 1997, the bed capacity had increased to 556, while 3,091 people were employed. The hospital treated 434,000 patients in 1997 (Ministry of Health, 1997). King Faisal is internationally recognised for the quality of its medical and surgical care. .

3.5.5 Ministry of Education

The Ministry of Education is responsible for the primary and secondary education of boys in the Kingdom. One of the Ministry's tasks is to provide students with primary healthcare. Throughout the country, the Ministry operates a small number of hospitals, x-ray centres, eye clinics, dental clinics, and health units. Also, it is responsible for educating students about the proper methods of maintaining their health. In 1997, the Ministry's health department employed 1,284 persons, including 378 physicians, 44 pharmacists, and 307 nurses (Ministry of Health, 1997).

3.5.6 General Presidency for Education of Girls

Responsibility for the healthcare of primary and secondary female students in Saudi Arabia is in the hands of the General Presidency for the Education of Girls. This organisation operates major clinics in cities, and smaller clinics in the countryside. In 1997, the 990 staff members included 191 physicians, 16 pharmacists, and 268 nurses (Ministry of Health, 1997).

3.5.7 Ministry of Labour and Social Affairs

The Ministry of Labour and Social Affairs administers the social insurance of all public employees as well as pensioners. It does so through the General Organisation of Social Insurance (GOSI). GOSI's major responsibilities lie in the areas of rehabilitation, and maintenance of occupational health and safety standards and regulations. In 1997, GOSI had 250 beds and employed 1,395 persons, including 124 physicians, 18 pharmacists, and 405 nurses (Ministry of Health, 1997).

3.5.8 Royal Commission for Jubail and Yanbu

The Royal Commission for Jubail and Yanbu was established in 1990. Its purpose is to provide a comprehensive healthcare programme to the two industrial cities of Jubail and Yanbu, on the east and west coasts. The programme comprises five hospitals. Two of the hospitals have 268 beds, while the other three have 742 beds. In 1997, the Royal Commission had a staff of 1,482, including 85 physicians, 11 pharmacists, and 271 nurses (Ministry of Health, 1997).

3.5.9 Ministry of the Interior

The Ministry of the Interior is responsible for maintaining public safety and security of the entire Kingdom's citizens, and it provides healthcare to all its employees. In 1997, the Ministry's personnel was 2,494, including 278 physicians, 26 pharmacists, and 551 nurses (Ministry of Health, 1997).

3.5.10 Saudi Arabian National Guard

The Saudi Arabian National Guard (SANG) is a military force that operates independently from the armed forces and the internal security forces. SANG is responsible for providing healthcare to all its employees and their dependants. In 1988, it operated three large hospitals in Jeddah (300 beds), Riyadh (600 beds), and the eastern region (500 beds). The hospitals are operated and maintained by both Saudi and non-Saudi management companies, which recruit internationally, especially for positions that cannot be filled by Saudi citizens. One of SANG's objectives, however, is to further the process of Saudiisation. While Saudi citizens made up 7.5% of the country's workforce in 1983, their proportion had increased to 36% by 1997. This increase in the Saudi share of the national workforce was most dramatic in the administrative and medical sectors. The Saudi proportion of administrative workers rose from 7% in 1983 to 42% in 1997, while the Saudi share of medical staff increased from 6% in 1983 to 60% in 1997 (Ministry of Health, 1997).

3.5.11 Ministry of Defence and Aviation

The Ministry of Defence and Aviation (MODA) is the second largest provider of health services in the Kingdom. MODA is responsible for the armed forces that do not fall under the auspices of any other military organisation. The main role of the Armed

Forces Medical Services Department (AFMSD) is to provide a fully comprehensive programme of healthcare to all members of the Armed Forces and their families. It is also responsible for providing healthcare education and medical research. In 1997, it employed nearly 25,187 persons, including 2,498 physicians, 262 pharmacists, and 6,126 nurses (Ministry of Health, 1997).

3.5.12 ARAMCO

ARAMCO is a Saudi-owned oil-producing company located near Dammam on the Gulf coast. It has its own large, modern, and extensively staffed hospital, and serves the healthcare needs of the company's 45,000 employees and their families. The employees are 70% Saudis (Kingdom of Saudi Arabia, 1985). The hospital provides acute, primary, and ambulatory care services, and it operates a number of clinics and mobile teams. In 1997, the hospital employment total was 4,281, including 557 physicians, 67 pharmacists, and 1,274 nurses (Ministry of Health, 1997).

3.5.13 Private Health Sector

The private healthcare sector is an important provider of health services to all citizens. Private healthcare services are accessible to anyone who is willing to self-finance. It is the second largest in size after the MOH. Both the third and fourth Five-Year Development Plans provided the private sector with incentives to add to the MOH services. In 1997, there were 84 private sector hospitals, with 8,185 beds, and 611 health centres.

3.6 Development of Health Budget

The budget for health in the first Five-Year Development Plan (1970-1974) was SR 26,230 million, which was 2.7% of the total KSA budget. In the second Plan (1975-1979), SR 177,716 million or 2.5% of the total budget was allocated for healthcare. During the third Plan period (1980-1984), the MOH spent SR 107,429 million in the last year alone. The total third Plan MOH budget was SR 404,348 million, or 2.9% of the total public budget (See Table 3.2).

Although the total KSA budget decreased for the fourth Plan (1985-1989) and then again for the fifth Plan (1990-1994), the health sector managed to maintain its share. The MOH budget was SR 412,890 million or 4.8% of the total budget in the fourth Plan, and SR 436,988 million or 5.4% of the total budget in the fifth Plan (See Table 3.2).

However, the MOH budget decreased for the first two years of the sixth Plan (1995-1999). Only SR 73,648 million or 4.9% of the total KSA budget was allocated to the MOH in both 1995 and 1996. The MOH share of the total budget increased again to 5.9% in 1997. In sum, MOH expenditure from 1970 (the first year of the first Five-Year Development Plan) to 1997 (the third year of the sixth Plan) was SR 1,712,936 million or 3.8% of the total KSA budget for this period (See Table 3.2).

Table 3.2 MOH and KSA Budget Development Plan Budgets (In SR Millions)

Development Plan	Total KSA Budget	MOH Budget	Proportion of Total
1st Plan 1970-1974	989,150	26,230	2.7%
2nd Plan 1975-1979	7,068,634	177,716	2.5%
3rd Plan 1980-1984	13,764,000	404,348	2.9%
4th Plan 1985-1989	8,522,000	412,890	4.8%
5th Plan 1990-1994	8,029,500	436,988	5.3%
6th Plan 1995-1997*	4,810,000	254,766	5.3%
Total 1970-1997	43,183,284	1,712,936	23.5%

* First three years of the 6th Five-Year Plan, 1995-1999.

Source: Ministry of Planning (2000)

3.7 Growth of Health Services

The Ministry of Health has managed to accomplish many of its objectives since 1970. This is demonstrated, for instance, by the spectacular increase in the number of medical facilities. In 1970, there were only 47 hospitals with 7,165 beds. Today, there are 180 hospitals with 27,058 beds. The number of clinics increased from 519 in 1970 to 1,737 in 1997. The same period saw a dramatic increase in the number of medical personnel. The number of physicians in all specialities increased from 817 in 1971 to 14,588 in 1997. The number of nurses rose from 2,268 in 1971 to 34,739 in 1997, while the number of other medical personnel, including pharmacists and hospital technicians, grew from 1,542 in 1971 to 20,131 in 1997. All categories of medical personnel saw an increase of the proportion of Saudi nationals during this

period, which can be subdivided into three stages: Stage one (1970-1979), Stage two (1980-1989), and Stage three (1990-1999).

3.7.1 Stage One (1970-1979)

This period saw an increase in the effectiveness of services provided by the Ministry of Health, primarily through growth in the number of hospitals, clinics, and beds (See Table 3.3). The number of hospitals rose by 6% for every year of the first Five-Year Development Plan period, and by 2.6% annually during the second Plan period. The number of clinics increased by 2.8% for every year of the first Plan period, and by 6.5% yearly in the second period. And the number of beds rose by 1.3% annually during the first period, and by 10.1% every year of the second period. The increase in numbers of these facilities was accompanied by an expansion of staff in the health sector. The total number of medical personnel rose by 16.5% annually in the first period, and by 8.6% in every year of the second period (See Table 3.4).

3.7.2 Stage Two (1980-1989)

Growth in the number of medical facilities and staff accelerated in the third Five-Year Development Plan period (1980-1984), but then levelled off in the next Plan (1985-1989). The third Plan saw an annual increase of 8.5% in the number of hospitals, of 10.1% in the number of clinics, and of 10.7% in the number of hospital beds. During the fourth plan period, the number of hospitals rose annually by 9.2%, but the numbers of clinics and beds increased annually by 'only' 4.4% and 5.2%, respectively. Similarly, medical staffing increased by an impressive 21.6% every year during the 1980-1984 period, but by 'only' 7.5% each year of the 1985-1989 period.

3.7.3 Stage Three (1990-1999)

Stage Three covers the fifth and sixth Five-Year Development Plan periods (1990-1999). During this time, the number of medical facilities continued to increase. From 1990 to 1994, the annual increase in the number of hospitals was 6.1%, while the number of clinics rose annually by 3.1%. The same period also saw an increase in the number of trained medical personnel. From 1990 to 1994, the number of physicians rose annually by 3.6%, while the numbers of nurses and other medical personnel increased by 3.9% and 5.4%, respectively, every year. The average annual growth of all medical staff during this period was 4.3%, but this percentage is expected to be lower for the sixth Plan period (1995-1999).

Table 3.3 Average Yearly Growth of Medical Facilities in Ministry of Health for Five-Year Development Plans (1970 - 1994)

	% Yearly Growth		
Development Plan	**Hospitals**	**Hospital Beds**	**Health Clinics**
1st Plan 1970-1974	6%	1.3%	2.8%
2nd Plan 1975-1979	2.6%	10.1%	6.5%
3rd Plan 1980-1984	8.5%	10.7%	10.1%
4th Plan 1985-1989	9.2%	4.4%	5.2%
5th Plan 1990-1994	6.1%	4.0%	3.1%

Note: In the first year of 6th Plan, there was 3.4% increase in hospitals, 2.9% increase in beds, and 0.4% increase in clinics.

Source: Ministry of Planning (2000)

Table 3.4 Average Yearly Growth of Medical Personnel in Ministry of Health for Five-Year Development Plans (1970 - 1994)

	% Yearly Growth			
Development Plan	**Physicians**	**Nurses**	**Others**	**Total**
1st Plan 1970-1974	22.7%	15.8%	13.6%	16.5%
2nd Plan 1975-1979	10.8%	7.8%	8.0%	8.6%
3rd Plan 1980-1984	19.5%	24.6%	18.6%	21.6%
4th Plan 1985-1989	7.0%	7.1%	8.7%	7.5%
5th Plan 1990-1994	3.6%	3.9%	5.4%	4.3%

Note: In the first year of 6th Plan, there was 0.3% increase in physicians, 0.2% increase in nurses, and 0.3% increase in other employees.

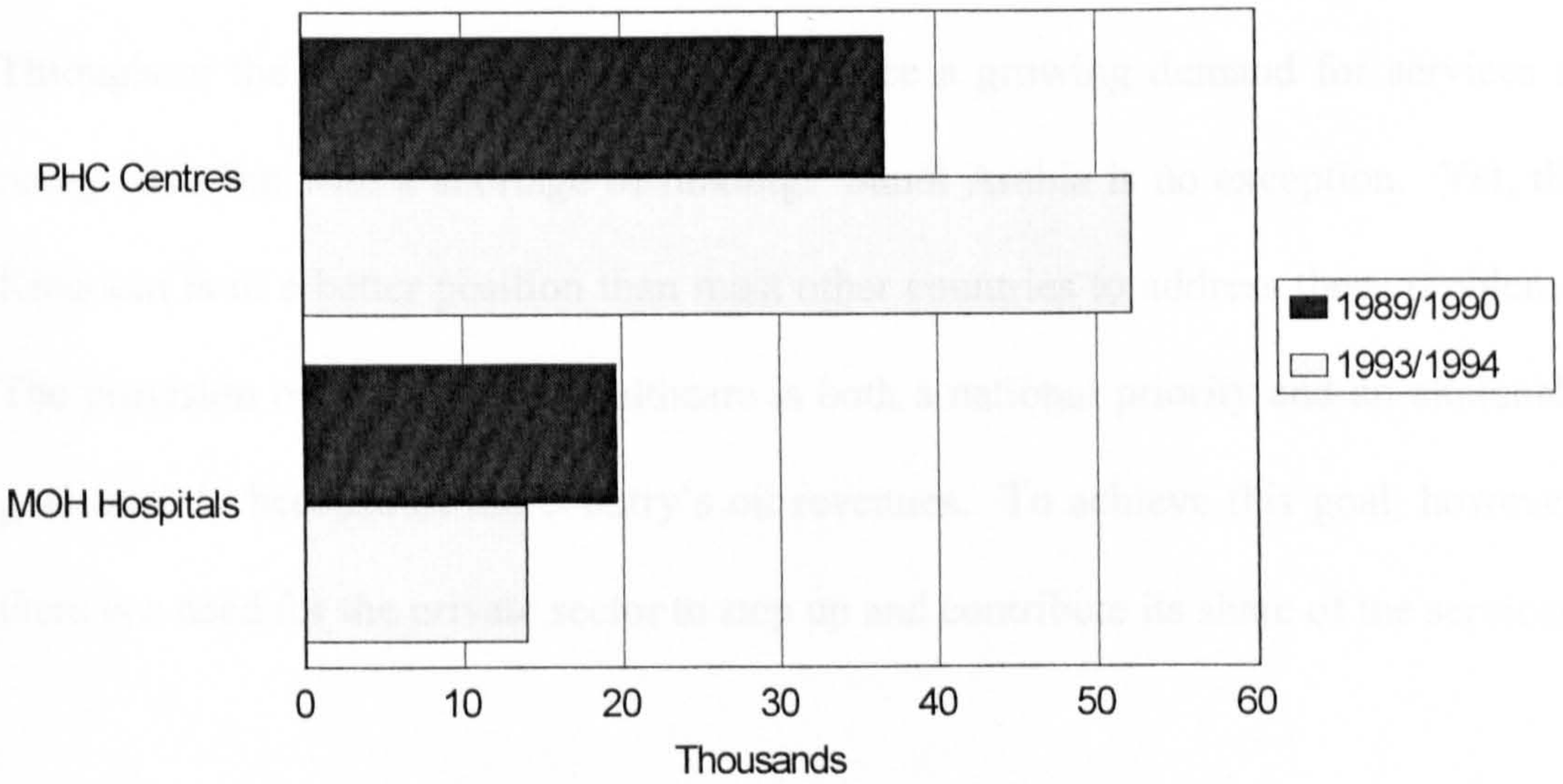
Source: Ministry of Planning (2000)

3.8 Present Healthcare System

The Health Ministry is the governmental agency that is responsible for all health services in the Kingdom. KSA healthcare is provided through a referral system by institutions with different functions. As mentioned, although several government agencies provide healthcare directly to their employees, most patients are referred by primary health centres, either to general or specialist hospitals. Private sector hospitals co-ordinate with the primary health centres and clinics in the referral network. Thus, the private sector hospitals abide by all requirements of the Health Ministry.

The referral system reduces unnecessary hospital services by optimising use of the services from the general practitioner to the high-level specialist. It has made healthcare in the Kingdom more efficient. Between 1990 and 1994, the number of patient visits to primary healthcare centres increased by 42.2%, while the number of hospital visits declined by 28.9% (See Figure 3.1 and Table 3.5).

Figure 3.1 Patient Visits to Ministry of Health Primary Healthcare Centres and Hospitals



Source: Alharthy et al. (1999)

Table 3.5 Patient Visits to Primary Healthcare Centres and MOH Hospitals (in thousands)

	PATIENT VISITS		
	1989 / 1990	**1993 / 1994**	**% Change**
PHC Centres	36,725	52,222	+ 42.2%
MOH Hospitals	19,627	13,956	- 28.9%

Source: Alharthy et al. (1999)

3.9 Major Issues

In spite of the development of the Kingdom healthcare system, the sixth Five-Year Development Plan (1995-1999) lists three key issues which must be addressed to ensure continuous improvement in healthcare delivery to all citizens. These issues are 1) costs of healthcare, 2) Saudiisation of the workforce, and 3) geographical distribution of primary healthcare centres.

3.9.1 Costs of Health Services

Throughout the world, healthcare providers face a growing demand for services at rising costs but with a shortage of funding. Saudi Arabia is no exception. Yet, the Kingdom is in a better position than most other countries to address these problems. The provision of high quality healthcare is both a national priority and an attainable goal, mainly because of the country's oil revenues. To achieve this goal, however, there is a need for the private sector to step up and contribute its share of the services.

3.9.2 Saudiisation in Health Services

The healthcare workforce has increased rapidly with the overall expansion of the health services. In 1997, there were more than 14,700 physicians, 34,739 nurses, and about 19,000 health technicians. The proportion of Saudi nationals in all these occupations was rather low: 19% for physicians, 24% for nurses, and 53% for health technicians. Current indications from the education and training institutions are, however, that these percentages will not increase significantly in the near future. Thus, emphasis must be put on training programmes for Saudi workers in the healthcare sector.

3.9.3 Regional Balance in Distribution of Primary Healthcare Centres

The large size of the country and uneven distribution of the population make it a challenge for the government to provide full primary healthcare coverage for all citizens. Years of progress have not altered the fact that at the beginning of the new century, the primary healthcare needs of many citizens are still not being met. It is important that new healthcare centres continue to be built in areas that are under-served.

3.10 Private Sector

The government has taken several steps to facilitate greater private sector participation in the provision of healthcare (Ministry of Planning, 2000). It has provided companies and contractors with:

1. Interest-free, long-term loans for the construction and operation of hospitals and clinics, and the delivery of support services.
2. Funds from the state budget for the planning and construction of government health facilities.
3. Opportunities for assuming the maintenance of all health facilities, and the full operation of some hospitals.
4. Support for the manufacture and marketing of drugs and medicines.

The private sector has responded to these incentives in several ways (Ministry of Planning, 2000). It has contributed to the health services through:

- The provision of curative services at 75 hospitals with 7,477 beds, or 18% of all hospital beds in the Kingdom.
- The provision of healthcare at 510 dispensaries and 673 clinics.
- The provision of drugs and medicines at 2,703 pharmacies and 310 pharmaceutical warehouses.
- The manufacture of drugs and medicines.
- The supply and marketing of medical equipment.
- The full operation of 45 hospitals affiliated with the Ministry of Health.

During the sixth Plan period, the private sector has also been given the opportunity to finance the construction of many healthcare facilities. These projects include the establishment of primary healthcare centres, intermediate health colleges, emergency centres, training centres for emergency medical services, and a health institute.

3.11 KSA Healthcare Strategy

The KSA stands out among countries in the Middle East for the ways it uses planning in carrying out its policies. Since 1970, the KSA has adopted 'total planning' in its efforts to implement social and economic change. During this period, the government has given special attention to healthcare in its efforts to raise health standards of the Saudi citizens. It has adopted the Five-Year Development Plan as the principal instrument for reaching this goal. Strategic plans for healthcare go hand in hand with the general objectives and strategic plans for the country as a whole.

As a result, many objectives in healthcare policies have been met, such as primary and secondary healthcare through a variety of specialist and non-specialist hospitals, preventive healthcare, medical sector employment growth, Saudiisation and training of medical staff, and supervision of private hospitals. All of these objectives have been achieved by means of the Five-Year Development Plans (Ministry of Planning, 2000). The sixth Five-Year Development Plan objectives are to:

- Upgrade the health standards of citizens, and provide preventive and curative healthcare in efficient ways.
- Control communicable diseases, and eradicate or reduce the incidence of these diseases to the lowest possible level.
- Initiate primary healthcare programmes, particularly mother and child programmes, and attains full vaccination coverage of children against infectious diseases.
- Boost the referral system so that healthcare services will be fully integrated and provided at a high standard.

3.12 KSA Healthcare Policies

Government policies are carried out to meet certain objectives, and the above-mentioned Plan objectives, as well as the key healthcare issues discussed in Sections 3.9.2, 3.9.3, 3.10, have resulted in the initiation of the following KSA healthcare policies:

- ***Improving Health Standards of Population.*** It is expected that health levels will improve through the establishment of Primary Healthcare Centres (PHCs). Implementation of PHC guidelines and procedures will be intensified, and health awareness programmes expanded.
- ***Regional Distribution of Primary Healthcare Services.*** Additional PHCs will be established according to the following criteria:

1. Cities whose population exceeds 200,000 are to be served by one PHC per 10,000 persons.
2. Cities with a population of less than 200,000 will have one PHC for every 5,000 to 6,000 persons.
3. Village and remote populations are to be served by one PHC per 500 to 2,000 persons.

Demographic maps will be prepared, showing the regional population distribution and locations of the existing health services. This will allow for the planning of a more equitable regional distribution of services. All PHCs are to be provided with necessary equipment, including X-ray services, dental clinics, etc.. Each PHC will be formally connected to the nearest referral hospital in the region.

- ***Saudiisation in Health Services.*** To attract more Saudi nationals, efforts will be made to expand the number of medical colleges and institutes, as well as training programmes. Also, the number of scholarships will be increased. The private sector will be encouraged to offer more training programmes for Saudi nationals.
- ***Financial Support for Health Services.*** In order to increase funding for healthcare, the insurance system will be modified and expanded to include coverage of non-Saudis and their families. The private sector will be encouraged to join in the provision of health insurance.
- ***Upgrading Curative Medical Care.*** Efforts will be made to expand the number of hospital beds both in the public and private sector. A target ratio has been set to ensure optimal use and efficient administration of hospital beds. Strict quality standards will be implemented to achieve improvements in all areas of healthcare delivery, such as storage of equipment, drug administration, and waiting time for patients.
- ***Private Sector Investment in Health Services.*** A comprehensive study will be conducted to find ways to increase private sector participation in healthcare delivery.

3.13 Sixth Development Plan Targets

The commitment of the KSA government to raise standards of healthcare of the population is evident in several ways. In 1995, campaigns were initiated to:

- Reduce the morbidity rate of infectious diseases to 0.01 cases per 100,000 population for diphtheria; to 0.4 for whooping cough; 40 for measles; and 8 for TB.

- Eliminate tetanus and poliomyelitis altogether.
- Reduce the frequency of diarrhoea in children.
- Reduce the morbidity rate of malaria to 200 cases per 100,000 population in high rate areas; to less than 100 in medium rate areas; and to zero in the other areas.
- Reduce the morbidity rate of bilharsia to 500 cases per 100,000 population.
- Increase the immunisation coverage to 97% for diphtheria, whooping cough, tetanus, and poliomyelitis, and to 95% for hepatitis. Maintain the 99% rate for immunisation against TB.
- Decrease the incidence of newborn children weighing less than 2,500 grams to 2%; and increase the percentage of children less than five years old whose weight is commensurate to their age to 98%.
- Raise the proportion of pregnant mothers receiving healthcare from professionals to 97%; and increase the delivery rate by health professionals to 95%.
- Increase the immunisation coverage of pregnant mothers against tetanus to 85%.

3.14 Summary

There is no doubt that the Kingdom of Saudi Arabia healthcare system has travelled a long way. Some citizens can still remember the time when illiteracy was a way of life, the water supply contaminated, nutrition inadequate, sanitation unknown, and basic requirements of hygiene severely lacking. During the 1970s, the government of Saudi Arabia started to implement plans to improve healthcare. Successful attempts were made to expand the number of hospitals, as well as the medical workforce. These improvements continued throughout the 1980s and 1990s. Today, the Ministry of Health faces several new problems. One is that healthcare systems worldwide are experiencing a growing demand for services at rising costs, but with a shortage of funding. With its growing population, Saudi Arabia is no exception, in that the provision of high quality services to all citizens is placing a burden on the government budget. Also, the healthcare workforce has increased rapidly with the overall expansion of the health services. In 1997, it included more than 14,700 physicians, 34,739 nurses, and more than 19,000 health technicians. Few of these positions, however, were filled by Saudi nationals: one of every five for physicians, one of every four for nurses, and one of every two for health technicians. Saudi enrolment in medical education and training programmes indicates that these proportions will not drastically change in the coming years. Thus, a specific effort must be made to attract more Saudi personnel into the healthcare sector (Ministry of Planning, 2000).

The Ministry of Health budget reached SR 10,746 billion in 1997. Besides the MOH, providers of healthcare in the Kingdom have come to include the Royal Commission for Jubail and Yanbu, the Ministry of Defence and Aviation, the National Guard, the Ministry of the Interior, and others. The late 1990s also saw increased participation

of the private sector, which got involved in the construction of healthcare facilities, recruitment of doctors and nurses, and the provision of healthcare. Although the Five-Year Development Plans were ambitious, there has been a dramatic expansion of health services in the past 30 years. Significant progress has been made in efforts to provide citizens with a comprehensive system of primary care. Health services have been integrated into an adequate referral system covering the whole country, and using sophisticated equipment to supply citizens with curative as well as preventive healthcare.

Chapter Four

Research Design and Methodology

4.1 Introduction

This chapter aims to provide an understanding of the research design and methodology used for this study. The methods used in carrying out research will be discussed including research strategy, approach, and design. In the research strategy section, both theory-then-research and research-then-theory will be discussed. In the research approach section, causal, descriptive, and exploratory research will be discussed. In the research design section, experimental and non-experimental designs will be discussed. In the non-experimental design section, survey research, case study research, qualitative research, quantitative research, and triangulation will be explored in depth.

Following the above, there will be a discussion of the nature of research in healthcare. Afterwards, the selected research methodology will be discussed. This research incorporates quantitative and qualitative methods to arrive at a better understanding of the researched situation. The first phase of the study will use survey research and employ quantitative methods. The second phase of the study will use case study research and employ qualitative methods. The last phase of the study will discuss benchmarking the results.

4.2 Nature of Research

Research stands on the intent to create new knowledge. This new knowledge can exist in any field. This can be done through the systematic process of enquiry governed by scientific principles. The principles vary according to the specific science or discipline in which the research is undertaken. Macleod et al. (1989) define research as:

> "An attempt to increase the sum of what is known, usually referred to as 'a body of knowledge', by the discovery of new facets or relationships through a process of systemic scientific inquiry, the research process."

Also, research is describe by Sekaran (1992) as:

> "An organised, systemic, data-based, critical, scientific inquiry or investigation into a specific problem, undertaken with the objective of finding answers or solutions to it."

This was borne in mind throughout the study.

4.3 Research Strategy

There are two major components on which the disciplines of scientific research rest. They are theory and empirical research (Aaker et al., 1995; Nachmias and Nachmias, 1996). Establishing a systematic connection between these two components enhances the goals of social science. According to Nachmias and Nachmias (1996), these connections should be established by two types of research strategy: theory-then-research and research-then-theory. The researcher had to make a decision on which strategy to adopt as appropriate for the study.

4.3.1 Theory-then-Research Strategy

This strategy uses a hypothesis-testing research. Usually, it starts with a hypothesis about the nature of the world and then seeks data that will confirm or disconfirm that

hypothesis. There are five stages to the theory-then-research approach (Reynolds, 1971). They include:

1. Construct an explicit theory or model.
2. Select a proposition derived from theory or model for empirical investigation.
3. Design a research project to test the proposition
4. If the proposition derived from the theory is rejected by the empirical data, make changes in the theory or the research project and return to stage two.
5. If the proposition is not rejected, select other propositions for testing or attempt to improve the theory.

This strategy operates deductively from the hypotheses to their implications. Deductive reasoning involves drawing from ideas or theories that have already been established in one context and making conclusions about them in another. A deductive reasoning calls for a universal generalisation, a statement of the conditions under which the generalisation holds true, an event to be explained, and the rules of formal logic (Nachmias and Nachmias, 1996). A deductive explanation explains a phenomenon by demonstrating that it can be deduced from an established universal law. Thus, the process of starting with a theory and using it to explain a particular case is known as deduction (Gilbert, 1995).

4.3.2 Research-then-Theory Strategy

As opposed to theory-then-research, Merton (1968), a proponent of the research-then-theory strategy, argues the following:

> "It is my central thesis that empirical research goes far beyond the passive role of verifying and testing theory; it does more than confirm or refute hypotheses. Research plays an active

> role: it initiates, it reformulates, it reflects and it clarifies theory."

Reynolds (1971) believes that empirical research suggests new problems for theory. It calls for new theoretical formulations, leads to the refinement of existing theories, and serves the function of verification. The research-then-theory strategy consist of four stages. They include:

1. Investigate a phenomenon and delineate its attributes.
2. Measure the attributes in a variety of situations.
3. Analyse the resulting data to determine if there are systematic patterns of variation.
4. Once systematic patterns are discovered, construct a theory.

The research-then-theory strategy uses inductive reasoning. Inductive reasoning is the first step in knowledge development. Gilbert (1995) defines inductive reasoning as a basic technique for moving from a set of observations to a theory. This means that it is the process of finding a single case and observing a relationship, then observing the same relationship in several more cases, and finally constructing a general theory to cover all the cases. This research uses this type of strategy, because it is exploratory in nature.

4.4 Types of Research Approach

Whatever the strategy employed, all empirical research chooses a certain type of research approach. These approaches can be classified into one of three general categories. They are causal research, descriptive research, and exploratory research. Each kind of research has its own characteristics such as research purpose, research

questions, data collection methods, etc.. (Neuman, 1997). The three research approaches will now be discussed.

4.4.1 Causal Research

The concept of causality is very complex. It can be thought of as understanding a phenomenon in terms of conditional statements of the form, if *X* exists, then *Y* will exist. Causality means that a variable (or a number of variables) causes or determines the values of other variables. For example, if a corporation increases its advertising budget then its sales will rise.

Unfortunately, the scientific notion implies that a researcher can never prove the *Y* is a cause of *X*. Rather, the researcher will always infer but never prove that a relationship does exist. The inference is difficult to be drawn. It requires acquiring data in a very controlled experimental setting, in which a researcher can manipulate an independent variable to see how it affects a dependent variable, while also controlling the effects of additional external variables (Polgar et al., 1995).

Knowing that *X* will be followed by *Y* is not enough in research. The continuous process by which *X* produced *Y* (if it did) should also be understood. This mode of inference in which events are explained by postulating mechanisms which are capable of producing them is called retroduction. Retroduction is the analytical process of just thinking about the mechanism that could have caused the phenomena which were observed. The relationship between causal powers exists independently of their effects, unless they are derived from social structures whose reproduction depends on particular effects resulting (Bhaskar, 1989). According to Sayer (1992), the same

mechanism in certain conditions may sometimes produce different events, and conversely the same type of events may have different causes. This research approach is clearly unsuitable for the present project.

4.4.2 Descriptive Research

A large proportion of social science research uses descriptive research. There are four major purposes for descriptive research. They are (Aaker et al., 1995; Churchill et al., 1995):

1. To provide a clear picture of some aspect of the social environment.
2. To describe the characteristics of certain research problems.
3. To estimate the proportion of people in a specific population who behave in a certain way.
4. To make prediction.

This approach contrasts with the third and is less appropriate for this research study.

4.4.3 Exploratory Research

In exploratory research, the general objective is to gain insights and ideas. It is particularly helpful in breaking broad, imprecise problem statements into smaller, more precise subproblem statements (Aaker et al., 1995). This kind of research can be used in establishing priorities among research questions. Also, it is used for learning about the practical problems of carrying out the research.

Whereas descriptive research is more rigid and requires a clear and precise specification of the research question, exploratory research is characterised by its

flexibility with respect to methods used for gaining insight and developing hypotheses because of the lack of knowledge at the beginning of an inquiry. In this type of research, the formal design and the detailed questionnaires are not that important. The reasoning behind this is that researchers frequently change the research procedures as the vaguely defined initial problem transforms to a more precise and meaningful one. Generally, exploratory research is appropriate for problems on which very little is known. Based on the above facts, this study fits the profile for exploratory research. The descriptive research approach often uses hypotheses but they may be tentative and speculative, whereas the exploratory research rarely uses hypotheses, and when they exist they are vague and ill defined.

4.5 Research Design

Nachmias and Nachmias (1996) define a research design as an action plan for getting from the initial set of questions to be answered to some set of conclusions or answers about these questions. Churchill (1995) refers to research design as:

> "The framework or plan for a study, used as a guide in collecting and analysing data. It is the blueprint that is followed in completing a study. It resembles the architect's blueprint for a house."

Therefore, a design can be thought of as the logical steps that connect the empirical data to a study's initial research questions. The most important objective of the research designs is to ensure that all pieces fit together. There are two basic research design that are used by researchers in conducting social science research. They are experimental design and non-experimental design.

4.5.1 Experimental Design

Experimental research design is a design where the researcher actively manipulates aspects of a setting, either in the laboratory or in a field situation, and observes the effects of that manipulation on experimental subjects (Cohen and Manion, 1994), either in the continued artificial setting or in their natural setting. The purpose behind the experiment is cause and effect through manipulation and control. To manipulate a variable is to do something to it through treatment or intervention. This variable is called the independent variable. The outcome of the research is usually observed in the variable or factor which is affected by the dependent variable. To control the experiment means the researcher controls the treatment of the study group while comparing and contrasting against the control group where there was no treatment or intervention (Aaker et al., 1995).

Experimental research design can be used as a powerful tool for discovering the true relationships between variables. Meanwhile, this type of research requires certain means, which include, cost, control, time, and implementation. These means can be difficult for some researchers.

This type of research is not appropriate in this study, because there is no need to manipulate any aspect of the setting for the research.

4.5.2 Non-experimental Designs

In non-experimental design, there is a wide spectrum of research designs. They are popular among the social scientists and are used widely in the management field. Unlike in experimental research, the variables can not be manipulated because the

study is carried out in its natural settings and relationships are observed as they occur. Both the issues of control and manipulation do not arise in this type of design (Neuman, 1997).

Non-experimental designs can be divided into different categories which include survey research and case study research. In both categories, quantitative and qualitative data collection methods can be administered. Sometimes, both methods are used together in what is called triangulation.

4.5.2.1 Survey Research

The survey is the most widely used data gathering method of researchers in collecting primary data (Aaker et al., 1995). Surveys are appropriate for research questions about behaviours, attitudes/beliefs/opinions, knowledge, characteristics, expectations, and self-classification (Neuman, 1997). They are strongest when the responses of the people measure variables. Many variables can be measured in a single survey.

Survey research samples many respondents who respond to the same questions. It measures many variables, tests multiple hypotheses, and infers temporal order of questions about past experiences. This type of research measures variables that represent alternative explanations and examines their effects, thus ruling out any alternative explanations that do not belong. Survey research is sometimes called correlational because it uses control variables and correlations in statistical analysis. They approximate the rigorous test for causality which experimenters achieve with their physical control over temporal order and alternative explanations (Neuman, 1997).

Survey research uses a deductive approach. It starts with a theoretical or applied research problem and ends with empirical measurement and data analysis. Two phases make up the survey method. They are the research design phase and the data collection phase. During the research design phase, an instrument is developed (questionnaire or interview). The questions of this instrument must be clear and complete, taking into consideration the recording and presentation of data for the analysis. The second phase includes locating the respondents, giving instructions on how to answer the questions, recording the answers, and thanking the respondents afterwards (Neuman, 1997). Table 4.1 presents a more detailed outline of these steps.

In the survey research, the researcher does not intervene or manipulate the effects of intervention. However, when the researcher is seeking a causal relationship between variables in survey research, it cannot be established or demonstrated, rather it has to be inferred (Bryman and Cramer, 1997). Survey methods allow for the collection of significant amounts of data in an economical and efficient manner. They also allow for large sample sizes. Aaker et al. (1995) stressed:

> "The principal advantage of a survey is that it can collect a great deal of data about an individual respondent at one time. It is perhaps only stating the obvious to say that for most kinds of data the respondent is the only, or the best, source."

There are many advantages to the survey method. They include the ability to generalise, versatility, standardisation, ease of administration, and suitability for statistical analysis. Generalisation means that the results of the survey are taken to represent the view of the overall population. This is due to the large number of

Table 5-1: Two phases of Survey Research

Phase 1: Design and Planning

1. Decide on type of survey (e.g., face-to-face, mail, telephone interview, self-administered), type of respondent, and population.
2. Develop survey instrument/ questionnaire:
   - **a.** Write questions to measure variables.
   - **b.** Decide on response categories.
   - **c.** Organise question sequence.
   - **d.** Design questionnaire layout.
3. Plan system for recording answers.
4. Pilot test instrument and train interviewers if necessary.
5. Draw sample:
   - **a.** Define target population.
   - **b.** Decide on type of sample.
   - **c.** Develop sampling frame.
   - **d.** Decide on sample size.
   - **e.** Select sample.

Phase 2: Data Collection

1. Locate and contact respondents
2. Make introductory statements or provide instructions.
3. Ask questions and record answers.
4. Thank respondent and continue to next respondent.
5. End data collection and organise data.

Source: Neuman (1997)

respondents representing the population to which the sample belongs. Versatility means that surveys can be applied and are adaptable to any setting if the research objectives require a descriptive or causal design. Standardisation refers to the fact that all questions and response options presented to the respondents are identical and in a set order. The administration of the questionnaire is much simpler than other methods which can be much more time-consuming.

Statistical analysis is the preferred means of interpreting the patterns or common themes hidden in the raw data collected in the survey methods. According to Aaker et al. (1995), survey research still dominates and will continue to dominate as a method of data collection for management studies, at least for the next few decades. Among the limitations of the survey method is low response rate and self-selection bias.

4.5.2.2 Case Study Research

According to Yin (1994), a case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident. The case study is not a technique nor is it a means of collecting data, but rather a comprehensive research strategy, where the context is deliberately part of the design (Yin, 1994). Goode and Halt (1952) argue:

> "The case study, then, is not a specific technique. It is a way of organising social data so as to preserve the unitary character of the social object being studied. Expressed somewhat differently, it is an approach which views any social unit as a whole. Almost always, this means of approach includes the development of that unit, which may be a person, a family or other social group, a set of relationships or processes...or even an entire culture."

The case study, like other research strategies, is a way of investigating an empirical subject by following a set of prespecified procedures. It thus is suitable for the study of social processes and has deep roots in organisational research. It answers questions which revolve around the 'how' and 'why', instead of the more descriptive questions of 'who' and 'how many'. Thus, when the issues of interest are processual and contextual, the case study is the approach of choice.

The case study method typically focuses on and observes the characteristics of an individual unit or organisation (Nettleton and Taylor, 1990) to refine knowledge. It is a comprehensive description and analysis of a single situation used because the researcher wants to cover contextual conditions, believing that they might be highly pertinent to the phenomenon of study. The phenomenon and context are not always distinguishable in real life situations (Yin, 1994). The case study inquiry, according to Yin (1994):

- Copes with a technically distinctive situation in which there will be many more variables of interest than data points, and as one result
- Relies on multiple sources of evidence, with data needing to converge in a triangulation fashion, and as another result
- Benefits from the prior development of theoretical propositions to guide data collection and analysis.

This means that the case study is an all-encompassing method that uses logic to incorporate specific approaches of data collection and data analysis. The case study allows the tracking of organisational processes in a natural context over time. Also, it

is particularly suitable for exploring emergent organisational phenomena that are subject to rapid change.

Case studies can range in scope from the in-depth, ethnographic, single-site, single-researcher case study to the highly structured, multiple-site studies performed by several researchers. In addition, they differ in their data collection approaches. Some are qualitative, while others combine quantitative and qualitative methods. These possibilities permit the adoption of a strategy most suitable to the specific circumstances of the research subject and the research objective.

There are some concerns about using the case study method. The biggest concern has been over the lack of rigour in case study research. There are many incidents where the researcher slips and allows a biased view to influence the directions of the findings or conclusions. According to Yin (1994), this is true, but a biased view can enter into the conduct of experiments and the use of other research strategies, such as designing a questionnaire for surveys or conducting historical research. The problems are not different, but in case study research, they may have been more frequently faced and less frequently overcome. Therefore, the case study researcher must work hard to report all evidence fairly. Another concern associated with case studies is validity and representativeness. In research, objectivity and meaningfulness are important issues to consider. Bonoma (1985) refers to a trade–off between 'currency' and 'data integrity' (i.e., the generalisability of results or external validity on the one hand and issues of internal validity and statistical reliability on the other). He explains:

> "The study which seeks a high degree of data integrity requires a precise operationalisation of the research variables, a relatively large sample size and quantitative data for statistical power, and the ability to exercise control over persons, settings and other factors to prevent causal contamination. In contrast, a study which seeks high currency, typically demands situationally unconstrained operationalization of variables to allow cross-setting generalisation, and observation within natural, ecological settings - 'noisy settings'- where large samples, quantitative measures, and control are more difficult to achieve. Often, the latter kind of study demands a greater use of subjective or, at best, clinical analysis."

Yin (1994) also believes the case study provides little basis for scientific generalisation. Case studies are generalisable to the theoretical propositions and not to populations or universes. Finally, case studies sometimes take too long and the result is massive, unreadable documents (Yin, 1994).

4.5.2.3 Selection of Methods

The choice of methodology is the most important choice in the research design. There is no right or wrong methodology but the researcher should look for the most beneficial method available. In theory, the choice of methods depends on the nature of the research problem. In practice, there are certain constraints, such as time and funding, that influence the researcher's choice. In applying the scientific method, the researcher must be aware of certain problems such as (Boyd et al., 1985):

- Whether the investigator is involved in the use of the results
- Imprecise measuring devices
- Possible influence of the measurement process on the results
- Time pressure in obtaining the results

- Difficulty in using experiments to test hypotheses
- Great complexity of the subject

Both quantitative and qualitative research methods share the purpose of cultivating knowledge (Field and Morse, 1990), but each has its special way of reaching that knowledge. The choice among these methods should be made with careful assessment because they produce different kinds of data that serve different research issues. Sometimes, these methods are combined in research to reach better results. The following section discusses qualitative research, quantitative research, their similarities and differences, and triangulation.

4.5.2.4 Qualitative Research

Qualitative research is an approach rooted in the phenomenological paradigm that involves some kind of interaction between the research and the people or the situation being researched, and some form of interpretation of that situation. The researcher uses inductive reasoning. The induction technique allows the researcher to generate theories. Here, the researcher poses questions rather than hypotheses. His/her objective is to discover meaning and interpretation of the social world. In this approach, data are in the form of words. Overall, it is an approach that helps us to draw some meaning out of a given situation. Different authors emphasise different aspects of qualitative research in their definitions. For example, Brockup and Hastings-Tholsma (1995) state that "qualitative research seeks to explore, describe or expand our knowledge of the world around us", while other authors put the emphasis on the study of individuals. The researcher seeks to understand the issues from the point of view of the population being studied. Concepts and theories are generated

from the respondents and emerge as the study progresses rather than the other way around (Clifford and Gough, 1990). Silverman (1993) and Miles and Hubermans (1994) acknowledge the difficulties of adequately defining qualitative research, but they define it as an umbrella term for a number of approaches with common features. These are:

- The research seeks to establish a holistic perspective of the situation.
- The research is conducted in real life, day to day situations.
- The research attempts to identify the perceptions of the person(s) being researched.
- There is no single standardised way of collecting data.
- The researcher uses small selective samples.
- Most analysis is done using words.
- Many interpretations of data are possible depending on the theoretical stance of the researcher.
- The researcher may interact with the person(s) being observed.
- The researcher uses inductive reasoning.
- The research is of low reliability but high validity.
- No claims are made to generalise the findings.

4.5.2.5 Quantitative Research

The components of quantitative research are based on the positivist paradigm. Quantitative research techniques share a language and logic from positivism that separate them from research techniques based on other approaches (Neuman, 1997).

This type of research uses deductive reasoning. It draws from ideas or theories that have already been established in one context and makes conclusions about them in another. This method relies on a hypothesis that is composed of variables that can be measured and analysed with statistical procedures. If the hypothesis is true, then it will be a theory. If the hypothesis is not true, then it will not be a theory. Thus, once a theory has been formulated, it can be used to explain. A deductive explanation calls for a universal generalisation, a statement of the conditions under which the generalisation holds true, an event to be explained and the rules of formal logic (Nachmias and Nachmias, 1996). In a deductive explanation, a phenomenon is explained by demonstrating that it can be deduced from universal law. Creswell (1994) presents some assumptions about quantitative research from McCracken (1988), and Guba and Lincoln (1994). They are as follows:

- Reality is objective and singular, apart from the researcher.
- Researcher is independent from that being researched.
- The research must be value-free and unbiased.
- Formal language is used in the research.
- The logic of process is deductive.
- Generalisation leading to prediction, explanation, and understanding.
- Independent of context.
- Uses accurate and reliable statistical analysis through validity and reliability.
- The researcher uses deductive reasoning.
- The samples (cases or subjects) used are large.

4.5.2.6 Quantitative Research and Qualitative Research Compared

Newman (1997) compares quantitative research style against qualitative research style by drawing from a number of sources including Creswell (1994), Denzin and Lincoln (1994), Guba and Lincoln (1994), and Mostyn (1985). The comparison is illustrated in Table 4.2.

The differences between these two methods, according to Neuman (1997), are:

- Quantitative research uses a standardised set of data analysis techniques while qualitative data are less standardised.

- Quantitative research does not begin data analysis until all data have been collected, while quantitative research begins analysis during the process of data collection.

- Quantitative research manipulates numbers that represent empirical facts in order to test an abstract hypothesis with variable constructs, while qualitative research create new concepts and theory by blending together empirical evidence and abstract concepts.

- Quantitative research is more abstract. It places raw data into categories that can be manipulated in order to identify patterns and arrive at generalisation. Qualitative research is less abstract. It uses data that are in the form of words which can be imprecise, diffused, and context-based.

Table 4.2 Comparison between Quantitative and Qualitative Methods

Quantitative Style	Qualitative Style
Measures objective facts	Constructs social reality, cultural meaning
Focus on variables	Focus on interactive processes, events
Reliability is key	Authenticity is key
Value free	Values are present and explicit
Independent of context	Situationally constrained
Many cases, subjects	Few cases, subjects
Statistical analysis	Thematic analysis
Researcher is detached	Researcher is involved

Source: Neuman (1997)

Each of the methods possesses its own strengths and weaknesses, illustrated in Table 4.3. The distinguishing feature of quantitative evidence is the manipulation of numbers in the data, while in qualitative research, it is the analysis, development and manipulation of concepts. The majority of quantitative analysis is based on coding groups of words in surveys, meaning giving numbers to concepts. Thus, quantitative methods deal with the counting of concepts, which eventually must be interpreted into meaningful words. On the other hand, qualitative research has been summarised as having a concern with a certain experience as it is 'felt' or 'lived' or 'undergone' (Sherman and Webb, 1988). Qualitative techniques develop theories inductively from the data, but only test theories in a limited way, while quantitative methods are intended to test and explore existing theories through new data.

Table 4.3 Strengths and Weaknesses of Quantitative and Qualitative Methods

	Quantitative	Qualitative
Strengths	Relatively quick	Greater accuracy
	Cheap	Provides facts
	Simple	Results more detailed
	Offers useful overview	Greater scope for prediction
	Helpful as prelude to qualitative	Margin of error can be calculated
Weaknesses	Subjectivity	Slower
	Higher levels of interpretation skill	More expensive
	Statistical accuracy can be reduced	More complicated
	Greater chance of bias through difficult interpretation of results	Computer analysis often required
		Low response rate
		Closed questions tend to force answers into limited categories

Source: Marsh (1988)

One major difference between these methods is the manner in which they deal with analytical categories. The qualitative methods approach the research more openly, and only categorise and define data during the research process. The quantitative technique isolates and defines categories before undertaking the study, and then determines with greater precision the relationship between the categories in the light of the data accumulated. Another difference is the number of subjects taken by these methods. In qualitative studies, the sample could be as few as four or six, while in quantitative studies the sample is much larger. Because in quantitative research a study requires a sample containing the appropriate number of subjects, so the results can be generalisable (McCraken, 1988).

Both qualitative and quantitative are scientific research designs. The difference between the two gives us a choice when choosing a research method that is applicable to our study situation. Each has its strengths and limitations as summarised in Table 4.3. Some researches require quantitative methods; other researches have the attributes of quantitative methods. They are both good methods when applied to the correct situation.

Some researchers believe that the two methods are opposed to each other. Levine (1993) calls quantitative social science, "real social science". He believes that it "won the battle" against other methods. Denzin and Lincoln (1994) argue that qualitative research has expanded greatly and it is rapidly displacing outdated quantitative research.

4.5.2.7 Combining Quantitative and Qualitative Research: Triangulation

Quantitative and qualitative research have been discussed as if they were quite distinct. Logically that is true. But sometimes in the course of doing research they get intertwined. Many researchers have managed to benefit from both methods. Neuman (1997) suggests that one should understand both methods and then use them to complement each other. Morvaridi (1998) states that quantitative and qualitative research "can be integrated or used together." A combination of quantitative and qualitative research can be beneficial in some studies. There are some similarities between the two methods which make them interrelated. These include (Neuman, 1997):

- Both styles of research involve inference (they examine empirical data to reach a conclusion).
- Both forms of analysis involve a public method or a process (they both collect, describe, examine data and document them).
- Both styles use comparison as a central process in analysing data.
- Both researches strive to avoid errors and false conclusions.

With these similarities, we can see that both researches aim to arrive at "pure and good" knowledge, and both exist under the umbrella of scientific research. In addition, their differences discussed earlier can benefit the researcher when combining these two methods. These differences help us discover aspects that might not have been covered through one method, and each method separately has its

drawbacks. A researcher can combine methodologies in the study of the same phenomenon, and this is known as *triangulation*. Jick (1979) stressed that triangulation purports to exploit the strengths and, neutralise, rather than compound, the weaknesses of each single method. Triangulation can offer a more complete and contextual portrayal of the topic under study. It is often used to strengthen the validity of the study (Baker, 1999).

This can be done because the researcher has one objective. That is to arrive at new knowledge. When using a single method, some unique variance may be overlooked. Bryman (1989) suggests that social scientists are likely to show greater confidence in their findings when they are the products of more than one method of investigation. Many other researchers find this to be effective in the study of the same phenomena. A combination of methods is recommended to emphasise the findings of the research. Glaser and Strauss (1967) state that qualitative and quantitative data together allow a synergistic view of the evidence, and provide supplementary and mutual verification of the same subject.

One major benefit when combining these methods is that the knowledge that we arrive at is more valid. This validity comes from double testing. This means one method emphasises another method. Advocates of triangulation argue that more than one method should be used in the validation process to ensure that the variance reflected is that of the trait and not of the method. Therefore, the convergence or agreement between the two methods enhances our belief that the results are valid and not a methodological artefact (Jick, 1979).

The quantitative method tests only the variables that it made inquiry into. This will make it difficult to find any unexpected relationships in the research. In the qualitative method, the researcher has a closer relationship with the subject or informant. This will allow room for discovering factors that might not have taken into account beforehand, for example beliefs and values that are brought in from society. If a researcher combines both methods, the benefits will be greater. For example, the researcher could get to know the problems within the research environment through qualitative research, then follow it up with quantitative research to make sure that these problems exist on a broader base. Another example, the researcher can start with quantitative research, gather data that back up the hypotheses, and then follow it up with an unstructured focus group study to discuss the reality of the results, using the qualitative method. Either of the above will enhance the validity of the research results. Triangulation is an attractive and appropriate research strategy that can lead to better results when it suits the research topic.

Aly's (1997) research used triangulation as a research method. The Aly study will be used as a reference for this particular study. His work investigated the critical factors that relate specifically to the successful implementation of TQM in industry in the Middle East, and used a mixture of qualitative and quantitative methods.

4.6 Nature of Research in TQM in Healthcare

The concept of TQM is sweeping the world. TQM has managed to travel from one organisation to the next nationwide regardless of sector. It began in the product industry, moving rapidly into the service industry. Today, TQM is essential in healthcare. It is changing how we manage and provide the healthcare service. There is

no doubt that TQM has gained strong acceptance worldwide in the healthcare industry (Sherman and Malkmus, 1994; Bigelow and Arndt; 1995; Brannan, 1997). This is due to the many benefits which TQM promises to deliver, such as quality patient care, improved patient satisfaction, lower costs of services, and higher morale among employees. The wide range of research questions generated by this complexity has encouraged the search for new ways of conducting research

The research in TQM has gained prominence in the health management literature in the past five years (Bigelow and Arndt, 1995). Bigelow and Arndt did a study on the amount of research done in healthcare. They found a considerable body of literature that shows the benefits and the necessity of implementing TQM in hospitals, but they found that there were very few data confirming such claims as improved performance, quality, or competitiveness. In addition, they found that no comparative research had been published, and the few exceptional case studies were anecdotal. Shortell (1994), too, stated that there had been few empirical studies of TQM implementation efforts in healthcare.

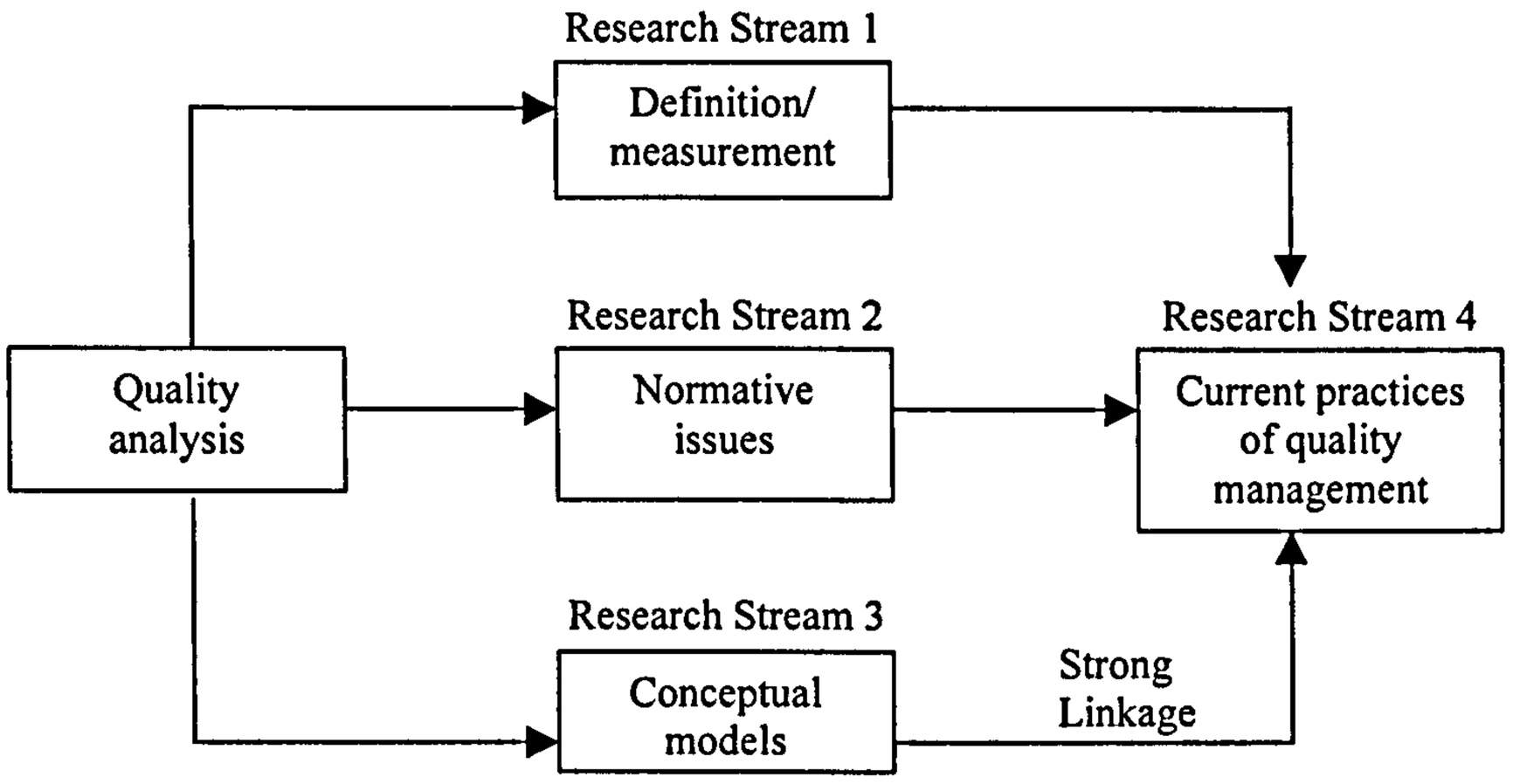
The literature review presented in the earlier chapters revealed that there is a lack of research and theory in TQM in healthcare. The literature indicates that there is generally a lack of knowledge about the major factors that influence the TQM implementation process and how these factors should be addressed and managed in a healthcare organisation. The literature also revealed that there are both failures and successes in TQM implementations in healthcare.

In the case of TQM, the level of scientific rigour and objective empiricism that has been used so far is aimed at a better understanding of a complicated, fast-changing, multi-disciplinary, multi-faceted management concept (Aly, 1997). In healthcare, both the quantitative and qualitative methods are popular. The literature in the area of TQM in healthcare can be grouped into four research streams (Motwani et al., 1996):

- Research stream 1 deals with the definition and overview of quality management in the healthcare sector.
- Research stream 2 covers the entire gamut of normative studies done by practitioners. They deal with the importance of TQM to the functional areas and the overall organisation.
- Research stream 3 is concerned with developing conceptual models for assessing and implementing quality management strategies.
- Research stream 4 is the culmination of all research done in TQM, which deals with the assessment and successful implementation of current practices of quality management by healthcare organisations. Most of the research under this stream is done through field studies, questionnaire surveys, or case studies.

The interrelationships among the four streams of research are illustrated in Figure 4.1. This research will contribute to research stream 4.

Figure 4.1 Theoretical Model of Research Streams



Source: Motwani et al. (1996)

4.7 Research Methodology Selection

The research objective in this study is to understand the approach of Total Quality Management (TQM) implementation in healthcare in the Kingdom of Saudi Arabia (KSA), and to recommend a proposed model for effective adoption and implementation. This research is concerned with assessing the level of TQM perception and understanding in the KSA healthcare system. Also, it is concerned with studying the approach completeness, degree of maturity, and effectiveness of TQM programmes in hospitals in the KSA.

The choice of methodology depends on the purpose, the objectives, the process of investigation, and the desired outcomes. According to Downey and Ireland (1979), the appropriateness of methodologies cannot be determined until they are applied to a specific research problem. They believe that this perspective treats methodology as a

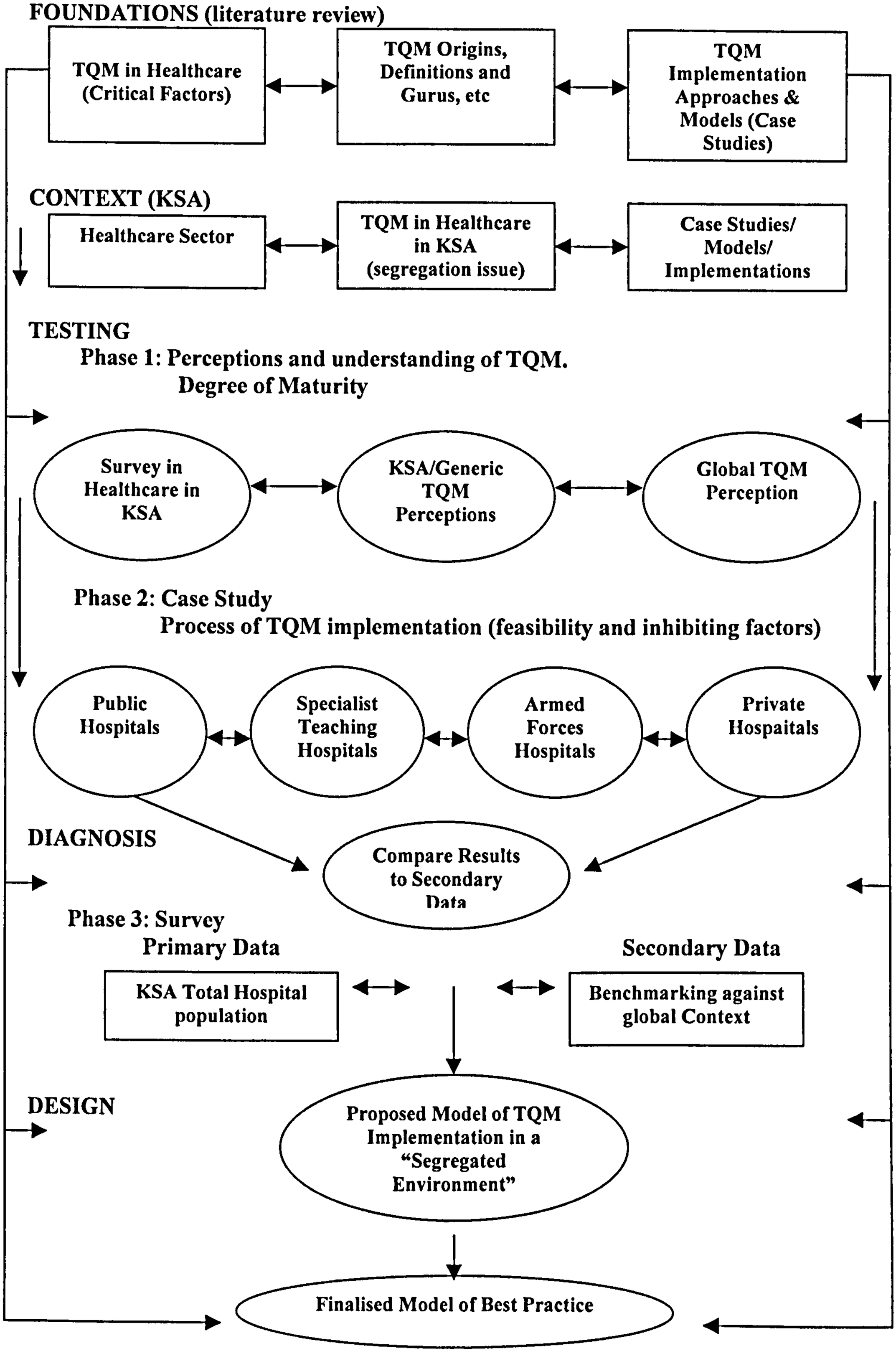
tool of inquiry and each inquiry requires careful selection of the proper tools. They added that having the wrong tool for the research is like having no tool at all. Ultimately, the best choice of methodology will be governed by the above criteria, the level of scientific sophistication of the research topic, and the extent of knowledge and comprehension of the subject at hand. As a researcher, I believe that the investigator should use the appropriate method for the right research problem and there is no one correct way, but he/she should be ready to answer any questions regarding his/her choice.

4.7.1 Selected Methodology

The research design shown in Figure 4.2 illustrates the stream of this particular study. The study will employ a triangulation research strategy in which both quantitative and qualitative research techniques are implemented at different phases of the research.

The research strategy will be based on the combination of two approaches. In the first phase, the survey method will be used to establish levels of understanding and perception of TQM of the different hospitals in the KSA to measure the degree of TQM maturity. In the second phase, the case study method will be employed to assess the approach adopted in the TQM implementation process in certain KSA hospitals. In addition, a closer look will be given to the feasibility and inhibiting factors of various TQM programmes in the selected hospitals. In the third phase, the results of both methods will be benchmarked against primary and secondary data from regional hospitals, and global hospitals where the results can be comparable. A more detailed explanation will be given in the next section.

Figure 4.2 Research Design



4.7.1.1 Phase One – Survey Strategy

As illustrated in Figure 4.2, Phase one consists of the perception and understanding survey. The objective of this survey is to assess the level of perception and understanding of TQM principles among a sample of hospital staff working in the KSA, taking into account the male and female population. The unit of analysis is the hospital employee. Afterwards, a comparison is made of the same category of hospitals and between different categories. This will be followed by external benchmarking analysis using secondary data from the literature review.

The survey method is the most widely used method in social science research. As previously shown in Table 4.1, the first step in the designing and planning phase is deciding the type of survey. There are four types of surveys. They are self-administered surveys, mail surveys, telephone surveys, and face-to-face interview surveys. This study uses a self-administered questionnaire for the following reasons:

- To increase the response rate since personal follow-up will take place.
- To gather feedback more rapidly.
- To have more access to various organisational levels to obtain clusters of opinions.

The questionnaire method, despite its limitations in the context of TQM studies, will be useful in this study because the objective of the researcher is not to establish direct correlations or causality. According to Bennett (1987), analytical surveys may enable the researcher to establish relationships between the variables involved. They do not demonstrate how they are related. In addition, they do not tell us anything about the nature of causality. The use of highly controlled case studies or experimental research design can be used for such issues.

1. Instrument Used

The second and third step in the Design and Planning Phase of survey research shown in Table 4.1 is developing the survey instrument and planning a system for recording answers. Both of these steps were already accomplished, because this study adopted a questionnaire from the work of Ramirez and Looney (1993). This questionnaire was adopted to measure the degree of understanding and perception of TQM in the hospitals in the KSA. It was adopted for three reasons. First, the questionnaire is simple to use in recording answers and has simple measurement scales. Second, its validity has been established in TQM research, as was discussed in the literature review in Chapter Two. Lastly, the wide usage of the questionnaire gave the researcher the opportunity to compare and benchmark the results of the survey to different geographical areas worldwide to establish any cultural influences. This will be demonstrated in Chapter Six.

According to Youssef and Zairi (1995), the list of 22 factors generated by Ramirez and Looney (1993) proved to be a very useful vehicle for checking applicability, order of criticality, and relevance of TQM in a much wider context. The Youssef and Zairi (1995) study deals with the empirical analysis of the TQM critical factors that were used in the Ramirez and Looney questionnaire in different regions of the world (UK, Middle East, Malaysia, and Singapore). Their project was an attempt to verify the applicability of a list of 22 critical factors based on the Malcolm Baldrige National Quality award criteria and the teachings of three TQM gurus to organisations operating on a global basis.

On making the decision to adopt the survey questionnaire of Ramirez and Looney (1993), it was recognised that not all hospital employees spoke English. Thus a translation of the questionnaire had to be made into Arabic. This was somewhat difficult, because a literal translation did not give the same meaning and the researcher did not want to lose the meaning. It was important to maintain simple and understandable words because this questionnaire was to be administered at all levels of the organisation to staff with different levels of literacy. Thus the questionnaire was translated into Arabic and checked for translation pitfalls using 'back translation' procedures by five independent bilingual researchers from King Saud University.

The next step in the Design and Planning Phase was to pilot test the instrument (Table 4.1). According to Neuman (1997), the pilot test "takes more time and effort, but it is likely to produce reliable measures". Also, it helps to find during the planning stage "alternative explanations or threats to internal validity and how to avoid them". A pilot test was conducted in the KSA on twenty colleagues familiar with general management concepts and some with TQM concepts in particular, and with strong language skills in Arabic. Included in the pilot sample were people from the hospital, the university, and employees from the TQM department, to arrive at different levels of opinions. The results from the respondents in the pilot showed no signs of confusion or questions that needed further clarification. After piloting the translated version, a final version was reached.

Since the hospital environment in the KSA consists of multi-national personnel, it would normally be necessary to distribute two versions of the questionnaire, one English and one Arabic. Instead, the researcher decided to present the questionnaire

with the two languages side by side on the same page to make it convenient for the respondent to have the choice of languages. Also, the researcher saved space and time in the coding process by having only one space for the responses to questions in both languages. The researcher believes this is a new and creative method that the researcher had not seen before. An explanatory cover letter was than attached to each questionnaire to assure confidentiality, motivate the employees to respond and appraise their knowledge and expertise. The questionnaire can be referred to in Appendix A. This researcher went through certain necessary steps before the administration of the questionnaire. First, there was a need for the questionnaire to be approved by the researcher's sponsor, the University of King Saud, Riyadh, KSA. Second, an approval letter from the KSA Ministry of Health was needed for the administration of this questionnaire because of certain laws of the country. This letter was then faxed to all hospitals in the KSA for them to expect the researcher to visit their hospital and to cooperate with the research process.

2. Sample Strategy

The last step in the first phase of survey research is to draw the sample (Table 4.1). Sampling is described as the "process of systematically selecting cases for inclusion in a research project" (Newman, 1997). By studying the sample and understanding the characteristics of the sample subjects, the properties can be generalised to the population elements (Sekaran, 1992). Therefore, sampling considerations are important in ensuring the validity of the research.

There are two groups of samples. Probability samples are those that are based on the principle of randomness, and non-probability sampling are those that are not

(Neuman, 1997; Baker, 1999). Probability, random samples include Simple, Systematic, Stratified, and Cluster. Non-probability samples include Haphazard, Quota, Purposive, and Snowball. The definitions of these samples are shown on Table 4.4.

Table 4.4 Types of Samples

Nonprobability	Probability
Haphazard: Select anyone who is convenient.	*Simple:* Select people based on a true random procedure.
Quota: Select anyone in predetermined groups.	*Systematic:* Select every *k*th person (quasi-random).
Purposive: Select anyone in a hard-to-find target population.	*Stratified:* Randomly select people in predetermined groups.
Snowball: Select people connected to one another.	*Cluster:* Take multistage random samples in each of several levels.

Source: Neuman (1997)

The target sample for the survey in Phase One of the research should represent the employees of larger hospitals in the KSA. The larger hospitals were concentrated on because they were thought to have better experience with TQM. The better experience comes from the extra governmental funding and the quality laws enforced upon larger hospitals. Thus, a definition of what constitutes a large hospital had to be reached. A large hospital is a hospital with a bed capacity of more than 200. Taking into account all hospitals in the KSA, there were 303 hospitals in the kingdom (Alharthy et al., 1999). The majority of these hospitals were smaller hospitals (under 200 beds). A list of all KSA hospitals with more than 200 beds was obtained from the MOH statistics department. This list included 70 hospitals. Nine hospitals were

selected randomly from the seventy using a simple computer program. This made up 13 % of large hospitals. The list also indicated there were four types of hospitals in the KSA. They are public hospitals, private hospitals, specialist hospitals, and armed forces hospitals. The following hospitals were selected randomly from the list:

Public Hospitals

- Riyadh Central Complex
- King Khalid University Hospital, Riyadh

Private Hospitals

- Saudi German Hospital, Jeddah

Specialists Hospitals

- King Faisal Specialist Hospital and Research Centre, Riyadh
- King Khalid Eye Specialist Hospital, Riyadh

Armed Forces Hospitals

- King Fahd Hospital/ The National Guard Hospital, Riyadh
- Ministry of Defence and Aviation Armed Forces Hospital, Riyadh
- Ministry of Defence and Aviation Armed Forces Hospital, Tabouk
- Internal Affairs Hospital, Riyadh

At this stage, each of the above hospitals' administration was visited. During the visits, there was an attempt to distribute the questionnaires randomly to hospital employees. This attempt was refused by all hospitals because it was considered time-consuming and costly. Another attempt was to choose a random sample of all departments and self-administer the questionnaires to the selected department employees. The decision to select random departments was made because within a

department there is a good representation of all different levels of literacy in the hospital, such as physicians, nurses, technicians, helpers, etc.. The representation of different levels within each hospital hierarchy was critical in this study. The senior management of each of the selected hospitals approved this type of quesstionnaire distribution. The public relations department and the researcher were in charge of administering the survey of the randomly selected departments in the hospitals.

At this point, there was a need to determine the number of questionnaires to be distributed. According to Neuman (1997), a researcher's decision about the best sample size depends on three things:

1. The degree of accuracy required.
2. The degree of variability or diversity in the population.
3. The number of different variables examined simultaneously in data analysis.

Another principle that helps in getting an accurate and good sample size is the smaller the population, the bigger the sampling ratio has to be, and the larger the populations, the smaller the sampling ratio has to be (Neuman, 1997).

Keeping the above sample size principles in mind, this research is looking for an overall perception and understanding of TQM among KSA hospital employees. This type of study is not looking for specifics but rather it is looking for an overall general idea of the level of TQM understanding among hospital employees in the KSA. An approximate number of all employees working in the seventy larger hospitals (hospitals with more than 200 beds) was given by the statistical department of the MOH. This amounted to approximately 65,000 employees. The large number of

employees allowed the researcher to get a representative smaller sample. Applying the above principles to the objectives of study, a decision was reached of 650 questionnaires to be distributed.

After selecting random departments for each hospital, the second phase of survey research, the Data Collection Phase began (Table 4.1). The first step in this Phase was to locate and contact respondents. The researcher, with an approval letter from the hospitals' top management and the help of the public relations department, set an appointment with the selected department heads and visited them. During the visit, the objective of the survey was discussed and the department heads were asked to help in encouraging all their employees to respond to the distributed questionnaires. Steps two, three, and four of the phase 2 were met during these department visits (Table 5-1). Afterwards, personal follow-up calls were made to department heads to encourage their employees to respond. These calls were made to increase the response rate. According to Baker (1999), nearly all surveys, which are series in nature, follow up the initial questionnaires with two or three telephone calls to increase the overall response rate. The return time of the questionnaires varied from one department to another. The first part of the last step in the Data Collection Phase was to end the collection. The researcher decided to end the data collection after a four-month period because of time constraints and the likelihood that more questionnaires would be returned diminished.

Social researchers disagree about what constitutes an adequate and respectable response rate (Neuman, 1997; Baker, 1999). According to Neuman (1997), 'adequate' is a judgement call that depends on the population, practical limitations, the topic, and

the response with which specific researchers feel comfortable. Most researchers consider anything below 50 % to be poor and over 90 % as excellent. Baker (1999) believes with a carefully selected sample, a researcher would hope to have a 70 % response in order to feel confident that the respondents were largely representative of the sample. In this sample, out of the 650 questionnaires distributed, 380 were returned. This made a 58 % return rate which the researcher thought was adequate.

3. Analysis Method

The last step in the Data Collection Phase was to organise the data (Table 4.1). After receiving the completed questionnaires, the answers of each respondent were organised and coded into the Statistical Package for Social Sciences (SPSS) for PC, and analysed using the techniques available in the SPSS/PC package. The analysis used descriptive measures: frequencies, means, and tabulations.

4.7.1.2 Phase Two - Case Study Strategy

While the survey method in this study was used to answer who, what, where, how many, and how much, the case study method was used to answer the how and why. This research project is concerned with TQM implementation in healthcare in the KSA. The researcher's objective was to examine in detail the approach to TQM implementation and its degree of effectiveness in a sample of carefully selected hospitals, and to compare and contrast the existing applications of TQM in KSA hospitals against criteria of more successful applications, taking into consideration the cultural differences, such as the sex segregation factor. The case study approach offers many advantages in this particular context. They are as follows:

1. TQM implementation is not pervasive in the KSA and therefore the case study approach would appear to be the only avenue available.
2. Access is not a problem and information can be obtained because the researcher has connections in the Health Ministry.
3. The researcher is a Saudi female (a local). This can help in reaching an understanding in problems of culture, for example communications and teamwork in a sex-segregated country.

It is therefore important to remember that the research is very exploratory in nature and the phenomenon under investigation (TQM implementation) is quite complex and does not have uniformity. The case study method is a powerful methodology for studying complex phenomena such as TQM implementation.

1. Assessment Used

The case study method in this research studied an integrated, whole approach to TQM implementation without specifically focusing on individual approaches. Therefore, this research used an already established framework for the implementation of TQM in the healthcare sector, the 'Baldrige National Quality Program: Health Care Criteria for Performance Excellence'. This validated and agreed-upon tool uses key factors which drive a quality management programme and form the basis for successful TQM implementation. As discussed in Chapter Two, this validated tool (Saraph et al., 1989; Porter and Parker, 1992; Black, 1993; Flynn et al., 1994; Ahire et al. 1996) involves examining the organisation against 19 items and 27 sub-items, covering seven key areas associated with business excellence. The criteria proved to be successful in raising the awareness of quality within US businesses, and is

increasingly being used with positive results by healthcare organisations (Freer and Jackson, 1998). The primary value of the Baldrige lies in the process; that is, in using the criteria set as a roadmap and trying to meet each of them (Loomba and Johannessen, 1997). The researcher used the Baldrige assessment tool as a guide to assess the degree of systemisation and to highlight the critical and inhibiting factors. Also, to document types of benefits achieved against the degree of maturity of TQM, four factors were concentrated on: culture, patient satisfaction, cost, and top management commitment. This allowed greater understanding of the level of quality in the case studied hospitals, and preparing for future benchmarking against successful hospitals globally. The Baldrige assessment tool can be referred to in Appendix B.

2. Case Study Hospitals

The unit of analysis in the case study phase is the hospital. Eight hospitals were selected by the researcher to be studied. Four of them are located in the KSA, two in the UK, and two in the USA. The UK and USA hospitals were studied to benchmark the Saudi TQM hospital experience to a more advanced country experience such as that of the UK and USA.

The researcher selected the case study Saudi hospitals from the sample in Phase one. The selected hospitals covered four different types of hospitals:

- A specialist hospital
- An armed forces hospital
- A public hospital
- A private hospital

Also, the researcher selected two UK hospitals and two USA hospitals.

3. Interviews, Observation, and Documentation

The interview, participant and direct observation, and documentation are common types of data collection in qualitative research. These data collection methods are used as essential sources of information for the case studies in this research. The strength and weaknesses of these sources of evidence in the case studies are shown in Table 4.5.

Yin (1994) stresses that the interview is one of the most important sources of information for case studies. Interviews in case studies may take several forms, such as open-ended, focused, or a formal survey. The most common interview used in case studies is the open-ended. In an open-ended interview, the interviewer can ask the respondents for the facts as well as for their opinions about events.

The nature of the Baldrige assessment that was used in the case study phase to satisfy the research objectives suggested that an interview approach should be used. Open-ended interviews were used in the Saudi and UK case studies to understand and assess the process of TQM implementation. This type of interview was selected because the interviewer could use the Baldrige assessment as the guideline and allow room for interviewee opinions, thoughts, and any extra information.

Face-to-face interviews were chosen because they are intimate, and the interviewer interacts directly and develops rapport with the interviewee. Oppenheim (1999) believes that face-to-face interviews are generally better at obtaining satisfactory

Table 4.5 Sources of Evidence for Case Study Research

Source of Evidence	Strengths	Weaknesses
Documentation	• Stable- can be reviewed repeatedly • Unobtrusive- not created as a result of the case study • Exact- contains exact names, references, and detail of an event. • Broad coverage- long span of time, many events, and many settings	• Retrievability- can be low • Biased selectivity, if collection is complete • Reporting bias- reflects (unknown) bias of author • Access- may be deliberately blocked
Archival Records	• *Same as above for documentation* • Precise and quantitative	• *Same as above for documentation* • Accessibility due to privacy reasons
Interviews	• Targeted- focuses directly on case study topic • Insightful- provides perceived causal inferences	• Bias due to poorly constructed questions • Response bias • Inaccuracies due to poor recall • Reflexivity- interviewee gives what interviewer wants to hear
Direct Observation	• Reality- covers events in real time • Contextual- covers context of event	• Time-consuming • Selectivity- unless broad coverage • Reflexivity- event may proceed differently because it is being observed • Cost- hours needed by human observers
Participant Observation	• *Same as above for direct observation* • Insightful into interpersonal behaviour and motives	• *Same as above for direct observation* • Bias due to investigator's manipulation of events
Physical Artefacts	• Insightful into cultural features • Insightful into technical operations	• Selectivity • Availability

Source: Yin (1994)

response rates, because the presence of the interviewer makes it socially difficult for interviewees to refuse to respond. Also, during the interview, questions and answers can be further clarified. Some disadvantages associated with face-to-face interviews are that they are time-consuming and expensive, the interviewer may influence the response of the interviewee (Oppenheim, 1999), the interviewee can of course tell lies or respond in a socially acceptable way to make a good impression or to satisfy good self-image or to please the interviewer as the think. Also, the data involved are more difficult to summarise and analyse (Moser and Kalton, 1971).

The questions in the interview should be understandable to the respondent, otherwise they lose their effectiveness. The rationale behind the interview is to allow the subjects to describe in their own words their particular experience and identify their attitudes. The only way to find out about the subjects' beliefs, attitudes and perceptions is to ask them directly. When the interview responses are put together with the interviewer observation, than a better understanding of the matter at hand can be reached. In this study, the researcher followed five principles to be a good interviewer (Baker, 1999). They are:

- Understand the interview material.
- Make a commitment to complete the interview.
- Practise enough to feel confident and comfortable with the interview.
- Try to reduce the effects your personal qualities may have on the interview situation.
- Use common sense in dealing with potentially difficult situations.

Also, by making a field visit to the case study site to do the interviews, the researcher used the opportunity for direct observation. Yin (1994) believes, "such observations serve as yet another source of evidence in a case study". The researcher observed the systemisation of the hospital, conditions of buildings, workspace, sidewalk activities, patient's movement, nurse's politeness, and the like. This observational evidence was useful in providing additional information about the studied topic.

Keeping in mind that this research was exploratory in nature, the researcher decided to use purposive sampling in the case studies. This kind of sampling which is avoided in serious quantitative research (Neuman, 1997) was an acceptable kind for this qualitative research. Purposive sampling is appropriate in three situations (Neuman, 1997). They are:

1. A researcher uses it to select unique cases that are especially informative.
2. A researcher uses it to select members of a difficult-to-reach, specialised population.
3. A researcher wants to identify particular types of cases for in-depth investigation.

Three interviews were conducted for each hospital. The selected sample of interviewees included the people who were thought to have and could provide the most information about the hospital. These were people in middle or top management positions. These managers would have an overview of the hospital activities. In each hospital, the researcher interviewed the 'person' in charge of the quality department of the hospital. The second and third included other department heads or top management officials.

The interviews took place on the actual site of the hospital, and All were conducted in the offices of the interviewee. This provided the interviewee with a comfortable and relaxing environment. Although there were constant interruptions from their secretary and their telephone, they felt comfortable and satisfied that they were accomplishing their work during the interview. The duration of the interview was between two to three hours. Appointments were set before each visit to take into account the time of the interview because these interviewees were very busy people. In some hospitals, the researcher had to stay more than five hours because the interview was often interrupted.

All through the interview, the researcher asked for documented evidence of what was being said. This was to ensure that what was being said is true. Some evidence was given and other was seen.

4. Coding and Data Analysis

The coding was accomplished by categorising the data. The data were grouped together under the headings of the Baldrige assessment. These headings include: leadership, strategic planning, focus on patients and other customers, information and analysis, staff-focus, process management, and organisational performance results. Categorisation of data allowed interpretation which may be difficult to achieve if cases were presented randomly (Strauss and Corbin, 1990). The data were read and re-read to enable concepts to emerge. Data analysis is carried out to reduce, organise, and give meaning to the data. It is the process of bringing order to the data and organising the data available into patterns, categories and basic descriptive units. Interpretation involves connecting meaning and significance to the analysis,

explaining descriptive patterns, and looking for relationship and linkages among descriptive dimensions. The Baldrige assessment will give certain guidelines and organisation to the data encountered. The analysis of the data from the case studies was conducted in two ways. First, individual case analyses by presenting a descriptive summary of each case (Chapter Seven). Then, cross-analysis to deepen the understanding and explanation of the cases (Chapter Eight).

4.7.1.3 Phase Three: Benchmarking results

The US experience with TQM is much greater than that of other countries, and the researcher wanted to benchmark against the best. In 1999, Newsweek magazine surveyed US hospitals and published a list of the best fifty. The researcher used this list to contact by telephone the quality person in each hospital. The telephone calls were long and expensive. They were long because the researcher did not know the quality person and therefore a search through the operator had to take place. Many times, there were miscommunications, and other times, the quality person was not available. These telephone calls were also expensive because they were long-distance calls. During the telephone call, the researcher introduced herself and explained her objective and asked for some type of co-operation in sending the information. Many responded by asking for a formal letter listing what was needed, and others responded by saying they needed to ask their superiors.

A follow-up personalised letter on Bradford University headed paper (Appendix C) was mailed to each of the quality 'persons' whom the researcher contacted. The letter basically asked for his/her TQM experience and assessments. Nine hospitals wrote back to say that the information was confidential and could not be sent. Only two

hospitals responded. The information received from these hospitals did not compose complete case studies. Therefore, the researcher decided to use the information that was received to compose incomplete case studies. Thus, the benchmarking was done completely between the UK hospitals and the KSA hospitals, and incompletely with the US case studies. The rest of the US hospitals did not respond. From those hospitals that responded, the earliest response was received after three months.

The strategy used by the researcher to get documentation for the US case studies was not sufficient. One apparent reason is the long distance between the researcher and the hospitals, which made contacting the hospitals more difficult. The researcher believes that with more telephone calls and follow-up letters, there might have been an increase in the response rate. The long return time of those that responded was another disadvantage. This was due to many reasons, among them are:

- The overseas mail process.
- 80% of the 'quality' persons contacted in the US hospital said that they would have to go through committees to get the researcher's request approved.

Another reason for the low response rate is that many hospitals were reluctant to send information because of confidentiality issues.

There are valuable learning lessons from this experience, which might have increased the responses of the US hospitals. These were already mentioned in the literature as factors in increasing response rates for questionnaires. These include:

- Total confidentiality.

- Follow-up telephone calls and letters.
- Visiting the sites.

4.8 Summary

This chapter attempts to give a detailed scenario of the methodology for this research project. It started with giving an overview of two major components which the disciplines of scientific research rest on. They are theory and empirical research (Aaker et al., 1995, Nachmias and Nachmias, 1996). Establishing a systematic connection between these two components enhances the goals of social science. The choice of methodology is the most important choice in the research design. There is no right or wrong methodology, but the researcher should look for the most beneficial method available. In theory, the choice of methods depends on the nature the of research problem. Both quantitative and qualitative research methods share the purpose of cultivating knowledge (Field and Morse, 1990), but each has its special way of reaching that knowledge. The choice among these methods should be made with careful assessment, because they produce different kinds of data that serve different research issues. Sometimes, these methods are combined in research to reach better results.

The research objective in this study is to understand the approach of Total Quality Management (TQM) implementation in healthcare in the Kingdom of Saudi Arabia (KSA), and to recommend a proposed model for effective adoption and implementation. The research strategy is based on the combination of two approaches. In the first phase, the survey method is used to establish TQM levels of understanding and perception among employees of different hospitals in the KSA to measure the degree of TQM maturity. In the second phase, the case study method is employed to assess the approach adopted in the implementation process of TQM in certain KSA hospitals. In addition, a closer look is given to the feasibility and

inhibiting factors of various TQM programmes in the selected hospitals. In the third phase, the data results of both methods are benchmarked to primary and secondary data from regional hospitals and global hospitals where the results can be comparable. This strategy has been successfully used before in the study by Aly (1997), "Best Practice TQM Implementation: A Proposed Implementation Model for the Middle East Context".

Chapter Five

TQM Perception and Understanding:

An Empirical Study

5.1 Introduction

This chapter seeks to assess the degree of understanding and perception of TQM in healthcare organisations in the KSA by ranking a list of 22 factors critical to a successful TQM implementation. Most of these factors have been derived from the literature and have been identified as critical in the implementation process by the quality gurus and other quality experts from best practice world-class organisations (Aly, 1997). These factors are essential for the success or otherwise of any quality initiative of any organisation.

Throughout the world, managers have attempted to adopt the philosophy of TQM mainly because of Japan's success in applying TQM principles. Since the 1950's, Deming and Juran have advocated that quality is a primary basis for achieving a competitive advantage for all organisations. Developing countries have started to realise the importance of quality in the global market and thus began to use quality as their competitive advantage. Today, there is great pressure on organisations in developing countries to implement TQM, and managers are having difficulty in dealing with this pressure. International managers are faced with the challenge of implementing TQM in various cultures. These cultures have their own traditions, customs, values, and religions, which might have some effect on the implementation of TQM. In the Kingdom of Saudi Arabia, gender segregation is an important culture

attribute that needs to be taken into consideration when implementing the TQM philosophy. Managers need to understand the attributes of the national culture before attempting to implement TQM in any organisation. Research has found that national culture is one of the most significant factors that affect the long-term success of implementing TQM (Fiorelli et al., 1994).

The purpose of this chapter is to discuss the perceptions, level of awareness and understanding of TQM implementation in the healthcare arena in the gender segregated and developing country of Saudi Arabia. A comparison of the survey results will be made against the developed country of the USA and other developing countries. The analysis of the survey results was based on the Majority Rule. The discussion of the results will cover the following:

- Presentation of the original study, the Control Sample (USA).
- Presentation of the KSA healthcare study.
- Comparison between the Control Sample and the KSA healthcare study.
- Presentation of the male and female gender results.
- Comparison of the gender results against the control sample.
- Presentation of the various hospitals results.
- Comparison of the various hospitals results against the control group.
- Comparison of the KSA healthcare study against samples from other developing regions of the world.

5.2 Original Study/ Control Sample

Ramirez and Loney (1993) carried out the original study to identify activities that are critical to the success of TQM implementation. They asked national quality award winners and quality consultants such as Deming, Crosby, and Juran (Youssef et al., 1995) to identify the critical steps necessary for successful quality improvement processes. The first purpose of the Ramirez and Loney (1993) research was to find the activities indispensable for a successful quality process. They asked, what steps must organisations include in a successful quality process and in what sequence? Secondly, the researchers wanted to develop a method that would prevent organisations from wasting resources in the quality improvement process. Finally, the researchers wanted to provide organisations with a quality programme with a tool to assess their own quality programme.

5.2.1 Data collection process for original study

The Ramirez and Loney (1993) survey targeted ninety-two organisations, including:

- Winners of the Malcolm Baldrige National Quality Award
- Winners of the Presidential and Prototype Quality Award
- Winners of the NASA Q&E George M. Low Award.

The questionnaire listed 22 factors in different areas in the quality improvement process. Respondents were asked to rank each factor either as "most critical to a successful quality improvement process" (first tier), or as "important but not essential to this process" (second tier), or as "non-critical in this process" (third tier). The

response rate to the questionnaire was 68 %. Respondents included 37 quality award winners and 26 quality consultant firms (Youssef et al., 1995).

The methodology used was the majority rule. This is a crude and not very scientific method, but it does offer an acceptable way of assessing the means by which an organisation understands the principles of TQM (Aly, 1997).

5.2.2 Results of Original Study

The results shown in Figure 5.1 and Table 5.1 reveal that items in the first tier were items that are usually classified as falling under the sole jurisdiction of top management. The study concluded that management commitment, customer satisfaction, and a clear vision and mission statement were critical to any quality improvement process. Thus, the success or failure of a quality improvement process depended in a significant way on what happened regarding management commitment and its support activities in improving quality. These activities include having a top management steering committee with a clear goal that drives the quality process through the changing of the organisation culture and educating of the employees. Also, taking a strategic quality planning approach in coming up with appropriate quality policies for the organisation, and using a participative management style in managing business activities.

The second tier consisted of items that can be categorised as tools and processes used in the quality process at the line-worker level in the organisation. The third tier represented items that would not seriously affect the success or failure of the quality process (Ramirez & Loney, 1993). Interestingly, the three lowest-rated items are

among the most important tools according to the leading TQM experts in the USA. Deming (1989) stresses Statistical Process Control (SPC) as one of the most important improvement tools. Both Crosby (1979) and Juran (1988) strongly advocate calculating the cost of quality. Also, Crosby (1979) invented the Zero Defect Attitude Concept. The results illustrated in Figure 5.1 and Table 5.1 show that:

- Top management commitment is essential for TQM to be introduced successfully. This includes supporting activities such as setting policy, creating a vision, and being involved in the strategic planning process.

- TQM is a long-term process that cannot succeed without fundamentally changing the culture of the organisation, which includes changing traditional ways of working, implementing new technologies, clear vision, teamwork, participative management, etc.

- The TQM philosophy cannot be successful without the support of the organisation's employees. TQM relies on employee participation and involvement, teamwork, open suggestion schemes, and investing in employees through education and training.

- The objective of TQM intervention is to satisfy customers. This in turn causes the organisation to prosper.

- The Ramirez and Loney research also indicated that TQM is more than using simple tools such as Quality Circles, SPC, Cost of Quality, and Zero Defects attitude.

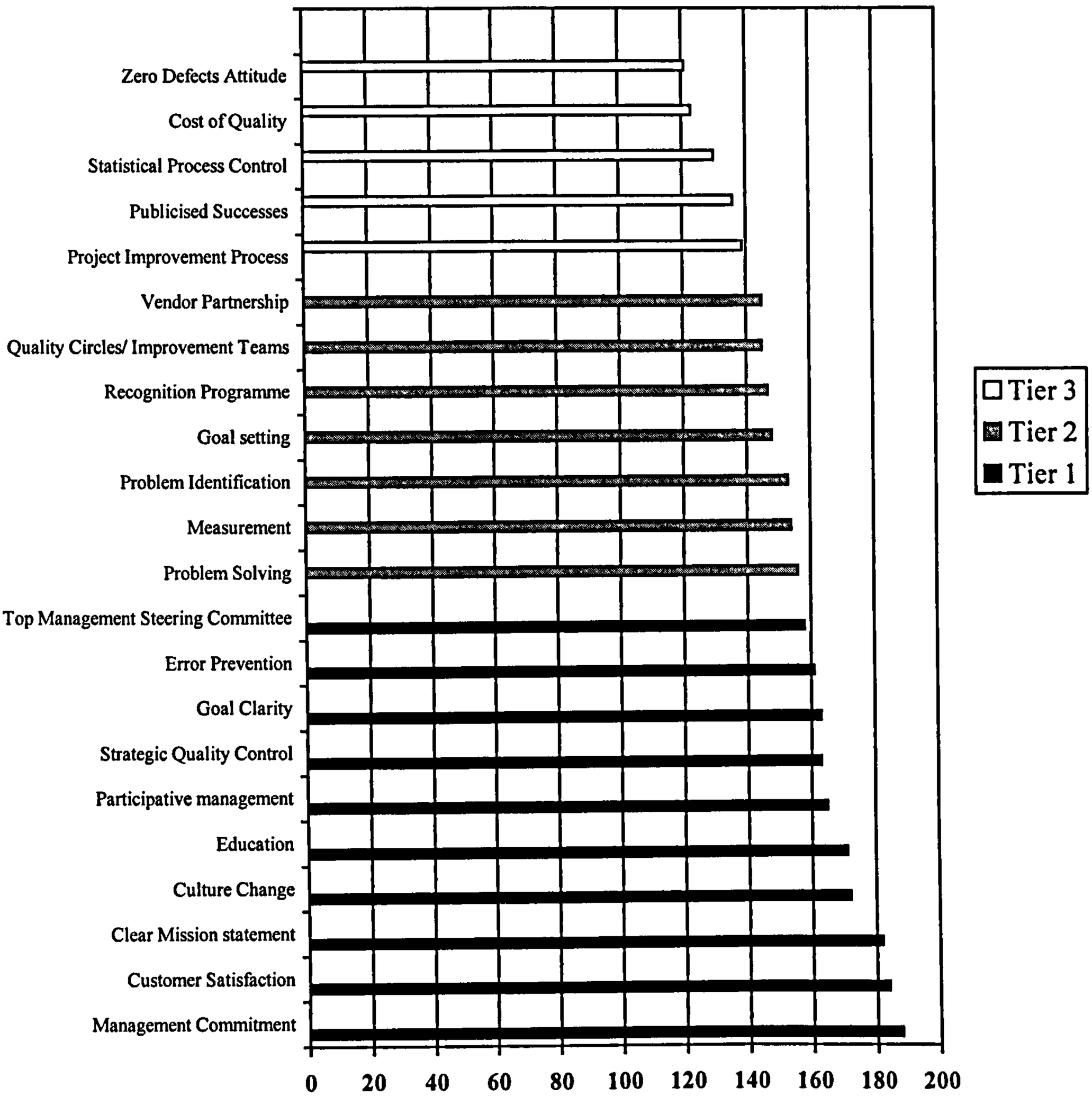
Table 5.1 Tiers of Original Study (Ramirez and Loney Study, 1993)

Tier 1		Score (out of 189)	Percentage
1	Management Commitment	188	99.74
2	Customer Satisfaction	184	97.35
3	Clear Mission Statement	182	93.30
4	Culture Change	172	91.01
5	Education	171	90.48
6	Participative Management	165	87.30
7	Strategic Quality Planning	163	86.24
8	Goal Clarity	163	86.24
9	Error Prevention	161	85.19
10	Top Management Steering Committee	158	83.60
Tier 2			
11	Problem Solving	156	82.51
12	Measurement	154	81.48
13	Problem Identification	153	80.95
14	Goal Setting	148	78.31
15	Recognition Programme	147	77.78
16	Quality Circles/ Improvement Teams	145	76.72
17	Vendor Partnership	145	76.72
Tier 3			
18	Project Improvement Process	139	73.54
19	Publicised Successes	136	71.96
20	Statistical Process Control	130	68.78
21	Cost of Quality	123	65.08
22	Zero Defects Attitude	121	64.02

Source: Ramirez and Loney (1993)

Figure 5.1 Ranking of quality activities according to importance (%)

(Ramirez and Loney, 1993)



Source: Ramirez and Loney (1993)

5.3 KSA Healthcare Study

The KSA study was an attempt to assess the perception and understanding of TQM principles among healthcare providers in the KSA. In addition, the findings were compared and contrasted to the study of Ramirez and Loney (1993). The Ramirez and Loney (1993) original questionnaire was validated by experts in the field, as was discussed in Chapters Two and Five. The questionnaires were distributed to 650 employees in nine hospitals in the KSA. Since the Saudi experience with TQM is relatively new, the study targeted the largest (more than 200 beds) hospitals. The hospitals selected represented four different categories shown in Figure 5.2: public hospitals (18.4%), private hospitals (8.4%), specialist hospitals (34.6%), and armed forces hospitals (38.3%). 380 questionnaires were returned, which made up a 58% return rate. This response rate was considered good for the research circumstances.

The sample was made up of 43.9% female and 55.8% male respondents (Figure 5.3). According to the variable of nationality, 51.5% of the respondents were Saudi and 46.4% non-Saudi (Figure 5.4). The occupational distribution was as follows: 18.4% nursing, 19.4% managerial, 25.2% physician, and 33.3% other professions (Figure 5.5). The variable of education showed the following distribution: 1% below secondary schooling, 12.9% secondary or equivalent schooling, 45.4% baccalaureate degree, and 36.2% some sort of higher education (Figure 5.6). The age group distribution showed that 25.7% were from 20 to 30 years, 43% were from 31 to 40 years, 20.2% were from 41 to 50 years, and 7.3% were 51 years or older (Figure 5.7).

Figure 5.2 Types of Hospitals

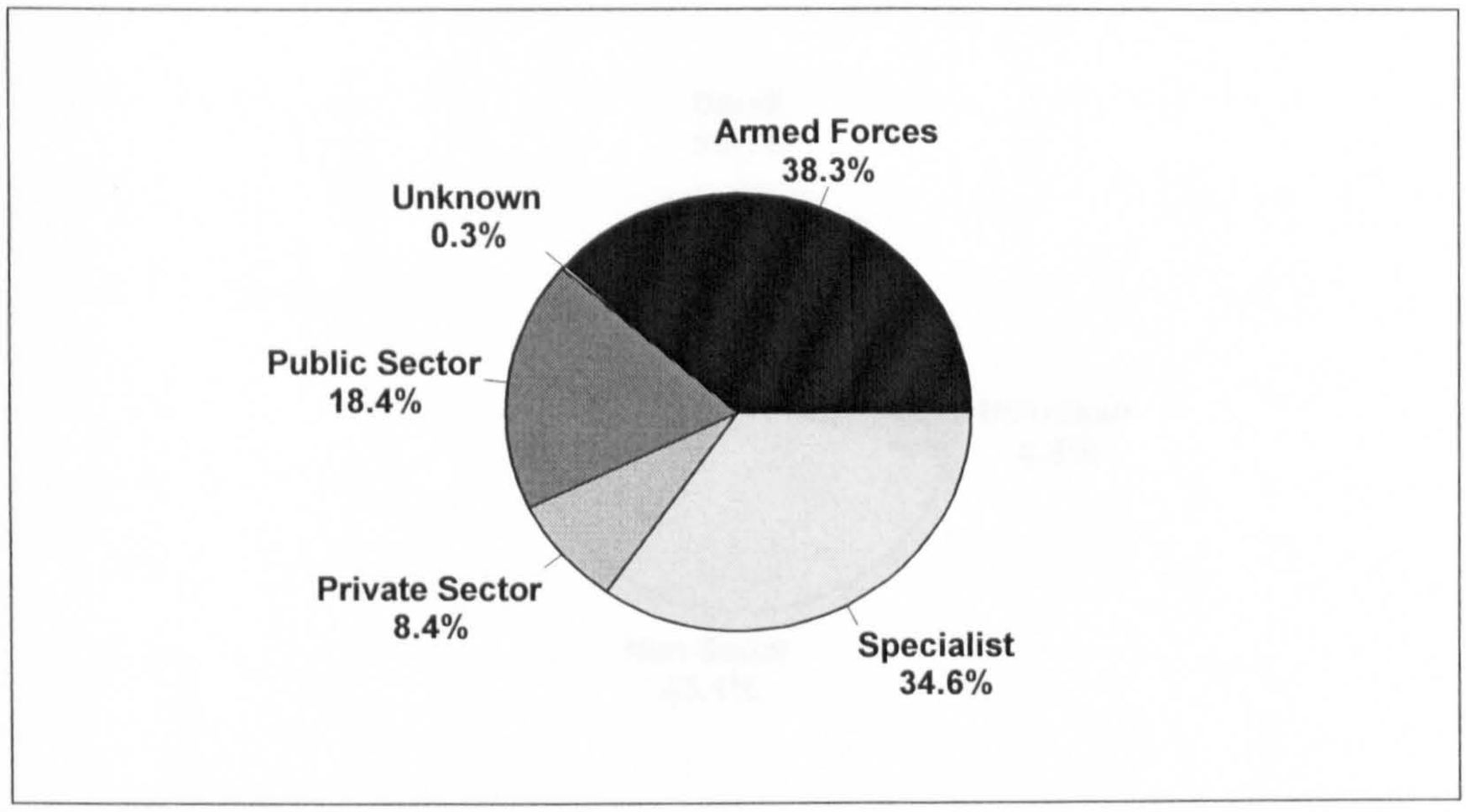


Figure 5.3 Gender

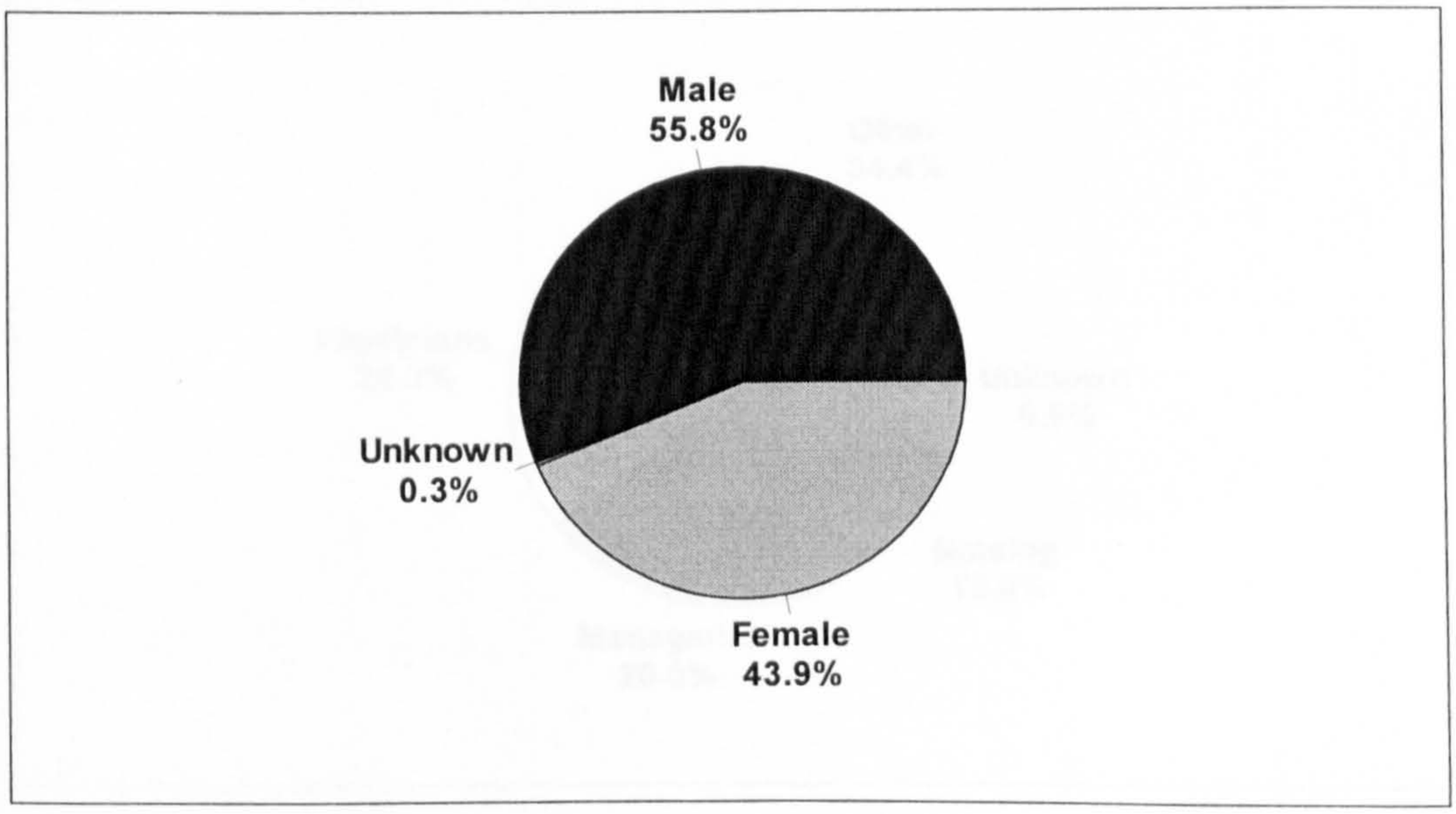


Figure 5.4 Nationality

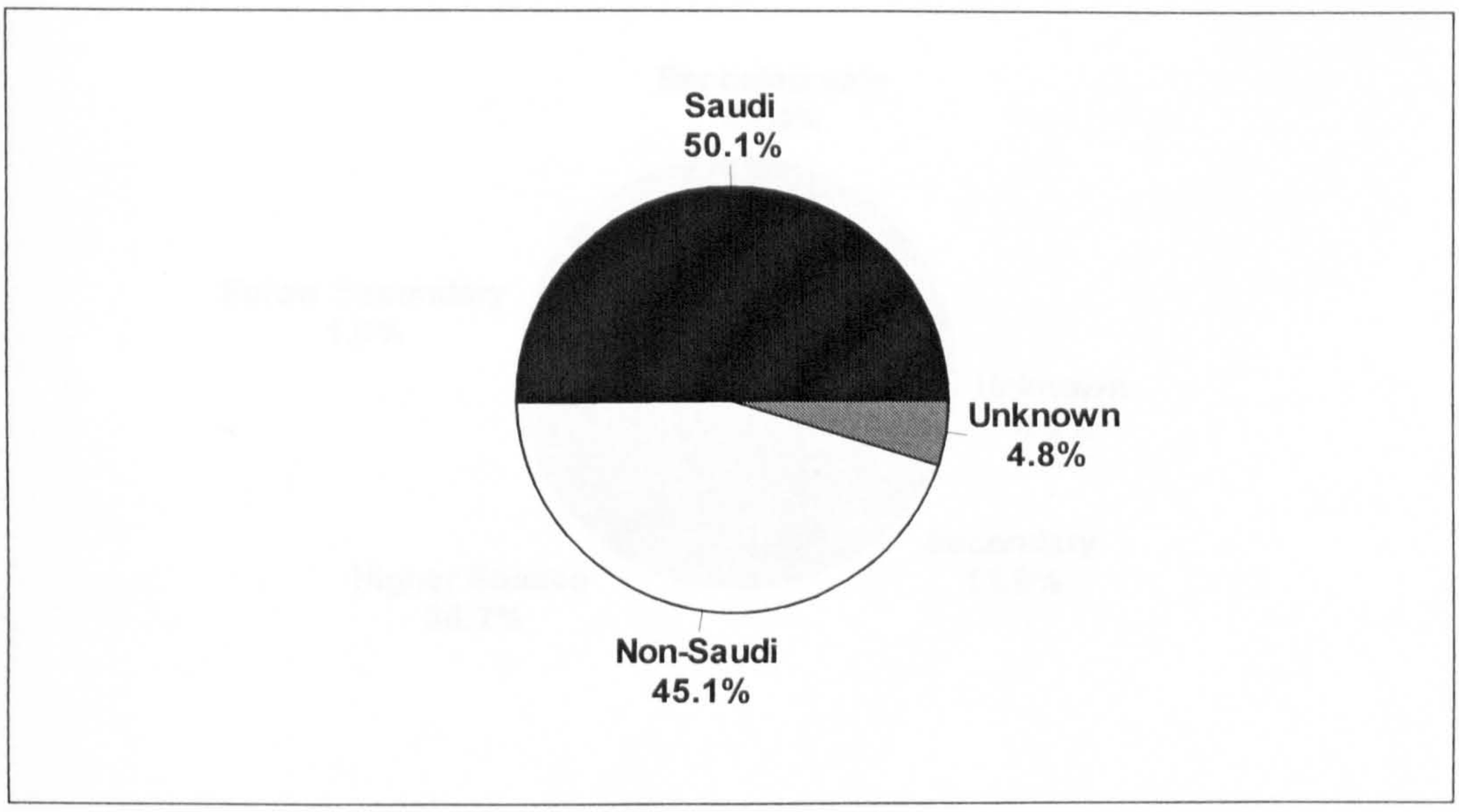


Figure 5.5 Occupation

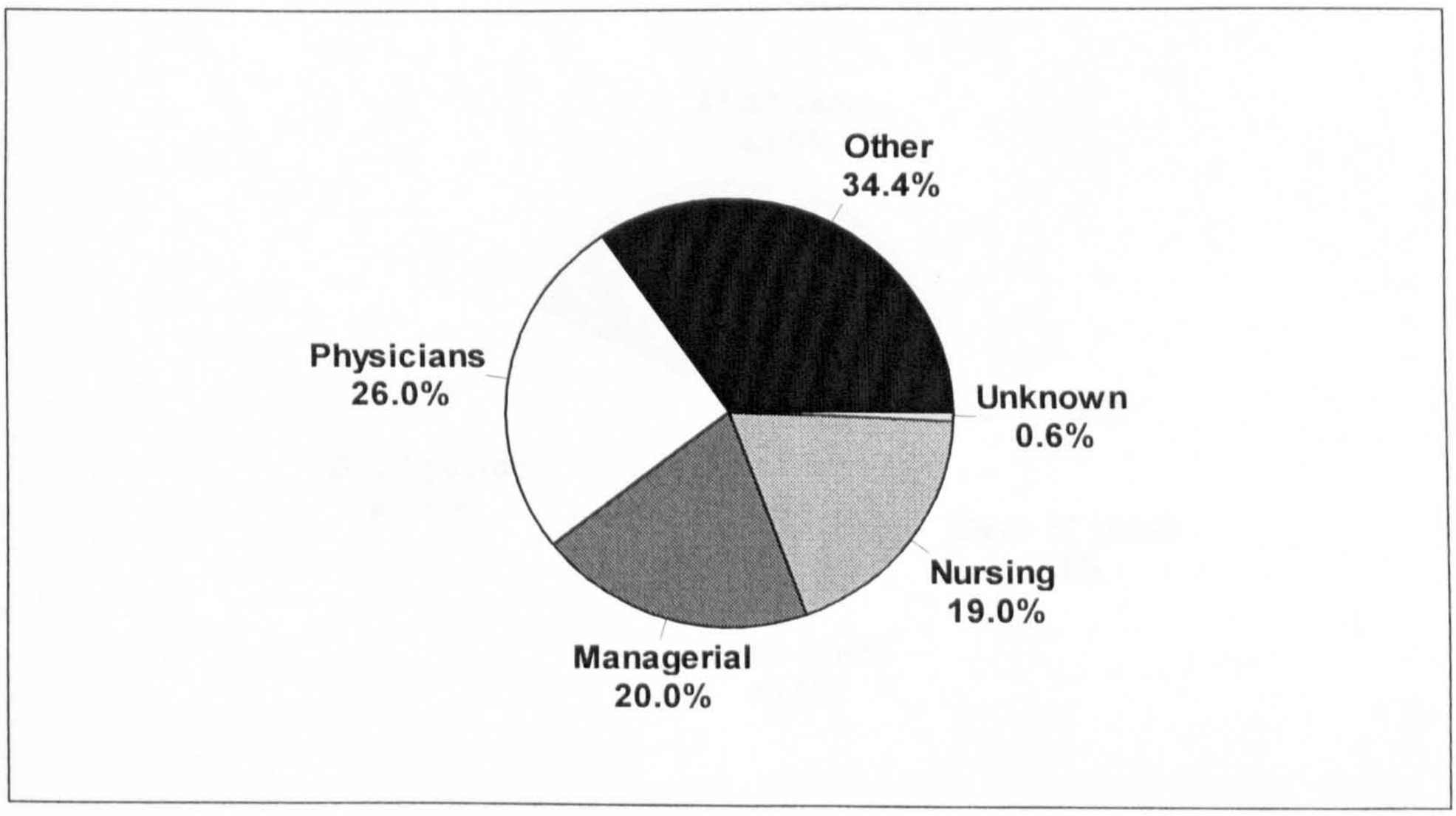


Figure 5.6 Education

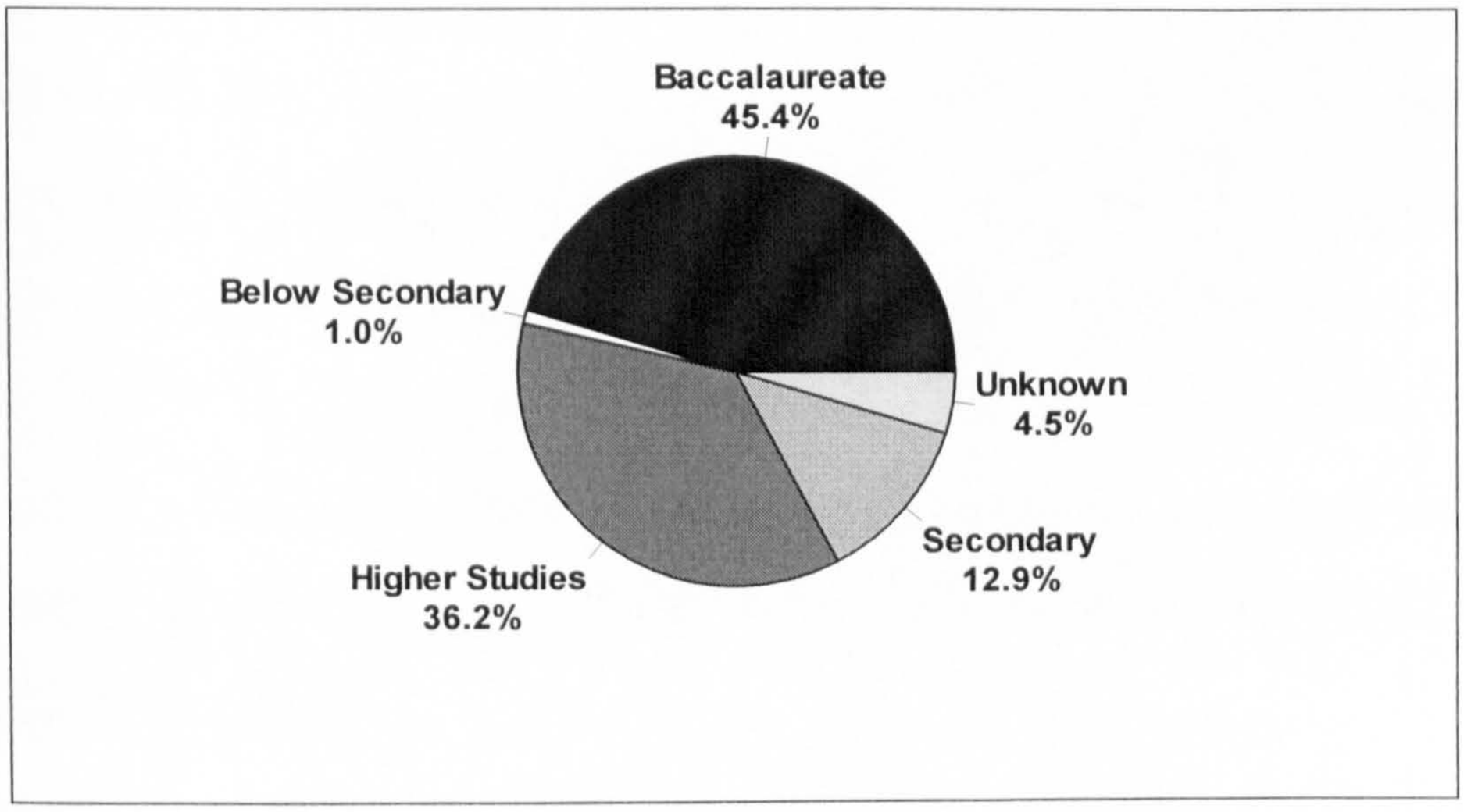
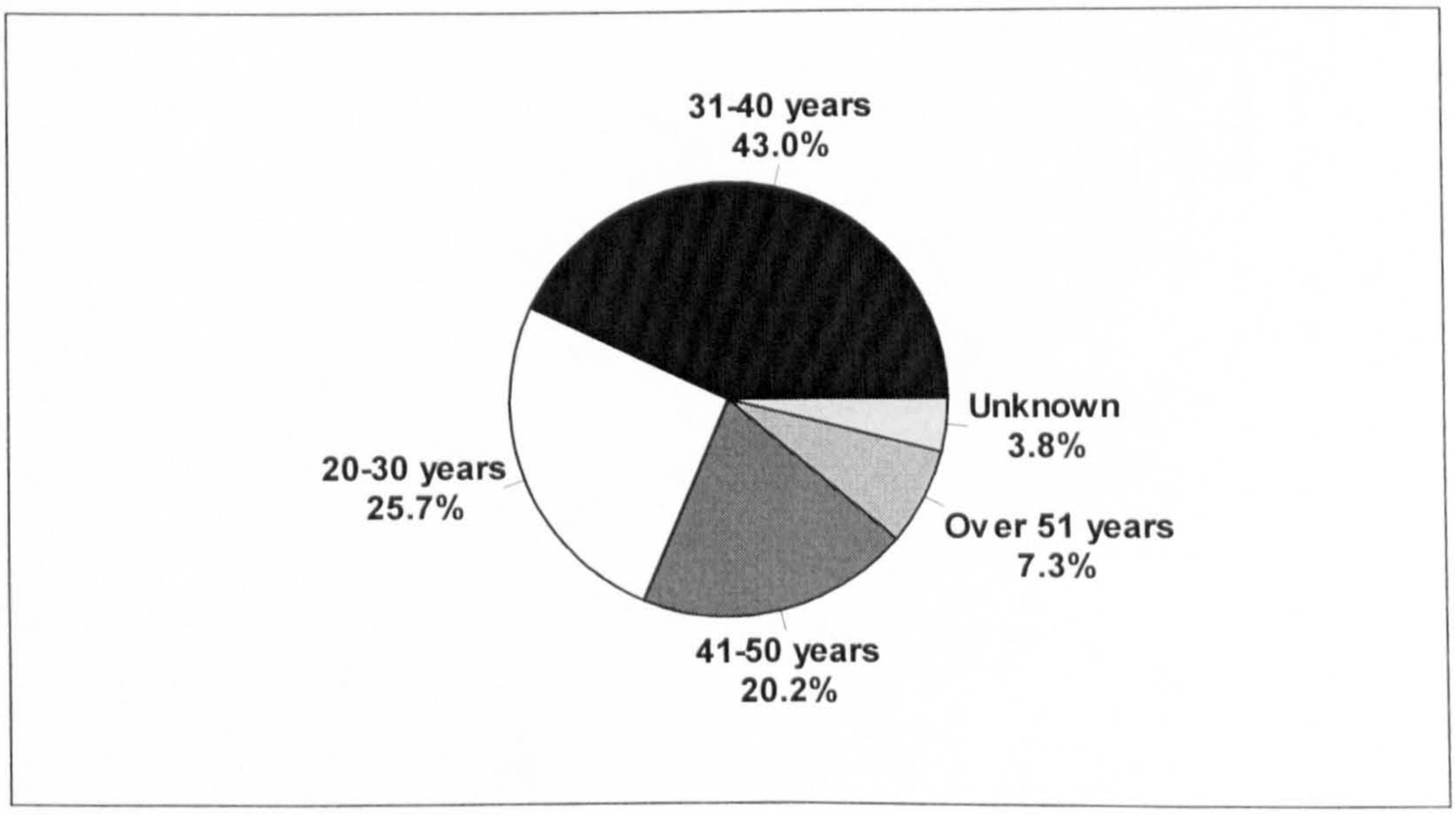


Figure 5.7 Age Groups



The results of the KSA study are shown in Table 5.2. The table presents the different scoring levels, which reflect how the respondents do perceive TQM and its critical factors. The table includes the number of responses for each of the twenty-two TQM activities. It includes the total number of employees who believe that a quality factor is critical (tier 1), important (tier 2), or neutral (tier 3). Using the majority rule method discussed in Chapter Five, the table calculates each of the factors accordingly. The table shows the number of possible points for each of the factors. For each item, the percentage of all respondents is mentioned in the last column. The majority rule method was applied. Also, the ranking of the TQM activities in the KSA hospitals is presented in Table 5.3.

Table 5.2 KSA Quality Survey Analysis

	TQM ACTIVITY LIST	N1 Neutral	N2 Important	N3 Critical	N Total	Possible Points	N1*1	N2*2	N3*3	Actual No. Of Points	(%)
1	Clear Vision Statement	24	81	251	377	1131	24	162	753	939	83.02
2	Cost of Quality	32	135	197	377	1131	32	270	591	893	78.96
3	Culture Change	74	157	125	377	1131	74	314	375	763	67.46
4	Customer Satisfaction	37	117	216	377	1131	37	234	648	919	81.26
5	Education	22	88	250	377	1131	22	176	750	948	83.82
6	Goal Clarity	21	94	248	377	1131	21	188	744	953	84.26
7	Goal Setting	22	98	243	377	1131	22	196	729	947	83.73
8	Management Commitment	11	83	262	377	1131	11	166	786	963	85.15
9	Measurement	24	138	200	377	1131	24	276	600	900	79.58
10	Participative Management	41	133	184	377	1131	41	266	552	859	75.95
11	Problem Identification	29	119	217	377	1131	29	238	651	918	81.17
12	Problem Solving	17	116	228	377	1131	17	232	684	933	82.49
13	Project Improvement Process	56	159	146	377	1131	56	318	438	812	71.79
14	Publicised Successes	66	150	141	377	1131	66	300	423	789	69.76
15	Quality C./ImproveTeams	51	142	166	377	1131	51	284	498	833	73.65
16	Error Prevention	38	119	216	377	1131	38	238	648	924	81.70
17	Recognition Programme	53	161	151	377	1131	53	322	453	828	73.21
18	Statistical Process Control	43	160	165	377	1131	43	320	495	858	75.86
19	Top Manage. Committee	60	121	190	377	1131	60	242	570	872	77.10
20	Strategic Quality Planning	38	122	206	377	1131	38	244	618	900	79.58
21	Vendor Partnership	71	175	123	377	1131	71	350	369	790	69.85
22	Zero Defects	100	146	113	377	1131	100	292	339	731	64.63

Table 5.3 and Figure 5.8 present the ranking of the TQM critical factors in the KSA hospitals. Like the control sample, the KSA sample ranked the same critical factors in the first tier. These factors include management commitment, customer satisfaction, clear mission statement, education, participative management, strategic quality planning, goal clarity, error prevention and top management committees. Unlike the control sample, the culture change factor was not among the first tier in the KSA sample but rather it was listed among the last tier as neutral.

In addition, seven other items were listed among the critical tier in the KSA sample that were not listed in the USA sample. These include goal setting, problem solving, problem identification, measurement, and quality circle/ improvement teams which were listed among the second tier in the control sample, and cost of quality and statistical process control which were listed among the last tier in the control sample. As with quality gurus, the cost of quality activity was acknowledged as critical in the KSA sample.

The listing of these extra activities among the critical tier conveys that the respondents of the KSA survey were confused as to which activities were critical and which were not, because from the responses it is evident that most activities tended to be rated as critical. This resulted in more activities being identified as critical by a majority of respondents; thus sixteen out of twenty-two activities were identified as critical, leaving only six activities which are divided between tier 2 and tier 3.

The KSA sample listed the factors of project improvement process and publicised successes as important in the second tier, while the control sample listed them as

neutral in the third tier. Also, the KSA sample listed the factor of vendor partnership in the third tier as neutral, while the control sample listed it in the second tier as important.

The reasoning behind the differences in the KSA group and the control group can be attributed to the fact that TQM is still a new concept and its implementation is still in its infancy in many hospitals in the KSA. This shows that not all TQM activities are known and understood, and they have not yet become a part of the daily routine in the workplace.

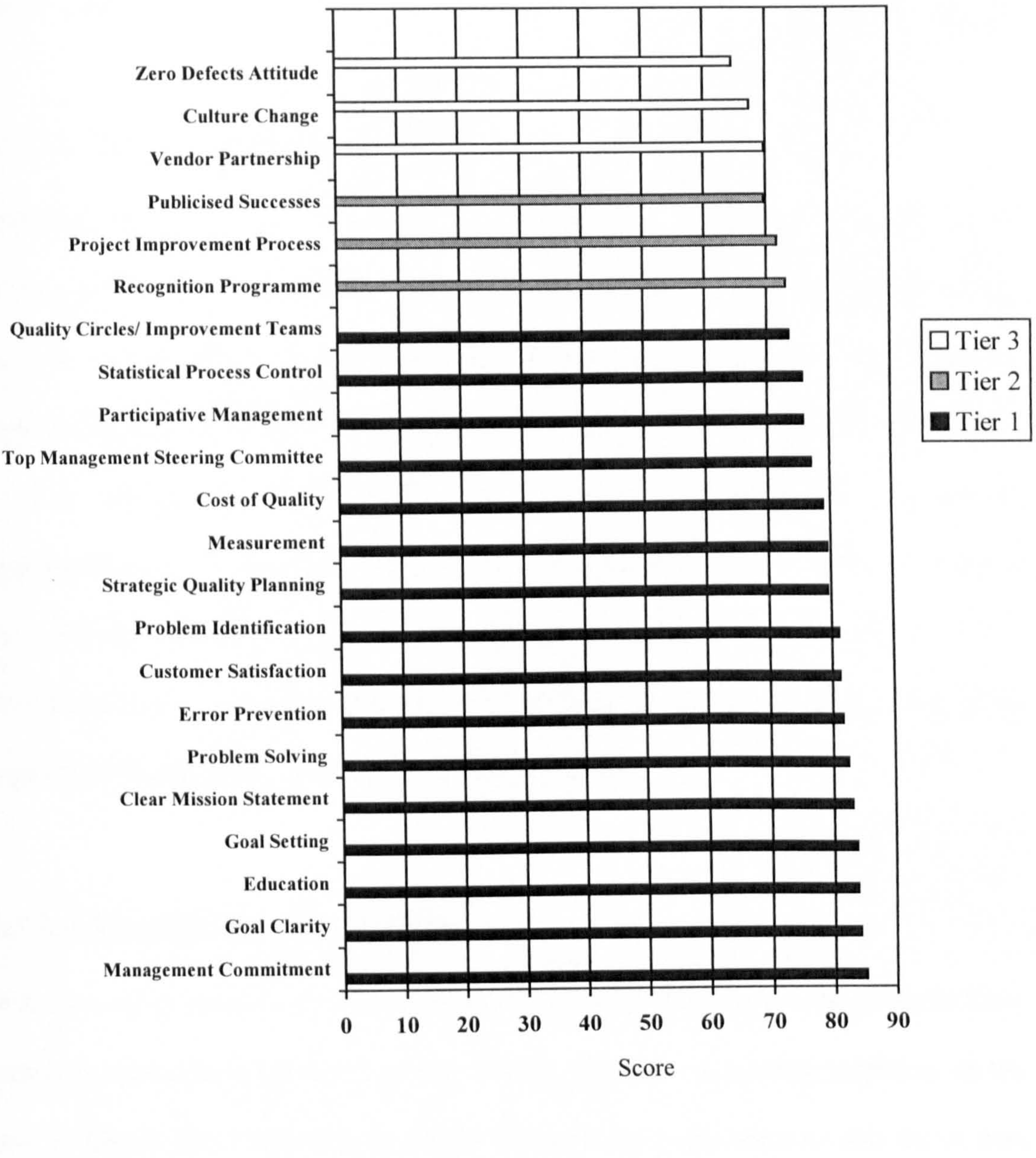
Table 5.3

Ranking of TQM Activities – KSA Healthcare Study

Tier 1		Score (out of 1131)	Percentage
1	Management Commitment	963	85.15
2	Goal Clarity	953	84.26
3	Education	948	83.82
4	Goal Setting	947	83.73
5	Clear Mission Statement	939	83.02
6	Problem Solving	933	82.49
7	Error Prevention	924	81.70
8	Customer Satisfaction	919	81.26
9	Problem Identification	918	81.17
10	Strategic Quality Planning	900	79.58
11	Measurement	900	79.58
12	Cost of Quality	893	78.96
13	Top Management Steering Committee	872	77.10
14	Participative Management	859	75.95
15	Statistical Process Control	858	75.86
16	Quality Circles/ Improvement Teams	833	73.65
Tier 2			
17	Recognition Programme	828	73.21
18	Project Improvement Process	812	71.79
19	Publicised Successes	789	69.76
Tier 3			
20	Vendor Partnership	790	69.85
21	Culture Change	767	67.46
22	Zero Defects Attitude	731	64.63

Figure 5.8

Ranking of Related Activities in KSA Hospitals



5.3.1 Examining Degree of Emphasis: KSA Healthcare Study

Table 5.4 presents the differences in the degree of emphasis between each of the twenty-two TQM activities listed by Ramirez and Loney (1993) in the USA study used in and the KSA study.

5.3.1.1 Equal Emphasis Activities

Out of the twenty-two activities in the USA sample (control group), there was no one activity in the KSA sample which received similar emphasis. This was not surprising, because of the differences between the two regions in the levels of business sophistication and the level of literacy of respondents. Also, the differences in the national culture that directly affect the organisational culture, i.e. the gender segregation issue. A continuous quality improvement organisation involves changing the employee's behaviour and attitudes and working practices in a particular way. This might cause a misunderstanding for some, because they might believe that TQM is going to change their personal values and traditions.

5.3.1.2 More Emphasis Activities

Only five out of twenty-two activities were more emphasised as compared to the USA sample (control group). The KSA study reveals that there is a strong emphasis on the cost of quality. The employees in the KSA sample put more stress on this factor than the control group sample. This may suggest that KSA respondents still hold a traditional view of quality costs. Crosby (1979) agrees that quality costs on a short-term basis, but on a long-term basis quality cuts costs. The healthcare literature

supports Crosby by revealing that high quality healthcare costs less than low quality healthcare.

Also, the goal-setting activity in the KSA study was more emphasised when compared to the USA sample. The KSA respondents seem to agree with Crosby (1979) on the importance of the goal-setting activity. The statistical process control activity was over-emphasised in the KSA sample when compared to the USA sample. Statistical process control ensures that decisions are based on pure fact rather than intuitions. It seems that senior management in the KSA hospitals have invested enough time and effort in teaching their employees about SPC, and hence it became widely known and used in managing quality in the KSA hospitals.

The last two activities that were mildly over-emphasised in the KSA study are zero defects and problem identification. Crosby (1979) emphasised that the quality performance standard is zero defects among his four absolutes of quality management, and Garvin (1983) emphasised defect-free output. The problem identification activity was considered critical in the KSA survey while it was considered important in the USA survey. According to Oakland (1993), the identification of problems can provide valuable information that can be used in their prevention. In the KSA hospital, there is a phobia of problems that cannot be solved because TQM is still very young.

5.3.1.3 Less Emphasis Activities

Eighteen activities in the KSA study were less emphasised. Some were strongly under-emphasised, some were moderately under-emphasised, and others were mildly

under-emphasised. Although many activities were considered critical in the implementation of a TQM process, respondents tended to under-emphasise the importance of the critical activities compared to respondents in the USA sample.

Changing the culture of the organisation was the most under-emphasised factor in the KSA survey. It was under-emphasised by –23.63%. This strongly suggests that KSA respondents do not have a clear understanding of TQM. They do not realise that TQM cannot be successfully implemented without culture change. The KSA has a special culture profile. This profile might have caused the hospital employees not to distinguish properly between organisational culture and national culture. These two cultures can easily overlap in the KSA.

The KSA has a free healthcare system. This fact might have a negative effect on the objective of satisfying customers because employees know the customer choices are limited. This could be one explanation for the strong under-emphasis (-16.09%) of customer satisfaction. Also, there is a strong under-emphasis on clarifying a vision statement for the employees. This is shown by the –13.28% difference when compared to the control group. One might conclude that in the KSA sample there is no clear understanding of TQM principles.

Many activities that occur at the strategic level of an organisation and have something to do with the importance of the leadership role in any organisation are under-emphasised in the KSA study. These activities include management commitment, top management steering committees, strategic quality planning, goal clarity and participative management. The critical factors are essential to the success of TQM,

and without them, the programme cannot be implemented effectively. The role of senior management is crucial and cannot be transferred to the entire organisation if it is not there. Also, it is essential to train management to plan and participate and allow room for open suggestion schemes.

TQM is heavily reliant on performance, which in turn is dependent on employee productivity. This is why TQM cannot succeed without recognition programmes, publicised successes, employee involvement and participation, teamwork, employee training and education, and error prevention. Also, high performance cannot be reached without the correct vendor partnership.

5.3.2 Perception and Understanding of TQM in KSA Healthcare Study

Overall, the KSA healthcare study revealed that there are many critical activities in the TQM process, which were under-emphasised by the respondents in the KSA hospital sample. The under-emphasis of these critical factors can only prove that there is a gap in the levels of awareness, understanding and perception of what TQM means between respondents in the KSA hospital sample and the USA sample. Also, the strong over-emphasis of cost of quality can only support the fact that TQM is not yet well understood and cost is still looked upon with the traditional view.

The strong under-emphasis on changing the culture of the organisation strongly suggests that there is a misunderstanding that the change that will take place is not in the work practice but rather in the personal values of the individuals. The individuals in the KSA are not about to compromise their individual values, traditions, and most

importantly, their Islamic religion for any management philosophy. It is important to note that these individuals do not seem to understand that the values underlying the TQM philosophy are the same values underlying the Islamic religion.

Table 5.4

Percentile Comparison of KSA Hospital Survey with Control Group

Activity List	KSA (%)	Control (%)	Difference (%)
Clear Vision Statement	83.02	96.3	-13.28
Cost of Quality	78.96	65.08	13.88
Culture Change	67.46	91.09	-23.63
Customer Satisfaction	81.26	97.35	-16.09
Education	83.82	90.48	-6.66
Goal Clarity	84.26	86.24	-1.98
Goal Setting	83.73	78.31	5.42
Management Commitment	85.15	99.47	-14.32
Measurement	79.58	81.48	-1.9
Participative Management	75.95	87.3	-11.35
Problem Identification	81.17	80.95	0.22
Problem Solving	82.49	82.54	-.05
Project Improvement Process	71.79	73.54	-1.75
Publicised Successes	69.76	71.96	-2.2
Quality C./ImprovementTeams	73.65	76.72	-3.07
Error Prevention	81.70	85.19	-3.49
Recognition Programme	73.21	77.78	-4.57
Statistical Process Control	75.86	68.78	7.08
Top Management Committee	77.10	83.6	-6.5
Strategic Quality Planning	79.58	86.24	-6.66
Vendor Partnership	69.85	76.72	-6.87
Zero Defects	64.63	64.02	0.61

5.3.3 Examining Degree of Emphasis among Genders

After the general analysis of the data, it was important to concentrate further on the gender differences in the rankings of the quality factors. This was done to explore the segregation issue and to see if there exists any relationship between TQM implementation and segregation.

5.3.3.1 Male Gender Results and Degree of Emphasis

The results for the male gender are shown on Table 5.5. The male ranking of the tiers is shown in Table 5.6. In the male sample (N= 206), the ranking varies little from the entire KSA sample results. The tiers are divided in the same way as the KSA sample. The only difference is that in the male sample management commitment was the ninth most critical factor in the first tier, while in the KSA sample it was the most critical factor in the first tier. This means that the male gender believes that the management commitment is not as critical as other factors. The male gender believes that having a clear mission statement is the most critical factor, while in the KSA sample it was believed that it was the fifth most critical factor.

Table 5.5 Results for Male Gender

Activity List	Neutral	Important	Critical	%
1. Clear Vision Statement	14	43	142	85.11
2. Cost of Quality	15	69	116	81.11
3. Culture Change	47	95	56	65.53
4. Customer Satisfaction	23	63	116	80.42
5. Education	14	55	129	82.69
6. Goal Clarity	7	58	134	84.95
7. Goal Setting	13	47	139	84.79
8. Management Commitment	6	47	132	80.26
9. Measurement	14	75	110	79.94
10. Participative Management	23	79	93	74.43
11. Problem Identification	18	63	117	80.11
12. Problem solving	9	64	122	81.40
13. Project Improvement Process	31	98	69	70.23
14. Publicised Successes	45	77	76	69.09
15. Quality Circle/ Improvement Teams	30	79	88	73.14
16. Error Prevention	20	68	114	80.60
17. Recognition Programme	31	90	80	72.98
18. Statistical Process Control	24	89	89	75.89
19. Top Management Committee	27	76	100	77.51
20. Strategic Quality Planning	20	62	116	79.61
21. Vendor Partnership	48	95	58	66.67
22. Zero Defect	57	84	57	64.08

Table 5.6 Ranking of Tiers for Male Gender

Tier 1		Percentage
1	Clear Mission Statement	85.11
2	Goal Clarity	84.95
3	Goal Setting	84.79
4	Education	82.69
5	Problem Solving	81.40
6	Cost of Quality	81.11
7	Error Prevention	80.60
8	Customer Satisfaction	80.42
9	Management Commitment	80.26
10	Problem Identification	80.11
11	Measurement	79.94
12	Strategic Quality Planning	79.61
13	Top Management Steering Committee	77.51
14	Statistical Process Control	75.89
15	Participative Management	74.43
16	Quality Circles/ Improvement Teams	73.14

Tier 2		
17	Recognition Programme	72.98
18	Project Improvement Process	70.23
19	Publicised Successes	69.09

Tier 3		
20	Vendor Partnership	66.67
21	Culture Change	65.53
22	Zero Defects Attitude	64.08

Table 5.7 compares the male gender in the KSA healthcare survey results with the control group of the USA sample and the KSA entire sample. Overall, the male gender comparison revealed the same results as the larger KSA healthcare sample, with some mild and moderate variations. The moderate variations include an increase in the emphasis on the cost of quality factor and clear vision statement. Also, the moderate variation was seen in the less emphasis on the culture change factor, management commitment factor, and vendor partnership. All in all, when comparing the male gender sample in the KSA healthcare with the complete KSA healthcare sample, there were eight more-emphasised items and fourteen less-emphasised items.

Table 5.7

Percentile Comparison of Male Gender Results with Control Sample and KSA Sample

Activity List	Male	Control	Difference	KSA	Difference
Clear Vision Statement	85.11	96.3	-11.19	83.02	2.09
Cost of Quality	81.11	65.08	16.03	78.96	2.15
Culture Change	65.53	91.09	-25.56	67.46	-1.93
Customer Satisfaction	80.42	97.35	-14.93	81.26	-0.84
Education	82.69	90.48	-7.79	83.82	-1.13
Goal Clarity	84.95	86.24	-1.29	84.26	.69
Goal Setting	84.79	78.31	6.48	83.73	1.06
Management Commitment	80.26	99.47	-19.21	85.15	-4.89
Measurement	79.94	81.48	-1.54	79.58	.36
Participative Management	74.43	87.3	-12.87	75.95	-1.52
Problem Identification	80.11	80.95	-0.84	81.17	-1.06
Problem Solving	81.40	82.54	-1.14	82.49	-1.09
Project Improv. Process	70.23	73.54	-3.31	71.79	-1.56
Publicised Successes	69.09	71.96	-2.87	69.76	-0.67
Quality C./Improve. Teams	73.14	76.72	-3.58	73.65	-0.51
Error Prevention	80.60	85.19	-4.59	81.70	-1.1
Recognition Programme	72.98	77.78	-4.8	73.21	-0.23
Statistical Process Control	75.89	68.78	7.11	75.86	0.03
Top Manage. Committee	77.51	83.6	-6.09	77.10	0.41
Strategic Quality Planning	79.61	86.24	-6.63	79.58	0.03
Vendor Partnership	66.67	76.72	-10.05	69.85	-3.18
Zero Defects	64.08	64.02	-0.06	64.63	-0.55

5.3.3.2 Female Gender Results and Degree of Emphasis

The results for the female gender are shown in Table 5.8, and the ranking of the tiers in Table 5.9. In the female sample, N= 162. The comparison revealed one important aspect. Unlike the KSA sample and the male gender sample, the female sample ranked the culture change factor as a critical factor. Both the KSA sample and the male gender sample ranked the culture change factor as neutral. This is an important point, because the females in the healthcare environment seem to be more in touch with the segregation issue. This issue is a part of the female gender daily routine, while the male gender in the healthcare environment seems not to be affected by it. By ranking the culture change factor in the last tier, males seem not to be ready to confront that there is a need for culture change in the organisation. This might be because they are afraid of the change that will be brought about by these international management philosophies.

Another factor that was characterised as important by the female gender in the healthcare environment is the vendor partnership factor. The KSA sample and the female sample characterised this factor as neutral. The project improvement process factor was also characterised as critical by the female sample, and neutral by the KSA sample and the male gender sample. These two differences can be referenced to the female level of understanding of the TQM philosophy. It could be that the male gender has a better understanding of TQM than the female gender.

Table 5.8 Results for Female Gender

Activity List	Neutral	Important	Critical	%
1. Clear Vision Statement	9	35	101	78.60
2. Cost of Quality	13	63	78	76.60
3. Culture Change	21	58	79	76.95
4. Customer Satisfaction	13	51	93	81.11
5. Education	7	30	113	83.54
6. Goal Clarity	13	32	107	81.90
7. Goal Setting	8	46	96	79.42
8. Management Commitment	3	34	110	82.51
9. Measurement	9	56	85	77.37
10. Participative Management	17	50	84	75.93
11. Problem Identification	9	53	83	75.31
12. Problem solving	7	49	98	82.51
13. Project Improvement Process	23	53	75	72.84
14. Publicised Successes	19	67	62	69.75
15. Quality Circle/ Improvement Teams	17	58	74	73.05
16. Error Prevention	16	49	92	80.25
17. Recognition Programme	22	65	65	70.16
18. Statistical Process Control	19	65	69	73.25
19. Top Management Committee	28	40	87	75.93
20. Strategic Quality Planning	14	56	84	77.78
21. Vendor Partnership	19	74	62	72.63
22. Zero Defects	41	51	56	63.99

Table 5.9 Ranking of Tiers for Female Gender

Tier 1		Percentage
1	Education	83.54
2	Management Commitment	82.51
3	Problem Solving	82.51
4	Goal Clarity	81.90
5	Customer Satisfaction	81.11
6	Error Prevention	80.25
7	Goal Setting	79.42
8	Clear Mission Statement	78.60
9	Strategic Quality Planning	77.78
10	Measurement	77.37
11	Culture Change	76.95
12	Cost of Quality	76.75
13	Top Management Steering Committee	75.93
14	Participative Management	75.93
15	Problem Identification	75.31
16	Statistical Process Control	73.25
17	Quality Circles/ Improvement Teams	73.05
18	Project Improvement Process	72.84

Tier 2		
20	Vendor Partnership	72.63
21	Recognition Programme	70.16
22	Publicised Successes	69.75

Tier 3		
22	Zero Defects Attitude	63.37

Table 5.10 presents a comparison between the female gender sample in the KSA healthcare sample and the USA control sample. Overall, the female gender comparison revealed the somewhat different results when compared to the larger KSA healthcare sample. The results showed some mild, moderate, and strong variations. The strong variation was seen in the over-emphasis in the culture change factor. The over-emphasis of the culture factor in the female sample was a +9.13, while the male sample under-emphasised it by –2.74. This strong variation confirms that the female gender believes in changing the organisational culture for TQM to work, while the male gender is still unaware of or in denial of this very important factor. The female gender might even believe that the segregation issue has an effect in the implementation of TQM. Of course, all these assumptions cannot be confirmed at this point, but what can be confirmed is the strong over-emphasis of the culture change factor.

The moderate variations include an under-emphasis of the following factors: management commitment, goal setting, goal clarity, clear vision statement, cost of quality, measurements, problem identification, recognition programme, and statistical process control. Also, the moderate variation was seen in the over-emphasis on the vendor partnership. These variations can be attributed to not having a complete understanding of what TQM is really about. All in all, when comparing the female gender sample in the KSA healthcare sample with the complete KSA sample, there were three over-emphasised items and nineteen under-emphasised items.

Table 5.10

Percentile Comparison of Female Gender Results

To Control Sample and KSA Sample

Activity List	Female	Control	Difference	KSA	Difference
Clear Vision Statement	78.60	96.3	-17.7	83.02	-4.42
Cost of Quality	76.60	65.08	11.52	78.96	-2.36
Culture Change	76.95	91.09	-14.14	67.46	9.49
Customer Satisfaction	81.11	97.35	-16.24	81.26	-0.15
Education	83.54	90.48	-6.94	83.82	-0.28
Goal Clarity	81.90	86.24	-4.34	84.26	-2.36
Goal Setting	79.42	78.31	1.11	83.73	-4.31
Management Commitment	82.51	99.47	-16.96	85.15	-2.64
Measurement	77.37	81.48	-4.11	79.58	-2.21
Participative Management	75.93	87.3	-11.37	75.95	-0.02
Problem Identification	75.31	80.95	-5.64	81.17	-5.86
Problem Solving	82.51	82.54	-.03	82.49	-0.02
Project Improve. Process	71.81	73.54	-1.73	71.79	0.02
Publicised Successes	68.93	71.96	-3.03	69.76	-0.83
Quality C./Improve.Teams	73.05	76.72	-3.67	73.65	-0.6
Error Prevention	80.25	85.19	-4.94	81.70	-1.45
Recognition Programme	70.58	77.78	-7.2	73.21	-2.63
Statistical Process Control	73.25	68.78	4.47	75.86	-2.61
Top Manage. Committee	75.93	83.6	-7.67	77.10	-1.17
Strategic Quality Planning	77.78	86.24	-8.46	79.58	-1.8
Vendor Partnership	72.63	76.72	-4.09	69.85	2.78
Zero Defects	63.99	64.02	-.03	64.63	-0.64

5.3.3.3 Differences Between Genders

The major difference between the male and female gender sample in the KSA healthcare survey is strongly illustrated in the culture change factor. The culture change factor shows a difference of –11.42 between the genders. The female gender is much more aware of the need of changing the culture when implementing TQM than the male gender. There are many reasons that explain the male reluctance to change the organisational culture. These reasons include:

- Males are denying or are not aware of the differences between their special segregated organisational culture and other international organisational cultures.
- Males are afraid of admitting that they have a special culture profile, because they think that it might bring about changes in their values, traditions, customs, and most importantly, their religion.
- Males do not care for changing the organisational culture because they are benefiting from it.

Whether these reasons or other reasons are behind this great difference between the male and female genders in the culture change factor is unclear. What is clear is that for this great difference to be present in this particular factor there must be some type of reasoning that can account for it.

Also, the differences between the genders show that the males have a better understanding of the general TQM management philosophy than the females, with the exception of the culture change factor. The males over-emphasised thirteen factors more than the females. This includes the clear vision statement factor by +6.51, the

cost of quality factor by +4.51, the goal setting factor by +5.37, and the problem identification factor by +4.8. There were seven factors that were mildly under-emphasised by the male gender, but their under-emphasis does not mean much because they were almost equal to the females. The largest number in these factors is –1.58.

Table 5.11

Differences Between Genders

Activity List	Male(%)	Female (%)	Difference (%)
Clear Vision Statement	85.11	78.60	6.51
Cost of Quality	81.11	76.60	4.51
Culture Change	65.53	76.95	-11.42
Customer Satisfaction	80.42	81.11	-0.69
Education	82.69	83.54	-0.85
Goal Clarity	84.95	81.90	3.05
Goal Setting	84.79	79.42	5.37
Management Commitment	80.26	82.51	-2.25
Measurement	79.94	77.37	2.57
Participative Management	74.43	75.93	-1.5
Problem Identification	80.11	75.31	4.8
Problem Solving	81.40	82.51	-1.11
Project Improve. Process	70.23	71.81	-1.58
Publicised Successes	69.09	68.93	0.16
Quality C./Improve.Teams	73.14	73.05	-0.09
Error Prevention	80.60	80.25	0.35
Recognition Programme	72.98	70.58	2.4
Statistical Process Control	75.89	73.25	2.64
Top Manage. Committee	77.51	75.93	1.58
Strategic Quality Planning	79.61	77.78	1.98
Vendor Partnership	66.67	72.63	-5.96
Zero Defects	64.08	63.99	-0.09

5.3.4 Examining Degree of Emphasis among Types of Hospitals

After the analysis of the gender, an analysis of the different hospital types was done to investigate any further relationship between the type of hospital and the degree of emphasis of the TQM factors. This was done to see if one type of hospital seems to understand TQM better than the others. The hospital types included private hospitals, public hospitals, specialist hospitals and armed forces hospitals. Each type of hospital results will be presented individually in the following section.

5.3.4.1 Private Hospital Results and Degree of Emphasis

Table 5.12 and Table 5.13 present the results of the private hospitals. In this sample, N=32. In the tier ranking for private hospitals, customer satisfaction was the most critical factor. This was not surprising, because usually private organisations care more about satisfying paying customers. They know that without these paying customers, their organisation will not exist.

When comparing the results of the private hospital sample with the USA sample, it was found that only five of the ten factors that were critical in the USA sample were listed in the private hospital sample. These include the education factor, the error prevention factor, the management commitment factor, and the clear mission statement factor.

Also, in the private hospital sample, there were twelve factors listed in the third tier, where the items were considered neutral. The extra factors include recognition programme, goal setting, goal clarity, top management steering committee,

measurements, vendor partnership, quality circles/ improvement teams, and culture change. Some of these factors are found in the first tier, and some are found in the second tier of the USA sample.

Table 5.12 Results for Private Sector Hospitals

Activity List	Neutral	Important	Critical	%
1. Clear Vision Statement	7	12	13	72.92
2. Cost of Quality	12	10	10	64.58
3. Culture Change	12	16	3	55.21
4. Customer Satisfaction	3	9	20	84.38
5. Education	3	14	15	79.17
6. Goal Clarity	7	15	10	69.79
7. Goal Setting	6	17	9	69.79
8. Management Commitment	5	12	14	73.96
9. Measurement	8	18	6	64.58
10. Participative Management	6	14	11	69.79
11. Problem Identification	7	13	12	71.88
12. Problem solving	5	13	14	76.04
13. Project Improvement Process	7	19	6	65.63
14. Publicised Successes	11	16	4	57.29
15. Quality Circle/ Improvement Teams	11	17	3	56.25
16. Error Prevention	4	13	15	78.13
17. Recognition Programme	1	24	7	72.92
18. Statistical Process Control	10	14	8	64.58
19. Top Management Committee	8	16	8	66.67
20. Strategic Quality Planning	10	11	11	67.71
21. Vendor Partnership	12	13	7	61.46
22. Zero Defects Attitude	7	17	7	64.58

Table 5.13 Ranking of Tiers for Private Hospitals

Tier 1		Percentage
1	Customer Satisfaction	84.38
2	Education	79.17
3	Error Prevention	78.13
4	Problem Solving	76.04
5	Management Commitment	73.96
6	Clear Mission Statement	72.92

Tier 2		
7	Recognition Programme	72.92
8	Problem Identification	71.88
9	Participative Management	69.79

Tier 3		
10	Goal Setting	69.79
11	Goal Clarity	69.79
12	Strategic Quality Planning	67.71
13	Top Management Steering Committee	66.67
14	Project Improvement Process	65.63
15	Cost of Quality	64.58
16	Zero Defects Attitude	64.58
17	Measurement	64.58
18	Statistical Process Control	64.58
19	Vendor Partnership	61.46
20	Publicised Successes	57.29
21	Quality Circles/ Improvement Teams	56.25
22	Culture Change	55.21

Table 5.14 presents a percentile comparison of private hospitals' results with the control sample and the KSA sample. When comparing the private hospital sample with the USA control sample, it was found that all factors of TQM were strongly under-emphasised, with the exception of a couple of factors. The two factors are cost of quality and zero defects. The difference between the two factors was less than one, thus it can not be said that these factors were over-emphasised.

When comparing the private hospital sample with the KSA study, it was found that all factors were under-emphasised, except for customer satisfaction. The customer satisfaction was over-emphasised by +3.12. Overall, the private hospitals in the KSA have less understanding of the TQM philosophy than the general KSA sample, except for one factor, which is the customer satisfaction factor.

Table 5.14

Percentile Comparison of Private Hospital Results with Control Sample and KSA Sample

Activity List	Private Hospitals	Control	Difference	KSA	Difference
Clear Vision Statement	72.92	96.3	-23.38	83.02	-10.1
Cost of Quality	64.58	65.08	.99	78.96	-14.38
Culture Change	55.21	91.09	-35.88	67.46	-12.25
Customer Satisfaction	84.38	97.35	-12.97	81.26	3.12
Education	79.17	90.48	-11.31	83.82	-4.65
Goal Clarity	69.79	86.24	-16.45	84.26	-14.47
Goal Setting	69.79	78.31	-8.52	83.73	-13.94
Management Commitment	73.96	99.47	-25.51	85.15	-11.19
Measurement	64.58	81.48	-16.9	79.58	-15
Participative Management	69.79	87.3	-17.51	75.95	-16.16
Problem Identification	71.88	80.95	-9.07	81.17	-9.29
Problem Solving	76.04	82.54	-6.5	82.49	-6.45
Project Improve. Process	65.63	73.54	-7.91	71.79	-6.16
Publicised Successes	57.29	71.96	-14.67	69.76	-12.47
Quality C./Improve.Teams	56.25	76.72	-20.47	73.65	-17.4
Error Prevention	78.13	85.19	-7.06	81.70	-3.57
Recognition Programme	72.92	77.78	-4.86	73.21	-0.29
Statistical Process Control	64.58	68.78	-4.2	75.86	-11.28
Top Manage. Committee	66.67	83.6	-16.93	77.10	-10.43
Strategic Quality Planning	67.71	86.24	-18.53	79.58	-11.87
Vendor Partnership	61.46	76.72	-15.26	69.85	-8.39
Zero Defects	64.58	64.02	.56	64.63	-.05

5.3.4.2 Public Hospital Results and Degree of Emphasis

Table 5.15 and Table 5.16 present the results of the public hospital sample. In this sample, N=70. When compared to the USA control sample, the results of the public hospital sample revealed that the majority of the critical factors which are listed as critical are the same as the factors in tier one in the USA sample, with the exception of. These are customer satisfaction and culture change. It is not surprising for the customer satisfaction survey to be under-emphasised. Public hospitals are not open for profit, they are free, they are open to serve the public. For most of the people who attend the public hospital, their choices are limited. They have no other choice except to attend this public hospital. Thus, most of the employees do not seem to care if their customers are satisfied or not, because they will come back.

The other under-emphasised factor is the culture change factor. This factor has also been under-emphasised in the complete KSA sample.

Table 5.15 Results for Public Sector Hospitals

Activity List	Neutral	Important	Critical	%
1. Clear Vision Statement	11	17	39	77.14
2. Cost of Quality	4	24	40	81.90
3. Culture Change	14	32	21	67.14
4. Customer Satisfaction	14	32	23	70.00
5. Education	8	14	48	85.71
6. Goal Clarity	7	17	44	82.38
7. Goal Setting	6	20	44	84.76
8. Management Commitment	5	17	46	84.29
9. Measurement	5	31	34	80.48
10. Participative Management	10	21	37	77.62
11. Problem Identification	6	26	37	80.48
12. Problem solving	4	21	44	84.76
13. Project Improvement Process	14	31	25	71.90
14. Publicised Successes	10	19	37	75.71
15. Quality Circle/ Improvement Teams	6	26	38	81.90
16. Error Prevention	12	21	36	77.14
17. Recognition Programme	11	32	27	74.29
18. Statistical Process Control	11	30	28	73.81
19. Top Management Committee	13	20	36	76.67
20. Strategic Quality Planning	7	23	40	82.38
21. Vendor Partnership	10	35	24	82.38
22. Zero Defects Attitude	23	27	14	56.67

Table 5.16 Ranking of Tiers for Public Hospitals

Tier 1		Percentage
1	Education	85.71
2	Goal Setting	84.76
3	Problem Solving	84.76
4	Management Commitment	84.29
5	Goal Clarity	82.38
6	Strategic Quality Planning	82.38
7	Cost of Quality	81.90
8	Quality Circles/ Improvement Teams	81.90
9	Measurement	80.48
10	Problem Identification	80.48
11	Participative Management	77.62
12	Clear Mission Statement	77.14
13	Error Prevention	77.14
14	Top Management Steering Committee	76.67
15	Publicised Successes	75.71

Tier 2		
16	Vendor Partnership	82.38
17	Recognition Programme	74.29
18	Statistical Process Control	73.81
19	Project Improvement Process	71.90

Tier 3		
20	Customer Satisfaction	70.00
21	Culture Change	67.14
22	Zero Defects Attitude	56.67

Table 5.17 presents a percentile comparison of the public hospital results, the control sample results and the KSA sample results. This table shows that the public hospitals have a less than clear vision statement, an under-emphasised error prevention programme and a declining zero defects attitude compared with the complete KSA sample. Also, the factor of customer satisfaction is strongly under-emphasised. This is expected in this type of hospital where patients have no choice but to go to the hospital, employees know the limited choices of the patient, and thus they do not care if the patient is satisfied or not. Another factor that was over-emphasised in the public hospital is the vendor partnership. For some reason, this factor seems to be important in public hospitals compared with other hospitals.

Table 5.17

Percentile Comparison of Public Hospitals Results with Control Sample and KSA Sample

Activity List	Public Hospitals	Control	Difference	KSA	Difference
Clear Vision Statement	77.14	96.3	-19.16	83.02	-5.88
Cost of Quality	81.90	65.08	16.82	78.96	2.94
Culture Change	67.14	91.09	-23.86	67.46	-0.32
Customer Satisfaction	70.00	97.35	-27.35	81.26	-11.26
Education	85.71	90.48	-4.77	83.82	1.89
Goal Clarity	82.38	86.24	-3.86	84.26	-1.88
Goal Setting	84.76	78.31	6.45	83.73	1.03
Management Commitment	84.29	99.47	-15.18	85.15	-0.86
Measurement	80.48	81.48	-1	79.58	0.9
Participative Management	77.62	87.3	-9.68	75.95	1.67
Problem Identification	80.48	80.95	-0.47	81.17	-0.69
Problem Solving	84.76	82.54	2.22	82.49	2.27
Project Improve. Process	71.90	73.54	-1.64	71.79	0.11
Publicised Successes	75.71	71.96	3.75	69.76	5.95
Quality C./Improve.Teams	81.90	76.72	5.18	73.65	8.25
Error Prevention	77.14	85.19	-8.05	81.70	-4.56
Recognition Programme	74.29	77.78	-3.49	73.21	1.08
Statistical Process Control	73.81	68.78	5.03	75.86	-2.05
Top Manage. Committee	76.67	83.6	-6.93	77.10	-0.43
Strategic Quality Planning	82.38	86.24	-3.86	79.58	2.8
Vendor Partnership	82.38	76.72	5.66	69.85	12.53
Zero Defects	56.67	64.02	-7.35	64.63	-7.96

5.3.4.3 Specialist Hospital Results and Degree of Emphasis

The specialist hospitals are the third type of hospitals that were studied. In this sample, N=132. The results for the specialist hospitals are shown in Table 5.18 and Table 5.19. Overall, the specialist hospital is a good representation of the complete KSA sample. There were few differences between the two samples. The same factors that were listed in the KSA sample in the first tier were listed in the specialist hospital sample.

When comparing the specialist hospital sample with the control USA sample, it was found in the specialist hospital sample that the cost of quality factor and statistical process control were over-emphasised. Both of these factors were listed among the first tier in the specialist hospitals, while they were listed in the last tier in the USA control sample. The culture change factor was also under-emphasised in the specialist hospital more than in the USA control sample.

Table 5.18 Results for Specialist Hospitals

Activity List	Neutral	Important	Critical	%
1. Clear Vision Statement	17	23	87	81.82
2. Cost of Quality	7	40	76	79.55
3. Culture Change	21	53	49	69.19
4. Customer Satisfaction	9	27	91	84.85
5. Education	4	23	88	79.29
6. Goal Clarity	4	29	87	81.57
7. Goal Setting	3	28	87	80.81
8. Management Commitment	1	25	89	80.30
9. Measurement	8	40	71	76.01
10. Participative Management	10	44	62	71.71
11. Problem Identification	8	38	74	77.27
12. Problem Solving	6	32	78	76.76
13. Project Improvement Process	16	54	45	65.40
14. Publicised Successes	18	57	42	65.15
15. Quality Circle/ Improvement Teams	18	42	54	66.67
16. Error Prevention	9	41	77	81.31
17. Recognition Programme	19	50	50	67.26
18. Statistical Process Control	11	54	58	73.99
19. Top Management Committee	20	36	70	76.26
20. Strategic Quality Planning	6	45	73	79.55
21. Vendor Partnership	23	66	40	69.44
22. Zero Defects	37	49	41	65.15

Table 5.19 Ranking of Tiers for Specialist Hospitals

Tier 1		Percentage
1	Customer Satisfaction	84.85
2	Clear Mission Statement	81.82
3	Goal Clarity	81.57
4	Error Prevention	81.31
5	Goal Setting	80.81
6	Management Commitment	80.30
7	Strategic Quality Planning	79.55
8	Cost of Quality	79.55
9	Education	79.29
10	Problem Identification	77.27
11	Problem Solving	76.76
12	Top Management Steering Committee	76.26
13	Measurement	76.01
14	Statistical Process Control	73.99
15	Participative Management	71.71

Tier 2		
16	Vendor Partnership	69.44
17	Culture Change	69.19
18	Quality Circles/ Improvement Teams	67.93
19	Recognition Programme	66.67

Tier 3		
20	Project Improvement Process	65.40
21	Publicised Successes	65.15
22	Zero Defects Attitude	65.15

Table 5.20 shows the differences among the specialist hospital sample, the KSA healthcare sample, and the USA control sample. When comparing the specialist hospital sample with the KSA sample, it was found that eighteen of the factors were further under-emphasised. This means that the awareness and understanding in the specialist hospital was less than in the general KSA sample. The majority of the strongly under-emphasised factors deal with management issues such as management commitment, participative management, problem solving, project improvement process, and quality improvement teams. Also, management is not giving employees enough recognition and is not publicising employees' successes.

Table 5.20

Percentile Comparison of Specialist Hospital Results with Control Sample and KSA Sample

Activity List	Specialist Hospitals	Control	Difference	KSA	Difference
Clear Vision Statement	81.82	96.3	-14.48	83.02	-1.2
Cost of Quality	79.55	65.08	14.47	78.96	0.59
Culture Change	69.19	91.09	-21.9	67.46	1.73
Customer Satisfaction	84.85	97.35	-12.5	81.26	3.59
Education	79.29	90.48	-11.19	83.82	-4.53
Goal Clarity	81.57	86.24	-4.67	84.26	-2.69
Goal Setting	80.81	78.31	2.5	83.73	-2.92
Management Commitment	80.30	99.47	-19.17	85.15	-4.85
Measurement	76.01	81.48	-5.47	79.58	-3.57
Participative Management	71.71	87.3	-15.59	75.95	-4.24
Problem Identification	77.27	80.95	-3.68	81.17	-3.9
Problem Solving	76.76	82.54	-5.78	82.49	-5.73
Project Improve. Process	65.40	73.54	-8.14	71.79	-6.39
Publicised Successes	65.15	71.96	-6.81	69.76	-4.61
Quality C./Improve.Teams	66.67	76.72	-10.05	73.65	-6.98
Error Prevention	81.31	85.19	-3.88	81.70	-0.39
Recognition Programme	67.26	77.78	-10.52	73.21	-5.95
Statistical Process Control	73.99	68.78	5.21	75.86	-1.87
Top Manage. Committee	76.26	83.6	-7.34	77.10	-0.84
Strategic Quality Planning	79.55	86.24	-6.69	79.58	-3
Vendor Partnership	69.44	76.72	-7.28	69.85	-0.41
Zero Defects	65.15	64.02	1.13	64.63	0.52

5.3.4.4 Armed Forces Hospital Results and Degree of Emphasis

Table 5.21 and Table 5.22 present the results of the armed forces hospital sample. In this sample, N=146. Unlike the other samples, the armed force hospital sample does not have a third tier in its ranking. This sample lists 18 factors as critical and four as important. The important factors include publicised successes, vendor partnership, culture change, and zero defects attitude. This can mean that this type of hospital does not seem to have a good understanding of TQM, but does appreciate TQM, and this is why they seem to think that all of the factors are critical or important

Table 5.21 Results for Armed Forces Hospitals

Activity List	Neutral	Important	Critical	%
1. Clear Vision Statement	1	29	112	90.18
2. Cost of Quality	9	61	71	78.54
3. Culture Change	25	56	54	68.26
4. Customer Satisfaction	11	49	82	81.05
5. Education	7	37	99	86.30
6. Goal Clarity	3	33	107	89.04
7. Goal Setting	7	33	103	87.21
8. Management Commitment	0	29	113	90.64
9. Measurement	3	49	89	84.02
10. Participative Management	15	54	74	78.77
11. Problem Identification	8	42	94	85.39
12. Problem Solving	2	50	92	86.30
13. Project Improvement Process	19	55	70	77.40
14. Publicised Successes	27	58	58	72.37
15. Quality Circle/ Improvement Teams	16	57	71	78.31
16. Error Prevention	13	44	88	65.07
17. Recognition Programme	22	55	67	76.03
18. Statistical Process Control	11	62	71	79.45
19. Top Management Committee	19	49	76	78.77
20. Strategic Quality Planning	15	43	82	79.22
21. Vendor Partnership	26	61	52	69.41
22. Zero Defects Attitude	33	53	51	66.67

Table 5.22 Ranking of Tiers for Armed Forces Hospitals

Tier 1		Percentage
1	Management Commitment	90.64
2	Clear Mission Statement	90.18
3	Goal Clarity	89.04
4	Goal Setting	87.21
5	Education	86.30
6	Problem Solving	86.30
7	Problem Identification	85.39
8	Measurement	84.02
9	Customer Satisfaction	81.05
10	Statistical Process Control	79.45
11	Strategic Quality Planning	79.22
12	Top Management Steering Committee	78.77
13	Participative Management	78.77
14	Cost of Quality	78.54
15	Quality Circles/ Improvement Teams	78.31
16	Project Improvement Process	77.40
17	Recognition Programme	76.03

Tier 2		
18	Publicised Successes	72.37
19	Vendor Partnership	69.41
20	Culture Change	68.26
21	Zero Defects Attitude	66.67
22	Error Prevention	65.07

Table 5.21 presents a percentile comparison of the armed forces hospitals, and compares it with the control sample and the KSA sample. The results show that the employees of the armed forces hospitals have a much clearer vision statement than in the other KSA hospitals. Also, the hospitals' goals seem to be clearer, and their goal setting process is believed to be better than the KSA general sample. The commitment of management appears to be better than the general KSA sample, and their project improvement process is even better than in the control sample. The error prevention in these hospitals seems to be much less than in both the control sample and the KSA sample. Overall, the armed forces hospitals seem to have a better understanding of the TQM philosophy when compared to the other hospitals.

Table 5.21

Percentile Comparison of Armed Forces Hospitals Results with Control Sample and KSA Sample

Activity List	Armed Forces Hos.	Control	Difference	KSA	Difference
Clear Vision Statement	90.18	96.3	-6.12	83.02	7.16
Cost of Quality	78.54	65.08	13.46	78.96	-0.42
Culture Change	68.26	91.09	-22.83	67.46	.8
Customer Satisfaction	81.05	97.35	-16.3	81.26	-0.21
Education	86.30	90.48	-4.18	83.82	2.48
Goal Clarity	89.04	86.24	2.8	84.26	4.78
Goal Setting	87.21	78.31	8.9	83.73	3.48
Management Commitment	90.64	99.47	-8.83	85.15	5.49
Measurement	84.02	81.48	2.54	79.58	4.44
Participative Management	78.77	87.3	-8.53	75.95	2.82
Problem Identification	85.39	80.95	4.44	81.17	4.22
Problem Solving	86.30	82.54	3.76	82.49	3.81
Project Improve. Process	77.40	73.54	3.86	71.79	7.61
Publicised Successes	72.37	71.96	0.41	69.76	2.61
Quality C./Improve.Teams	78.31	76.72	1.59	73.65	4.66
Error Prevention	65.07	85.19	-20.12	81.70	-16.63
Recognition Programme	76.03	77.78	-1.75	73.21	0.17
Statistical Process Control	79.45	68.78	10.67	75.86	3.59
Top Manage. Committee	78.77	83.6	-4.83	77.10	1.67
Strategic Quality Planning	79.22	86.24	-7.02	79.58	-0.36
Vendor Partnership	69.41	76.72	-7.31	69.85	-0.44
Zero Defects	66.67	64.02	2.65	64.63	2.04

5.3.2.5 Similarities and Differences Among Types of Hospitals

Among the hospitals, there were some similarities as well as some differences. These include:

- All four types of hospitals over-emphasised the education factor as a critical one. The public hospitals rated it as the most critical of all the factors, and the private hospitals rated it as the second most critical of all the factors. When compared to the control sample, this was considered positive.

- The culture change factor was under-emphasised in all the hospital types. In the private hospitals, it was rated the last in the third tier. In the public hospitals, culture change was rated next to last of the third tier. Both the specialist and the armed forces hospitals rated it in the second tier, but in the armed forces hospitals, it was next to last and there was no third tier. This is a negative point, since in the control sample, culture change was among the critical factors.

- Management commitment, clear mission statement and error prevention were rated in all hospitals as critical factors. This is a positive point when compared to the control sample.

- As in the control sample, customer satisfaction was over-emphasised in all the hospital types, except in the public hospitals where it was rated in the lowest tier.

- As in the control sample, participative management, strategic quality planning, and top management committee were among the critical factors in the first tier in all types of hospitals except the private hospitals.

5.4 Benchmarking Against Other Regions of World

In order to assess whether there are cultural differences in perceiving quality, or whether there is a peculiarity to the KSA healthcare study, a benchmarking exercise was conducted to compare and contrast various cultural settings. The original questionnaire from the Ramirez and Loney study was applied to data sets from different regions of the world which were:

- KSA industrial corporate study (Aly, 1997).
- Middle East - a cross-section of the GCC countries (Youssef and Zairi, 1995).
- South East Asia - represented by Malaysia and Singapore (Youssef and Zairi, 1995).
- UK healthcare study (Youssef and Zairi, 1995).

The 22 factors of the Ramirez and Loney (1993) study were benchmarked to assess how TQM is perceived in all the above regions. Their perceptions were than compared and contrasted with the original study, which was used as the control group. This provided an opportunity to check whether the list of critical factors is applicable in different regions of the world. In addition, the benchmarking exercise provided an opportunity to compare and contrast the special culture profile of the KSA healthcare study. Table 5.16 shows a comparison of the critical factors that are over- emphasised or under-emphasised in different regions of the world. The tiered-ranking of quality activities in the different regions of the world are shown in Figures 5.9 – 5.12.

Table 5.22

Comparison of Critical Factors in Different Regions of World

Activity	KSA Healthcare	KSA Industrial	South East Asia	Middle East	UK/ NHS
Clear Vision Statement	-13.28	-7.9	-8.53	-4.15	-31.63
Cost of Quality	13.88	5.56	10.47	5.5	-29.75
Culture Change	-23.27	-20.7	-12.13	-18.47	-32.34
Customer Satisfaction	-16.09	-6.03	-11.8	-15	-26.68
Education	-6.66	-4.77	-12.71	-4.21	-47.15
Goal Clarity	-1.98	-1.42	-5.13	-1.93	-28.24
Goal Setting	5.42	5.33	0.57	7.96	-17.64
Management Commitment	-14.32	-6.92	-13.92	-5.36	-24.14
Measurement	-1.9	-7.36	-10.37	-8.49	-28.81
Participative Management	-11.35	-10.83	-8.42	-10.83	-39.3
Problem Identification	0.22	3.03	-3.18	-10.37	-24.95
Problem Solving	-.05	2.33	-5.88	-11.96	-30.54
Project Improve. Process	-1.75	-3.46	-1.32	-2.96	-6.21
Publicised Successes	-2.2	-6.92	-7.52	-9.22	-7.96
Quality C./Improve.Teams	-3.07	-2.88	-2.28	-10.06	-6.05
Error Prevention	-3.49	-6.65	-12.97	-22.45	-18.52
Recognition Programme	-4.57	-3.38	-0.01	-7.2	-23.78
Statistical Process Control	7.08	2.7	1.22	-8	-28.11
Top Manage. Committee	-6.5	-3.71	-6.94	-7.13	-23.6
Strategic Quality Planning	-6.66	-5.18	-12.91	-7.81	-30.91
Vendor Partnership	-6.87	-6.3	-6.72	-21.82	-8.72
Zero Defects	0.61	10.77	1.53	-3.24	-30.02

5.4.1 KSA Industrial Study

The KSA industrial study (Aly, 1997) highlighted large variation and key gaps in the levels of understanding of TQM factors across all of the industrial operations in a particular industrial organisation. It is important to note that although this study was conducted in the KSA, this particular organisation was not segregated and it employed only males. Thus, a direct comparison between this KSA industrial study and the healthcare KSA study cannot be made. Among the findings of this industrial study that were similar to the KSA healthcare study are the following:

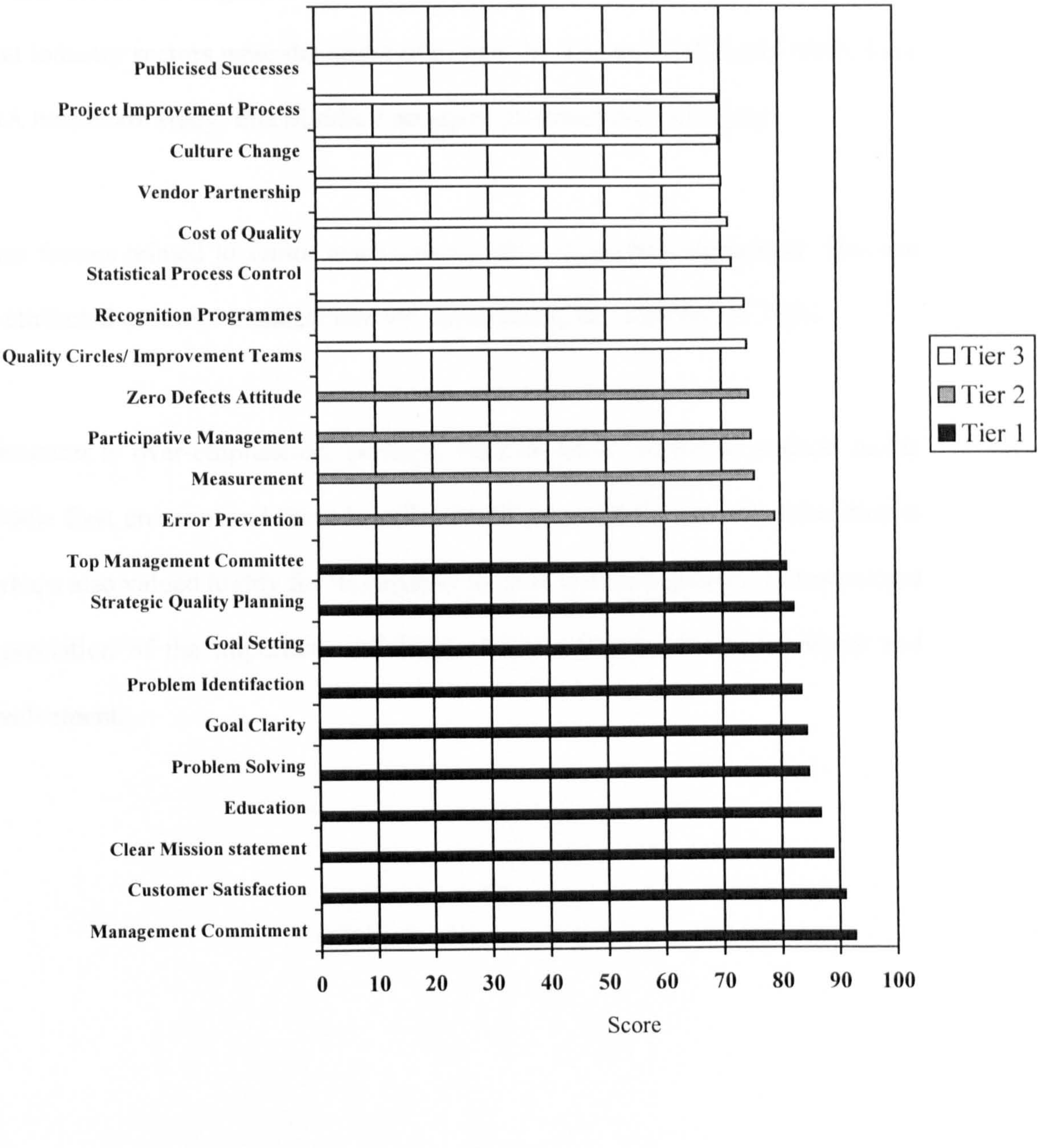
- There are clear indications that TQM is not yet understood as a way of managing the organisation. Factors such as having strategic quality planning, participative management and deploying quality have not been highlighted at the appropriate level.

- There was a lot of confusion about the meaning of culture change. The concept of culture is however complicated, and it has many connotations. One essential role of TQM is to modify people's behaviour and attitudes. The results indicate that this task has not been recognised.

- The spirit of continuous improvement has not been fully realised. Factors which relate to the application of quality improvement through projects and in a cross-functional way are not yet visible.

- TQM stresses the relationship between teams, and it values employees through commitment to their education, training, rewards and recognition. All these areas were under-emphasised.

Figure 5.9 Ranking of Quality Activities: KSA Industrial Study



Source: Aly (1997)

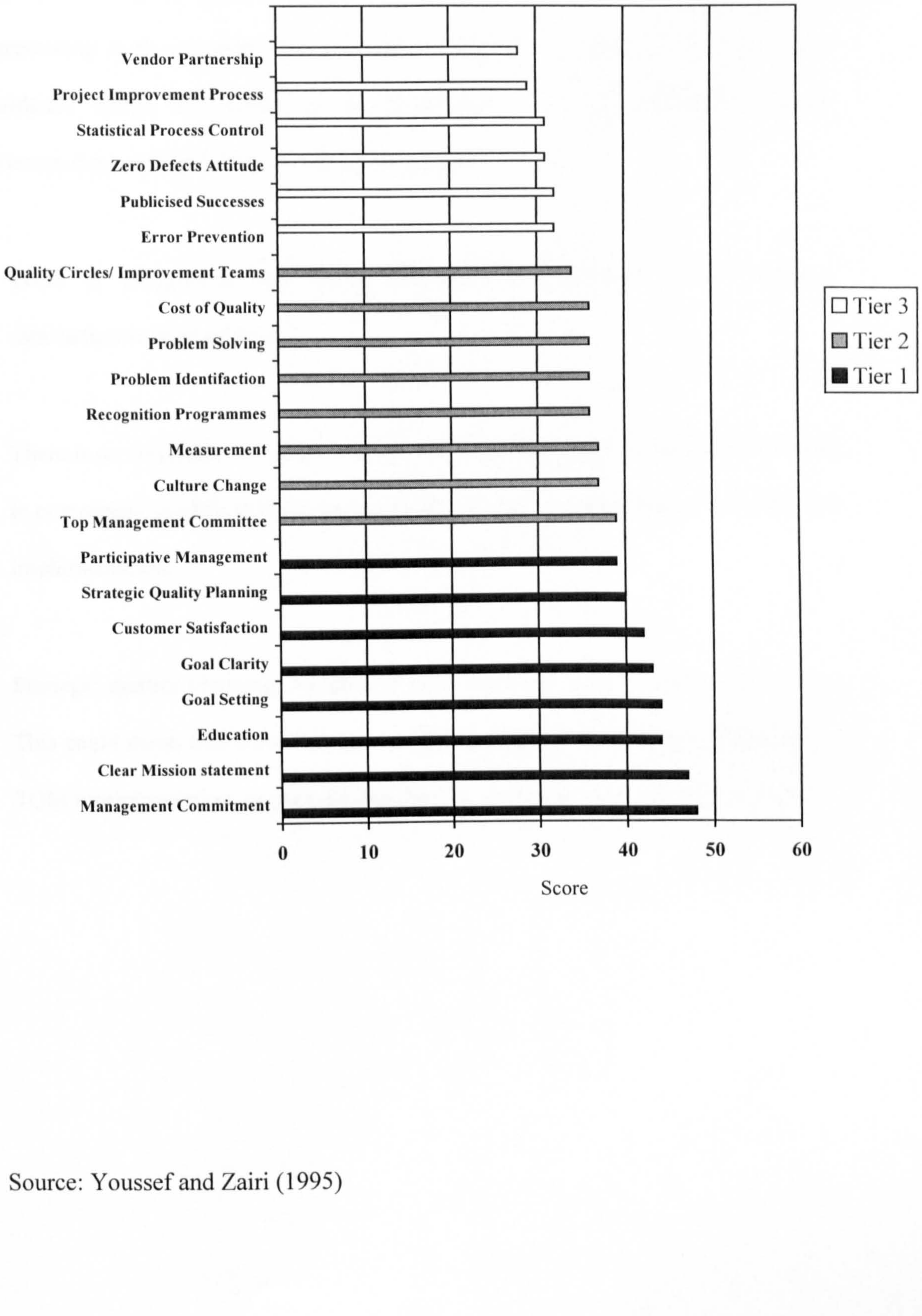
5.4.2 Middle East Study

In the Middle East, there are many organisations that are embracing TQM methods. Senior and middle managers from five Middle Eastern countries and representing different industry sectors were the target of a study by Youssef and Zairi (1995). Like the KSA healthcare study, this Middle East study indicated the following:

- Most factors related to senior management roles are under-emphasised. This can be attributed to senior management not appreciating the potential of TQM.

- Education is over-emphasised, perhaps, because most industrial projects in the Middle East are new and there is still a lot of potential for growth. Education is perhaps also valued highly for its capacity to raise top management awareness and appreciation of the importance of TQM and to achieve their commitment and involvement.

Figure 5.10 - Ranking of Quality Activities: Middle East



Source: Youssef and Zairi (1995)

5.4.3 South East Asia Study

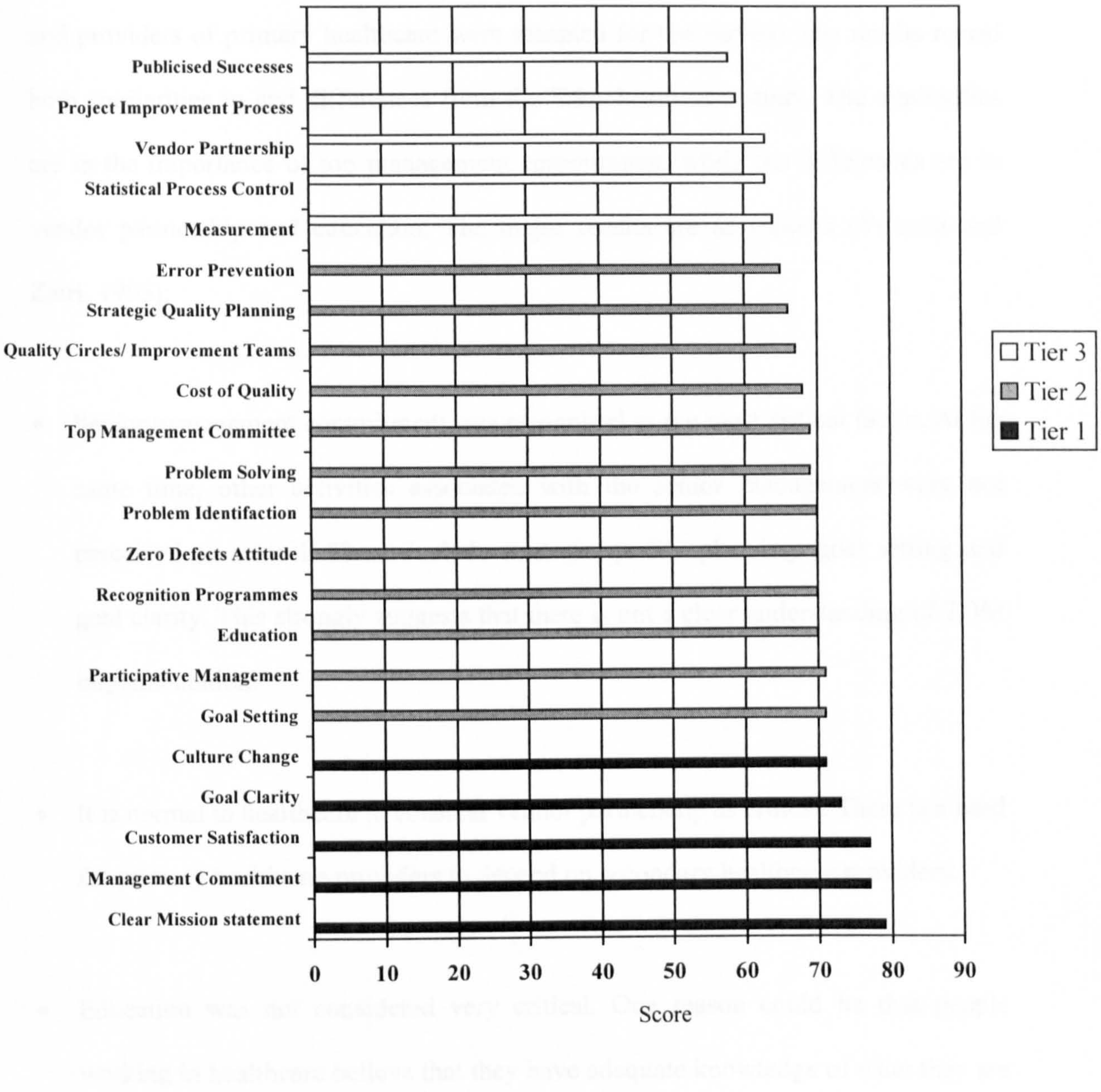
The South East Asia study by Youssef and Zairi (1995) concentrated on two countries, Malaysia and Singapore. The target sample consisted of managers representing both countries and serving in different industries. Unlike the KSA healthcare study, the results of the South East Asia study indicate a better understanding of TQM. The findings indicate that:

- There is recognition that senior management commitment and customer satisfaction is most critical.

- There is an emphasis on culture change, which in turn suggests that there is a need to completely modify attitudes and methods of work to ensure the success of TQM implementation.

- Strategic quality planning, which is a very important task, is ranked rather low. This could mean that there is a poor understanding of senior management role in TQM implementation, or perhaps that there is confusion about the role of TQM.

Figure 5.11 - Ranking of quality Activities: South East Asia



Source: Youssef and Zairi (1995)

5.4.4 UK/ NHS Study

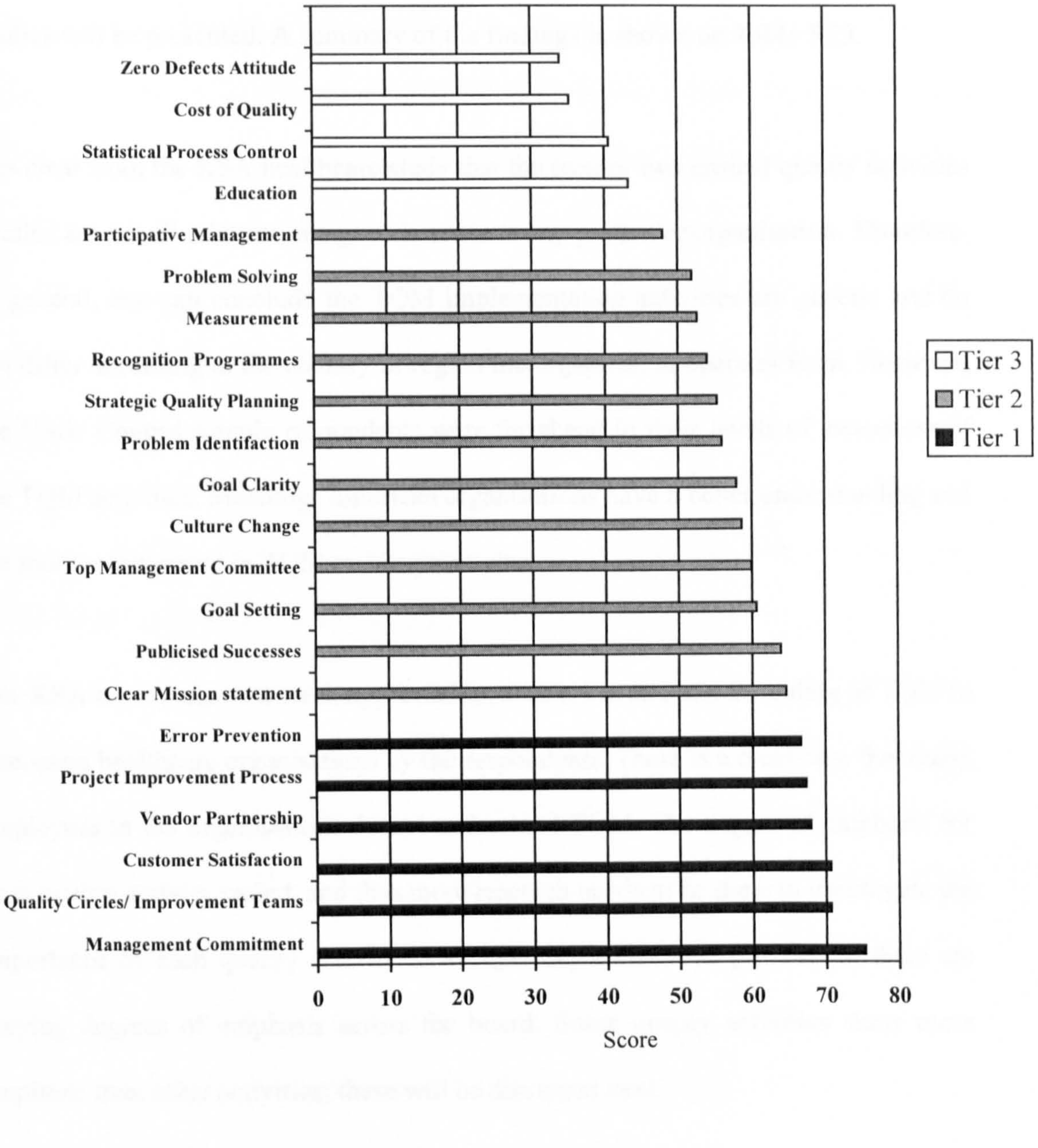
Radical changes are taking place in healthcare in the UK, and TQM is considered an opportunity for facilitating the implementation of these changes. General practices and providers of primary healthcare were sampled for the survey. The results reveal both similarities to and differences from the KSA healthcare study. The similarities are in the importance of top management commitment, while the differences are in vendor partnership and education. The major results are as follows (Youssef and Zairi, 1995):

- Senior management commitment was recognised as the most critical factor. At the same time, other activities associated with the senior management were not perceived as critical. These include strategic quality planning, goal setting and goal clarity. This strongly suggests that there is not a clear understanding of TQM implementation.

- It is normal in healthcare to consider vendor partnership as critical. There is a need for primary healthcare providers to depend on secondary healthcare providers.

- Education was not considered very critical. One reason could be that people working in healthcare believe that they have adequate knowledge of what they are supposed to be doing in providing quality service to patients.

Figure 5.12 - Ranking of Quality Activities: UK Health-Care Study



Source: Youssef and Zairi (1995)

5.5 Quantitative Key Findings

This section will highlight the quantitative key findings that were either unique or peculiar to the Saudi context. Also, a comparison of the survey findings and other studies will be presented. A summary of the findings is shown on Table 5.23.

It is clear from the KSA healthcare study that the twenty-two critical quality activities studied are not all relevant in a generic sense to any particular organisation. Therefore, in general, one can conclude the TQM implementation activities are generic and do not differ according to the country or region the organisation operates from. However, the USA/ Control sample respondents were far ahead in their levels of awareness of the TQM activities. Meaning, American organisations have a better understanding and are more experienced in TQM and its principles.

The KSA survey shows a weak appreciation, awareness and understanding of TQM in managing healthcare organisations by the respondents. There is a clear case that many employees in the organisations do not understand TQM. The degree of emphasis for each quality activity varied, and thus more research needs to be done to investigate the importance of each quality activity to a TQM implementation process, as there are varying degrees of emphasis across the board. Some quality activities show more emphasis than other activities; these will be discussed next.

The senior management activity was ranked as the most critical factor in the KSA healthcare survey. The employees in the KSA healthcare system seem to realise that there is a strong management commitment but when compared to the USA sample, this factor was still less emphasised. Though the findings of this study suggest that

management commitment and TQM success are related, they also reveal that organisational experience in integrating the two together is still at its infancy and more research might be needed in this regard. For TQM to be introduced successfully there has to be top management commitment and this is to be demonstrated through active involvement, setting clear goals and a vision for the organisation and integrating TQM into the strategic quality planning process (Youssef and Zairi, 1995).

Education is another activity that was ranked critical in the KSA healthcare survey. This is probably because healthcare in the KSA is still developing; therefore the employees recognise the need for learning through transfer of technology, practices, and methods from developed economies. There is an urgent need to raise levels of awareness and understanding of TQM so as to be able to minimise barriers in the implementation process that are related with the workforce.

Also, the customer satisfaction activity was ranked high on the list. The employees seem to understand the primary purpose of TQM is to achieve complete customer satisfaction yet it was still less emphasised than the USA/ Control sample. This will in turn impact on the healthcare organisations level of competitiveness and prosperity.

Another highly ranked activity was cost of quality. This seems to indicate that the employees in the KSA healthcare system are still under the traditional believe that quality costs. The USA sample ranked this factor next to the last in the neutral tier. The difference between the two countries show that the KSA sample still do not comprehend the true meaning of TQM.

Culture change was one factor that was less emphasised and was ranked as a neutral factor in the KSA healthcare survey. This activity caused some confusion among some respondents. Respondents were not aware this was an organisational behaviour issue, mainly related to people and work. Successful TQM implementation can only come from radically challenging and changing the culture of the organisation. If the KSA healthcare employees recognise this, they will need to modify attitudes and methods of work to ensure total compatibility with modern business requirements. The KSA healthcare employees seem to be reluctant of changing the organisation culture, possibly for reasons such as unwillingness to change their segregated culture profile or they are unsure if the organisation culture can be changed without changing some of the societal culture.

When KSA general sample was split into two different gender samples (male/ female), it was interesting to see that the male sample was representative of the general sample yet the female sample showed something completely different in the culture change factor. The female sample ranked the culture change activity as critical. This unique and peculiar finding needs to be investigated further to be understood more clearly. Some of the reasons for this peculiar finding include: the segregated culture seems to be felt more by the females than the males; TQM is better understood by the female sample; the females are ready to change the organisation culture because the segregation issue is causing some problems for them.

When comparing the general KSA sample to other studies in different regions of the world, it was found that senior management commitment activity was ranked as the critical factor in all regions. Employees in different sectors in different regions of the

world recognise that without the commitment of management, successful TQM implementation in the organisation cannot be accomplished; yet in all regions, this activity was less emphasised than the USA/ Control sample.

Education was ranked critical in all the Middle Eastern studies. Similar to the KSA healthcare study, this is probably due to the fact that the organisations in the Middle East are still underdeveloped. Therefore, the employees recognise the need for learning through transfer of technology, practices, and methods from developed economies.

The KSA industrial study findings are similar to the KSA healthcare study findings in that it does not recognises culture change as a critical factor. The two studies have the same culture profile. The probable cause might be that the employees in both studies cannot yet distinguish between organisational culture and societal culture or they both misunderstood the true meaning of the cultural change activity.

5.5.1 Quantitative Findings and Segregation

According to the quantitative analysis, there are some peculiar findings where segregation may have an affect on the delivery of quality in the KSA healthcare organisations. First the KSA general sample did not seem to recognise culture change as a critical activity in the implementation of TQM. On the opposite end, the female sample did seem to recognise that culture change as a critical activity. The non-consistency of the gender finding may be caused by the fact that females are more affected by segregation than the males. This finding need to be further researched.

Table 5.23 Summary of the Perception and Understanding Survey

Study	Major Findings		Comments
	Critical Factors	Neutral Factors	
KSA Healthcare Study KSA General Sample	-Senior Management commitment (Most critical factor) -Education -Customer satisfaction -Cost of quality	-Culture change	-Although commitment and education are ranked critical, they do not seem to be related to quality because of the overall findings which show that complete understanding of TQM is not yet reached.
KSA Male Sample	-Representative of General Sample	-Representative of General Sample	
KSA Female Sample	-Culture change (strong variation) -Education (most critical factor)		-The strong variation in the culture change factor in the female sample might have a relationship with segregation
KSA Private Hospital Sample	-Customer satisfaction (most critical factor) -Education -Management commitment	-Culture change -Other senior management factors	
KSA Public Hospital Sample	-Education (most critical factor) -Management Commitment -Cost of quality	-Customer satisfaction -Culture change	
KSA Specialists Hospital Sample	-Customer satisfaction (most critical factor) -Management commitment -Cost of quality -Education		
KSA Armed Forces Hospital Sample	-Senior management commitment (most critical factor) -Education -Customer satisfaction -Cost of quality		
KSA Industrial Study (Aly, 1997)	-Senior management commitment (most critical factor) -Customer satisfaction -Education	-Culture change	-Similar findings to the KSA healthcare survey
Middle East Study (Youssef and Zairi, 1995)	-Senior management commitment (most critical factor) -Education	-Other senior management factors	
South East Asia Study (Youssef and Zairi, 1995)	-Senior management commitment -Customer satisfaction -Culture change	-Strategic quality planning -Vendor partnership	
UK/ NHS Study (Youssef and Zairi, 1995)	-Senior management commitment (most critical factor)	-Education -Other senior management factors	

5.6 Summary

The list of 22 factors generated by Ramirez and Loney (1993) proved to be a very useful vehicle for checking the applicability of the critical factors of TQM in a much wider context. The KSA healthcare survey provided us with a better view of the perception and understanding of the critical factors of TQM in this particular segregated environment. The findings in this survey can not show if a segregated environment may weaken or slow the implementation of TQM in the KSA healthcare system. The results indicate that TQM in the KSA healthcare system is still in its infancy. The benchmarking exercise presents an overview of where the KSA healthcare system stands when compared to the original study and other regions in the world. The survey does not show strong discrepancies between the KSA segregated profile and other regions of the world.

It appears that in nearly all these cases, TQM is still in the early stages of implementation. Therefore, the level of awareness and perception of the potential of the quality philosophy is still embryonic. The literature strongly suggests that successful TQM implementation can come only from top management commitment invoking radical changes in the culture of the organisation, with more emphasis on employee involvement and less emphasis on the cost of quality. TQM is a long-term process that relies on relative achievement through continuous improvement, and should be given enough time, energy, and commitment from everyone within the organisation, regardless of its location in the world. TQM with its value system can be customised to fit any culture profile if there is a strong belief in the potential of quality improvement.

Chapter Six

Qualitative Analysis: KSA, UK, and USA Cases

6.1 Introduction

The Saudi experience with quality in healthcare is still young. The perception and understanding survey in Chapter Six confirmed that the awareness of the TQM philosophy in Saudi hospitals is not up to the standards of the gurus and the award winners. Yet, considering the history of the country, Saudi Arabia has came long way in the implementation of quality. This chapter will study the journey of TQM in certain Saudi hospitals, UK hospitals, and USA hospitals. This is done to understand the differences between the Saudi experience and the more developed and advanced western experience. Four different types of hospitals were chosen from the Kingdom of Saudi Arabia, two hospitals were selected from the UK, and two hospitals were selected from the USA. Information was collected from face-to-face interviews in the KSA and UK hospitals, while in the USA hospitals information was collected using the telephone and mail services. The Baldrige Criteria were used to evaluate these hospitals.

For each of the hospitals a profile is given, followed by a discussion of eight major points used in the Baldrige assessment. These are:

- Organisational Leadership
- Public Responsibility and Citizenship
- Strategy Development and Deployment
- Patient/Customer Healthcare Market Knowledge, Satisfaction, and Relationships.

- Measurements and Analysis of Organisational Performance
- Staff Work Systems, Development, and Satisfaction
- Healthcare Service Processes
- Organisational Effectiveness Results

6.2 Saudi Case Studies

Four different types of hospitals in the Kingdom of Saudi Arabia were studied. Since confidentiality was promised (as discussed in Chapter Five), each hospital is referred to by a letter of the alphabet. The first was a specialist hospital referred to as Hospital A. The second was an armed forces hospital referred to as Hospital B. The third was a public hospital referred to as Hospital C. The fourth was a private hospital referred to as Hospital D. Each of the Saudi hospitals will be explored according to the Baldrige Criteria. In addition, a discussion of the segregated situation for each hospital will be presented.

6.2.1 Hospital A

After a century of development by leading medical world centres, this 26 year-old hospital has been striving to reach a standard of excellence equal to the best in the world. The hospital expects that ongoing organisational changes, new patient care systems, and the acquisition of the most up-to-date equipment will ensure its position among leading medical institutions, and even surpass them. The hospital mission is to provide citizens of Saudi Arabia with the highest level of co-ordinated, multidisciplinary care, while also providing patients with a full range of medical and dental services equal to the best available in leading centres of medical excellence. The hospital fulfils the commitment to this mission by training Saudi medical

personnel, recruiting teams of highly skilled Saudi and international healthcare professionals, and establishing collaborative relationships with internationally recognised institutions.

This 583-bed tertiary care facility is considered among the best in the country. The hospital contains 15 medical departments, each with its own chairman. The hospital has a total staff of 6,487, comprising 58 different nationalities. The medical staff, including Saudi residents and fellows, total 603, 46% of whom are expatriates (including 19% US/Canadian and 11 % European) and 54% of whom are Saudis. The nursing staff totals 1,158 (23% from Canada and 11% from the US). The other nursing staffs are from the United Kingdom, Europe, Australia, New Zealand, the Philippines, Saudi Arabia, and other countries. The clinical staff are made up of 1,160 employees.

The hospital publishes a bi-monthly multidisciplinary medical journal in English. The *Annals of Saudi Medicine* contains original articles, case reports, letters to the editor, editorials, and special reviews dealing with various aspects of clinical, academic or investigative medicine or research. Emphasis is placed on matters relating to medicine in Saudi Arabia in particular, and the Middle East in general. The Health Science Library is one of the most comprehensive and modern medical libraries in the region. It has 620 active subscriptions and over 23,000 medical books. There is a hospital-wide network that connects mainframe, servers, and clients, serving medical and administrative systems.

The benefits offered to employees include: full medical and dental benefits; annual leave and holidays (50 days); business leave to perform work-related functions; initial, annual and repatriation tickets; relocation allowance; and an end of contract benefit of half a month's salary for each service year for the first four years, increasing to one month's salary for each subsequent year of service. Staff are provided with fully furnished and air-conditioned accommodation with free electricity and utilities.

The employee social club offers many recreational opportunities, including exercise areas, a bowling alley, lighted tennis and squash courts, and large outdoor pool. Available activities include swimming and aerobics classes, team sports, marathons, horseback riding, and special classes for crafts, hobbies, and cooking.

During the past five years, the hospital has seen a rapid increase in patient referrals, expansion of facilities, use of new techniques, and growth in research. During this period, the average daily inpatient census has increased by 24%, operating room cases by 22%, outpatient visits (excluding emergency room visits) by 29%, and emergency room visits by 45%.

6.2.1.1 Organisational Leadership

Senior leaders set, communicate, and deploy organisational values through regular meetings, such as:

- Senior leaders meet with staff every two weeks
- Senior leaders meet with each other every other day

Joint planning meetings is one method used to ensure alignment of organisational direction as part of a collaborative leadership system. In addition, senior leadership ensures both administrative/operational and healthcare provider staff are included in the meetings. Senior leaders take steps takes steps to ensure that the goals of the administrative and medical staff are aligned. They regularly communicate values to staff to ensure the values are implemented in their work.

Senior leadership encourages staff innovation and acknowledges it, for example the Emergency Room remodelling. It started being the idea of a staff member, then it reached the QA director who took it to the senior director and got it approved. Then the employee was recognised and rewarded.

Senior leadership spend some of their time on performance improvement activity. They really seem to care about the hospital but they do not seem to be totally committed to quality. They carry out visible activities, such as planning, goal setting, recognition and reward of performance, and healthcare process improvement. They participate in performance improvement teams and use tools to enhance the process of performance improvement, such as Critical Path Method (CPM), process flow charts, Cost-benefit Analysis, Quality progress, employee satisfaction survey, etc..

Senior leaders mentor medical and administrative staff and ensure promotion criteria are critically processed by committee vote. They do weekly rounds in the patient care area. They always tell staff to be very critical of their jobs and surroundings and report anything that might be wrong or might improve the hospital.

The mission statement is put on the back of every employee's nametag. Also, it is framed and hung in every ward and all entrances. The Patient Bill of Rights is on posters in every room. But these seem to be activities that the quality department is implementing that are not well understood by the management or the staff.

Senior leadership do not always rely on data in their decision making. They sometimes rely on instinct. They feel that the financial data available are weak. The hospital has just purchased a new information system called CERNER which is supposed to increase the reliability of the data. It includes supply, patient, consumption, staff, morbidity, and medication error information.

6.2.1.2 Public Responsibility and Citizenship

Societal requirements arising from regulation/ legal requirements are addressed as they arise. The hospital follows the international laws and the beneficial MOH laws. The legal requirements go through a regular process. They start with the CEO, who will send them to the department concerned, and the department will implement the law accordingly. An example of an MOH law is not to put the cause of death on any aids patient.

The planning process takes into account the regular events such as the pilgrimage season, seasonal flu injections for all staff by the employee health vaccination department, and milgitis and hepatitis are always planned for. Other unpredictable matters are not planned for, which presents a weakness, because they are dealt with as they come. Indicators for risk areas are identified and monitored, such as re-

admittance to the ER within 24 hours and re-admittance to the hospital within 15 days.

Ethical committees are responsible for maintaining the ethics of the hospital. This is done by regular surveys. They overview the new medicines trials, a process called Protocol. They oversee all consents of patients, and they ensure that the patient understands everything and has the right to reject anything.

The medical outreach programme was established in 1996 to encourage specialist staff to share their knowledge and skills with colleagues in other regions of the kingdom, thereby ensuring that citizens at a distance from the hospital have access to more convenient and cost-effective healthcare. To date, consultants have made over 1,000 visits to regional clinics, and more than 15,000 patients have had the advantage of their advice.

6.2.1.3 Strategy Development and Deployment

The business board of the senior leaders is responsible for developing and setting the strategies for the hospital. The strategies are suggested by each board member's area of responsibility. The hospital is implementing strategies that will transfer it from being government-dependent to financially independent. This has been accomplished by turning the hospital from 6.00 pm to 10.00 pm into a private clinic. Another ongoing strategy is the building of a hotel next to the hospital. The hotel profits will be another income source.

There is only one hospital that competes with this hospital. This was after the former CEO was transferred to this hospital. He managed to take with him some of the best staff available. The major competition is not for patients, but rather for finances from the government and manpower. For example, the first liver transplant centre was built by the competition, even though this particular hospital tried to compete for it.

Senior leaders in the committee introduce the strategic objectives. These objectives are identified and timetables for accomplishing them are set, for both the hospital and the research centre. Options to obtain best performance for the strategic objectives are systematically evaluated against the internal and external factors used in the strategy development process. Future strategies are limited.

Plans are in place to optimise clinical and clinical process performance and improve patient care. This is accomplished by streamlining work processes and reducing cycle time. Strategies are reviewed and renewed, if necessary, on a yearly basis. Each department submits a suggested written plan. Zero base budgeting is used.

Methods of improving co-operation between healthcare providers and administrative and support staff are part of the organisation's strategic plan. Also, strategies to achieve key organisational results in the clinical and service performance requirements are defined.

The hospital plans are realistic and they guide operational performance improvements. Planned Quality for clinical and service performance levels is defined in measurable terms for key healthcare services. The resources were not available to accomplish all

the pre-set plans. But today, after the government paid the debts of the hospital and demanded that avenue be found for a new source of income, things are looking better. After setting criteria, performance data are collected from all departments. Everyone is involved, the patients, the staff, and the chairmen of the departments. Afterwards, the chairmen meet with top management and develop a strategy for improvements as needed. The quality department plays a strong role in this area. On a weekly basis, it surveys a random department and measures the performance levels. If there is major change in performance, a report is filed to the specific department to work on performance improvement. Plans for more than a year of future projections do not exist.

6.2.1.4 Patient/Customer Healthcare Market Knowledge, Satisfaction and Relationships

The market for the hospital is not an issue in this specific hospital because there is no competition. There is an overflow of people wanting to be admitted, whether they are self-paying or government-paid. It is considered to be a privilege to receive medical attention from this hospital

The organisation determines the satisfaction of its patients and other customers by administering regular surveys. Surveys are used to determine patient access requirements. There is a system to ensure patient and other customer complaints are resolved promptly and effectively. Patient complaints are dealt with immediately to determine root causes of problems.

The government-paid patients are usually illiterate and are afraid of reporting any negative comment. They are very thankful that they are being treated in this hospital and they do not want to harm what they have. The self-paying are usually literate and they demand what they deserve.

The language barrier between the patients and the staff is a concern. It limits the relationship between them. Also, the religion barrier separates the international staff from the patients and limits their relationship.

The hospital leaders and staff have developed superb education materials appropriate to the various age groups they serve. It is evident that staff worked diligently to provide the education to patients and families, as needed. This has been acknowledged by the Joint Commission for International Accreditation (JCI).

Patient satisfaction surveys focus on both service and clinical quality measures. The process of data collection on patient/customer satisfaction and dissatisfaction is regularly evaluated and improved by the quality department. The Social Services and Patients Relations department collects data every month, representing 5% of a random department. The data are analysed and measured against a pre-set percentage to see effectiveness. Afterwards, if the results are positive, a report is sent to the specific department, and if the results are negative then the department is revisited and a call for improvement is made. Patient/ customer satisfaction includes complaints, litigation, and rework.

The Medical and Clinical Operation department investigates staff who receive complaints from patients. The incident report (e.g. slip and fall, abuse, theft) is filed to the quality department. The quality department will check if it is preventable and deal with it. There is an on-line complaint system for staff and patients, which used to be on paper. Patients file their complaints through staff on-line.

6.2.1.5 Measurement and Analysis of Organisational Performance

Information is collected from all departments and tied to the healthcare organisation's strategic and action plans. All staff have access to the information and data necessary to manage key processes effectively and make decisions about their work. Quality data are collected and used for management decisions. Also, internal and external data are used to describe customer satisfaction and clinical and service performance. Data are maintained on staff-related issues of satisfaction, morale, safety, education, and training, use of teams, and recognition and reward. The performance measurement system is systematically evaluated and refined. No benchmarking has been done yet.

The data collected goes to the Executive Director of the Medical Operation and Concern department which deals with it accordingly. Also, nursing staff representatives meet with the purchasing department to find opportunities to reduce use of high cost supplies, especially at the time when the hospital was in debt.

6.2.1.6 Staff Work Systems, Development, and Satisfaction

Every job in the hospital has job description, job specification, and job requirements. When employing someone new, the department in charge is responsible for training him/her for any lack of skill. Also, if recruits do not meet the department standards,

there is a 3-month trial period in which they can be dismissed. The hospital tries to use all its employees' talents. Managers use work teams to break down barriers, improve effectiveness, and meet goals. Staff opinions are sought regarding work design and work processes.

Performance measures exist for staff involvement, self-direction, and initiative. Goals for these measures are expressed in measurable terms. These measurable goals form a high percentage of the basis for performance recognition. The annual and ongoing evaluations of staff and their ability to provide competent patient care are complete, well documented, and use very well conceived tools. Of particular note is the forms and process used to evaluate the medical staff. These forms cover the activities of the staff in clinical care, administrative assignments, education and research. The comments and levels of review are designed to ensure the ongoing competence of a large and diverse medical staff.

Healthcare education has been extended beyond the kingdom and to other parts of the world. This has been acknowledged in the Joint Commission for International accreditation. There are five departments which deliver education to staff. They include Quality Resources, Nursing Education, Training and Development, Performance Development, and Academic Affairs.

The hospital invests in its employees. Internal training is very strong, while external training is less so because it requires more finances, but the hospital deals with it, as it needs to invest in its people. There is a clear linkage between strategic objectives and the education and training that is provided. Skills are developed based on work

demands and employee needs. Staff input is considered when developing training plans. Staff career and personal development options include development for leaders, safety, and new staff orientation. There is on-the-job training such as rotational assignments. There is no evidence of any education or training on quality except for the quality department. Staff feedback on the appropriateness of the training is collected and used to improve course delivery and content, and staff satisfaction with courses is tracked.

There are many issues related to this area. First, the multi-nationality staff create a climate that distorts communications somewhat because of the language and religion. There are silent prejudices between Saudi nationals, westerners, and easterners. The Islamic religion poses strong rules that are somewhat difficult for internationals to follow. Also, the segregation of male and female always exists and when it is not evident, it is in the mind. There are differences in the treatment of males and females. Saudi males are bothered by a female boss, whether it is for ego reasons or they feel threatened by it. Promotions are rare for females. However, there are a few changes now. There are two female chairmen of departments. Female workers threaten Saudi males because they are hard workers. Sometimes males accept them as a person but not as a co-worker. There is a gap in the communication process between the genders because they are both afraid of public opinion. For example, they do not walk side by side in the corridors. They are afraid of rumours.

Special activities and services are available for employees. They have great benefit packages which include education of children, yearly salary bonus, and yearly tickets. A negative point is the differences among the salaries. The Americans/ Canadians

have the highest salaries, followed by the Europeans, then the Saudis, and finally the Easterners. There is a complete sports club, restaurants, bowling, and other activities available for the employees. The international staff live together in their own compounds.

Staff satisfaction opinion indicators are gathered periodically. Staff satisfaction is not very high, especially after the debt crisis of the hospital. There were strong rumours that benefits would be cut, and even though they were in fact rumours rumours, staff satisfaction was at its lowest. The language barrier is a strong factor in the satisfaction of staff. Also, the international staff does not have a complete understanding of the religion, traditions, and customs of the Saudi culture, which always leaves them at a disadvantage with their patients, which leads to further dissatisfaction.

The biases and prejudices of the groups within the hospital make the job difficult when the organisation is trying to satisfy them. Each group wants to work with its own and promote its own. This was caused by the old leadership. Now, things are changing for the better.

6.2.1.7 Healthcare Service Processes

Most healthcare delivery processes are flow-charted for the organisation. There are mandates that processes be reviewed every 3 years, or otherwise as needed. Some processes have never been changed because it was felt that there is no need. Time and motion study is mandatory for all processes. In labour areas, cycle time is an important measure of the processes. There are 11 major committees where new processes can be introduced. Corrections are monitored and verified. Improvements

are shared throughout the healthcare organisation. Processes are reviewed to improve productivity and reduce waste. Tools are used, such as flowcharting, to improve work processes.

Incorporating new technology into healthcare services and into service delivery systems is difficult. The Bio-Medical Engineering department is responsible for updating the technology. The hospital tries to update as much as its financial situation allows for. If there is a need for new technology by an influential member in the hospital, than the department will mostly likely receive it. There are hospital care management teams, which are comprised of nurses, case managers, social workers, pharmacists, and others. These teams increase responsiveness to patient needs and improve communication.

Patients' expectations fall into two categories. There is the passive patient who is thankful to be accepted in this hospital and is afraid to say anything because he/she is used to the MOH hospital system and knows the alternatives. There is the educated patient who expects a certain health delivery service and will ask for it if he/she does not receive it.

The key support processes include Environmental department, CSSD department, Central Supply Services, Pets Control department, Food Services department, Laundry department, Transportation department, Office Services department, and Housekeeping department. These departments have less priority because they are weak, and no one listens to them. Also, their equipment is very old, and they are usually the easiest to blame for any mistake.

Suppliers were handled very badly because they were not paid. One supplier in England refused to work with them any more. Thus, the situation was finding anybody who would supply them. In the future, they hope this will change.

6.2.1.8 Organisational Effectiveness Results

This hospital is known on the Middle-East level as one of the best in the area. The patient/ customer result indicators show different things. The staff satisfaction is at its lowest, while the patient satisfaction is somewhat intermediate. The suppliers show a negative relationship and there are competitors. The leadership is working in excellent ways to transform the situation after the debt crisis, which was solved six months ago. The first accomplishment is the JIC accreditation.

As for the financial results, the hospital solved its debt crisis just six months ago. Now, the hospital is changing from being government-dependent to self-dependent. Thus, it will build the hotel and a shopping mall next to the hospital. It will become a private business after hours. It has allowed its employees to work after hours in private clinics, taking in a portion of the profit.

The staff results indicate that the majority of the staff are not satisfied because they thought they lost their benefits with the declining financial situation. Also, the international staff are dissatisfied because of the language and religion barrier.

The supplier and partner results at the hospital are not clear, because there are no key measures or indicators of their performance.

In general, there is a lack of total commitment and understanding regarding the principle and tools of quality improvement. There is some effort from top management to commit to quality, but without the correct understanding of what quality really is, there are minimal chances that quality will succeed. Presently, the quality efforts can be seen but they are not practised. The quality journey at this hospital has some achievements, but it has still a long way to go.

6.4.1.9 Segregation Status

At this hospital, the segregation situation was moderate. This means that there was gender segregation in the waiting rooms and employee office space. They were however trying to have an open-communication process and be part of the same team. Also, the amount of promotion and recognition is very slow for females compared to males. All these aspects of segregation can hinder the quality process.

7.2.2 Hospital B

This hospital became operational in 1982 with the goal of providing the highest tertiary medical care to armed forces personnel, eligible dependants, and cancer treatment, end-stage renal and liver disease, cardiac care, diabetes and major trauma treatment to all Saudi citizens.

With 550 beds in 27 wards (including ICU nurseries), the hospital covers an area of approximately 1,138,175 square metres, including the adjacent Medical City (MC) and Medical City Extension (MCX) housing compounds. The Ambulatory Care Clinics in several locations have 22,650 visits annually. This JCAHO-certified

facility, with nearly 21,000 admissions each year, makes a strong commitment to high standards and progressive expansion.

Over 70,000 babies are born at this hospital each year. Midwifery service, Neo-Natal and Paediatric Intensive Care Units and In-Vitro Fertilisation services support the women and children's areas. Some of the technologically advanced programmes include kidney and liver transplantation and cardiac surgery. Special care is provided for burn patients as well as patients, with complex medical and surgical problems.

Medical staff, including both the specialists and the sub-specialists, are highly trained. The National Guard is committed to support a range of post-graduate medical training programmes and research. An excellent medical library and support for continuing medical education is also at this hospital.

This hospital has made a commitment to the diverse needs of the hospital staff. Career growth is enhanced through on-going education provided by experts. Clinical staff are involved in pro-active decisions and sit on various organisational committees. The quality and commitment of all the staff provide experience and professional growth.

6.2.2.1 Organisational Leadership

Senior leadership, including both administrative/ operational and healthcare provider staff, meets on a weekly basis, and sometimes as needed. The governing committee which sets the hospital strategies meets on a monthly basis, or as needed. Joint planning meetings are one method used to ensure alignment of organisational

direction as part of a collaborative leadership system. The senior leadership in the hospital takes steps to ensure that administrative and medical staff are aligned.

Senior leaders regularly communicate values to leaders and administrators, and ensure that they demonstrate these values in their work. Also, they study and learn about improvement practices of healthcare and other organisations. Innovative and effective approaches are used to reach out to all medical and administrative staff to spread the healthcare organisation's values and align its work to support organisational goals. Senior leaders ensure that organisational values are used to provide direction to all medical and administrative staff in the organisation to help achieve the mission, vision, and performance goals.

Senior leaders conduct quarterly reviews of the healthcare performance in the hospital. This requires that various departments conduct bi-weekly reviews, and that medical and administrative staff provide daily performance updates. The organisational performance review includes Occurrence Value Analysis, Morbidity report, Employee Satisfaction Report, Patient Satisfaction Report. Corrective actions are developed to improve performance that deviates from planned performance.

Senior leaders hold regular meetings to review performance data and use a two-way communication for problems, successes, and effective approaches to improve work. Also, senior leaders try to base their decisions on reliable data and facts as much as possible.

The performance evaluations of physicians and employees are done on a yearly basis. Depending on these evaluations, recommendations are made for promotions and renewal of contracts. There are many punishment techniques used for behavioural problems posed by the employees, including warnings and salary suspensions.

6.2.2.2 Public Responsibility and Citizenship

The hospital includes a system that analyses, anticipates, and minimises public hazards or risk; for example, if there was a fire, there is a plan where 70% of the beds can be evacuated. This plan can be activated as needed. The hospital has recognised and developed a method for dealing with medical waste risks. The international guidelines for health are used in this hospital.

Hospital B supports its own community by participating in educational school programmes and the immunisation of school children in the armed forces schools. Also, medical and administrative staff participate in a variety of professional and educational associations.

6.2.2.3 Strategy Development and Deployment

The senior leadership governing committee develops the strategies for Hospital B. If the strategy is justified, then it will pass. Areas for improvement in the planning process are identified and carried out in each planning cycle. The planning and goal-setting process encourages input from all employees at all levels of the organisation. Refinements in the process of planning, plan deployment, and receiving input from various departments have been made. At Hospital B, strategic objectives are

identified. Then, a timetable for accomplishing the objectives is set. There is evidence that Hospital B has a good record in meeting its timetable.

This hospital maintains a three to five year projection plan. Plans are in place to optimise clinical and services' process performance and patients' services. Planned quality, clinical and service performance levels are defined in measurable terms for key healthcare services but there is no evidence of accomplishing these plans. These action plans are usually realistic, achievable, but not understood by staff throughout the hospital. There are enough resources available and committed to achieve the plans.

There are strategies to improve co-operation between healthcare providers and administrative support staff. The human resource plan addresses issues of training, development, hiring, staff participation, empowerment, recognition, etc.. Presently, at this facility, there is no benchmarking done. The performance of each department is projected for one year.

6.2.2.4 Patient/Customer Healthcare Market Knowledge, Satisfaction and Relationships

The targeted patients are clearly identified. They are the armed forces employees and patients. The majority of these patients are passive. They are thankful to be treated in this hospital. They do not make any complaints because they do not know their rights as patients.

Various methods are used to determine patient access requirements. These methods include focus groups, interviews, and surveys. The staff at Hospital B are well trained in their area of speciality to meet the patient/customer requirements. There is a system that ensures the patient and other customer complaints are resolved promptly and effectively. There are two kinds of patient. The first kind of patients do not know what to expect and are afraid to report any misgiving, and they make up about 98% of the patients. The other 2% are made up of VIP patients. These patients know exactly what they want, and will most likely complain if they see something being done wrongly.

Patient satisfaction surveys are the most important determinant of patient satisfaction. These surveys focus on both service and clinical quality measures. These surveys are regularly taken by the quality management department to determine the level of satisfaction and are input into a data bank. The majority of the patients are passive and ignorant.

6.2.2.5 Measurement and Analysis of Organisational Performance

The information and data which are collected in this hospital are tied to the healthcare organisation's strategic and action plans. Data are maintained on staff-related issues of satisfaction, morale, safety, education and training, use of teams, and recognition and reward. Management uses some of the data for decision making and planning. Data collected include information such as patient satisfaction, average length of stay, mortality and morbidity, employee morale, and admission rates.

Each department makes recommendations upon the results of the analysis of its own performance. These recommendations are sent to the senior leaders' committee,

which upon these recommendations as necessary, and incorporates them into the hospitals' plans.

6.2.2.6 Staff Work Systems, Development, and Satisfaction

One of the major organisational values at the hospital is to use the talents of all employees. The managers use work teams to break down barriers, improve effectiveness, and meet goals. Staff are motivated to participate in issues that are related to them. The senior leaders have an open door policy, where they allow three to four hours during the week for any employee to come and suggest ideas, complain, or anything. Also, top leaders have a system of recognising the employer of the month and of the year. The senior leaders try to produce a non-biased and non-prejudiced environment in this multi-national hospital. There is a one-week orientation for any international employee before the starting the job.

Saudisation is one major objective in this hospital. There is a journey of making the majority of employees Saudi. Of course, no job is given to a Saudi unless he/she is qualified. The hospital evaluates its approaches to employee performance and compensation, recognition and rewards to determine the extent to which employees are satisfied with them, the extent of employee participation, and the impact of the system on improved performance.

At Hospital B, there is a clear link between the strategic objectives and the education and training that are provided. Skills are developed based on work demands and employee needs. Staff input is always considered when developing training plans. The hospital uses various methods to deliver training to ensure that it is suitable for staff

knowledge and skill levels. There is both on-the-job training and external training, as much as the budget allows. The quality department is the only one that is trained on quality techniques. Staff feedback on the appropriateness of the training is collected and used to improve course delivery and content.

Hospital B has a wonderful working environment, which is made up of multi-nationalities. Plans always optimise the staff health and safety issues. Senior management seem to care about the well-being of the staff and want them to be very comfortable in their work environment.

Like Hospital A, senior leaders in Hospital B build a work climate that addresses the needs of the diverse work force. Depending on their needs, special activities and services are available for employees. Employees have great benefit packages which includes education for children, yearly salary bonus, and yearly tickets. The American/ Canadians have the highest salaries, followed by the Europeans, then the Saudis, and finally by the Easterners.

There is a complete sports club, restaurant, and other activities available for the employees. The international staff live together in their own compounds.

Staff satisfaction opinion indicators are gathered periodically. Staff satisfaction is very high today. Five years ago, Hospital B was the fifth best hospital in the KSA. Today, this hospital is fighting for first place. Of course, these changes came with a new leadership.

6.2.2.7 Healthcare Service Processes

Most healthcare delivery processes are flow-charted using control charts and frequency charts, and critical pathways for the organisation. 70% of the processes are evaluated yearly and revised as needed. Some processes have never been changed because it was felt that they were fine as they were. Usually, the departments submit their individual process and senior management approve it.

Hospital B is working towards a fully automated hospital. At the present time, the hospital is using the Aarkon clinical information system. To incorporate new technologies into the system, the department must submit a proposal if it can improve the existing system and the budget is available, then the management will validate the proposal. If an influential leader within the hospital requests the new technology, then the department will most likely receive it.

Hospital care management teams are comprised of nurses, case managers, social workers, pharmacists, and others. These teams increase responsiveness to patient needs and improve communication.

Clinical practice guidelines have been developed to reduce variation in healthcare delivery processes. These guidelines assist healthcare providers and patients to make decisions about appropriate care for specific clinical circumstances.

Processes are systematically reviewed to improve productivity, reduce cycle time and waste, and increase quality. Corrections are monitored and verified. Improvements are shared throughout the healthcare organisation.

At Hospital B, all the support processes are contracted out. All the key support services are subject to continuous review and improvements in performance and customer satisfaction. The root causes of problems are systematically identified and corrected for processes that produce defects. The corrections are monitored and verified.

The supplier's performance requirements are clearly defined in measurable terms and communicated to suppliers. Decisions on which suppliers are selected are driven by measurable performance characteristics of the supplier's capabilities to achieve high levels of performance excellence and exceed requirements, rather than primarily on price. Procedures are in place to improve supplier and partner performance.

6.2.2.8 Organisational Effectiveness Results

Patients are relatively satisfied, because Hospital B has made a name for itself. Its reputation is very positive. The majority of the country's ministers go there for their healthcare services. As mentioned before, this hospital has come a long way. Five years ago, it was the fifth best hospital in the KSA. Today, Hospital B is fighting for the first place. Of course, the majority of the patients feel it is a blessing for them to attend this hospital.

At the present time, Hospital B is doing very well financially. The extra financial support of the 'after 6' clinics, when the hospital changes into a private sector hospital, has increased the overall income of the hospital. Of course, the National Guard budget for the hospital is quite generous.

There is evidence that the majority of the staff are satisfied, and the turnover rates are less than other hospitals. Also, the Saudisation at the hospital is increasing rapidly, especially in the nursing field. This makes this hospital more attractive to Saudis.

There are key measures that include defect rate and on-time delivery for the majority of the suppliers. These measures are taken very seriously at the renewal of the supplier contracts.

Overall, the organisational results have been exceeding the ones expected. The new leadership in the past five years has turned the hospital around. Hospital B is targeting Hospital A for the place as best hospital in the KSA and in the Middle East.

6.2.2.9 Segregation Status

Like Hospital A, Hospital B is moderately segregated. The segregation lies within the Saudi employees. Both genders are somewhat ready to be part of the same team. There is a moderately open-communication process. Yet, the amount of promotion and recognition for females is not comparable to that for males.

6.2.3 Hospital C

Hospital C is the oldest public hospital in the Kingdom of Saudi Arabia. It was opened in 1956 with 450 beds. In 1962, the Outpatient Clinics opened, and in 1977, the Labour and Delivery Hospital for Females opened. In 1975, the Kidney Care Centre was opened, and in 1984, the Dental Hospital opened with 16 beds. In 1992, all these hospitals were merged and were named under one hospital. A board of directors was assigned to the hospital from the Ministry of Health (MOH) in 1998.

The MOH developed and invested in Hospital C. Now, it has more than 1,400 beds, and deals with all kinds of sickness. Today, more than a million patients come to the hospital yearly, and half a million visit the emergency room each year. Also, more than 18,000 major operations are done, with the exception of open-heart surgery. The hospital is also responsible for training students from the Medical Schools and implementing educational programmes for the greater good of the Riyadh society.

6.2.3.1 Organisational Leadership

Hospital C is a public hospital with a very limited budget. It has a leadership with few leadership traits. The real leadership of this hospital is the Ministry of Health. It is very difficult to be leader in this type of hospital where the monetary input is much less than the expected and the incoming patients are much more than can be handled. Corruption is normal at this hospital. The leadership meets once a week and the meetings are made up of both medical and operational staff. It is a 'laissez faire' leadership style. Everybody is running his/her own department. In this hospital, the values and responsibility come from the individual's inner self, and most of the time there is no accountability. The leadership is not trained in leadership skills or in quality.

This hospital has many committees, including drug use committee, blood use committee, quality management committee, morbidity and mortality committee, ADHACO committee, and infection control committee. Although these committees try to influence the administration of the hospital, most of the time their hands are tied. Senior leaders manage by crisis. The evaluations that take place are minimal. For example, there is no evaluation of any Saudi employee performance.

6.2.3.2 Public Responsibility and Citizenship

Hospital C is the major hospital for any type of crisis. It is the first hospital to be reached for gunshot wounds, infectious diseases, and car accident victims. This hospital accepts any patient in any form. Thus, its public responsibility is accepting any citizens or locals in their time of need.

This hospital has a very strong programme called 'The Friends of Patients'. This programme extends its hand to the outside community. It helps support needy patients with things such as clothing, medicine, medical equipment (i.e. wheel chair), and transportation. The programme also sponsors special events and parties for the hospital patients, including the children. It is important to mention that this programme's efforts are coming from the hospital employees' own selves and not from a job description. This programme relies heavily on outside volunteers and support.

In the case of infectious diseases, this hospital has an outreach programme that will supply physicians to areas where the infectious disease has been spread. Also, during the pilgrimage season, Hospital C is one of the major hospitals that sponsor this event.

6.2.3.3 Strategy Development and Deployment

There is no evidence of any strategic development process in Hospital C. The hospital has no strategies. It uses management by crisis methods. Since the hospital has no strategy development process, it has no real strategies. The leadership is not trained to lay down strategies for the hospital. Also, they are under-staffed, under-paid, and

under-motivated. This hospital leadership sees that the real leader is the Ministry of Health, and they believe that the MOH support is very limited.

There is little evidence of any action plans made in this hospital unless the Minister of Health asks for it. There is no evidence either of performance projection reports in Hospital C.

6.2.3.4 Patient/Customer Healthcare Market Knowledge, Satisfaction and Relationships

There is a staff complaint system in Hospital C, but the system is not very effective. In this hospital, mistakes are expected because the nursing staff is of the lowest quality and they are under-paid. The resources are very limited. For example, the linen is dirty and the supplies are limited. The physicians in this hospital are highly qualified, but a good doctor can only do so much without the support staff and the correct utilities and resources.

The hospital always has more patients than it can handle because it is public, free, and anyone can attend it. Thus, there is never a need to develop relationships with patients because they will come back. Most of the patients who come to this hospital have no other choice except this one. They are the helpless patients with high poverty levels.

This hospital shows no evidence of any patient complaint system and not even an ethical committee. The patients are so afraid that, if they complain, the nursing staff will abuse them. The nursing staff is under-qualified and under-paid. Thus, if the nurse's inner self-beliefs do not care about helping the helpless, then the patients will

suffer the consequences. In Hospital C, there is no evidence of any customer satisfaction surveys.

6.2.3.5 Measurement and Analysis of Organisational Performance

Hospital C does not have any evidence showing any type of measurement for organisational performance except the morbidity rate. Since there is no measurement of organisational performance, there is no analysis of it, except the investigation of all deaths.

6.2.3.6 Staff Work Systems, Development, and Satisfaction

This hospital seems to be running itself. As was discussed before a 'laissez faire' type of leadership is practised. Everyone is working for him/her self. The lowest trained and paid staff are brought from Asian countries. These international workers are there to make money and leave. There is no real attachment that keeps them going except their pay cheque.

There is no time or money to be spent on education, training, or staff development. This seems to be the last thing on the agenda for Hospital C. If an employee wants desperately to get some form of training, then he/she has to go for MOH approval.

The work environment in Hospital C is interesting. This hospital is the oldest hospital ever built. The majority of the Saudi employees are seniors. They view their job as work and nothing more. It is a way of receiving a pay cheque at the end of the month. The resources surrounding them are very limited. Most of the office furniture is donated. Staff have to look for sponsors to donate things to them. There is not enough

paper, so paper has to be used on both sides. Over the years, employees have got used to the way things are being run and their expectations from this organisation have reached the bottom. In Hospital C, there is no staff support climate but there are outside organisations that try to help the community by supporting some of the employees' needs.

There is no evidence of staff satisfaction indicators in the Hospital C. The staff seem to have developed a neutral way of working. Also, the people working in this hospital seem to feel that they are giving back to their country. Some of the staff like the social life of the hospital and the 'laissez faire' type of leadership.

6.2.3.7 Healthcare Service Processes

There is no evidence of flow charting for any healthcare processes at Hospital C. Every process is delivered on an individual basis. Thus, there is no set way of delivering processes. As far the technology is concerned, the minimum is available because the financial support is very limited. There is no evidence of processes on paper in files.

The support processes are contracted out. The most important element in the choice of the suppliers by senior management is the cost. The hospital does not incorporate any performance requirements except the delivery of the supplies. Many times, the supplies needed might not be available. There is no evaluation of supplier performance. The contractors are usually local companies that have minimum quality characteristics.

6.2.3.8 Organisational Effectiveness Results

The patients are not satisfied at Hospital C, but the majority of the patients do not have a choice. This hospital provides healthcare services for the poorest class in the KSA. Patient satisfaction is not an issue that is taken into consideration at this hospital. No one cares if the patients are satisfied unless they are VIP's.

The financial results indicate that the hospital is under-budgeted. The budget provider is the Ministry of Health. Employees express that there is "corruption in the distribution of the finances but there is no control." The staff in Hospital C are dissatisfied. They have minimum support from their employer. They have to look for outside volunteers to donate office furniture and technology to them.

Overall, Hospital C is effective in providing medical services under negative circumstances, which it has to overcome. For the available budget, the minimum supplies, the large number of patients, and the minimum number of staff, it can be said that this hospital is effective in giving medical services with no 'frills'.

6.2.3.9 Segregation Status

At Hospital C, the segregation situation is strong. This means that there is gender segregation in the waiting rooms and employee office space. Also, there are different wards for each gender. When available, the same gender physician will treat those of the same gender. The real segregation in this hospital is within the Saudi employees. They are not completely ready to have an open-communication process.

6.2.4 Hospital D

Hospital D is located in Jeddah, KSA. It was established in 1988 as a modern general hospital of 217 beds' capacity, with state of the art diagnostic and therapeutic facilities. It is a whole private entity belonging to the Family Batterjee. Hospital D is manned by a team of most competent doctors, nurses, paramedical and support staff. With the right mix of medical excellence and scientific management, their objective was to provide the best medical care available in the region of Saudi Arabia, Gulf, Yemen, and south-eastern areas of Africa.

Hospital D's vision is that their activities go beyond providing reliable quality medical care to patients who come to them. Their mission is to be the leader in the Middle East and to deliver reliable quality medical care to all patients. Hospital D was widely recognised to be unique in Orthopaedics and Traumatology. To achieve their mission, they commit themselves to focus on patient needs and expectations, employ and train committed and competent staff, bring international expertise, use state of the art technology, and apply dynamic and professional management techniques.

Hospital D core values are:

- We care
- Patients come first
- Good working environment
- Health-related community services
- Ethics and confidentiality (patients, organisations, business associates)
- Better staff through continuous education.

The hospital is committed to:

- Build and run six hospitals in the kingdom by the year 2003
- Build and run thirty hospitals in the Gulf, Arab, and Islamic countries in Africa and Asia by the year 2015
- Create 50,000 job opportunities in the medical field
- Build and run five Oncology, Neuro-surgery and Open Heart Surgery Centres.

Hospital D has its own Construction Division responsible for all hospital construction works. There more than 80 engineers in the corporate office in charge of construction projects for Hospital D group. In 1997, Hospital D opened a 9-floor Medical Tower that embraces 100 clinics for outpatients, the extended lab, and radiology and non-medical departments. It has 10 operation and recovery rooms and all the other facilities needed for one-day surgery, where patients can be scheduled, operated on, and go home the same day without admission, thus significantly reducing medical service cost.

In the new tower, there is a $3 million auditorium with 400 seats and equipped with the latest high-tech audio-visual facilities for local, national and international symposia, and live transmission from the operation theatre or from the U.S. and Europe. It can also accommodate social and other community gatherings.

6.2.4.1 Organisational Leadership

Senior leadership at the hospital includes both administrative and operational and healthcare provider staff. Senior leadership takes steps to ensure that administrative and medical staffs are aligned. Both operational and medical staffs are part of the

steering committee, functional committee, and hospital managers' committee. All the plans and minutes of the meetings are put on-line.

The leaders of the hospital have established an environment of empowerment and innovation. As head of the quality department put it, "we can do anything, except sell the hospital." Leaders at Hospital D see themselves as more than just running a hospital; they see themselves as healthcare developers. Healthcare developers have the task of designing, constructing, financing, and running hospitals. There is evidence that senior leaders at Hospital D set directions and seek future opportunities. This can be seen by the wide expansion of hospitals. They have a rule, to open one to two hospitals yearly.

Senior leaders review organisational performance by using many indicators. These include financial performance, productivity of the human resources, staff turnover rates, employee satisfaction, and patient satisfaction. These indicators are collected and compiled by the patient relations department.

6.2.4.2 Public Responsibility and Citizenship

Hospital D as a corporate citizen believes that it has a social responsibility towards the community. It has regular programmes for the community and actively supports community welfare programmes. For example, the hospital is building a Charity Blood Bank. Also, during the pilgrimage season, the hospital volunteers five medical centres to help with the crowds. These centres do not have the hospital name, and are free. Also, there are educational programmes including seminars and workshops open to the public. There are interactive programmes for schools visits, diabetes, and

mother and baby. These programmes are very well attended. Also, there are educational programmes on the Internet such as Rift Valley Fever, Bronchial Asthma, and Breast Cancer.

Hospital D follows the regulations and legal requirements of the MOH and Saudi ARAMCO standards. They select the standards, which are beneficial to them, and apply them accordingly.

6.2.4.3 Strategy Development and Deployment

Goals, strategies, and objectives of the hospital are addressed and reported in measurable terms. The planning and goal-setting process encourages input from all levels throughout the organisation. There is evidence that the strategic committee develops the strategies at Hospital D. This committee meets four times a year. There are clear objectives within short-term and long-term plans which direct the hospital. The objectives are identified, and timetables for accomplishing them are set. Performance objectives are usually set in financial terms.

6.2.4.4 Patient/Customer Healthcare Market Knowledge, Satisfaction and Relationships

The determination of target patients comes from historical data on line. These data are analysed and fed back into the system. Using the on-line data, benchmarking exists internally, on a doctor to doctor basis. Also, benchmarking exists against the international healthcare standards.

There is evidence of various methods being used to determine patient access requirements. These methods include focus groups, interviews, or surveys (including on-line surveys). The information gathered from the patient satisfaction surveys is compiled and put into patient relations reports. These reports are done on a weekly basis and passed to the president of the hospital. Hospital D uses patient satisfaction data to determine methods for improving patient access.

A system exists to ensure those patients' and other customers' complaints are resolved promptly and effectively. The complaints are usually dealt with on the functional level. The Quality Assurance department is responsible for reviewing every single complaint.

There is evidence of a continuing relationship with patients even after they leave the hospital. This is done by keeping the communication channels open, for example following them up with phone calls and inviting them to join health awareness clubs that are free of charge, thus maintaining a relationship with their patients during their sickness and health.

6.2.4.5 Measurement and Analysis of Organisational Performance

There is some evidence that relates to measurement of organisational performance. For instance, the information and data collected are tied to the hospital strategic and action plans. The Hospital D staff have access to the information and data necessary to manage key processes effectively. Quality and operational data are collected and routinely used for management decisions. These data include staff-related issues of satisfaction, morale, safety, turnover, absenteeism, education and training, use of

teams, and recognition and reward. Customer satisfaction and supplier performance data are also maintained.

There is some evidence of analysis of Hospital D performance taking place. This includes cost-benefit analysis of options before implementations. Also, performance trends in Hospital D in the past few years are identified and analysed. The turnover of employees has been a problem which the hospital has confronted in the past years, and it has been analysed and dealt with.

6.2.4.6 Staff Work Systems, Development, and Satisfaction

Hospital D management promotes work and jobs through co-operation and collaboration. This is accomplished through internal department meetings and distributing the minutes of the meetings. Also, managers use cross-functional work teams to break down barriers, improve effectiveness, and meet goals.

The evidence shows negative trends in the satisfaction of employees with their training, education, and development. Hospital D tries to satisfy employees by sending them to technical, medical, and nursing conferences that are local, regional, national, and international. Also, there is collaboration with the German facilities that train some of the Hospital D employees.

The work environment is fairly good. The staff are happy when compared to the competitors. The staff are made up of 40% Philippines, 30% Indians, 20% Arabs, and a 10% mix of other nationalities. This multinational hospital has a high turnover rate because most of the workers are working away from home. They come with a two-

year contract that provides them with salary, housing, and travel. The two-year salary can be extended, depending on the wants and needs of both sides of the contract. Two years are very little because by the time they are trained to the work environment and they start producing, it is time for them to leave. The multinational staff is like other hospital staff in the KSA; they come to work for a short time to raise their income.

6.2.4.7 Healthcare Service Processes

There is strong evidence that shows that the hospital follows specifically designed processes for all its activities. A well-trained team with the skills needed is in charge of designing all processes. These processes are updated at least twice a year, and at even shorter intervals if there is a need. After the design of the processes, there comes their delivery. This is evident in major processes at the hospital.

At Hospital D, all support processes are part of the hospital. There is no contracting out at this hospital. All processes are accomplished within the hospital itself. It is evident that support processes are not as well established as major processes. There is a list of major suppliers that are 'clients' of the hospital. This list of suppliers is meeting the guidelines of the hospital. They are good because they deliver quality products and they are reliable. Also, the hospital has developed a long-standing relationship with them, but no evidence of the list was seen.

It is evident that the most important result at Hospital D is customer satisfaction. This can be understood because the hospital is private sector, and without its customers, it cannot survive. Thus, patient satisfaction surveys are given much attention. Also, it is

apparent, on walking into any department at the hospital. There are signs to make the patient have power, such as:

- If you are not helped within two minutes, please inform the administration.
- If you are not satisfied with how the staff helps you, please let us know.

These signs and others give a type of upper power to the customer, which makes him/her feel important.

No evidence was visible about the financial situation, yet there seems to be a positive trend. The administration revealed that the financial situation is on-line for its staff, but no one else can see it. There are indicators of financial performance that are being followed on a daily basis. The expansion of the German Hospital Alliance seems to indicate that Hospital D is doing quite well.

The multinational staff at Hospital D has a high turnover rate because, as discussed before, the majority of the staff are not settled in KSA; this job is just a step in their career, it is not for a life-time. This is the biggest problem at the hospital. Settled employees are few at Hospital D. This of course makes the staff situation at the hospital very unstable. It is evident in the staff result that more and more hospital staff are getting involved in the quality journey.

The supplier and partner results are not evident at Hospital D.

6.2.4.8 Organisational Effectiveness Results

Hospital D can be seen as having a global vision of where it is and where it wants to be. This vision is put into a plan and the plan seems to be effective. This is evident in

the opening of the new branches nationally and internationally. Of course, this plan cannot be put into action if the basis of the organisation can not handle it. Thus, it is evident that the financial results of Hospital D are good and stable. Also, there is some evidence of other organisation results that are positive, such as customer satisfaction, which is a very crucial aspect of the organisation in the private sector. There is a need for improvement in the staff results, where there seems to be a negative trend.

6.2.4.9 Segregation Status

At Hospital D, the segregation situation was less evident than at other Saudi hospitals. This might be because the location of the hospital is Jeddah which is a less segregated city. Also, in this private hospital, the management wants to please the customer. So this hospital also was gender-segregated in the waiting rooms and employee office space. The communication process was open. The concentration of one gender in one department and another gender in a different department was apparent.

6.3 UK Case Studies

6.3.1 Hospital E

Hospital E is located within the Northern and Yorkshire NHS Region. It serves a population of around 220,000 people. The Trust has a good track record of achievements, including being one of the six national pilot sites for resource management and an innovative quality assurance strategy, based on the thinking of Dr. Deming. The Trust mission is "caring for and about people". Its objectives are (Freer and Jackson, 1998):

- integrate hospital and community services,
- provide quality healthcare for local population within the resources available,

- market select services to a wider area.

The trust has had a number of structural changes. One is the creation of a sub-directorate of clinical support services (CSS). This brought together physiotherapy, speech therapy, podiatry, wheelchair services, and appliance services under one manager. Five different heads had previously managed these seven services. All had their own agenda, which concentrated on strengthening their status rather than improving customer satisfaction. The individuals were pursuing their self-interest rather than the hospital interest.

After the hospital established its trust status, a decision was made to incorporate the Malcolm Baldrige National Quality Award (MBNQA) self-assessment tool. This tool involved rating the organisation against 28 critical factors covering seven important areas, associated with business excellence (Zairi, 1996). The MBNQA framework enabled the staff to assess the performance of the sub-directorate objectively and view it in the context of the whole Trust. Training to overcome the difficult tool terminology was facilitated by IBM for all sub-directorate staff. During the training, the sub-directorate staff compared themselves against world class organisations and discovered their strengths and weaknesses. Some of their weaknesses included (Freer and Jackson, 1998):

- no agreed, visible vision (although the general manager had a vision);
- no consistency of generic practices, for example process for collecting management information, incident reporting, complaints' handling;
- no ownership or sense of corporacy for the new organisation;
- no generic appraisal, recruitment or induction process;
- no way of deploying good practices through the sub-directorate;

- no way of monitoring performance or progress towards continuous improvement;
- no customer focus; and
- no 'light at the end of the tunnel'.

After the training, the CSS sub-directorate realised that the first step was to agree upon a vision from which a plan could be formulated. A series of discussions led to agreement that the vision should include securing (Freer and Jackson, 1998):

- a corporate identity for CSS ;
- a high profile within the Trust ;
- a customer-driven rather than service-driven focus ;
- a culture where staff felt valued, involved and respected;
- an ethos of continuous improvement ; and
- a well managed, responsive service that delivered value for money.

Following the agreement of the vision, all efforts were centred on replacing the negative morale of the staff with positive reinforcement of their strengths and striving for a successful future. The change process, although difficult, was well supported. It included keeping the staff well informed of progress, ensuring that everyone participated in the decisions regarding how the change was to be implemented, highlighting opportunities, emphasising the organisation's values, and planning for the different timing of events. After the implementation of the many critical factors which TQM calls for, it became accepted that TQM is positive. Between the time they started (July 1993) and until October 1996, there was an upward trend in the self-assessment scores (Table 6.1). This helped motivate the sub-directorate teams towards their vision. Table 6.2 illustrates the development of the sophistication of the quality initiatives.

Table 6.1 Upward Trend in MBNQA Self-Assessment Scores

DATE	SCORE
July 1993	219
February 1995	339
February 1996	349

Table 6.2 Quality Improvement Initiatives (July 93 - June 96)

Date	Quality Improvements Initiatives
July 1993	Leadership and communication, staff opinion survey, common administrative procedures, common activity collection, performance management, record keeping, and clinical audit.
March 1994	Effective communications, induction, training, policy, marketing, joint patient records, physical outpatient policies and procedures.
February 1995	Customer-driven quality audit, recruitment package, staff contribution and reward, benchmarking, business planning, outcomes, information to patients (physiotherapy)
February 1996	Investors in people (IIP) personal portfolio, staff audit of IPP, CSS sub-directorate strategy.
June 1996	Charter Mark, competency-based job descriptions.

Source: Freer & Jackson, 1998

Many benefits were gained from the quality improvement efforts. The staff own a sense of corporate identity, an outward-looking approach, and an appreciation of the contribution the whole Trust makes towards healthcare. In addition, communication and morale have improved, and career development has increased. The Trust was commended and awarded the Charter Mark on December 1997.

6.3.1.1 Organisational Leadership

Managers in Hospital E give time to TQ on everyone's agenda, have regular up-dates/ feedback, availability of documents, consistent involvement in quality groups, and staff are constantly are consulted. Improvements are needed in involving managers and team leaders in two-day assessment, and also in integrating a better message about CDQ. There is a clear definition of TQ, and the staff are all involved in different teams. There has been a change in staff attitude and behaviour towards TQ, and there is a systematic review progress. Yet, there is a need for a more focused approach to staff involvement.

Leaders meet, understand and respond to the needs of customers, suppliers, and external organisations through the performance management system, personal thanks, rewarding good attendance, staff reward and recognition scheme, and acknowledging suppliers. Yet, there is a need to improve the process of feedback. Managers are involved in the recognition of individuals and teams in a timely and appropriate way by clarifying the definition of priorities, supporting and releasing staff for QI, putting in place training and educating systems, and by a commitment to the available resources. There is still a need for improvement in training in the tools and techniques of TQ and a more systematic approach to problem solving in the form of workshops.

6.3.1.2 Public Responsibility and Citizenship

Hospital E NHS Trust responsibility to the public is evident. This can be seen through health fairs, Healthy Heart Awards, careers evenings, training for Social Services staff, education opportunities, team awareness, and employee of the month. There is a need for improvement in setting targets for public responsibility.

There is some evidence of measurements which are used by the organisation, such as Rheumatology Team of the Year and student accreditation and Investors in People. There is a need to go for Charter Mark for the whole hospital and for targeting assistants for competency-based qualifications.

6.3.1.3 Strategy Development and Deployment

There is a systematic process for the development of policy and strategy. Decisions are made based on the organisation's vision and values. However, there is still a need for improvement for the deployment of strategy. The organisation develops policy and strategy based on national and local guidance. There is feedback from customers used in service development strategies. Performance indicators are present in appropriate areas. Benchmarking is evident and research-based practices are used for development of service. There is room for improvement in the systematic use of health need assessments data. Also, there is need for improvement in seeking feedback and its use in development of policy and service strategy.

Plans are formulated, communicated and actioned across the structural and functional boundaries in a good way. There is a cascading structure in place. Performance management structure is evident. There are multi-professional care pathways implemented, but there is a need for more integrated care pathways. The organisation evaluates the relevance and effectiveness of policy and strategy through review cycles in place, such as continuous improvement. Changes are implemented as they are needed. There is a need for improvement in linking results to approach and in setting measurement targets.

6.3.1.4 Patient/Customer Healthcare Market Knowledge, Satisfaction and Relationships

The management of information is done through a patient information management system that is written in plain English, which reviews dates and quality standards. The information is routinely used for decision making. The information for care pathways is accessible. There is room for improvement by linking into a broader information system and by deploying evidence-based guidelines as appropriate.

There is evidence in the Trust that patient surveys and focus groups are used. The results of the surveys show positive trends. Measurements used by the organisation in order to understand, predict, and improve the satisfaction and loyalty of patients includes Charter Mark. There is a downward trend in complaints among customers. There is also a strong process for measuring outcomes. The Trust has obtained four Charter Mark nominations.

There is still a need to define additional measures relating to the satisfaction of the organisation's customers. In addition, there is a need to test priorities of the customer base, to have a more structured plan, and to learn to manage expectations.

6.3.1.5 Measurement and Analysis of Organisational Performance

Strengths in measurement trends in overall organisation operational performance are evident. These include capital investment, ratio analysis, marginal cost, SPC, books balanced, CRES targets met, all fundholders' income maintained, and reduced capital requirements. There is a need to split budgets down further, to generate more income, and to do more benchmarking.

Internal analysis of organisational performance includes meeting the Charter standards and local standards (100%), measurable agreed delivery times for appliances, and improving supplier performance. There is little evidence showing a comprehensive list of standards or defining key measures.

6.3.1.6 Staff Work Systems, Development, and Satisfaction

Overall, there is evidence that staff work systems are good. There is good human resource planning, written human resource strategy, people satisfaction survey, and personal development plans. There is no evidence of a policy for volunteers.

The organisation identifies training needs and reviews the effectiveness of the training programme regularly. Employees participate in CDQ groups. There is an internal CSS training programme in place. There is a common framework for job description. Also, there is performance management career development. There is still a need for reviewing training and for competency-based job descriptions. For performance management, but there is a need for training appraisers.

All employees contribute to the organisation through the CDQ process, presentations of outcome initiatives, and the empowerment of staff to improve services continuously. There is a need to encourage participation of staff in selected areas. The communication needs of the organisation are met through an open door policy and regular meetings. There is an endless review cycle in place. There is a need to reduce the use of jargon and an over-assumption of the level of knowledge.

6.3.1.7 Healthcare Service Processes

The Trust shows evidence of financial, staff management, business planning, information, and patient processes (flow and satisfaction). These processes use a well-structured approach with timetables. There are routine business meetings to discuss processes. The processes are influenced by professional guidelines. There are regular audits for these processes and there is a performance management system in place. Hospital E encourages the implementation of innovative and creative programmes such as the EFQM, SWAN management, and time-out features. There is still a need to encourage creative thinking.

Changes of processes are implemented using a consultative approach to change, communicating process change, identifying and implementing training, and learning to build in evaluation cycles. There is a need for a more structured approach to evaluation. There is no evidence of support processes which are linked with other agencies or directorates. The organisation develops its supplier partnership by knowing what it wants from central service directorates, and by developing its relationship with suppliers that support them. There is a need for formalising the expectations from central service directorates and managing the 'challenge' of devolution.

6.3.1.8 Organisational Effectiveness Results

There are assumptions of positive trends in complaints and compliments in the Trust's customer satisfaction, but there is nothing analysed. There is a need to set up trend data systems and to tap into information already available.

Budget planning is linked with the business plans. There is a use of business cases to gain resources. This organisation shows evidence of tapping into alternative sources of funds, but there is still room for additional sources of funding. The financial results show that the Trust is managing to stay within its budget. Also, there is evidence that this organisation is more effective than its competitors.

Some of the evidence that shows the results of the staff work system results includes positive trends in recruitment and satisfaction. Also, 50% of staff are involved in CDQ. There is little evidence of any other analysis being done. There is a need to set up trend data systems and to tap into information that is already available. There is little evidence showing supplier and partner results. However, there is some monitoring and feedback on supplier performance.

Some of the organisational effectiveness results include keeping within budget year on year, cost per patient reducing annually, and some benchmarking of competitive rates which shows more cost effectiveness than competitors. There have been some successful bids against joint funding. Also, the Patient Charter standard has been constantly met.

6.3.2 Hospital F

Hospital F Health Trust has committed itself to making a genuine difference to all who come into contact with its services since the organisation was established as a Trust on April 1993. Its principal goal is to provide the highest standards of care within the financial resources available. In striving to realise this ambition, It has underpinned its role with a clear set of values and principles that it places at the heart

of all that it does. As a National Health Service provider, it has a deep sense of responsibility to the users and carers who put their faith in it. Their values and principles ensure that it not only makes users and carers its first priority, but that it does so whilst demonstrably valuing its staff, and within a discipline of robust financial stewardship.

The successful Trust application created a single management unit for Community Health and Priority Services – the Community Trust – that brought together the services previously managed by two distinct organisations, Hospital F Health Authority. The Trust was created by seizing the opportunity presented by the NHS reforms. Their founding principles reflected the importance of being responsive to the needs of patients and carers, and of providing services on an equitable basis to a high quality standard across the whole district.

The Trust provides services to the population of the hospital Metropolitan District in West Yorkshire. Any of 320,000 local residents is likely to use its services at some time during his/her life. In addition to its strong local focus, its Regional Medium Secure Forensic Unit also provides some specialist services to a much wider population, covering the whole of the Yorkshire Region.

To ensure it delivers appropriate and effective services to the people who need them most, it must work productively in partnership with a complex set of customers, suppliers, and other key stakeholders. It seeks to balance the sometimes conflicting needs of its various stakeholders through constructive dialogue, joint working, and innovative approaches.

Since its inception, the Trust has witnessed significant changes in the local environment. In particular, these changes include general practitioners within Primary Care Groups having a wider role to influence decisions about which services they commission and provide. Also, the government drive towards giving GPs a stronger role in planning and delivering NHS services means community nursing staff, who already work as part of GP practice teams, are likely to have to take on broader responsibilities in response to the requirements of GPs.

To meet its goal of providing the highest standards quality of care, the Trust continues to develop flexible and adaptive ways of actively meeting the challenges that such a dynamic, sometimes turbulent, environment presents. The Trust commitment to continuous quality improvement can be traced back to the formation of the Trust. Table 6.3 shows the main milestones along the way, and how the journey has gained momentum as the approach to quality continues to mature.

The services of the Trust are provided from over 50 different sites, including hospitals, clinics, health centres, schools, GP practices, residential homes, and people's own homes. To deliver this diverse range of services, the Trust employs approximately 2,000 staff, including doctors, nurses, therapists, administrative staff and non-clinical support staff. The Trust is governed by a Trust Board made up of Non-Executive Directors, who are appointed by the Secretary of State for Health, and Executive Directors, who are employees of the Trust with specific areas of responsibility. The role of the Board is to ensure that the Trust's resources are properly managed, and that the Trust is accountable for its actions to the public and the Secretary of State for Health.

Table 6.3 Milestones along the Quality Journey (Hospital F)

Trust formed	April 1993
Quality Strategy agreed by Trust Board	September 1993
Quality Council formed	September 1993
Audit, research, CQI agendas established	October 1993
CQI training for all staff initiated	November 1993
'Quality Tapestry' handbook produced	November 1993
Communication Strategy implemented	January 1994
Celebration of Quality established (e.g. awards, exhibition)	October 1994
Local Patient's Charter developed	October 1994
Investors in People status achieved	March 1995
Quality, Evaluation & Development (QED) department formed	April 1995
Quality models/ frameworks reviewed	July 1995
EBEM self-assessment team trained	December 1995
Charter Mark achieved	December 1995
First annual staff opinion survey carried out	March 1996
First annual self-assessment completed	April 1996
Chief Executive Special Award initiated	1997
Investors in People status re-recognised	March 1998
Clinical governance awareness workshops	Autumn/ Winter 1998
Charter Mark re-awarded	December 1998
Clinical governance training programme	Jan-June 1999
Clinical governance baseline audit tool based on Excellence Model developed	Spring 1999
'Looking outward' – conferences, presentations, external visits, & learning from others	1999

At the Trust, self-assessment against the Excellence Model is now totally integrated into the business planning cycle, and the model serves as a framework for structuring and integrating many strategies and initiatives across the Trust.

6.3.2.1 Organisational Leadership

The Chief Executive and Directors visibly demonstrate their commitment to CQI by developing and voicing clear values and principles for the organisation, and by

making themselves accessible to people through a variety of organised settings such as road-shows or the Quality Exhibition. Focus groups have shown that leaders are generally regarded as being accessible, although there is a sense that the 'personal touch' is somewhat lacking, and it is unclear how much the approach to leadership is monitored and reviewed.

Leaders at different levels within the organisation engage in joint working with a number of external organisations and stakeholders, and the organisation utilises R&D to derive both customer and organisational benefits. Some staff groups are aware of their customers and suppliers. However, it is not clear how much there is a systematic approach to partnership strategy to maximise customer/supplier partnership, e.g. to prevent potential conflicts, to promote business excellence actively outside the organisation.

The Trust supports improvements and involvement by its ongoing commitment to investment in training and through established processes, which are clearly linked to business objectives. Although soundly based approaches are in evidence, it is however not clear how systematic review of those activities occurs.

There is a soundly based approach to recognising and rewarding people's efforts within the Trust, and focus groups suggest that a variety of informal mechanisms are applied across the organisation. It is not clear how much day to day recognition of effort is made explicit, however, and there is little evidence of recognition of external bodies or of systematic review of existing approaches.

6.3.2.2 Public Responsibility and Citizenship

The Trust is a significant local employer with ongoing relationships with local agencies and an approach to ensuring openness and public access to information. There is limited evidence of direct measures of society's perception of the organisation. Some additional measures are used by the Trust to understand the organisation's impact on society, though these are done on an ad hoc basis rather than systematically.

6.3.2.3 Strategy Development and Deployment

The Trust makes use of a variety of sources of information (internal, local, and national) when developing policy and strategy, and utilises technology and benchmarking to assist in this process. It is not, however, clear how comprehensiveness of information is ensured, and there is little evidence that evidence from the customer/ suppliers is used effectively when developing policy and strategy.

There is clear corporate management team involvement in developing and reviewing policy and strategy, and consistency is ensured by the use of the EBEM criteria and a standard approach to policy production. Strategy for some services has had to take account of the differing needs of multiple stakeholders. It is not clear how the results of the annual EBEM assessment have been interpreted and utilised across the organisation to inform policy and strategy.

Policy and strategy are reflected in the organisation's business plan, and strategy documents and corporate objectives are translated across the organisation through the

QPM process. Whilst the organisation has a comprehensive range of policy documents, there is lack of a systematic review of awareness/ understanding of policies.

The business plan is used to communicate the implementation strategy, both internally and externally. Trust policies have clear time-scales for review/revision, and this process is Director-led. However, there is little evidence of evaluation of use and effectiveness of policies. There is a systematic, annual cycle of objective setting and performance throughout the organisation. There is evidence of team objectives being aligned to organisational objectives.

6.3.2.4 Patient/Customer Healthcare Market Knowledge, Satisfaction and Relationships

A sign of the success of the Trust satisfaction with the purchasers/ commissioners is the fact that it maintained a steady income through repeat business and through new business over the lifetime of the Trust, as shown in Table 6.4. In addition, there are further examples where purchasers have increased their business with the Trust. For example, the Local Education Authority has consistently funded additional speech and language therapy sessions for children with special educational needs in the District.

Table 6.4 Hospital F Trust income by year (£000)

1993/94	1994/95	1995/96	1996/97	1997/98
45,277	44,720	43,631	44,129	45,681

The Trust is firmly committed to providing an excellent service to meet the needs of all its customers. This means satisfying a variety of needs for a complex range of customers, predominantly the users of the services and their carers, and those who commission its services on behalf of the local population, in order to meet and exceed customer needs and expectations.

Central to the approach to gathering feedback from users of the services is the Trust's Annual Local Patient's Charter Survey, which has been undertaken since 1995. The survey questionnaire is designed to identify user and carer perceptions of how well the Trust is achieving the charter standards, in order to inform the quality improvement process within clinical services. The survey has shown positive trends for many results, and evidence of maintenance of good performance against Trust standards for others.

The Trust has a record of long-term relationships and customer loyalty and surveys show consistently positive perception of the organisation. However, there are few direct measurements of customer perceptions, and therefore there is a lack of trend information.

The Trust can make use of additional measures to predict customer satisfaction, but there is little evidence of systematic formal target setting and trend monitoring being utilised across the organisation.

6.3.2.5 Measurement and Analysis of Organisational Performance

Organisational performance is measured by financial results measures which are determined by:

- The environment in which the Trust operates
- Financial stakeholders in the Trust services
- Local financial situation

Additional key measures of the organisation's performance business results are driven by enabler action from leadership, policy and strategy, and processes.

The pricing principle of NHS services is that cost must equal price, with the flexibility for marginal surpluses. The breakeven target is therefore a critical measure of success for the Trust, both as an external duty and as an internal measure of success. Its breakeven/surplus duty has been achieved in each year. In 1995/1996, the Trust's published performance showed a slight deficit of £85,000 due to a change in accounting policy for the capital cost of early retirements.

6.3.2.6 Staff Work Systems, Development, and Satisfaction

Key processes have been identified through workshop approaches involving the corporate management team, but it is not yet clear how this approach will be fully integrated into operations, nor how it will be evaluated. Also, director ownership of key processes is being established. As yet, there is no systematic approach to the management of key processes or their review, nor to the integration of existing systems and approaches with key processes.

Whilst there is some evidence of challenging targets being set for the improvement of sub-processes, as yet there is limited evidence of a systematic approach to process review. There is a strong focus on continuous learning within the Trust, and flexible organisational structures facilitate creativity and innovation. However, there is little evidence of a systematic approach to process improvement. The Trust has a good record on managing change, and there are some examples of effective process change management. This is evidence of a sound approach, but it is not systematically deployed.

The Trust has a consistent approach to planning and improving its human resources, with established policy and strategy providing a basis. There is some evidence of use of flexible and innovative working practices and a clear approach to equal opportunities, which is effectively implemented. The organisation has successfully been awarded the Investors in People Award on re-application. A staff opinion survey is in place, and is currently being revised. However, it is not clear what action has been taken on the basis of previous staff opinion survey results.

The Trust sustains and develops people capabilities through approaches to training need analysis and evaluation of training received, and links individual needs to those of the organisation through processes such as QPM. There is a clear focus on the commitment to continuous learning within the organisation, and resources are identified to facilitate this. Team approaches are widely used, although there are no clear systematic, proactive approaches to supporting and developing teams.

The Trust encourages and supports staff in CQI activities by providing resources and processes to facilitate involvement, and by having a clear strategy and focus for the organisation. Clear reward/recognition systems are in place. The Trust's approach to empowerment is not clear, and so it is unclear how empowerment is ensured and reviewed across the whole organisation.

There is a range of communication channels available across the organisation, and steps are taken to ensure effective communication (e.g. through training and dialogue with staff). It is not clear how communication needs are identified, nor how the effectiveness of various approaches to communication is evaluated. The Trust has a soundly based approach to caring for staff, backed up by clear policies and training opportunities, as well as social activities and personal healthcare facilities. However, health and safety policies are overdue for review.

6.3.2.7 Healthcare Service Processes

The corporate management team has been actively involved in the identification of the organisation's key processes through a workshop approach (the key processes that have been identified for the organisation are organisational effectiveness and innovation, people management, and the patient journey). The Trust has used a high-level approach to process identification and review. The approach adopted is one that has challenged and developed the organisation's understanding of the processes. The approach undertakes to both describe current processes and prescribe changes in relation to best practice. The descriptive process review include:

- Diagnostic key process review – using Excellence Model self-assessment
- Benchmarking of similar organisations

- Use of organisation facilitators

The descriptive process review includes:

- Securing of additional skills and expertise for facilitator staff who then put a development programme together to respond to the Excellence Model diagnostic needs.
- Workshop with corporate management team. Sub-group work by teams of directors to identify clearly the sub-processes of key processes.
- Review of work of each Directors' team by other teams
- Discussion with sub-process managers to ensure pragmatic 'fit' of identified processes.

There is little evidence that support processes do exist. On the other hand, suppliers are responsible for their own processes. They are encouraged to suggest new products and support clinical trials that can improve patient care. Examples of such trials are more common in the use of drug therapy, but also include products such as advanced technology, and pressure care mattresses to reduce or prevent pressure sores. All drug and product trials involving patients are controlled closely to ensure that the benefits to patients are maximised and risks are minimised. In addition, there is little evidence of supplier feedback being used to improve processes.

6.3.2.8 Organisational Effectiveness Results

The Trust places a great value upon the views of customers. This is demonstrated by a firm commitment to acting on the feedback the Trust receives. Areas for improvement

highlighted by surveys, audits or complaints are acted upon on a Trust, division or service level as appropriate.

The Trust manages its financial resources through clear management systems, and has a clear financial recovery plan in place to address the financial deficit. Clear approaches are utilised, including risk management and investment appraisal, and internal and external financial monitoring are employed.

The Trust has a clear policy on information management and security, and has reviewed the information needs of staff across the Trust. There is evidence that available information is used when reviewing services, and those plans are in place for improved access to information. The forthcoming clinical information system will bring clinical and information benefits across services. At this stage, however, accessibility to IM&T resources is limited for certain staff groups.

Key results areas are concerned with the motivation and satisfaction of the Trust staff to determine the effectiveness and value of the approach. One major explicit value is showing respect for people and encouraging staff to express their views. This is measured in a number of direct and indirect ways. One direct way is through an annual staff opinion survey that asks the staff questions about how they perceive the organisation with respect to several relevant areas of their employment with the Trust. There is evidence of a move towards more effective management of material resources, but it is not clear how the organisation develops supplier relationships to maximise the added value of suppliers

The Trust has a good financial record of achievement over a five-year period. However, it is not clear how these positive results link directly to the key processes. The results of benchmarking of non-financial measures are favourable in some areas, though the linkage to key processes is not clear.

6.4 USA Case Studies

6.4.1 Hospital G

Hospital G is an accredited, not-for-profit, tertiary hospital and the major teaching facility for a University School of Medicine. With 1,567 licensed beds, Hospital G is unconditionally committed to medical excellence in public service since 1917, and has attained national and international recognition for the outstanding quality of its clinical programmes.

The hospital has many roles in its region, acting as a full service provider for the indigent and uninsured, a regional referral centre, and a magnet for medical research and innovation. Based on the number of admissions to a single facility, Hospital G is one of the busiest in the USA. The strength of the hospital is its broad range of tertiary services and clinical programmes designed to serve the entire community, and a medical staff that is recognised nationally for the quality of its patient care, teaching and research.

Hospital G vision is to strive to be the best every day, to demonstrate its commitment to quality and value by providing outstanding and compassionate clinical care, meaningful research and innovative education. Hospital G mission is to provide a single high standard of advanced healthcare, education and research, and to improve

customer satisfaction, enhance professional fulfilment, and provide public service. Some facts and figures about Hospital G can be seen in Table 6.5

Table 6.5: Hospital G Fiscal Year 1999-2000

Total number of licensed beds	1,567
Number of full-time employees	9,384
Average length of stay	7.0 days
Number of admissions	55,389
Average daily census	1,062
Budget 1999-2000	$966,203,000

Source: Hospital G Facts and Figures, 2001

6.4.1.1 Organisational Leadership

The senior leadership of Hospital G has implemented an organisation-wide process which focuses its efforts on accomplishing performance improvements in areas that are critical to its mission, and strategic and business plans. The senior leaders have committed themselves to:

- A customer-centred performance improvement process
- An empowering management style congruent with a performance or quality improvement philosophy.
- Providing support, resources, and education for performance improvement goals
- Multidisciplinary involvement in the performance improvement process.
- High visibility of performance improvement in the medical centre.

Senior leaders have an open door policy. Also, the hospital has posted suggestion boxes with suggestion feedback. Employee and physician groups also assist leadership in determining performance improvement priorities.

6.4.1.2 Public Responsibility and Citizenship

Hospital G provides almost 300 million dollars-worth of uncompensated charity care each year. The system's goal is to ensure that all residents of Hospital G County receive a single high standard of care regardless of their ability to pay. Hospital G Memorial Foundation organises fund-raising activities and resources for the hospital. It develops and supports important capital projects to support the community. These include building and equipping a new Trauma Centre, a new Paediatric Oncology/Haematology wing, and Rexall Sundown Paediatric Bone Marrow Unit.

6.4.1.3 Strategy Development and Deployment

Most strategies have some type of improvement goal and measure. These performance improvement strategies are developed by senior leaders, and include access to services, customer satisfaction, co-ordination of services, management of human resources, management of information, organisational performance, quality patient care and value, and education.

Strategy deployment includes planning of timetables, which demonstrates the urgency and prioritisation of the improvement opportunity. The critical strategies for improvement opportunities are selected based on those that affect a large percentage of patients and customers; those that place the patient, staff, and customer at risk; those that are problem prone; and /or those that are generated by a need or desire to

improve even acceptable or excellent performance. The critical opportunities for improvement are then evaluated and prioritised based on the following criteria:

- Quality
- Customer satisfaction
- Cost effectiveness, and
- Ease of implementation.

6.4.1.4 Patient/Customer Healthcare Market Knowledge, Satisfaction and Relationships

The entire hospital, including the service centres, departments, units and committees, perform ongoing monitoring of patient-focused functions, involving the assessment and comparison of patterns and trends. This monitoring serves to validate acceptable levels of performance or create opportunities for improvement. Clinical performance variations and/or sentinel events then become starting points from which systems and processes which affect patients are evaluated and improved. The primary sources of Hospital G patient base are uninsured and under-insured patients, and patients referred for specialised, tertiary care treatment unavailable elsewhere.

6.4.1.5 Measurement and Analysis of Organisational Performance

Prioritisation and selection of clinical performance measures include the following criteria:

- Affects a large percentage of patients/ customers
- Places the patients/customer/staff at risk are problem-prone and/or
- Performance is undesirable and/or varies significantly from expected levels, patterns or trends, or from other organisations.

- Impacts on cost, length of stay and/or mutually agreed upon outcomes
- Can be affected by organisation (align with mission, vision and values)
- Is likely to reveal differences in care or provide an opportunity for benchmarking with external care providers
- Meets regulatory or accrediting requirements

6.4.1.6 Staff Work Systems, Development, and Satisfaction

Over the past two years, the customer advocacy project at Hospital G has sponsored a programme to recognise reward and reinforce employees who consistently demonstrate a 'can-do' attitude. The hospital employees have been encouraged to nominate their co-workers and supervisors for going above and beyond the call of duty. During this time, more than 500 employees were nominated for their exemplary performance.

The mission of the Library at Hospital G is to support the activities and programmes of the University Centre and member institutions and individuals, as they relate to education, research, and patient care. The library accomplishes its mission by:

- Identifying, procuring, organising and disseminating comprehensive, authoritative, current and retrospective health science information resources in all print, non-print, and electronic formats in ways that satisfy client needs.
- Providing instruction to faculty, staff, students and community members on retrieving information from a wide range of resources using state-of-the-art technology.

Staff receive education through electronic classrooms, learning centres, multimedia lab, and on-line information classes.

There is evidence that Hospital G:

- Initiated the computer-assisted instruction hardware and software for mandatory education requirements.
- Finalised the mandatory education policy for the hospital.
- Created and implemented an employee educational programme format and record ensuring continuity of educational records.
- Drafted a new-employee orientation framework.

There is evidence that Hospital G seems to be creating an environment which attracts and retains the best employees, and in which employees are self-motivated to perform to their maximum potential. Hospital G seems to be committed to providing responsive services and effective systems that enable the hospital to recruit, retain and develop the workforce to provide the highest standard of healthcare.

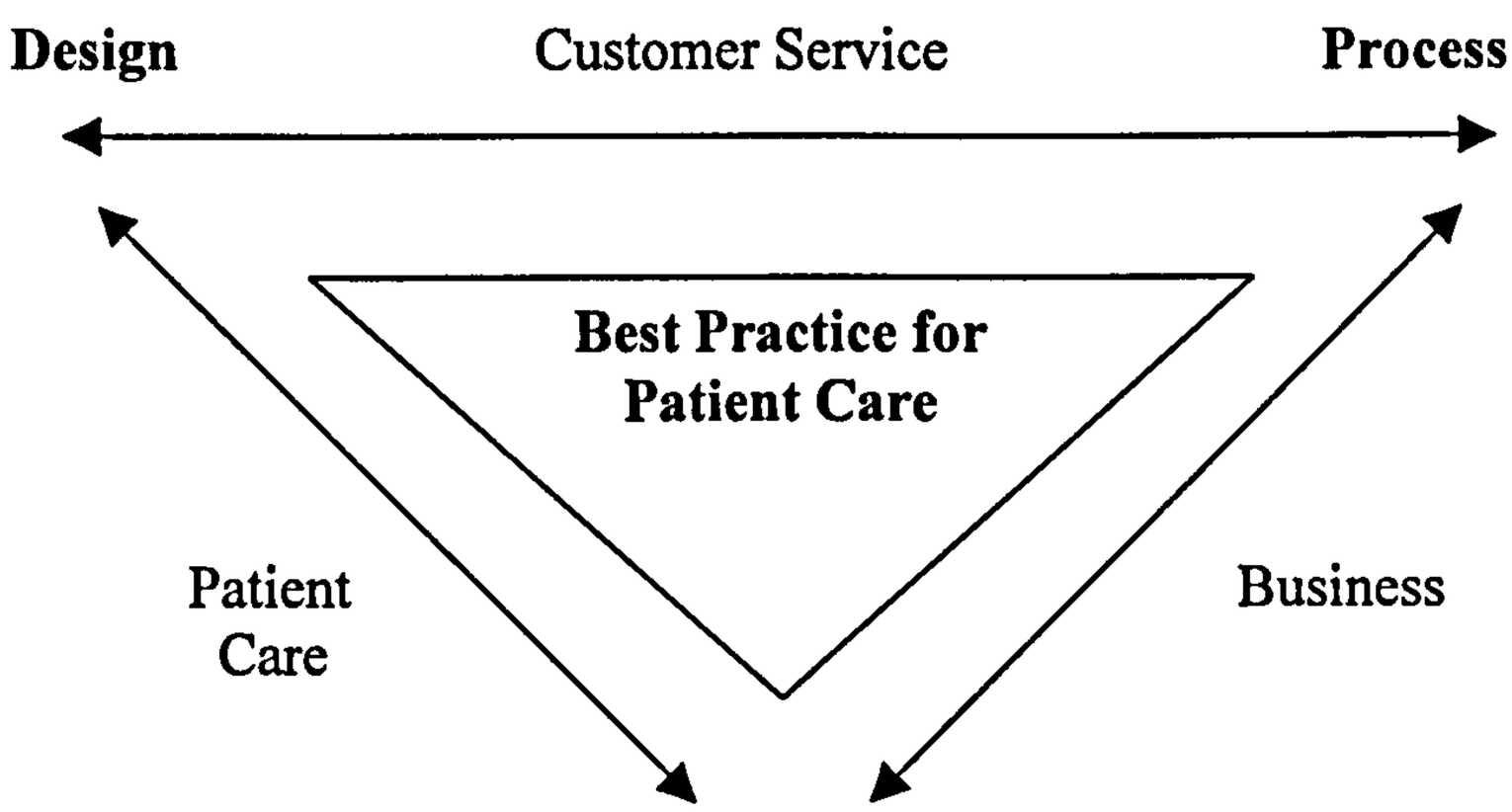
Hospital G makes employees, managers, and unions partners to create and maintain a healthcare environment that is both responsive and supportive to the direction of the hospital. There is evidence that the hospital promotes individual growth, supports teamwork, and facilitates recognition for achievements. The human resource values at Hospital G include honesty, compassion, team building, diversity, continuous improvement, and a supportive work environment. The hospital recognises its key customers to include all employees, appointed and elected officials, and external customers

6.4.1.7 Healthcare Service Processes

The hospital has a model for improvement. This model is a mechanism to integrate best practices of clinical, customer service and business processes. The model for improvement (Figure 6.1) has no beginning and no end. Best practice effort may start at any point by:

- Analysing existing process
- Measuring outcomes
- Designing a new process
- Prioritising opportunities for improvement, or
- Experimenting with new ways of doing things

Figure 6.1 Model for Improvement at Hospital G



The definitions of the elements of the improvement model are as follows:

Design Design includes development or creation of any new process or redesign of an old one.

Process A process is a series of interrelated activities by which the work gets done. Once a process is designed or redesigned, integration of the design into an operational system follows.

Outcome The outcome of the design or process should demonstrate measurable results.

Customer Service Best practice in customer service is demonstrated in the way Hospital G treats its patients and in the ease of use of its facilities. This includes the standard of excellence, customer advocacy project team and telephone etiquette. Measured by patient satisfaction results.

Business Best business practices, including improving business processes, reducing billing errors, reducing redundancies, and reducing costs.

Patient Care Best clinical practices include improving clinical outcomes and case management.

Although no information was received regarding support, supplier, or partnering results at Hospital G, there is evidence for patient satisfaction results, such as implementing a patient satisfaction research programme, which includes:

- Drafted request for proposal and subsequent contract with an outside research vendor (professional research consultant).
- Designed process for data transfer to vendor and 5 surveys to measure patient satisfaction (inpatient, outpatient, emergency, primary care and health plan)

- Created process for communicating patient satisfaction information to staff (first quarterly report to be presented to all management staff on 17 November 1999), in addition to an education programme on how to use information.

6.4.1.8 Organisational Effectiveness Results

The results of the customer satisfaction surveys showed an improvement in three areas. They include the following categories: staff friendly and helpful (6% increase), problems/concerns addressed in a timely manner (2% increase), would you come back to Hospital G (2% increase).

Financially, Hospital G is doing well. In 1991, the county voters supported a one-half-cent sales tax for Hospital G to provide access and reduce backlogs. Nine years later, the monies from the sales tax continue to save lives every day. The tax revenue makes up approximately 13% of the annual operating budget.

The clinical excellence team created a process to improve clinical practice among all staff, resulting in an average improvement of 20-30% in staff comfort levels. The team also initiated a cross-training programme for the labour and delivery nurses and nursery nurses, increasing ability of staff to work safely in multiple units. Other staff results include:

- Initiated the computer-assisted instruction hardware and software for mandatory education requirements.
- Finalised the mandatory education policy.
- Created and implemented an employee educational programme format and record, ensuring continuity of educational records.

- Drafted a new-employee orientation framework.

There was no information received regarding supplier and partner results.

Overall, the organisation results include:

- Initiated silent shopper audits for the telephone etiquette programme within the departments, resulting in improved compliance with stating location by 3%, identifying self by 40%, and offering assistance by 9%.
- Inclusion of standards of excellence on all performance evaluations, counting for 20% of the evaluation score.
- Created and implemented the 'face the future' awareness programme to educate the staff about the standard of excellence and the impact on their performance evaluation (over 3,000 employees have attended the programme).
- Provided a reward and recognition luncheon and motivational programme for customer advocacy team members and management level personnel.
- Enhanced and maintained many of the physical aesthetics of the hospital.
- Improved patient access in outpatient clinics and reduced patient waiting time.
- Reduced waiting time in outpatient clinics from arrival to disposition within 70 minutes.
- 90% of all patients received radiology within 30 minutes.
- 90% of all patients received pathology services within 20 minutes.
- 90% of all patients' medication services will be completed within 30 minutes.
- 90% of all patients will be financially assessed/disposed within 48 minutes of arrival.

- Improved care by integrating governance, managerial support and clinical processes that affect patient outcomes.
- Improved patient and family health status by providing education regarding restorative and preventive care.
- Created a customer-friendly environment by participating in community health fairs focusing on wellness and prevention.

6.4.2 Hospital H

Hospital H tradition of care began more than 100 years ago. In 1884, the cornerstone of the Cancer Hospital was laid, what was later to become Hospital H for Cancer and Allied Diseases. In 1984, the Institute was dedicated to foster innovative basic-science research focused on cancer. In 1960, the cancer institute joined Hospital H, and it became the Cancer Centre. It is the collaboration between the scientists and physicians that gives Hospital H its unique strength.

Hospital H mission is one of leadership in the prevention, treatment, and cure of cancer through excellence, vision, and cost-effectiveness in patient care, outreach programmes, research, and education. At Hospital H, the goal is "to be as good as the best should be". According to leaders, this is a goal incidentally which can never be reached, but for which they must always strive. Hospital H believes in treating the whole patient – body, mind, and spirit. Each hospital room, each treatment space, each corridor is designed and maintained with the needs of the patients in mind. The environment at Hospital H is about providing comfort and benefits for patients and their families, fostering cutting-edge research, and leading the way in education.

This hospital is devoted solely to cancer care. The surgical teams are cancer specialists. The surgeons, anaesthestists, nurse anaesthetists, radiologists, pathologists, operating room nurses, and recovery room nurses work together in developing and maintaining the kind of preoperative judgement, diagnostic accuracy, meticulous surgical technique, and high-quality postoperative care that improve outcomes. In cancer care, as elsewhere, experience makes for quality and effectiveness, and Hospital H exemplifies this maxim.

At Hospital H, the success in carrying out the finest programmes of cancer prevention, care, research, and education depends on the commitment, creativity, expertise, and support of the 7,133 staff members who work at Hospital H, and the 675 volunteers who donate their time in support of their efforts.

6.4.2.1 Organisational Leadership

Hospital H senior leaders have provided visionary leadership, improving the depth and breadth of the programmes of patient care, research, and education; integrating the centre's basic scientific research with its clinical research; and steering the hospital in directions that can present great potential for making progress against cancer. By vision and example, the senior leaders have brought Hospital H ever closer to the shared goal of the progressive control and cure of cancer.

Top management provides forward thinking and strong decisive leadership, which steered this institution for the past two decades in the direction that has presented the greatest possible potential for progress against cancers. Senior leadership has led the creation of innovative programmes for patient care, expanded efforts in cancer

prevention and early detection, built laboratories, encouraged creative results, and enhanced collaboration among clinical investigators and basic scientists for the benefits of patients.

6.4.2.2 Public Responsibility and Citizenship

Special events conducted by the Centre and its supporters help fund Hospital H's renowned patient-care, research, and educational programmes. These activities and others also serve to share the knowledge developed at Hospital H with members of the community and, through the Internet, with people all over the world. These events include:

- New York City Marathon – collects per-mile pledges from friends, families, and colleagues to support cancer research.
- For the Love of Life – an annual dinner dance and auction for the benefit of colon cancer research.
- Toys "R" Us 5K & Kids' Fun Run – this event raised more than $400,000 to benefit the Aubrey Fund for paediatric cancer research.

'The more you know, the better equipped you will be to make informed choices about your health'. This is the philosophy behind Hospital H's Cancer Smart Community Lectures. These lectures educate the public about the latest developments in cancer, research, and support. Since inception in 1995, more than 3,000 people have attended these lectures. Starting in 1999, some 800 of those audience members accessed the lectures through Hospital H's web site.

Since its launch in 1996, the Hospital H web site has helped redefine what community means, reaching a computer-oriented audience far beyond the New York City area. The web site offers comprehensive information on cancer diagnosis, prevention, and treatment offered at Hospital H, as well as a monthly e-mail newsletter on cancer-related topics, and on-line lectures.

6.4.2.3 Strategy Development and Deployment

No information regarding strategy development or strategy deployment was received.

6.4.2.4 Patient/Customer Healthcare Market Knowledge, Satisfaction and Relationships

At Hospital H, there is a special approach to inpatient care. The goal is to prepare patients for an early and confident return home. There are many aspects of what is done that help patients heal and come to be ready to leave the hospital. These include:

- Organisation by cancer type – This arrangement combines the benefits of highly skilled professional care with unique sensitivity to the needs of patients and caregivers. An important added benefit is that patients with shared experiences can often support each other in very meaningful ways.
- Responsiveness to Patients' Needs – The physician and nurse leaders of each unit have decision-making ability, which enables them to respond quickly to patients' needs as they arise.
- Home-Like Environment – Special attention is paid to making patients and their families feel comfortable during inpatient stays; for example, some rooms are designed to feel more like a home, not a hospital. Medical equipment is kept

discreetly out of sight. There are no fluorescent lights. Colours are warm, and floral patterns abound.

6.4.2.5 Measurement and Analysis of Organisational Performance

There was no information received regarding measurements and analysis of organisational performance.

6.4.2.6 Staff Work Systems, Development, and Satisfaction

The standards of excellence are set very high at Hospital H by recruiting and retaining an academic faculty without equal. Hospital H's flexible benefits programme recognises that as the employees' life changes, so do the benefits they need. Thus, instead of giving the coverage they do not want or need, the programme gives them choices. The flexible benefits programme gives the staff money, called 'flex dollars', and a choice of ways to use it. They can use their flex dollars to buy some of the following benefits:

- Medical coverage
- Prescription coverage
- Dental coverage
- Accidental death coverage
- Long-term disability coverage
- Life insurance
- Healthcare and dependant care spending accounts

The core benefits are provided in addition to the flexible benefits, and include the following:

- Pension/ retirement plans
- Sick leave plan
- Vacations
- Holidays
- Tuition reimbursement programme
- Business travel accident insurance

Education is a fundamental part of Hospital H's mission; for example, nearly 200 clinical fellows practise side by side with Hospital H staff physicians. These are young doctors who have finished residency, and have come to learn more about cancer care and research. Hospital H's educational also extend beyond its walls. Some physicians produce videos and CD-ROMs that train surgeon how to perform in certain operations. There are also some medical seminars given by the Hospital H staff in Austria for physicians from eastern European countries.

Patients also benefit from the Centre's educational efforts, such as a series of interactive CD-ROMs being produced about specific cancers and cancer-care issues. The CD-ROMs are available for viewing at the Centre and will also be distributed nationally.

At Hospital H, the employee is part of a team with a purpose. Each individual has a special function that others rely on in order to do their job effectively. This is a collaborative approach, which allows the employee to work alongside the best in the

field. The staff share knowledge with each other, and in return learn from each other. The staff are very committed to their work, and there is a strong drive on everyone's part to improve skills, expand knowledge, and take on additional responsibility.

6.4.2.7 Healthcare Service Processes

There is evidence of healthcare service processes at Hospital H. Among these processes, there is the:

- Case Review Process – This includes incident reports, treatment complaints, patient misidentification, sentinel events. The timing is 48 hours, and confidentiality is maintained.
- Multidisciplinary Review Process – Applies to all departments. The timing is 48 hours, and confidentiality is maintained.
- Performance Improvement Process – This is a technique which tries to improve continuously the care given to the patients by forming teams of people involved in the processes of care, analysing the causes of problems in the process, coming up with solutions that address the causes, and measuring the results to see whether the solution was successful.

6.4.2.8 Organisational Effectiveness Results

There was no information received regarding support, supplier, partnering, staff and patient results.

The financial results indicate that the invested reserve between 1980 and 1999 increased from $82 million to $2.1 billion. The number of annual gifts increased from $140,000 to 925,000, and annual giving rose from $34 million to $150 million.

The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) visited Hospital H in 1999. They surveyed it in a seven-day visit during which they performed a full policy and document review, checked the laboratory areas, and interviewed many staff members. The result was a perfect score: 10 out of the possible 10. Also, in 1999, for the seventh consecutive year, *U.S. News & World Report,* in its annual survey of "America's Best Hospitals," named Hospital H the best cancer centre in the United States.

6.5 Qualitative Key Findings

This section presents a discussion of the major findings from the qualitative analysis of the eight case studies from the KSA, UK, and USA. Both the UK and USA case studies were used to benefit the KSA experience by learning from their more developed experiences with TQM implementation. Although each of the case studies uses a diverse implementation scenario and approach to TQM, some negative consistencies were found in the quality implementation among the KSA hospitals. When compared to the UK and USA experience, the KSA case studies show that in implementing organisations, TQM intentions and TQM policy frameworks are generally acceptable, however the implementation processes are generally weak and lack coordination in the majority of these cases. It is clear that the majority of the KSA cases have not succeeded in total commitment towards a total quality culture. Most of the critical activities that form the foundation of a successful quality process are lacking in the majority of the case studies. Table 7.2 summaries all key findings in the KSA, UK, and USA hospital cases.

Three major key findings were apparent among the KSA case studies. The first key finding is in the category of organisational leadership. Throughout the quality literature it is emphasised that top management commitment and leadership are the ultimate drivers of business excellence when it comes to quality. Top management commitment is a major determinant of a successful quality implementation process (Juran, 1974; Crosby, 1979; Deming, 1986) and is clearly demonstrated in business excellence models like the Baldrige and the EQA.

Quality begins with top management, as it is the top managers that are supposed to lead the change process and provide all the guidance, create quality values, distribute the resources, and have the controlling authority over the resources necessary for the process to succeed. Similar to the quantitative analysis, the qualitative analysis further emphasise the leadership commitment in the KSA hospitals; but when looked upon closely, it was found that this commitment is a general commitment to the hospital. In all KSA organisations studied quality was the domain of the quality control department. Senior executives did not participate or take responsibility in activities under this department. This means managing quality was not given its proper strategic importance in the organisation. Thus, most of the hospitals seem to have good general leadership yet there is a lack of priority by top management commitment to the quality process.

When comparing the KSA leadership to the UK and USA leadership, it was found that both UK and USA hospitals have a leadership style that concentrates on quality where the quality was part of all the leadership agenda. Quality was always the controlling force. The KSA hospitals seem to treat quality as a separate entity.

However, the role of the quality manager was increasingly being seen as important and in some hospitals the quality director reported directly to top management as an acknowledgement of his/her critical role in meeting the organisation's objectives. Overall, the KSA hospital leadership does not appreciate the importance of quality fully as in the UK or in the USA.

The second key finding from the qualitative analysis is in the staff work systems. The KSA case studies show that the amount of employee education or training concentrating on quality is limited. Management should ensure that all employees have some type of quality knowledge and competencies; they should review the effectiveness and development of all quality training and educational programmes. In the KSA hospitals, quality education and training was mostly received by employees working in the quality department and not by other employees. Quality was looked at as being managed by a department and not as a philosophy that runs the entire hospital. This traditional way of looking at quality seems to be the main reason for the delay in the adoption of quality as a complete organisational system. This was especially seen when comparing the KSA hospitals to the UK and USA hospitals. Both the UK and USA hospitals have better quality education and training programmes for their employees that teaches them that quality is everyone's job.

The third key finding of the KSA case studies first emerged in the quantitative analysis and was seen again in the qualitative analysis during the site visits and the interviews. This is the finding of the problematic culture in the KSA hospitals. A good quality culture can be demonstrated in many ways including the provision of quality awareness training, evidence of management leadership in the quality process,

employee involvement and participation in quality improvement and the recognition and rewards of excellent performance in quality. It is apparent that there is some difficulty in implementing quality changes in the culture of the KSA hospitals. Unless a stable culture is created to support the change process, TQM efforts are a waste. The KSA case studies show that the majority of the male employees are not convinced that there is a need to change the hospital culture for TQM to work while the female employees did feel it was critical to change the culture or at least become aware of it. The females recognise that sometimes it was difficult to implement culture changes that collided with the segregated culture and some admitted that segregation could hinder the quality process. For example, it was uncomfortable for both males and females to work together in terms of face to face communication and teamwork. As one female employee said "it's still very awkward for Saudi females and males to work together."

The case studies show that the KSA hospitals are far behind in adopting activities that support TQM culture. Top management and the employees of the hospitals do not yet fully understand that for TQM to succeed, the culture of the organisation must be altered. There are some true intentions within top management to implement TQM, but they feel that their organisations are not ready to comprehend and implement TQM or they are unwilling to commit the resources to train and educate all employees. Some managers expressed an ideal picture of their TQM programmes but the evidence was minimal.

The KSA case studies show that in implementing organisations, TQM intentions and TQM policy frameworks are generally acceptable. However, the implementation

process is generally weak and lacks coordination in the majority of the organisations. It is clear that the majority of the KSA cases have not succeeded in total commitment toward a total quality culture.

When compared to the UK and USA hospitals, the majority of the KSA case studies show deficiencies in most of the critical activities that form the foundation of a successful quality process. Overall, the USA and UK hospitals are more advanced in the TQM process than the KSA hospitals.

6.5.1 Qualitative Findings and Segregation

The KSA healthcare case studies did not show clearly if segregation hinders the quality implementation process. This is due to the fact that the quality process in the KSA is still a new phenomenon. Among hospital employees, there is a mixture of negative and positive comments about gender segregation and quality but no real relationship can be drawn at this point. There is a need for further research on the segregation issue. Meanwhile, this research did reveal that segregation is not the only issue that hinders the quality implementation process. Also, this research did reveal that more attention should be given to the culture awareness programmes.

Table 6.6 Summary of Hospital Cases

Hospital Type	Level of Segregation	Organisational Leadership	Public Responsibility & Citizenship	Strategy Development & Deployment	Patient/ Customer Healthcare Market Knowledge, satisfaction and Relationship	Measurements & Analysis of Organisational Performance	Staff Work Systems, Development and satisfaction	Healthcare Service Processes	Organisational Effectiveness Results
Hospital A (KSA Specialist Hospital)	-Moderate	-Good general leadership -No commitment to quality	-Participate in pilgrimage season -Good outreach program	-Strategies are developed and deployed from senior management	-No competition Good general education and awareness program -Limited education on quality -Patient satisfaction level is moderate -Language and religion barrier exist	-Measurements and analysis of organisational performance exist	-Good work systems Performance measures exist for staff -No quality training, good general education -Excellent employer packages -Low staff satisfaction -Multi-national staff	-Only major processes exist and are evaluated as needed	-Considered the best hospital in the Middle east
Hospital B (KSA Armed Forces Hospital)	-Moderate	-Good general leadership -No commitment to quality	-There is a system that analyses, anticipate and minimises public hazards -Participate in educational and immunisation programs in the community	-Strategies are developed and deployed from senior management	-Armed forces employees and their families are the patients -Limited Education on quality -The majority of patients are passive and ignorant -Language and religion barrier exist	-Measurements and analysis of organisational performance exist	-Good work systems -Saudisation is strong -Multi-national staff -No quality training, good general education -Good employer packages -High staff satisfaction	-Most healthcare delivery processes are flow charted and evaluated yearly and revised	-New leadership made the hospital compete for first place in the KSA
Hospital C (KSA Public Hospital)	-Strong	-No strong leadership, 'laissez faire' -MOH is the real leadership	-Open for all emergencies -The friends of patience programme -Outreach programme	-No strategy development process -Management by crisis	-Non effective staff complaining system -No patients complaint system -No customer satisfaction survey	-only measurement is morbidity rate	-Everyone works for him/her self -No money to be spent on staff development -Multi-national staff	-No clear processes	-Under budgeted -Gives medical services with no frills
Hospital D (KSA Private Hospital)	-less Moderate	-Good TQ leadership	-Charity blood bank -participate in pilgrimage season -Educational programs for the public	-Strategies are developed and deployed by the strategic committee	-Good patient satisfaction surveys -Effective Patient complaint system -Maintains patient relations in sickness and health -Good educational programs for patients but limited quality education -Quality attributes in patient services is apparent	-Measurements and analysis of organisational performance exist	-Good work systems -high turnover rate -Multi-national staff -Good staff training programs	-All healthcare delivery process are flow charted, evaluated and revised on a continuous basis	-Good plan for global vision -Good overall organisational results

Table 6.6 Summary of Hospital Cases (continued)

Hospital Type	Level of Segregation	Organisational Leadership	Public Responsibility & Citizenship	Strategy Development & Deployment	Patient/ Customer Healthcare Market Knowledge, satisfaction and Relationship	Measurements & Analysis of Organisational Performance	Staff Work Systems, Development and satisfaction	Healthcare Service Processes	Organisational Effectiveness Results
Hospital E (UK Hospital)	-Non	-Good TQM leadership	-Health fairs -Healthy heart awards -Career evenings -Educational opportunities	-Systematic process for development of policy and strategies based on national & local guidance	-Positive trends in hospital surveys & focus groups -downward trend in complaints among customers -4 charter mark nominations	-Measurements and analysis of organisational performance exist - NHS pricing principles are used	-Good work systems -Good human resource planning -Employee participation in hospital quality development	-Most healthcare delivery processes use well structured approach with timetables	-Managing to stay within budget -Positive trends in recruitment and satisfaction -Patient charter standard has been met -More cost effective than competitors
Hospital F (UK Hospital)	-Non	-Good CQI leadership	-Local employer -Public access to information	-Strategies are developed by corporate management team	-Excellent service to meet the needs of customers -Positive trends in patient's charter survey -Increase of purchasers/commissioners business with the trust	-Measurements and analysis of organisational performance exist -Mostly financial measurements are used - NHS pricing principles are used	-Team approach are widely used -Effective process change management -Good human resource planning -The investors in people award -Focus on learning & training -Support CQI staff -Good staff packages	-Key processes are identified & reviewed through a workshop approach	-Good financial record -Clear policy on information, management & security -Rapid responds and acts on the feedback the trust receives
Hospital G (USA Hospital)	-Non	-Leadership focus its efforts on accomplishing performance improvements	-$300 million worth of uncompensated charity care yearly -Single high standard of care -Fund-raising activities -Active Memorial foundation	--Strategies are developed and deployed from senior management-Strategies are developed and deployed from senior leaders	-Good monitoring of patient focused functions to validate acceptable levels of performance or create opportunities for improvement	-Measurements exist by certain criteria	-Good work systems -Excellent library that supports the hospital through education, research, and patient care -Hospital environment attracts & retains the best employees -Hospital promotes individual growth, supports teamwork, facilitates recognition for achievements -Good resource planning	-The hospital has a model for improvements. It is a mechanism to integrate best practices of clinical, customer service and business process	-Upward trend in customer & staff satisfaction survey -Good financial situation -Good educational and training programs for staff

Table 6.6 Summary of Hospital Cases (continued)

Hospital Type	Level of Segregation	Organisational Leadership	Public Responsibility & Citizenship	Strategy Development & Deployment	Patient/ Customer Healthcare Market Knowledge, satisfaction and Relationship	Measurements & Analysis of Organisational Performance	Staff Work Systems, Development and satisfaction	Healthcare Service Processes	Organisational Effectiveness Results
Hospital H (USA Hospital)	-Non	-Excellent visionary leadership	-City Marathon -'For the love of life' programme -Cancer smart community lectures -Kids programmes	-Information not available	-Special approach to inpatient care	-No information available	-Excellent work systems -Excellent employee benefit programs -Excellent staff & patient educational programs	-Processes include case review, multi-disciplinary review & performance improvement	-Good financial situation -Perfect score in JCAHO -The best cancer centre in the US according to *US News & World Report*

6.6 Summary

This chapter discusses eight hospitals as part of the case study stage for this research. These hospitals include four hospitals in KSA, two hospitals in UK, and two hospitals in USA. Each hospitals was assessed using the Baldrige Healthcare Criteria. In both the KSA and UK hospitals, face-to-face interviews were used; while in the USA hospitals, information were transferred through the mail. An additional segregation section was added to the Baldrige Criteria for all the KSA hospitals.

Hospital A is a specialist hospital with good senior leadership that is responsible for developing and setting strategies for the hospital, and a highly paid staff that are not very satisfied. Hospital B is an armed forces hospital that has developed positively in the last five years to compete for the best hospital in the Middle East. This hospital has a committed Saudi labour force and a positive reputation. Hospital C is a public hospital with a very limited budget that was lacking in all areas of quality, but the patient's turnover is very high and the volunteer work is excellent. Hospital D is a private hospital which allocates most of its resources to satisfying their customers. This hospital has specifically designed processes for all its activities.

Hospital E is a NHS Trust located in the UK. This hospital provides quality healthcare for the local population within the resources available. They use MBNQA self-assessment tool to improve the hospital quality. Also located in the UK is hospital F. Hospital F Trust has committed itself to making a genuine difference to all patient's who come into contact with its services. At hospital F Trust, self-assessment against the Excellence Model is integrated into the business planning cycle.

The last two hospitals studied are located in the USA. Hospital G is an accredited, not-for profit, tertiary hospital and a major teaching facility. Its vision is to strive to be the best every day by demonstrating its commitment to quality. Hospital H specialises in cancer treatment. Its mission is to lead in preventing, treating, and curing cancer through excellence, cost-effectiveness in patient care, outreach programmes, research, and education.

Chapter Seven

Discussion and Proposed Model

7.1 Introduction

This chapter will begin by presenting a discussion of the case studies in Chapter Seven. This will be discussed at two levels. The first is a discussion of the systemisation of the KSA hospitals, and similarities and differences among these hospitals. The second is a discussion of the KSA healthcare organisation experiences and benchmarking them against the UK and USA case studies. This level will give us an understanding of where the KSA hospitals are in the quality process.

The following sections will present the key critical factors that were found in the literature and in both the quantitative and qualitative analysis in the KSA segregated healthcare environment. These findings of the study will then be highlighted, discussed and supported by the literature. These critical factors inhibited TQM from being implemented correctly because they were either not implemented fully or they were misunderstood, and included organisational culture change, management commitment, and education and training of staff. Using them critical factors, a proposed model for TQM implementation for the KSA healthcare segregated environment will be presented.

7.2 Degree of Systemisation among KSA Hospitals

This section will discuss the similarities and differences among the case studies of KSA healthcare organisations. The four hospitals that were studied were Hospital A (a specialist hospital), Hospital B (an armed forces hospital), Hospital C (a public hospital), and Hospital D (a private hospital). These hospitals will be discussed using the Baldrige framework. This framework was selected to be consistent with the original Baldrige assessment administered.

7.2.1 Leadership

The leadership category examined the hospital's leadership system and senior leaders' personal leadership, how senior leaders and the leadership system addressed issues of values, organisational directories, performance expectations, customers and other stakeholders, learning, and innovation. Also examined are the ways in which the healthcare organisation handles its societal responsibilities and provides support to key communities.

Hospitals in the KSA shared some common ground in the leadership category. All hospitals, as part of a collaborative system, used joint planning meetings to ensure alignment of organisational direction. The leadership of hospitals ensured that both administrative and operational staff were included in the meetings. Also, leadership in the KSA hospitals did not always rely on data in their decision-making, they sometimes rely on instinct, especially in the public hospital. The public hospital has the least amount of information to base decisions on, because there are few data collected.

In the quality management literature, leadership is considered pre-eminent, indispensable and crucial to the success of TQM implementation (Crosby, 1979; Feigenbaum, 1983; Juran and Gryna, 1988; Deming, 1989; Lascelles and Dale, 1990; Savolainen, 1998). With the exception of the public hospital, all the KSA hospitals studied seem to be strongly committed to managing a successful hospital. Yet, their commitment to quality seemed superficial. Leaders express their commitment to quality, but little evidence is shown. There is little resource, including time, money, and workforce, being directed to quality.

Senior leaders in the KSA ensured that organisational values are used to provide direction to all medical and administrative staff in the organisation to help achieve their mission, vision, and performance goals. They ensure that the goals of the administrative and medical staff are aligned. They encourage staff innovation and acknowledge it. They want to be associated with performance improvement activity. They carry out many visible activities such as planning, goal setting, recognition and reward of performance, and healthcare process improvement. They try to participate in performance improvement teams and use tools to enhance the process of performance improvement. Senior leaders mentor medical and administrative staff and ensure promotion criteria are critically processed by committee vote.

Although quality starts at the top, it gets its energy from the bottom. The healthcare organisation will not make much progress unless a large proportion of the workforce, including healthcare providers, is involved in quality improvement (Barber, 1996; Huq, 1996). The activities of senior management in the KSA hospitals (with the exception of the public hospital) seem to indicate that there is a 'superficial' belief,

commitment, and will for the involvement of the leadership themselves and their workforce in the quality process. This conclusion was reached during the interviews because all the interviewees referred to quality as a separate entity and not as a management philosophy. Also, the leadership involvement with quality did not develop because they do not allocate enough resources to quality, and they did not become themselves leaders of quality 100% of the time. This superficial commitment could be because top management do not fully understand TQM, or because they just want to appear 'up to date' in their management style. Both reasons have previously been recognised in the literature (Garvin, 1986; Sink, 1991; Dale and Lightburn, 1992; Lakhe and Mohanty, 1994).

Hospital D (the private hospital) was the only hospital that was seeking more future opportunity. This is probably because it is a private hospital working for profit. Also, this hospital was the only hospital that puts all of its plans and meeting minutes on line. This hospital will gain consumer/ patient confidence from this.

Hamilton (1982) expressed the view that the rigid authoritative and hierarchical structures in most healthcare systems make it very difficult for employees to suggest changes. This seems to be the situation in Hospital C (the public hospital). The MOH authoritative and hierarchical structure makes the hospital very weak and it has no room for any real decisions. Also, those that were sympathetic to patients and spoke up and demanded changes were exposed to harassment, as Hamilton suggested. For example, one interviewee said "I saw patients being covered with garbage bags because there wasn't enough blankets. I saw cats having babies in patients room. I saw operating rooms that were not fully equipped for surgery or the equipment was

not working. But if any body speak out, not much can be done except may be putting their job in jeopardy. If the employee is really interested in helping, the best way to deal with it is to try to solve it on a personal level through donations and contributions."

In general, the strong leadership in the KSA hospital organisations seems to reflect the same results as the employees in the KSA Hospital Survey, discussed in Chapter Six. The survey indicated that the employees of the KSA healthcare organisations believe that their leadership has a clear vision statement. The employees said that management was participative in their hospitals. Also, the employees revealed that management commitment to their hospitals was critical. The case studies seem to indicate that leaders in the KSA have a strong commitment to make their hospital successful but little evidence is shown to see that quality is at the top of their list. This is probably because they do not have a full understanding of what quality takes to succeed.

Within the leadership category, there is a sub-category called public responsibility and citizenship. This category addresses how the organisation integrates its values and expectations regarding its public responsibilities and citizenship into its performance management practices. There is evidence that all KSA hospitals are fulfilling their public responsibilities. Each hospital seems to be helping and giving to its community. The activities differ from one hospital to another. The most giving hospital of all is Hospital C. This is because it is a public hospital that serves all the population, and because it has the poorest community. Currently, there are no measurements for any of these community programmes.

7.2.2 Strategic Planning

This category examined how the healthcare organisations in the KSA set their strategic direction, and how they develop their critical strategies and action plans to support the hospitals' direction. Also, this category examined how the hospital plans are deployed and how their performance is tracked. The main function of strategic planning is to align all the efforts of the organisation to customer satisfaction, quality, and operational performance results (George and Weimerskirch , 1998).

Three of the four KSA hospitals studied showed evidence of some type of strategic planning taking place. The only hospital that did not have any strategic planning was Hospital C (the public hospital). The other three hospitals were not deploying strategic planning to its fullest, but there is evidence that shows that they are learning how to use it. As one manager said "We have consultants helping us in implementing strategic planning but strategic planning is not well understood among employees in our hospital" There are strategies for improving co-operation between healthcare providers and administrative support staff. The hospitals have short-term and long-term plans, which include goals and objectives of the hospital. These plans also include performance measures.

Although these plans were on paper, they were not well implemented, and when they were implemented, they were not measured. The depth of the strategic thinking and acting to develop a basis for a distinct competitive position in the healthcare market has not full been reached. The hospitals have strategic committees that put strategic plans on paper, but it is still a very young concept in the hospital. The employees in the healthcare organisations still do not understand how their work contributes to

these plans. The hospitals are still learning how strategic planning can make them do the right thing at the right time, every time.

Although strategic planning is still at its early stages in the KSA hospitals, the employees of the hospitals seem to recognise the importance of it in the KSA perception and understanding survey presented in Chapter Six. The employees rated strategic planning as a critical factor among the TQM factors and located it in the first tier. The strategic planning factor was still under-emphasised when compared to the control sample.

7.2.3 Focus on patients

The focus on patient and markets category examined how the KSA healthcare organisations determine requirements, expectations, and preferences of customer and markets. Also, this category examined how the organisations build relationships with patients/ customers to determine their satisfaction. The healthcare quality literature emphasised that one can judge the quality of healthcare organisations on the basis of patient feedback (Marr, 1986; Graham, 1987; McMillan, 1987; Donabedian, 1988).

In the healthcare organisations, it is important to keep in mind that the patient is the ultimate consumer. Thus, whenever the hospital is considering any aspect of performance, it should ensure that everything ultimately contributes to the goal of quality patient care (Barber, 1996). With the exception of Hospital C (the public hospital), all hospitals in the KSA administer regularly patient satisfaction surveys. These surveys focus on both service and quality measures. The data collected are then

analysed and evaluated. Regularly, improvements are made to the hospitals based on survey results from the quality department.

There is a complaints system in all KSA hospitals. They are all effective, with the exception of the public hospital. The complaints are dealt with as soon as they come. Some of them are on-line. The problem in these hospitals is the passiveness of the patients; they rarely complain. The majority of the patients are grateful for receiving medical attention, so that they will rather remain quiet than complain. One manager said "patients are afraid of what the nurses do to them if they complain" Also, the language is sometimes a barrier. It seems there are more staff complaining on behalf of patients than patients complaining for themselves.

Knowing that the literacy level is low, the hospitals in the KSA have developed excellent educational materials that are appropriate to various age groups and on various subjects. The staff work hard in all the KSA hospitals to provide education to patients and families, as needed.

In the KSA hospitals, the market was not an issue in three of the four studied hospitals. Hospital D was the only private hospital that was concerned with its market, because this private hospital needs the market to survive. Hospitals that get close to their customers, and develop a strong customer loyalty can anticipate strong financial performance, and the proof shows in the numbers (George and Weimerskirch, 1998). This is probably why the employees of private hospitals rated patient satisfaction as the most critical factor in the perception and understanding survey discussed in Chapter Six. The other KSA hospitals will continue to have a market, regardless of

the attention given to the satisfaction of patients. This is because the choices for the attending patients are limited, maybe because it is free care or because it is the only place they can go.

The KSA hospital employees indicated in the perception and understanding survey that the customer satisfaction factor is among the critical factors in the first tier. This shows that they understand the importance of this factor. When compared to the control group, this factor was still less emphasised, except in the private hospitals, where it was more emphasised.

7.2.4 Information and Analysis

The information and analysis category examines the healthcare organisation's performance measurements system, and how it analyses performance data and information. This category measures performance and how it manages to drive the improvements of performance and competitiveness. The quality literature emphasises the importance of managing by fact rather than by 'gut-feeling' (Oakland, 1993; Besterfield et al., 1995).

Hospital C (the public hospital) does not collect data or information, except the morbidity rate. This hospital is very much behind in its quality process. In the other KSA hospitals, the information and data which are collected are tied to the healthcare strategic and action plans. Data are maintained on staff-related issues of satisfaction, morale, safety, education and training, use of teams, and recognition and reward. Also, data are collected on patient satisfaction, average length of stay, mortality and morbidity, employee morale, and admission rates. After the collection of these data,

an analysis is made, and a report is sent to the party concerned. Some of the KSA hospitals collect this information on-line, and after the analysis it is put back on-line. The system of collection of data is not clear yet in these hospitals. They are still trying to develop a clear and effective system of collection.

7.2.5 Staff Focus

The staff focus category examines how the healthcare organisation enables all staff to develop and utilise their full potential aligned with the organisation's objectives. Additionally, this category examines the healthcare organisation's effort to build and maintain a work environment and work climate conducive to performance excellence, full participation, and personal and organisational growth.

Both Hospital A (the specialists hospital) and Hospital B (the armed forces hospital) seem to have effective staff work systems. All jobs have job description, job specification, and job requirements. Also, performance measures exist for staff involvement, self-direction, and initiative. Goals for these measures are expressed in measurable terms, and they form the basis for performance recognition. Because of the high budget of these hospitals, healthcare education has been extended beyond the Kingdom to other parts of the world. The hospitals also invest in their employees internally. Internal training is very important to the hospital.

In the perception and understanding survey, education in the hospital was a priority. It was rated as the third most critical factor. The education that was received was most likely pertaining to the employee area of speciality. This were expressed by managers over and over. One manager expressed "We try to choose for our employees training

and educational courses that concentrate on the employee area of speciality. Also, we try to avoid general education sessions because we didn't see much benefit in it." During the interviews, it became apparent that there was no education or training on 'quality', except to those that are involved in the quality department. It was also apparent that most of the staff and management were not sure of the real meaning of quality and how it pertains to their job. The employees in the KSA hospitals do not understand quality because they were not fully educated or trained about it. How can you expect people to apply something to their job that they do not understand? This was the same in all the KSA hospitals. The literature pointed out that in the developing nations TQM is being adopted without a complete understanding of its philosophy (Garvin, 1986; Sink, 1991). Also, some organisations do not adopt the TQM fundamentals, they adopt a superficial application which misses TQM original application (Dale and Lightburn, 1992; Lakhe and Mohanty, 1994).

All the KSA hospitals have multi-national staff. The staff have different languages and different religions. These factors affect the communication in departments among themselves and their relationship with their patients. Hospital A (the specialist hospital) and Hospital B (the armed forces hospital) offer their western international staff an environment that is close to their own after they leave their work. They offer them great benefit packages. Different nationalities are given different salaries for the same job. This causes biases among the employees. One Asian secretary said "It is not fair that we do exactly the same job, and the westerners get more than double our pay."

Hospital D (the private hospital) is having a hard time keeping its employees. The turnover of the employees is very high. Like the other hospitals, its multi-national staff is temporary. This makes it very difficult to invest in them. Hospital C (the public hospital) has the worst staff work system. It has the same under-developed system that it started with at the time of opening almost fifty years ago.

7.2.6 Process Management

The process management category examines the key aspect of process management, including customer focus, design, delivery, support, and supplier. It examines how key processes are designed, implemented, managed, and improved to achieve better performance. The quality literature indicated that for healthcare organisations to succeed in quality, they have to determine what are the core business processes that add value to customer satisfaction, and improve their effectiveness (George et al., 1998)

Among the KSA hospitals, Hospital D (the private hospital) has the best process management department. It has designed processes for the majority its activities. Hospital D has a well-trained team, with the skills needed, in charge of designing all processes. These processes are updated twice a year, and at even shorter intervals if there is a need. At Hospital A (the specialist hospital) and Hospital B (the armed forces hospital), there are processes for the major activities in the hospital. It takes years for these processes to be improved. It seems to be the philosophy, 'if it's working, why change it?'. In Hospital C (the public hospital), there are no processes, everyone works as he/she wishes.

The support processes are done internally at Hospital D (the private hospital). The support processes at the rest of the KSA hospitals are contracted out. In the KSA hospitals, the supplier relationships differ from one hospital to another. Hospital D (the private hospital) and Hospital B (the armed forces hospital) seem to be selecting their suppliers based on information about their past performances. Hospital A (the specialist hospital) seems to be having a rough time finding any high quality suppliers because of their past experience. Hospital C (the public hospital) selects its suppliers based on the lowest cost. Thus the KSA hospitals are still a long way from implementing quality into their suppliers' processes.

7.2.7 Organisational Performance

The organisational performance results category examined the healthcare organisation performance and improvement in key business areas. These areas include patient/customer satisfaction, healthcare services performance, financial and marketplace performance, staff results, supplier and partner results, and operational performance.

The level of quality differs in the KSA hospitals. Hospital A (the specialists hospital) seems to have impressive achievements or organisational results, thus far. They have been known as the best hospital in the Middle East. Lately, they had one major set-back financially, but they are back, and they are going in the right direction. The evidence of their coming back is their JIC accreditation. They are the first in the KSA to receive it. Hospital B has been exceeding its expected organisational results. The new leadership in the past five years has turned the hospital around. Also, through their achievements, the leadership at Hospital B (the armed forces hospital) wants to

take the title of being the best hospital in the Middle East from Hospital A (the specialist hospital). Both hospitals are trying to implement quality into their hospitals, but they are facing many obstacles. The biggest obstacle is the ignorance about quality. For quality to be implemented, a very rich educational programme about quality needs to be implemented in the hospital. These hospitals are still young in their quality journey.

Hospital C (the public hospital) seems to have the greatest number of patients coming in and out. To the leadership, this seems to be enough in terms of organisational results. They say that they do not have the finances to implement quality. They are still struggling to have linen that is clean and equipment in the operation rooms. Their standards are low, but they can not raise them because they can not make them any better. As one manager said "We simply do no have the resources to be better than what we are, quality is not on the agenda, what is important for us is to try to provide healthcare to as many patients as possible." The quality department at this hospital has only one employee. The only reason there is a quality department seems to be to satisfy the regulations of the MOH.

At Hospital D (the private hospital), the quality journey seems to be strongly on its way. They are implementing quality to improve themselves and impress the increasing number of patients. There is evidence that the hospital cares for quality. This hospital is working towards a set of clear objectives. Its organisational result shows that they are very much future-oriented. Hospital D wants quality to be in every employee's mind.

7.2.8 Segregation Status

The special culture profile of the KSA presents an interesting dilemma to those who do not understand it. Those who understand this segregated environment try to work with it as best as they can. It is important to keep in mind that both the external and internal cultures of the KSA healthcare organisations are segregated. Thus, all stakeholders of the hospitals come in from this segregated environment and expect to go into an internal environment that is segregated also.

The KSA case studies showed that the segregation of the healthcare organisations is not as strict as other organisations in the KSA. In some areas of the hospitals, the segregation of the genders is very apparent, while in other areas it is less so. The case studies found that there is a critical segregation that is not apparent. This is the internal psychological segregation. Both genders felt very awkward in working together as part of teams and in communicating with each other. This is probably because it is not 'normal' for them.

When trying to implement TQM in healthcare organisations in the KSA, it is important to understand the segregation issue. The TQM literature stresses the need for changing the organisational culture when applying TQM. This should not be a problem if the KSA hospitals recognise the special segregated organisational culture which they have. The hospitals should understand their organisational culture and should deal with it. This does not mean changing the segregated organisational culture, because that is impossible, but to find alternative ways and means to satisfy the TQM principles that suit this special culture.

7.3 Benchmarking KSA Hospitals to UK and USA Hospitals

The process of benchmarking has developed into a significant strategic tool. Benchmarking is the process of identifying and learning from the best-practices world-wide (Zairi, 1992). This process of benchmarking KSA healthcare organisations against those of the best healthcare services in the world has proven to be beneficial to this study. In the next section, each of the Baldrige major categories will be used to benchmark the KSA experience with quality against the selected UK and USA hospitals. This will be done to understand where the KSA quality process lies against the best. In this benchmarking exercise, the majority of the KSA experience can be grouped together, except Hospital C (the public hospital). This hospital can not be compared because it is too much behind in its quality process. There is no evidence of any measurements for the community activities for any of the KSA hospitals. Thus, the quality of these activities can not be measured.

7.3.1 Leadership

When assessing the KSA experience against that of the UK and USA in the leadership category, it was found that the UK healthcare leadership are more focused and more detailed. In the KSA hospitals, the leadership were trying to implement quality, but because of their limited and still early experience with the quality process, they were disadvantaged. The UK and USA leadership seem to have a clear definition of the healthcare quality process. And, they also have a process of systematic review of their progress. The KSA leadership did not express clarity of definition in their quality process, probably because they do not fully understand it. They were expressing that they are implementing quality, but there were no guidelines of what constitutes 'quality'.

Also, the leadership in the UK and USA hospitals understand and respond to the needs of their customers more than the KSA hospitals. The UK and USA customers represent staff, patients, suppliers, and external organisations. The KSA leadership are not clear about customers. They do want to satisfy them but they are not sure who they are. They know that the patients are their customers, but the staff, the suppliers, and external organisations are not yet included in the leadership's.

All the UK and USA leaderships have committed themselves to some form of performance improvement process for their hospitals. This process is organisation wide. It focuses its efforts on accomplishing performance improvement in areas that are critical to the hospitals' mission and strategic and business plans. The KSA leadership are not that sophisticated. They are still struggling with implementing quality into most activities.

There are some measurements of quality in the UK and USA public responsibility and citizenship category. The community programmes in the USA hospitals are much more sophisticated than in the UK and KSA. The programmes in both the latter seem to be giving to the public. On the other hand, the USA programmes seem to be giving to and taking from the public. They have great volunteer programmes, and the majority of their community programmes collect donations.

7.3.2 Strategic Planning

Strategy development in the UK and USA healthcare organisations is much more mature than in the KSA. In the KSA, the concept of strategic planning is still a new one. The KSA hospitals do not have enough experience to understand the benefits of

strategic planning. The newly implemented concept is still being struggled with. In the UK and USA, there seems to be a systematic process for the development of policy and strategy. The UK and USA hospitals have much better experience with strategic planning than the KSA. Their experience can be seen, because they were able to criticise themselves in what they need to do to become better strategic planners.

Unlike the KSA hospitals, the UK and USA hospital strategies are much more structured. First, the strategies are converted into business plans. These plans are used to communicate the implementation steps of the strategy, both internally and externally. There is a systematic, annual cycle of objective and performance setting throughout the organisation. In the UK, there seems to be no evidence of evaluation for the strategy, while in the USA, there is clear indication that their strategies are evaluated routinely. In the USA, strategy deployment includes planning of timetables, which demonstrates the urgency and prioritisation of the improvement opportunities. In the USA hospitals, the critical strategies for improvement opportunities are selected based on those that affect a large percentage of patients and customers, those that place the patient, staff, and customer at risk, those that are problem prone, and/or those that are generated by a need or desire to improve even acceptable or excellent performance.

7.3.3 Focus on patients

The UK and USA hospitals share the same concern with focusing on patients as the KSA hospitals. All the hospitals studied in the UK, USA, and KSA (with the exception of the public hospital) seem to have the minimum requirements for

satisfying their patients, but of course this is not enough. Hospital D (the private hospital) is more advanced in satisfying its patient requirements, and thus allocated more resources to the quality department. Hospital A (the specialist hospital) and Hospital B (the armed forces hospital) are both moderately aware of what needs to be done to maintain a good satisfaction level with their patients. According to the UK hospitals, their measurements are good, and they are trying to make them better.

The long experience of Hospital H, the USA hospital, has made it go beyond what is expected from a normal healthcare organisation. The excellence in its responsiveness to patients' needs is much beyond the KSA hospital. Through the hospital environment, they are making the patient feel as if he/she were at home. Also, they are providing the patient with a hospital like a family, by organising the hospital by cancer type. This is beyond where the KSA is currently. After time, the KSA might reach the position of the USA hospital.

7.3.4 Information and Analysis

The UK and USA hospitals have more developed measures than the KSA. In the USA hospitals, there are criteria and a system for the selection of measures. In the UK, the measures exceed the classic measures used in the KSA. They have more financial measures than the KSA. Also, the UK hospitals are collecting information to start to benchmark. This is something very much ahead of the KSA hospitals. Some of the KSA hospitals do not understand what benchmarking means and what are its benefits.

In the perception and understanding survey, the measurement factor was slightly less emphasised when compared to the control group. The KSA hospital employees rated the measurement factor as a critical factor, giving it the importance it required.

7.3.5 Staff Focus

The major difference between the KSA hospitals and the UK and USA hospitals is that these hospitals have a strong human resource planning. They have a written human resource strategy and personal development plans. These plans all have an endless review cycle in place. There is a clear focus on the commitment to continuous learning within the healthcare organisation, and resources are identified to facilitate this.

A very important difference between the KSA hospitals and the UK and USA hospitals is that both the latter attract, recruit, and retain, the best employees. These employees usually have stable lives in the same city where they work. In the KSA, the Saudi locals are still learning and developing, thus the hospitals must bring in other employees from more developed nations. This is very difficult, because you can bring employees but it is very hard to retain them. Usually, after a couple of years, the employees want to go back to their home country. This is because of the different cultural environment of the KSA. Hospital B (the armed forces hospital) started to invest more in its Saudi employees, giving them more training and education. Its planning seems to be headed in the right direction. One manager suggested "saudiisation is a critical goal in our strategic plans."

In the USA and UK hospitals, there seems to be more educating and training on quality than in the KSA. In the western hospitals, almost all employees have been educated and trained on how quality fits into their daily job. Also, most of the employees in the USA and UK are part of some quality team working to set the standards for their jobs. This is not the case in the KSA. Very few employees in the KSA have some type of training on quality, and very few are part of any quality teams.

7.3.6 Process Management

When comparing the KSA hospitals to the UK and USA hospitals, it was found that these hospitals were much advanced in the quality of their processes. Some hospitals used diagnostic key process review such as using the Excellence Model self-assessment, some used benchmarking of similar organisations, some used organisation facilitators, and some used models for improvements. These models are mechanisms that integrate best practices of clinical, customer service, and business processes. They analyse existing process, measure outcomes, designing new process, prioritising for improvement, or experimenting with new ways of doing things.

Some hospitals implemented a performance improvement process. This is a technique which tries to continuously improve the care given to the patient by forming teams of people involved in the care processes. Then, by analysing the causes of problems in the process and coming up with solutions that address the causes, and measuring the results to see whether the chosen solution was successful.

7.3.7 Organisational Performance

The UK and USA hospitals seem to be so advanced in their quality journey that there no room for comparison between them and the KSA. The UK hospitals are very precise in knowing where they actually stand on every issue of the hospital. This can only mean that they are very much aware of the negative and positive aspects of their hospital. They are able to criticise themselves, and try to make improvements where they need them. The KSA hospitals are still covering the basics of hospital standards.

The USA hospitals are so much in advance that they go beyond the normal hospital standard. They have Clinical Excellence Teams to improve clinical practice among all staff, they have created a customer friendly environment, they have got the community to support the hospital by paying a one-half cent sales tax, etc.. These results and others are far from where the KSA is standing. The KSA hospitals are still trying to deal with fewer complaints, fewer medical errors, lesser employee turnover rates, and more income.

7.4 Critical Success Factors of TQM for KSA Segregated Environment

Through the literature, the perception and understanding survey, and the KSA hospital case studies, this research has narrowed down the critical factors into three critical factors of TQM for a segregated healthcare environment in the KSA. This is shown on Table 8.1. In the literature review, the Ramirez and Loney study identified twenty-two critical success factors and the Baldrige Criteria identified seven major critical factors. The KSA Perception and Understanding survey findings indicated that although all these factors existed, some were problematic. This was seen by the over or under emphasis the factors received from the hospital employee. The problematic factors included senior management commitment, education, customer satisfaction, cost of quality, and culture change. The case studied KSA hospitals further emphasised some of these problematic factors to include senior management commitment, education, and culture change. It was found that senior management was superficial. This means that although there is quality departments in these hospitals, quality was not given full commitment from top management. Also, The case studies clarified that the education and training that was received in these hospitals was general and the only employees which received quality education or training were the quality department staff. Another finding that was seen in the case studies is that the employees were not willing to change their culture for any management philosophy and they did not truly understand how to change the organisation culture without changing the societal culture. These findings identified the problematic TQM factors that the KSA healthcare environment suffers from.

Table 7.1 Critical Factors for Segregated Healthcare Environment

The Critical Factors from the Literature Review		The Problematic Critical Factors which Resulted from the KSA Perception and Understanding Survey	The Problematic Critical Factors which Resulted from the KSA Case Studies	The Problematic Critical Success Factors which Resulted from the Complete Study
Ramirez & Loney	**Baldrige**			
-Management Commitment -Customer Satisfaction -Clear Mission Statement -Culture Change -Education -Participative Management -Strategic Quality Planning -Goal Clarity -Error Prevention -Top Management Steering Committee -Problem Solving -Measurement -Problem Identification -Goal Setting -Recognition Programme -Quality Circles/ Improvement Teams -Vendor Partnership -Project Improvement Process -Publicised Successes -Statistical Process Control -Cost of Quality -Zero Defects Attitude	-Organisational Leadership -Strategic Development & Deployment -Patient/Customer Healthcare Market Knowledge, Satisfaction, and Relationship -Measurement & Analysis of Organisational Performance -Staff Work System, Development and Satisfaction -Healthcare Services Processes -Organisational Effectiveness Results	-Senior Management Commitment -Education -Customer Satisfaction -Cost of Quality -Culture Change	-Senior Management commitment -Education -Culture Change	-Senior Management commitment to quality -Quality Education -Culture Awareness

If these critical factors were implemented during the TQM implementation, then a successful TQM implementation in the KSA healthcare organisations should be reached. The literature emphasised the importance of all these factors that must be implemented correctly and fully for TQM to succeed. Later, these factors will be incorporated into a TQM implementation model to help the process of TQM implementation in the KSA healthcare system. The importance of each of these factors will be explored next.

7.4.1 Organisational Culture change

The TQM literature stresses the need for the transformation of the entire organisation culture when implementing TQM (Lengnick-Hall, 1995; Shortell et al., 1995; Rago, 1996). Also, the TQM literature indicates that the lack of significant success is often not a failure of the TQM concept, but a failure to pay sufficient attention to the cultural and structural variables that influence TQM (Becker, 1993; Tata and Prasad, 1998; Smith, 1998). Culture seems to be the ultimate success factor, meaning that without the successful transformation of the organisation culture, other factors can not be implemented correctly (Calori and Sarnin, 1991; Saraph and Sebastian, 1993; Van Donk and Sanders, 1993; Klein et al. 1995).

One must be cautious in attempting to transfer management practices based on western theory to hosts with different cultural value systems. If these differences are not taken into account, the transfers will most likely fail (Smith, 1998). For TQM to be successful in a particular cultural setting, it has to take on some of the host cultural values. Thus, when applying TQM in a gender-segregated organisational culture, it is

very important to take this special culture profile into account and try to deal with it accordingly by finding alternative ways and means for dealing with it.

Many researchers suggest that the difference between the Islamic values and Western values represents the main barrier to implementing western management theories, and the is main reason for the failure of such implementations (Bjerke et al., 1993; Almeer, 1999). Al-Zamany et al. (2000) concluded that there was no mismatch between the activities proposed in TQM implementation and the Islamic culture, since all respondents perceived them as generic terms that reflect good management practices. Al-Zamany et al. (2000) found however that the Islamic organisational culture has some resistance to change. They recommend that considerable work needs to be done to set priorities for implementation, and to facilitate gradual change, which will be accepted more readily.

The literature stresses that the national culture, or the shared values of a society or country, influences organisational culture/ structure, and thus influences TQM implementations (Hofstede, 1984; Tate and Prasad, 1998). The case studies of the KSA healthcare organisations showed a clear indication that society gender-segregation (which is based on the traditions and customs of the Islamic religion) is transferred into the healthcare organisation and has thus become part of the organisational culture.

7.4.2 Management Commitment

The fulfilment of Total Quality objectives requires the transformation of organisational culture, which starts with the change of management style from the traditional style to the total quality style. Leaders must both manage and initiate change in the organisation (Albrecht and Zemke, 1985). In the quality management literature, top-management's role is considered pre-eminent, indispensable and crucial to the success of TQM implementation (Crosby, 1979; Feigenbaum, 1983; Juran and Gryna, 1988; Deming, 1989; Lascelles and Dale, 1990; Savolainen, 1998). The literature stresses that TQM philosophy will fail without the dedication of top management (Becker, 1993; Brown, 1993; Shortell et al., 1995; Huq, 1996).

The pursuit of TQM requires senior management to think and act in ways that are very different from their previous modes of operation (Thompson, 1998). Many studies indicate the key behavioural characteristics of top management necessary for TQM to be properly implemented (Waldman, 1993; Johnson, 1994; Spencer, 1994; Krumwiede et al., 1995). Managers must themselves recognise the constraints and obstacles preventing the transformation to a total quality healthcare culture, and then change their behaviour to reflect this new quality-oriented culture. Quality needs to be integrated into the way the company runs its business on a day-to-day basis. It is not a set of tasks performed by an organisation.

In the KSA hospitals, top management commitment seems to be strong, but not to TQM. The literature explains that developing countries sometimes have difficulty adopting the TQM concept because there is lack of management commitment. For TQM to succeed in the KSA healthcare organisations, leaders of the hospitals must be

deeply committed. These leaders must understand the principles underlying the TQM philosophy, and they must be motivated to apply it fully. Also, they must be aware of the segregated culture in which they will be applying TQM.

7.4.3 Education and Training of Staff

Although quality starts in the top, it gets its energy from the bottom. The healthcare organisation will not make progress unless a large proportion of the workforce, including healthcare providers, is involved in quality improvements. This could only happen if leaders support the workforce's efforts through provision of training and development activities, including quality tools and job-specific skills, and development of communication and feedback mechanisms (Barber, 1996).

Unlike other programmes, TQM involves changing the way employees interact and work in the organisations. It is a context-dependent programme, the success of which depends to a large extent on cultural and structural factors (Becker, 1993; Tata and Prasad, 1998). The literature stressed that many of the TQM programmes implemented in the developing countries fail due to the lack of real understanding of the principle (Wong, 1998). Failure of TQM is due to changing too much, too soon. Some organisations get so excited about TQM that they try to change everything in their company too quickly (Brown, 1993)

In third world countries, the literature stresses, lack of employee involvement and participation in quality improvements is among the reasons which cause difficulty in adopting the TQM concept (Lakhe and Mohanty, 1994). Also, reasons for TQM failures include lack of employee training and learning (Reinertsen, 1995). The case

studies in the KSA healthcare organisations show there was no employee training for TQM. The implementation of TQM seems to be more superficial than real. For TQM to be successful in the KSA healthcare organisations, there needs to be a broad educational and training programme that involves everyone in the organisation. Everyone must understand TQM and must know how to apply it to his/her specific job. There should be extra education and training that finds alternatives to segregation issues. Employees need to understand that TQM can in fact be applied to their segregated culture and not just to the western culture.

7.5 Proposed Model for TQM implementation in KSA Segregated Healthcare Environment

The inputs for this model were generated from the review of literature, the findings of the perception and understanding survey, and the findings of the case-studied KSA hospitals. The model deals with issues that healthcare organisations in segregated environments should consider when engaging in a TQM programme, from start-up to implementation.

The proposed model consists of four layers. The outer layer is continuous management commitment. The second layer is continuous education and training. The third layer is the actual TQM process, which involves planning, programming, implementing, and evaluating. The inner layer is culture awareness. This layer can be explored at two levels. These levels are explained in detail in the culture awareness section. These four layers must function together for TQM to be successful in a segregated environment. Each of these layers will be discussed in the next section. The proposed model is shown in Figure 7.1 and Figure 7.2.

Figure 7.1 Proposed TQM Implementation Model for Segregated Healthcare Environment (Level One)

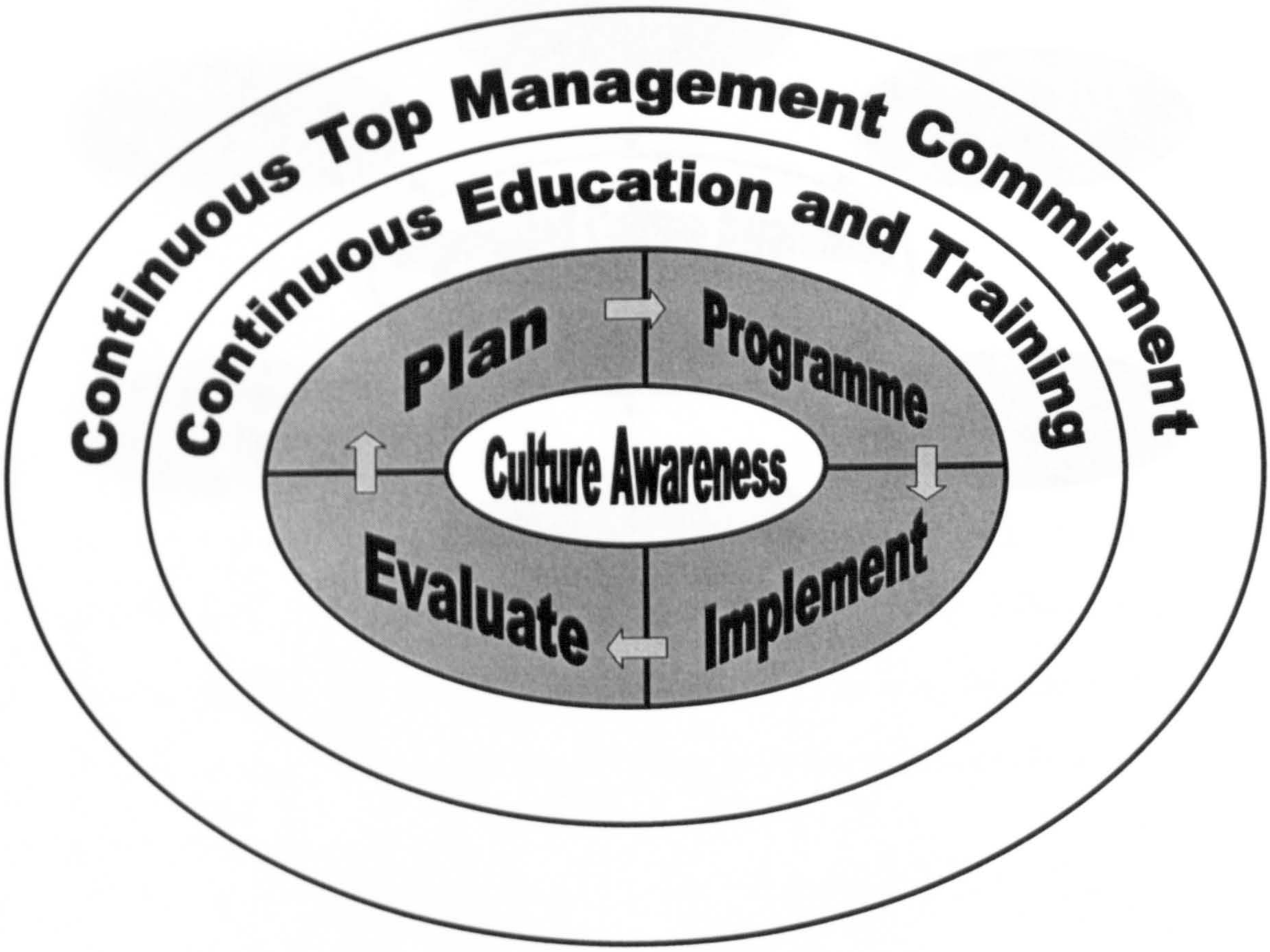
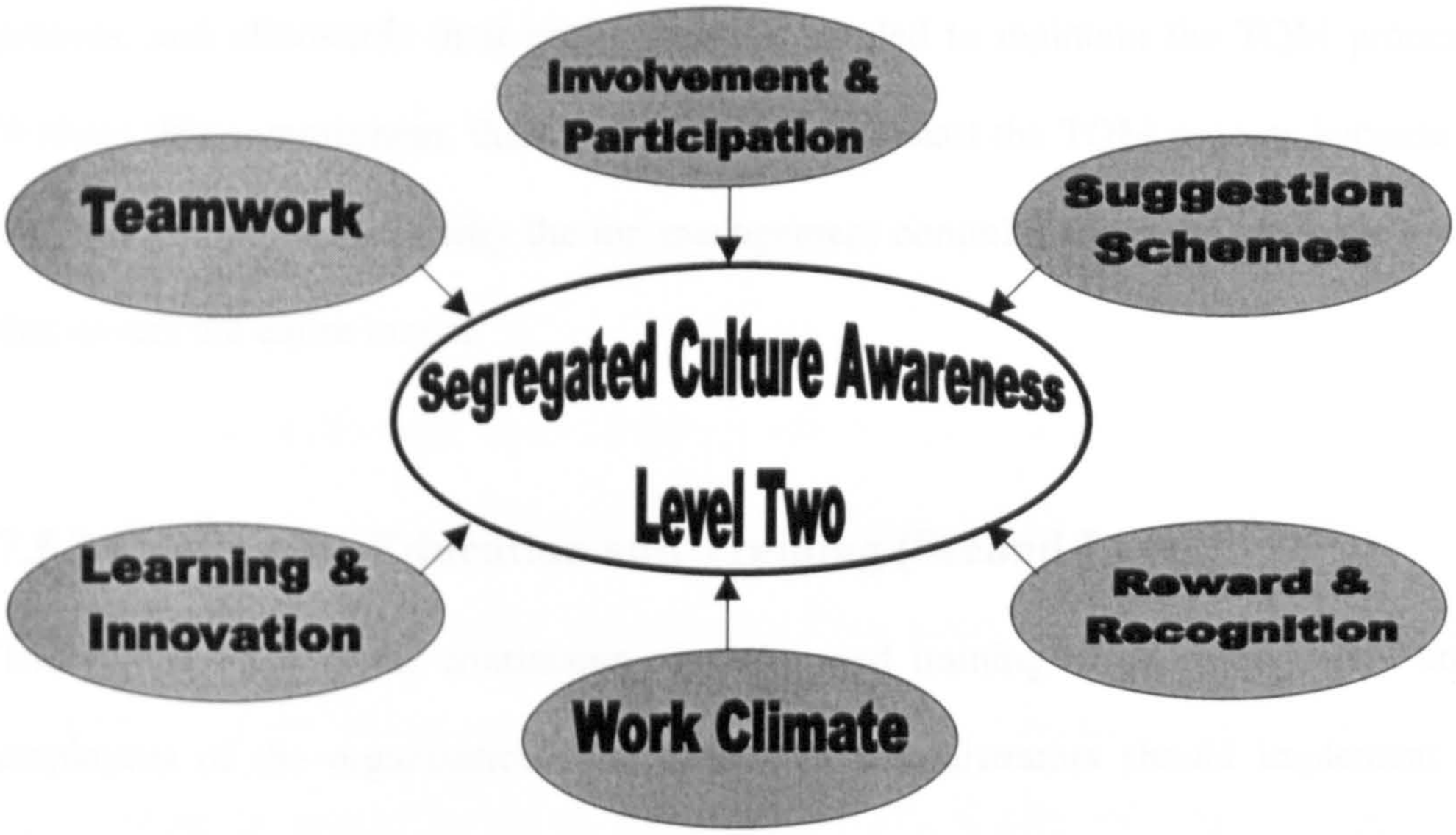


Figure 7.2 Proposed TQM Implementation Model for Segregated Healthcare Environment

(Segregated Culture Awareness – Level Two)



7.5.1 Continuous Top Management Commitment (Outer layer)

The outer layer is the continuous top management commitment. Management must be deeply committed to TQM in order for TQM to succeed. They must be committed to allocating the needed resources of time, money and workforce to the TQM process. Management must develop a complete understanding of what is TQM and how they plan to achieve it. The leadership commitment must be continuous through the entire process, and afterwards their commitment is needed to maintain the TQM process. Without this commitment, there is no need even to start the TQM process because it will not succeed. This is why the top management commitment is the umbrella layer that covers the entire model.

7.5.2 Continuous Education and Training (Second Layer)

The second layer is the continuous education and training of all management and employees of the organisation. The healthcare administrators should implement a programme to educate and train all levels of personnel. This layer involves providing ongoing education and training. As an important opening step, this can start with educating the top management. This can be done by an internal team or by an external consultant.

It is generally accepted that success in TQM relies on continuing education of all levels of personnel. Each organisation goes about it just a little differently; however, all do it in some form or another. It is suggested that any education or training should take place during regular paid time. It should stress actual working conditions and problems. Training should stress such ideals as TQM concepts, alternatives to segregation issues, problem solving, and statistical process control, including flow

charts, cause and effect diagrams, histograms, scatter diagrams, run charts, and control charts. Through the modern technology, alternative ways should be available to focus on segregation issues, for example, video conferencing, e-mail, Internet, etc..

7.5.3 TQM Implementation process (Third Layer)

The third layer is the actual process for TQM implementation. This process was adopted from the TQM healthcare literature (Motwani et al, 1996; Sower et al, 1996). The process is made up of four phases, which are planning, programming, implementing, and evaluating.

The first phase is *planning*. In this phase, research is done on TQM, and decisions are made on how to go about adopting it. An internal quality assessment of the organisation is made to identify strengths and weaknesses. A quality assessment is an excellent tool for an organisation to utilise for two reasons: It will enable the organisation to capitalise on its internal strengths while improving its internal weaknesses; and it will help the organisation to determine how ready it is to begin implementation of TQM.

In this phase, the healthcare organisation must ensure that all departments have the same vision. A clear inter-organisational vision now will aid in the smoothness of transition later. All department heads should be cognisant of top management's intentions so all can pull in the same direction. Objectives and goals should be put in writing. It is commonly understood that objectives and goals are more easily attainable when they are explicitly written and sought after.

A new system should be designed next. If it is determined through previously mentioned procedures that a change is needed in the way the organisation administers its business, it is best to do it as soon as possible. Also, the organisation should forecast its internal/ external future. Each organisation, when beginning TQM, will eventually encounter pitfalls. By anticipating and planning for future problems, an organisation can lessen the severity of the interruption to their process. The organisation needs also to maintain feedback for necessary evaluation and control.

The second phase is *programming*. In this phase, the administration should name the process. A name must be carefully chosen to serve the purpose of communicating the desire to continuously improve quality. Next, the administration should state the purpose through a new quality framework. The administration will communicate the purpose and the uniqueness of the quality programme through one or all of the following:

- New mission statement: Upper management need to re-evaluate the mission and policies of the organisation. Policies and the mission statement need to reflect their quality process, including a definition of who their customers are. These should both be communicated to all employees.
- Stated common vision: The management should develop a common vision that seizes the view of what people feel is really important and is worth working to achieve.
- Strategic plan: Management can develop a strategic plan in several ways. One option is a road map for the continuous pursuit of quality or whatever the hospital feels comfortable with.

- Key concepts: Concepts included should be essential for process success, such as use of objective information, use of quality planning principles, incorporation of process/ outcome indicators, application of multidisciplinary team process, etc..
- Quality definition: Management needs to define TQM.
- Quality policy: This can be reached from staff and employee input.

The human resource (HR) department is a valuable tool to help facilitate and continue TQM in at least three important ways, including, new recruit orientation, job description, and surveys. Both internal and external customer surveys are essential to TQM success since the customer is the final judge of quality service. Surveys are conducted in most of the organisations. Some surveys are conducted by Human Resources, while others are conducted by quality teams or other areas of the organisation. Employee satisfaction and support are of utmost importance to a successful TQM programme. Also, employees' comfort with the programme and their futures is vital. A quality council must be formed to oversee and regulate the TQM process. These councils must meet regularly and must have a complete understanding of the TQM concept.

Benchmarking must be part of the TQM efforts. Healthcare organisations must not focus simply on the internal quality standards, but also look at their competitors. The TQM efforts must include sharing information. If an organisation were to group with other similar organisations which were in a similar stage of TQM, it would be able to reduce the chance of repeating others' mistakes and improve the productivity of its own programme.

The proper formation of quality improvement teams is vital to an organisation's TQM success. Each issue must be analysed by a team that is responsible for finding improvements. There is a need to establish measurements because they are the corner stone of the TQM process. The development of measures and quality indicators that truly measure the objectives and goals of the organisation is a difficult and sometimes experimental process. The focus should be on measures, not standards. Management must be careful not to stress specifications over continuous improvements. Small steps ultimately will be better in the long run.

Keeping an eye on long-term objectives is always considered a good measure of management performance. Objectives communicate organisational priorities and provide direction for organisational synergy. Objectives should be measurable, realistic, challenging, and understandable. They can be short-term (annual) or long-term (three to five years). Doctor involvement is necessary for the success of TQM. Get the doctors involved early, and get them the data they need. Make whatever changes are necessary to reduce any doctor resistance that may surface. Feedback is necessary in any TQM process, and ultimately can help any healthcare organisation move forward in its quality journey.

The third phase is *implementing*. As the TQM effort progresses, it may be necessary to form new committees, new teams, new departments, or to hire new specialists to help the process. Also, recognition can be a valuable tool in improving employee morale, self-esteem, and interest in TQM. The reward system, however, must be managed carefully. One has to remember one is dealing with a highly educated staff

in the healthcare field, and monetary rewards can and will be manipulated for personal gain without regard for the institution's well being.

The final phase in the third layer is *evaluating*. This phase should involve evaluating success or failure of the TQM programme. This should be conducted annually. If the programme is not achieving its objectives, it should be redesigned. Assessments such as the Baldrige could be a good method to evaluate where the organisation strengths and weaknesses are. The Baldrige can cover all areas of the TQM categories, including leadership, strategic planning, focus on patients, information and analysis, staff focus, process management, and organisational performance.

7.5.4 Culture Awareness (Level One)

The centre or the heart of the proposed TQM model for the KSA segregated environment is implementing a culture awareness programme. Healthcare administrators should take care to ensure that the organisation's culture is suitable to foster TQM. Its culture has to agree with basic TQM values and visions of both the TQM philosophy and the segregated culture.

TQM requires extensive cultural change which often takes years before the changes become embedded in the organisation (Olian and Rynes, 1991; Claver et al., 2000). Change in any situation can be threatening. It is especially difficult when it is happening in a segregated organisational culture. The literature indicates that healthcare administrators should use great care when introducing TQM. It must be done slowly and methodically. The organisation should take care to ensure that the organisation's culture is suitable to foster TQM. This culture has to agree with basic

TQM values and visions, promote staff commitment to TQM, and adequately motivate the employees to want to continuously improve.

All employees must be aware of their special segregated environment, and they must work together to find alternative ways and means to apply the TQM concept without changing their segregated culture too. It is highly suggested that a separate department within the quality administration should be in charge of solving segregation issues and problems that might inhibit TQM from being implemented to its fullest. Any employee in the healthcare organisation who cannot apply TQM to his/her job because of segregation issues should refer to the assigned department for recommendations. This department should work to promote the TQM process in a segregated organisation.

7.5.4.1 Culture Awareness (Level Two)

There are certain gender-related factors in segregated healthcare cultures that need special attention. Figure 7.2 shows a second level of the proposed model. This level presents a more detailed picture of what need to be considered within culture awareness. The branches in the second level need to be addressed in order for a segregated organisation to have a successful TQM implementation. These factors include:

Involvement and Participation – Employee involvement is a long-term commitment. It is a fundamental change in culture. Employees who have been empowered feel personally responsible for their organisation performance. In a segregated environment, it is important to empower both male and female employees and involve

them in decision making and planning. To do this, top management need to address these key questions:

- How can the organisation get both genders involved in the quality improvement process?
- How can the organisation keep them involved?
- How can the organisation train both genders to take responsibility, make decisions, and act confidently?

Teamwork – Teams are a major part of any TQM effort because teamwork enables various parts of the organisation to work together to meet customer needs in ways that can't be done through individual job performance alone. Teams should include both genders in a segregated environment. In order to have good teamwork, leadership should deal with the following questions:

- Does the organisation utilise major types of teams such as steering committees, problem-solving teams, and quality circles?
- Are both male and female employees part of these teams?
- Do the teams focus on attaining results?
- Are the teams made up of people with appropriate skills that align with the team objective?

Suggestion Schemes – Methods of communicating quality include suggestion schemes. Suggestion from both genders should be treated the same by management. In a segregated healthcare culture, suggestion schemes should answer the following questions:

- Are suggestions schemes open to both genders in the organisation?

- Are suggestion schemes given enough lively publicity to both genders?
- Are the best suggestions (by either gender) being awarded or publicised?

Learning and Innovation – Innovations is making meaningful changes to improve healthcare organisation's services and processes and create new value for the organisation's stakeholder. Innovation should focus on leading the organisation to new dimensions of performance. Healthcare organisations should be structured in such a way that learning and innovation become part of the culture and ongoing work. Top management should encourage innovation to achieve positive future results in the fast moving healthcare industry. In order to implement learning and innovation, leadership needs to deal with the following questions:

- How can the organisation seek out, learn from, and build upon best practices from both genders to continually improve?
- How can the organisation seek suggestions for new ideas and new ways to achieve mission needs from all staff and not just a small group of planners or researchers?
- How can the organisation improve innovation in the science and delivery of medicine to maintain its competitive edge?

Work Climate – Many things contribute to the overall organisation climate, but there are some key factors that are relevant in a segregated environment. Some questions that need to be answered include:

- Are any of the employees (both genders) experiencing poor morale and well-being?
- Are any of the employees (both genders) concerned about job security?
- Do employees (both genders) feel they are not valued by the organisation?

- Is work force diversity a source of friction?

Reward and recognition – Employee rewards and recognition includes such things as performance appraisals, compensation, recognition programs, and promotion systems. The organisation should have a consistent (delivered the same way every time for both genders) program for reward and recognition. Top management should deal with these questions:

- How can employees (both genders) be paid in ways that support the organisation's quality goals?
- How can performance of both genders be assessed in ways that support the organisation's quality goals?
- How can employees (both genders) be recognised in ways that support the organisation's quality goals?

7.5.5 Complete Model

The complete model, as discussed before, consists of the outer layer of continuous top management commitment, the second layer of continuous education and training, the third layer of planning, programming, implementing, and evaluating, and the core of the process, which is culture awareness. These components must work together for TQM implementation to succeed. If any component stops working, then the TQM implementation process will most likely fail. The outer layer, the second layer, and the centre must work continuously non-stop, while the third layer transfers from one phase to another.

7.6 Summary

This chapter discussed the case-studied hospitals of Chapter Seven. The KSA hospitals were benchmarked against each other to find similarities and differences. Then, an external benchmarking exercise took place between the USA and UK hospitals and the KSA hospitals. Both sets of results were explored. Generally, it was found from the literature review, the perception and understanding survey, and the KSA hospital case studies that the KSA hospital system was very young in implementing the TQM process, and the system is still at the very early stages of the 'quality' learning process.

The discussion identified three critical factors that need to be implemented in the TQM process in order for it succeed. These factors include top management commitment, education and training, and culture awareness. These factors were included in a proposed model for the KSA segregated healthcare organisation. The proposed model components include an outer layer of top management commitment, a second layer of continuous education and training, a third layer of the traditional healthcare quality process, and the centre or the heart of the process, which is culture awareness.

Chapter Eight

Conclusions, Recommendations, Suggestions for Further Research

8.1 Introduction

This research project was set up with the primary objective of studying TQM implementation in the segregated environments of healthcare organisations in the KSA. This exercise was thought to be very worthwhile since interest in the use of TQM in the KSA healthcare organisations has been significantly on the increase in recent years. While carrying out the research, it was considered very important to follow a structured approach, using the following steps:

- Determining the setting of comprehensive research and the methodology to be used.
- Gauging the level of perception and understanding of TQM among healthcare employees.
- Case-studying several KSA segregated hospitals closely to understand their TQM process.
- Comparing the KSA hospitals to pinpoint inhibiting and facilitating factors.
- Benchmarking the KSA TQM experience with more advanced experiences from the UK and USA.
- Developing a proposed model which would be most suitable for the KSA special profile.

Based on the above approach, this chapter will provide the overall conclusions of the research project, for the perception and understanding survey, a comparison of all the KSA hospitals, the external benchmarking experience, and the proposed model. In addition, the chapter will discuss some of the limitations of the research, make recommendations, and present suggestions for future work.

8.2 Level of Perception and Understanding of TQM in KSA Hospitals

This survey assessed the degree of understanding and perception of TQM in healthcare organisations in the KSA by ranking the list of 22 factors proposed by Ramirez & Looney (1993). These factors are critical to a successful TQM implementation. The results were then benchmarked against other geographical and cultural contexts. The most critical findings will be discussed next.

The KSA healthcare study revealed that the majority of the critical activities in the TQM process were less emphasised by the respondents in the KSA hospital sample in relation to the control sample. The less emphasis of these critical factors can only prove that there is a gap in the levels of awareness, understanding and perception of what TQM means between respondents in the KSA hospital sample and the USA sample. Thus, the research can conclude that in the KSA sample there is a weak appreciation, no clear understanding, and the level of awareness and perception of the potential of the quality philosophy are still embryonic. The degree of emphasis for each quality activity varied and thus more research needs to be done to investigate the importance of each quality activity to a TQM process for a gender segregated environment.

Changing the culture of the organisation was the least emphasised factor in the KSA survey. The employees in the KSA do not realise that TQM cannot be successfully implemented without culture change. Yet, the KSA has a special culture profile. This profile might have caused the hospital employees to not properly distinguish between organisational culture and national culture.

The KSA survey concluded that many activities that occur at the strategic level of an organisation and have something to do with the importance of the leadership role in all organisations are under-emphasised. This is important, because the role of senior management is critical to successful TQM implementation and cannot be transferred to the entire organisation if it is not there.

The survey concluded that there is more emphasis of the cost of quality factor. This can support the fact that TQM is not well understood as of yet, and cost is still looked upon in the traditional view.

The survey also concluded that there is a major difference between the male and female gender findings in the KSA healthcare survey in the culture change factor. The female gender is much more aware of the need of changing the culture when implementing TQM than the male gender.

8.3 Internal Benchmarking among KSA Case Studies

Four KSA hospitals were assessed using the Baldrige Award Criteria for Healthcare. These hospitals represented four different types: public, private, specialist, and armed forces. Overall, the KSA case studies show that in implementing organisations, TQM intentions and TQM policy frameworks are generally acceptable. However, the

implementation process is generally weak and lacks coordination in the majority of the organisations. It is clear that the majority of the KSA cases have not succeeded in total commitment towards a total quality culture. Upon the comparison of the hospitals, there were certain similarities and differences found. The major findings will be discussed next.

With the exception of the public hospital, all studied KSA hospital leaderships seem to be strongly committed to a successful hospital, but they had superficial commitment to quality.

The sub-category called public responsibility and citizenship within the leadership category showed evidence that all KSA hospitals are fulfilling their public responsibilities. Each hospital seems to be helping and giving to its community. The activities differ from one hospital to another. Currently, there are no measurements for any of these community programmes.

Three of the four KSA hospitals studied had some type of strategic planning taking place. The only hospital that did not have any such planning was the public hospital. The other three hospitals were not deploying strategic planning to its fullest, but they are slowly learning to adopt it.

With the exception of the public hospital, all hospitals in the KSA administer regular patient satisfaction surveys. These surveys focus on both service and quality measures. Regularly, improvements are made from and to the surveys by the quality department in each hospital.

There is a complaints system in all KSA hospitals. They are all effective, with the exception of the public hospital. The problem in these hospitals is the passiveness of the patients; they rarely complain. The majority of the patients are grateful for receiving medical attention, so that they will rather remain quiet than complain. Also, the language is sometimes a barrier.

Knowing that the literacy level is low, the hospitals in the KSA have developed excellent educational materials that are appropriate to various age groups and on various subjects. The staff work hard in all the hospitals to provide the education to patient and families, as needed.

Both the specialist and the armed forces hospitals seem to have effective staff work systems. All jobs have job description, job specification, and job requirements. Also, performance measures exist for staff involvement, self-direction, and initiative. The high budget allows these hospitals to provide healthcare education and training to their employees. The education received by the staff is in their area of speciality, and not in quality. Thus, most of the staff do not understand the true meaning of quality or how to apply it to their jobs.

All the KSA hospitals have multi-national staff. The staff have different languages and different religions. These factors affect the communication process among themselves and their relationship with their patients.

Among the KSA hospitals, the private hospital has the best process management department. It designed processes for the majority of its activities. The hospital has a

well-trained team with the skills needed in charge of designing all processes. At the specialist and armed forces hospitals, there are processes for only the major activities in the hospital. In the public hospital, there are no processes.

Both the specialist and armed forces hospitals seem to be side by side in their quality process. Their organisational results seem to reveal that they are trying to implement quality into their daily routine, but it does seem superficial. The private hospital is also trying to improve its quality process but its objective differs as they are doing it to attract more customers. The public hospital has no quality results.

8.4 External Benchmarking against UK and USA Case Studies

When compared to the UK and USA hospitals, the majority of the KSA cases show deficiencies in most of the critical activities that form the foundation of a successful quality process. In the KSA, leadership has a superficial commitment to quality, and its experience and comprehension of the quality process is still developing while in the UK and USA, the top leadership experience with quality is much more matured. There is much more leadership focus and detail in the quality process in the west than in the KSA.

Strategy development and deployment in the UK and USA healthcare organisations is also much more mature than in the KSA. The KSA hospitals do not have enough experience to understand the benefits of strategic planning. In the UK and USA, there was a systematic process for the development and deployment of policy and strategy.

The UK and USA hospitals share the same concern with focusing on patients as the KSA hospitals. The private hospital is more advanced in satisfying its patient requirements. The measurements in the UK hospitals are good, and they are trying to make them better. The USA hospitals have made it go beyond what is expected from a normal healthcare organisation. The KSA hospitals are much farther behind than both the UK and USA hospitals.

The UK and USA hospitals have more developed measures than the KSA. In the USA hospitals, there are criteria and a system for the selection of measures. In the UK, the measures exceed the classic measures used in the KSA. They have more financial measures than the KSA.

The major difference between the KSA hospitals and the UK and USA hospitals is that both the latter have a strong human resource planning. They have a written human resource strategy and personal development plans. These plans all have an endless review cycle in place. There is a clear focus on the commitment to continuous learning within the healthcare organisation, and resources are identified to facilitate this.

A very important difference between the KSA hospitals and those in the UK and USA is that the latter attract, recruit, and retain, the best employees. These employees usually have stable lives in the same city where they work. In the KSA, the Saudi locals are still learning and developing, thus the hospitals must bring in other employees from more developed nations. This is very difficult, because you can bring them, but it is very hard to retain them. Usually, after a couple of years, the employees

want to go back to their home country. The specialist hospital started to invest more in its Saudi employees, giving them more training and education. Its planning seems to be headed in the right direction.

When comparing the KSA hospitals to the UK and USA hospitals, it was found that the latter hospitals were much advanced in the quality of their processes. Some hospitals used diagnostic key process review such as Excellence Model self-assessment, some used benchmarking of similar organisations, some used organisation facilitators, and some used models for improvements.

The KSA hospitals are very much behind in their quality journey. They are very young in applying quality to healthcare, but they are learning. The UK ones are more advanced because they know exactly what needs to be done to become better. The USA hospitals are also advanced to the stage where they go beyond providing just regular medical service. They are caring about the psychological and the physiological states of their patients.

8.5 Proposed Model of TQM implementation in KSA Segregated Hospitals

The research identified three critical factors that need to be implemented in the TQM process in order for it succeed in a segregated environment. These factors include top management commitment, education and training, and culture awareness. These factors were included in a proposed model for the KSA segregated healthcare organisation.

The complete model consists of the outer layer of continuous top management commitment, the second layer of continuous education and training, the third layer of planning, programming, implementing and evaluating, and the heart of the process, which is culture awareness. These components must work together for TQM implementation to succeed. If any component stops working, then the TQM implementation process will most likely fail. The outer layer, the second layer, and the centre must work continuously non-stop, while the third layer transfers from one phase to another.

8.6 Limitations of Study

- The sample has concentrated on large-size hospitals. This has directly affected the validity of the research. However, this research has been exploratory in nature, and because TQM implementation is still a new phenomenon, it has not been embraced by many smaller hospitals in the KSA.

- One major difficulty with this research has been that there are no previous studies regarding the implementation of TQM in a segregated environment. Although this has added to the originality and value of this work, the researcher has not had the benefit of learning from others' mistakes or building on findings of other studies.

- The Baldrige assessment suffers from lack of empiricism. This study however has looked at the application of TQM in hospitals, and the Baldrige model covers all the critical categories of TQM, with the exception of the segregation issues. Thus, the assessment has offered the best and most complete means of conducting such a study.

- This study has researched one side of the equation, the employees. To determine the true success of TQM implementation, another study would need to be done regarding the satisfaction of the real customer, the patient.

- In the case study phase, this study covered only few employees of the healthcare organisation. While this was more in depth and had a more comprehensive level of detail, if more employees had been studied, a wider view might have been reached, but the time constraint was an issue.

8.7 Recommendations

One can draw many lessons from this project. The most important of these can be summarised as follows:

1. There is certainly a need to launch more effective campaigns to provide better education and level of awareness of TQM as a total concept and to eliminate the myth that TQM is just a basic set of tools that relates to products and services. This level of education and training could well start with senior managers, since all TQM gurus and most researchers in the field have advocated that effective implementation requires top management commitment.

2. Associated with the previous point, it is important for top management to start a cultural awareness educational programme that distinguishes between the changing of the organisational culture and the changing of the national culture. Also, to develop the idea that organisational culture change does not mean change of personal religious beliefs. Furthermore, that there is a way to modernise and

benefit from western management philosophy without changing cultural beliefs. These western philosophies can be customised to fit the KSA special segregated environment.

3. Senior management in the KSA healthcare organisations need to appreciate that TQM has to be implemented with clear intentions, realistic goals and targets, and through a process of communicating and deploying goals at all levels. This is the main reason why best practice organisations succeed with their TQM programmes.
4. Senior managers in the KSA healthcare environment need to comprehend that there are no short cuts to building an effective TQM culture. While the methodologies proposed seem to be an excellent way to implement TQM in a segregated environment, without investing the needed resources it will not succeed.
5. Senior management should be encouraged to use healthcare self-assessments such as the Baldrige to measure their TQM process. This will allow them to evaluate themselves and identify their weaknesses and try to strengthen them. Self-assessment against a recognised model or standard, such as the Malcolm Baldrige National Award or the ISO 9000 quality management standard, can help bring about a better understanding of TQM.

8.8 Suggestions for Future Research

Since this research is the first building block for a segregated healthcare environment, there are many more building blocks needed to form a solid foundation. Thus, all areas of research need to be covered. Some of these major areas include:

- More research to measure and test the applicability, workability, sustainability, and validity of the research model proposed in a segregated healthcare organisation.

- More research to identify and eliminate the regulations, attitudes, policies, and practices that may be an impediment to continuous improvements in a segregated healthcare environment.
- More comprehensive and comparative case studies of successful TQM implementations in a segregated healthcare environment would be helpful to those who are struggling with TQM.

- Elaborate studies that detail the steps in building a successful TQM system in the segregated healthcare industry and outline specific healthcare measures in evaluating segregated healthcare systems.

- More studies to measure the patients/ customer views and expectations of quality in the segregated healthcare organisation.

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Appendices

Appendix A

Questionnaire used in phase one perception and understanding survey

In the Name of Allah,
Most Gracious, Most merciful

Dear Sir / Madam:

I would be grateful if you take the time completing the following questionnaire, which forms part of data collection activities leading to the completion of my Doctoral thesis. This is an important tool for gathering information on what you believe to be the common features of a successful quality improvement process at your hospital.

Please note that all information provided in this questionnaire will remain strictly confidential and will only be used for the purpose of this research.

Thank you for your cooperation,

Yours Sincerely,

The researcher,

Hiafa Mansour Al-Dakheel

بسم الله الرحمن الرحيم

أخي / أختي الكريمة :

برفقة استبيان بخصوص برنامج إدارة الجودة الشـــاملة، ومدى تطبيقها في مستشفيات المملكة العربية السعودية.

نرجو تكرمكم بالإجابة على الأسئلة بمـــا يتفــق مــع مرئياتكم حيث أن هذا الاستبيان جزء من عملية جمـــع المعلومات لرسالة دكتوراه.

مع العلم بأنه سوف يتم التعامل مـــع الإجابـــة بمنتـــهى السرية ولن تستخدم إلا لغرض البحث العلمي.

مقدرين لكم حسن تعاونكم،

وتقبلوا تحياتي،

الباحثة

هيفاء بنت منصور الدخيل

Part I: Ranking of Quality Related Activities

STEP1: Please rank the following quality related activities as to their level of importance in your hospital, by circling the appropriate column:

1. Neutral- Activities that will not seriously affect the success or failure of your Quality Improvement Process (QIP).

2. Important- Activities that you feel may be important, but not absolutely essential to a QIP. This process will survive if these are not implemented but your organization will experience some unnecessary delays and setbacks to its QIP until these activities are eventually addressed.

3. Critical –Activities that you feel are absolutely essential to the successful implementation of a QIP. The process stands a good chance of ending in failure if these activities are not part of it.

STEP 2: In addition to circling the appropriate numbers, please place an 'X' in the column provided, to identify only those factors/activities that your hospital is implementing or has implemented.

تعليمات:

أولاً : ضع دائرة حول الرقم المناسب لمدى أهمية نشاطات الجودة المذكورة أدناه مستخدما التعريفات التالية:

١. نشاط محايد: النشاطات التي لا تؤثر على نجاح أو فشل عملية تحسين الجودة.

٢. نشاط مهم: النشاطات التي تعتقد بأنها مهمة ،ولكن ليست ضرورية لعملية تحسين الجودة.

٣. نشاط مهم جدا: النشاطات التي تعتقد أنها ضرورية جدا لنجاح تنفيذ عملية تحسين الجودة و نجاح عملية الجودة يعتمد عليه.

ثانياً: بالإضافة للدائرة، ضع علامة "X" في حالة تنفيذ النشاط في المستشفى الذي تعمل فيه.

Activity List	Neutral نشاط محايد	Important نشاط مهم	Critical نشاط مهم جدا	Implemented نشاط ينفذ	قائمة الأنشطه
1. Clear vision, or purpose statement, Supporting quality improvement	1	2	3	—	١. وجود رؤية واضحة تدعم تحسين الجودة في المستشفى
2. Cost of quality process to track rework, waste, rejects, scrap	1	2	3	—	٢. متابعة تكلفة عملية الجودة لملاحظة المواد التالفة و المعادة و الإسراف
3. Culture change or transformation	1	2	3	—	٣. تغير في طبيعة بيئة العمل
4. Customer satisfaction focus, (both internal and external customers)	1	2	3	—	٤. وجود تركيز على رضاء العميل في داخل و خارج المستشفى
5. Education for all employees on the Quality Improvement Process, both formal and on the job	1	2	3	—	٥. تثقيف جميع الموظفين عن عملية تحسين الجودة بطريقه نظرية و تطبقية
6. Goal clarity and goal agreement; constancy of purpose toward improvement	1	2	3	—	٦. وضوح الأهداف و الاتفاق عليها و الاستمرار في عملية التحسين الدائم
7. Goal setting process to ensure quality improvements	1	2	3	—	٧. وضع أهداف لتأكيد تحسين الجودة
8. Management commitment and support for the Quality. Improvement Process	1	2	3	—	٨. التزام و دعم الإدارة لعملية تحسين الجودة
9. Measurments processes to display progress in quality improvement	1	2	3	—	٩. إيجاد مقاييس توضح مدى تطور تحسين الجودة
10. Participative management and employee empowerment culture	1	2	3	—	١٠. وجود إدارة مشاركة و تفويض للسلطة (دعم الموظفين بصلاحيات اكثر ومشاركتهم في اتخاذ القرارات)

Activity List	Neutral نشاط محايد	Important نشاط مهم	Critical نشاط مهم جدا	Implemented نشاط ينفذ	قائمة الأنشطة
11. Problem identification process	1	2	3	—	١١. وجود طريقة لاكتشاف المشاكل
12. Problem Solving and tracking process	1	2	3	—	١٢. إيجاد طريقة لمعالجة و متابعة المشاكل
13. Project by project improvement process	1	2	3	—	١٣. وجود طريقة لتحسين كل مشروع على حده
14. Publicized quality successes of teams, individuals or company	1	2	3	—	١٤. التنويه بفريق الجودة الناجح (أفراد أو شركه)
15. Quality improvement teams	1	2	3	—	١٥. وجود فرق لتحسين الجودة
16. Error prevention processes, as opposed to quality inspection	1	2	3	—	١٦. وجود طرق للوقاية من الوقوع في الأخطاء بدل من التفتيش عنها
17. Recognition program that rewards quality improvements	1	2	3	—	١٧ إيجاد برنامج لتعريف المتفوقين في عملية تحسين الجودة
18. Control charts and other statistics in the production/service areas; to identify and reduce variation	1	2	3	—	١٨. استخدام الوسائل و الإحصائيات في مجال الإنتاج أو الخدمة المراقبة و تقليل المتغيرات
19. Steering committee guiding the process, made up of top management	1	2	3	—	١٩. وجود لجنة من الإدارة العليا توجه عملية تحسين الجودة
20. Strategic quality planning of the long-term quality journey	1	2	3	—	٢٠. وجود خطة استراتيجية للجودة على المدى الطويل
21. Involving the supplier, so insuring high quality input products	1	2	3	—	٢١. مشاركة الشركات الموردة للمستشفى في العملية لتأكيد جودة النتائج
22. 'Zero defects' attitude by everyone	1	2	3	—	٢٢. تبني فكرة "العمل بدون أخطاء من أول مرة"
Please identify any additional activities or steps that you feel are missing from this list:					**الرجاء سرد الأنشطة الغير مذكورة في القائمة أعلاه:**
23. _____	1	2	3	—	٢٣. _____
24. _____	1	2	3	—	٢٤. _____
25. _____	1	2	3	—	٢٥. _____

Part II: Your Experience

Using the activity list from **Part I**, please answer questions 26 through 31 by entering the corresponding activity number (1-25) in the space provided.

خبرتك الشخصية

باستخدام قائمة الأنشطة من الجزء الأول ، الرجاء إجابة أسئلة رقم ٢٦-٣١ بوضع رقم النشاط المناسب (١-٢٥) من القائمة السابقة في المكان المناسب.

26. In your opinion, what was the first Quality Improvement Process activity that your hospital implemented? _____

٢٦. في رأيك، ما هو أول نشاط من عملية تحسين الجودة نفذ في المستشفى؟

27. If your organization could start over again, which activity would you start with? _____

٢٧. إذا أرادت إدارة المستشفى أن تبدأ مرة أخرى، اذكر النشاط الذي يجب أن تبدأ به؟

28. In your opinion, what was the most difficult activity implemented? _____

٢٨. في اعتقادك، ما هو أصعب نشاط نفذ؟

29. What activity generated the most positive results? _____

٢٩. اذكر النشاط الذي أعطى أكثر النتائج الإيجابية؟

30. What activity did not return anticipated results? _____

٣٠. اذكر النشاط الذي لم يعط النتائج المطلوبة؟

31. From those activities in **Part I** that you circled as critical, please rank in order, beginning with the most important, the five activities that you feel are the most important to a Quality Improvement Process.

1. _____
2. _____
3. _____
4. _____
5. _____

٣١. من النشاطات التي اخترتها كنشاط مهم جدا في الجزء الأول، رتب أهم خمسة أنشطه حسب الأولوية.

32. Did you organization utilize the service of an outside consultant at the start of your Quality Improvement Process?

- ☐ Yes Who? _____
- ☐ No

٣٢. هل احتاج المستشفى للاستعانة باستشاريين من خارج المستشفى في بدء عملية تحسين الجودة؟

- ☐ نعم من ؟_____
- ☐ لا

33. Did your organization use one exclusive quality discipline or guru's approach in implementing the quality improvement effort?

- ☐ Yes Name of it: _____
- ☐ No

٣٣. هل استخدمت المستشفى نظريه محددة أو مدخل معين في مجهوداتها نحو تنفيذ تحسين الجودة؟

- ☐ نعم اذكر: _____
- ☐ لا

34. In your opinion, what was the single most important reason which influenced your organization to start a Quality Improvement Process?

٣٤. في رأيك الشخصي، اذكر أهم سبب أثر على المستشفى و جعلها تبدأ في عملية تحسين الجودة؟

35. In your opinion, what was, or is, the single most common problem your organization faced in its' implementation?

٣٥. في رأيك الشخصي، اذكر أهم مشكله واجهت المستشفى في عملية تنفيذ تحسين الجودة؟

Part III: Demographics

1. **Sex**
   - ☐ Male
   - ☐ Female

2. **Age**
   - ☐ 20 - 30
   - ☐ 31 - 40
   - ☐ 41 – 50
   - ☐ Over 51

3. **Nationality**
   - ☐ Saudi
   - ☐ Non-Saudi

4. **Qualification**
   - ☐ Below Secondary
   - ☐ Secondary or Equivalent
   - ☐ Baccalaureate
   - ☐ Higher Studies (specify) _____

5. **Occupation**
   - ☐ Nursing
   - ☐ Managerial
   - ☐ Physician
   - ☐ Other

6. **Type of hospital**
   - ☐ Public Sector Hospital
   - ☐ Private Sector Hospital
   - ☐ Specialty Hospital
   - ☐ Armed Forces Hospital

7. **Hospital Name:** _____

بيانات شخصية

١. الجنس
   - ☐ ذكر
   - ☐ أنثى

٢. العمر
   - ☐ ٢٠ – ٣٠
   - ☐ ٣١ – ٤٠
   - ☐ ٤١ – ٥٠
   - ☐ ٥١ وما أعلى

٣. الجنسية
   - ☐ سعودي
   - ☐ غير سعودي

٤. المؤهل
   - ☐ تحت الثانوي
   - ☐ الثانوي أو ما يماثله
   - ☐ بكالوريوس
   - ☐ دراسات عليا (حدد) _____

٥. المهنة
   - ☐ تمريض
   - ☐ إداري
   - ☐ طبيب
   - ☐ غير ذلك

٦. نوع المستشفى
   - ☐ مستشفى حكومي
   - ☐ مستشفى خاص
   - ☐ مستشفى متخصص
   - ☐ مستشفى قوات مسلحة

٧. اسم المستشفى: _____

Appendix B

Baldrige assessment used for phase two case studies

Assessment Number _____

1.1 Organisational Leadership

Please describe how senior leaders guide your organisation, including how they review organisational performance.

a. Senior leadership direction

(1) How do senior leaders set, communicate, and deploy organisational values, performance expectations, and a focus on creating and balancing value for patients and other customers and stakeholders? Include communication and deployment through your leadership structure and to all staff.

(2) How do senior leaders establish and reinforce an environment for empowerment and innovation, and encourage and support organisational and staff learning?

(3) How do senior leaders set directions and seek future opportunities for your organisation?

b. Organisational performance review

(1) How do senior leaders review organisational performance and capabilities to assess organisational health, competitive performance, and progress relative to performance goals and changing health care service needs? Include the key performance measures regularly reviewed by your senior leaders.

(2) How does your organisation translate performance review findings, your priorities for improvement and opportunities for innovation?

(3) What are you organisation's key recent performance review findings, your priorities for improvement and opportunities for innovation? How are they deployed throughout your organisation and, as appropriate, to your suppliers/ partners and patients and other key customers to ensure organisational alignment?

(4) How do senior leaders use organisational performance review findings and staff feedback to improve their leadership effectiveness and the effectiveness of management throughout the organisation?

1.1Public Responsibility and Citizenship

Please describe how your organisation addresses its responsibilities to the public, practices good citizenship, and contributes to the health of its community.

a. Responsibilities to the public

(1) How do you address societal requirements arising from regulation/ legal requirements, accreditation, and for risks associated with your management of health care services and other organisational operations.

(2) How do you anticipate public concerns with current and future services, and operations? How do you prepare for these concerns in a proactive manner?

(3) How do you ensure ethical practices in all stakeholder transactions and interactions?

b. Support of Key Communities and Community Health

(1) How do your organisation, your senior leaders, and your staff actively support and strengthen your key communities, including actions to build community health? Include how you identify key communities and determine areas of emphasis for organisational involvement and support.

2.1 Strategy Development

Please describe your organisation's strategy development process to strengthen organisational performance as a health care provider and its performance relative to other organisations providing similar health care services. Summarise your key strategic objectives.

a. Strategy Development Process

(1) What is your strategic planning process? Include key steps and key participants in the process

(2) How do you consider the following key factors in your process? Include how relevant data and information are gathered and analysed. The factors are:

- customer and health care market needs/ expectations, including new health care services opportunities

- your competitive environment and/or the collaborative environment to conserve community resources, including use of new technology

- financial, societal, regulatory, and other potential risks

- your staff capabilities and needs

- your operational capabilities and needs, including capabilities, needs, and roles of any health care provider alliances.

b. Strategic Objectives

What are your key strategic objectives and your timetable for accomplishing them? In setting objectives, how do you evaluate options to assess how well they respond to the factors in 2.1 a (2) most important to you performance?

2.2 Strategy Deployment

Please describe your organisation's strategy deployment process. Summarise your organisation's action plans and related performance measures. Project the performance of these key measures into the future.

a. Action Plan Development and Deployment

(1) How do you develop action plans to achieve your key strategic objectives? What are your key short and long term action plans? Include key changes, if any, in your health care services and programs and/or your markets/customers (including patient populations) that factor into these plans.

(2) What are your key staff requirements and plans, based on your strategic objectives and action plans?

(3) How do you allocate resources to ensure accomplishment of your action plans?

(4) What are your key performance measures and/or indicators for tracking progress relative to your action plans?

(5) How do you communicate and deploy your strategic objectives, action plans, and performance measures/ indicators to achieve overall organisational alignment?

b. Performance Projection

(1) What are two-to-five year projection for key performance targets and/or indicators? Include key performance targets and/or goals, as appropriate.

(2) How does your projected performance compare with competitors, other organisations providing similar health care performance, as appropriate? What is the basis for these comparisons?

3.1 Patient/ Customer and Health Care Market Knowledge

Please describe how your organisation determines short and long term requirements, expectations, and preferences of patients, other customers, and markets to ensure the relevance of current health care services and to develop new health care service opportunities.

a. Patient/ Customer and Health care Market Knowledge

(1) How do you determine or target patient and other customer groups, and/or health care market segments? How do you consider customers of competitors and other potential customers and/ or markets in this determination?

(2) How do you listen and learn to determine key requirements and drivers of health care purchase decisions for current, former, and potential patients/ customers? If determinations methods differ for different patient/ customers and/ or customers groups, include the key differences.

(3) How do you determine and/ or project key health care service features and their relative importance/ value to patient/ customers for purposes of current and future marketing, health care service planning, and other business developments, as appropriate? How do you use relevant information from current and former patients/ customers, including marketing information, patient/ customer retention data, won/ lost analysis, and complaints, in this determination?

(4) How do you keep your listening and learning methods current with health care service needs and directions?

3.2 Patient/ Customer Satisfaction and Relationships

Please describe how your organisation determines the satisfaction of its patients and other customers and builds relationships to retain current customers and to develop new health care service opportunities.

a. **Patient/ Customer relationships**

(1) How do you determine key access mechanisms to facilitate the ability of patients and other customers to obtain services, seek assistance and information, and make complaints? Include a summery of your key mechanisms.

(2) How do you determine key patient and other customer contact requirements and deploy these requirements to all staff involved in the response chain?

(3) What is your complaint management process? Include how you ensure that complaints are resolved effectively and promptly, and that all complaints received are aggregated and analysed for use in overall organisational improvement.

(4) How do you build relationships with patients/ customers for continuing interactions with the organisation and/or positive referral?

(5) How do you keep your approaches to patient/ customer access and relationship building current with health care service needs and directions?

b. Patient/ Customer satisfaction Determination

(1) What processes, measurement methods, and data do you use to determine patient and other customer satisfaction and dissatisfaction? Include how your measurements capture actionable information that reflects patients'/customer' future interactions with your organisation, provider loyalty, and/or potential for positive referral. Also, include any significant differences in processes or methods for different customer groups and/or health care market segments.

(2) How do you follow up with patients and other customers on recently delivered health care services and recent transactions to receive prompt and actionable feedback?

(3) How do you keep your approaches to satisfaction determination current with health care service needs and directions?

4.1 Measurement of Organisational Performance

Please describe how your organisation provides effective performance measurement systems for understanding, aligning, and improving your performance as a health care provider throughout your entire organisation.

a. **Measurement of Organisational Performance**

(1) How do address the major components of an effective performance measurement system, including the following key factors?

- Selection of measures/ indicators (clinical, financial, and operational), and extent and effectiveness of their use in daily operations

- Selection and integration of measures/ indicators and completeness of data to track your overall organisational performance

- Selection, and extent and the effectiveness of use of key comparative dta and information

- Data and information reliability and confidentiality

- A clinical understanding of improvement options

- Correlations / projections of data support planning

(2) How do you keep your performance measurement system current with health care service needs and directions?

4.2 Analysis of Organisational Performance

Please describe how your organisation analyses performance data and information to assess and understand overall clinical and administrative/ operational performance.

a. Analysis of Organisational Performance

(1) How do you perform analyses to support your senior leaders' organisational performance review and your organisational planning? How do you ensure that the analyses address the overall success of your organisation, including your key organisational performance results and strategic objectives?

(2) How do you ensure that the results of organisational level analysis are linked to work group and/ or functional level operations to enable effective decision-making?

(3) How does analysis support daily operations throughout your organisation? Include how this analysis ensures that measures align with action plans.

5.1 Work Systems

Please describe how your organisation's work and job design, compensation, career progression, and related work force practices enable all staff to achieve high performance in your operations.

a. **Work Systems**

(1) How do you design, organise, and manage work and jobs to promote cooperation and collaboration, individual initiative, innovation, and flexibility, and to keep current with health care service needs?

(2) How do your managers and supervisors encourage and motivate staff to develop and utilize their full potential? Include formal and/or informal mechanisms you use to encourage and support staff in job- and career- related development/ learning objectives.

(3) How does your staff performance management system, include feedback to staff, support high- performance?

(4) How do your compensation, recognition, and related reward/ incentive practices reinforce high performance?

(5) How do you ensure effective communication, cooperation, and knowledge/ skill sharing across work units, functions, and locations, as appropriate?

(6) How do you identify characteristics and skills needed by potential staff; how do you recruit and hire/ privilege new staff? How do you take into account key performance requirements, diversity of your community, and fair work force practices?

5.2 Staff Education, Training, and Development

Please describe how your organisation's education and training support the achievement of your health care service objectives, build staff knowledge, skills, and capabilities, and contribute to improved staff performance.

a. Staff Education, Training, and Development

(1) How does you education and training approach balance long and short term organisational and staff needs, including licensure and recredentialing requirements, development, learning, and career progression?

(2) How do you design education and training to keep current with health care service and individual needs? Include how job and organisational performance are used in education and training design and evaluation.

(3) How do you seek and use input from staff and their supervisors/ managers on education and training needs, expectations, and design?

(4) How do you deliver and evaluate education and training? Include formal and informal education, training, and learning, as appropriate.

(5) How do you address key developmental and training needs, include diversity training, management/ leadership development, new staff orientation, and safety, as appropriate?

(6) How do you address Performance Excellence in your Education and Training? Include how staff learn to use performance measurements, performance standards, skill standards, performance improvement, quality control methods, and benchmarking, as appropriate.

(7) How do you reinforce knowledge and skill on the job?

5.3 Staff Well-being and Satisfaction

Please describe how your organisation maintains a work environment and staff support climate that contribute to the well being, satisfaction, and motivation of all staff.

a. Work Environment

How do you address and improve workplace health, safety, and ergonomic factors? How do staff take part in identifying these factors and in improving workplace safety? Include performance measures and/ or targets for each key environmental factor. Also, include significant differences, if any, based on different work environments for staff units and function.

b. Staff Support Climate

(1) How do you enhance your staff's work climate via services, benefits, and policies? How are these enhancements selected and tailored to the needs of different categories and types of staff, and to individuals, as appropriate?

(2) How does your work climate consider and support the needs of a diverse work force?

c. Staff Satisfaction

(1) How do you determine the key factors that affect staff well-being, satisfaction, and motivation?

(2) What formal and/ or informal assessment methods and measures do you use to determine staff well-being, satisfaction, and motivation? How do you tailor these methods and measures to a diverse work force and to different categories and types of staff? How do you use other indicators such as staff turnover, absenteeism, grievances, and productivity to assess and improve staff well-being, satisfaction, and motivation?

(3) How do you relate assessment findings to key organisational performance results to identify work environment and staff support climate improvement priorities?

6.1 Health Care Service Processes)

Please describe how your organisation manages key health care service design and delivery processes.

a. Health Care Service Design Processes

(1) What are your design processes for health care services and their related delivery processes?

(2) How do you make decisions to launch new or significantly modified health care services, including how you factor financial considerations into decision making?

(3) How do you incorporate changing patient/ customer and health care market requirements into health care service design and service delivery systems and processes?

(4) How do you incorporate new technology into health care services and into service delivery systems and processes, as appropriate?

(5) How do your health care service design processes address quality and cycle time, transfer of learning from past projects and other parts of the organisation, improved health care outcomes, cost control, new design technology, productivity, and other efficiency/ effectiveness factors?

(6) How do you ensure that your health care service delivery process design accommodates all key operational performance requirements, including regulatory/ accreditation requirements?

(7) How do you coordinate and test health care service design and delivery processes to ensure capability for trouble-free and timely introduction of health care services?

b. Health Care Service Delivery Processes

(1) What are your key health care service delivery processes and their key performance requirements?

(2) How are patients' expectations addressed and considered? Include how health care service delivery processes and likely outcomes are explained to set realistic patient expectations, and how patient decision making and patient preferences are factored into the delivery of health care services.

(3) How does your day to day performance of key health care service delivery processes ensure meeting key performance requirements, including regulatory and payor requirements?

(4) What are your key performance assessments, measures, and/or indicators used for the control and improvement of these processes? Include how real-time patient/ customer input is sought, as appropriate.

(5) How do you improve your health care service delivery processes to achieve better process performance and improvements in health care services and health care outcomes, as appropriate? How are improvements shared with other organisational units and processes, as appropriate?

6.2 Support Processes

Please describe how your organisation manages its key support processes.

a. Support Processes

(1) What are your key support processes?

(2) How do you determine hey support process requirements, incorporating input from internal and/ or external customers, including patients, as appropriate? What are the key operational requirements (such as cost, productivity, and cycle time) for the processes?

(3) How do you design these processes to meet all the key requirements?

(4) How does your day to day operation of key support processes ensure meeting key performance requirements? How do you determine and use in-process measures and/ or customer feedback in your support processes?

(5) How do you improve your support processes to achieve better performance and to keep them current with health care service needs and directions, as appropriate? How are improvements shared with other organisational units and processes, as appropriate?

6.3 Supplier and Partnering Processes

Please describe how your organisation manages its key supplier and/or partnering interactions and processes

a. Supplier and Partnering Processes

(1) What key products/ services do you purchase/obtain from supplier and/or partners?

(2) How do you incorporate performance requirements into supplier and/ or partner process management to ensure that materials, instrumentation and devices, and services furnished by others meet the organisation's needs? What key performance requirements must your suppliers and/or partners meet to fulfill your overall requirements?

(3) How do you ensure that your performance requirements are met? How do you provide timely and actionable feedback to supplier and/ or partners? Include the key performance measures and/ or indicators and any targets you use for supplier and/or partner assessment.

(4) How do you minimize overall costs associated with inspections, tests, and process and/or performance audits?

(5) How do you provide assistance and/or incentives to suppliers and/or partners to help them improve their overall performance and to improve their abilities to contribute to your current and longer-term performance?

(6) How do you improve your supplier and/or partner processes, including your role as supportive customer/partner, to keep current with your health care service needs and directions? How are improvements shared throughout your organisation, as appropriate?

7.1 Patient and Other Customer Focused Results

Please summarise your organisation's patient and other customer focused results, including patient/ customer satisfaction and health care service performance results. Segment your results by customer groups and market segments, as appropriate. Include appropriate comparative data.

a. Patient/ Customer Focused Results

(1) What are your current levels and trends in key measures and/ or indicators of patient and other customer satisfaction, dissatisfaction, and satisfaction relative to competitors and other organisations delivering similar health care services?

(2) What are your current levels and trends in key measures and/or indicators of patient and other customer loyalty, positive referral, patient/ customer-perceived value, and patient/ customer relationship building, as appropriate?

(3) What are your current levels and trends in key measures and/or indicators of health care outcomes, health care service delivery results, and patient functional status?

7.2 Financial and Market Results

Please summarise your organisation's key financial and health care marketplace performance results, segmented by market segments, as appropriate. Include appropriate comparative data.

a. Financial and market Results

(1) What are your current levels and trends in key measures and/ or indicators of financial performance, including aggregate measures of financial return and/or economic value, as appropriate?

(2) What are your current levels and trends in key measures and/or indicators of health care marketplace performance, including market share/position, business growth, and new markets entered, as appropriate?

7.3 Staff and Work System results

Please summarise your organisation's staff and work system results, including staff well-being, satisfaction, development, and work system performance. Segment your results by types and categories of staff, as appropriate. Include appropriate comparative data.

a. Staff and Work System Results

(1) What are your current levels and trends in key measures and/or indicators of staff well-being, satisfaction and dissatisfaction, and development?

(2) What are your current levels and trends in key measures and/or indicators of work system performance and effectiveness?

7.4 Supplier and Partner results

Please summarise your organisation's key supplier and partner results. Include appropriate comparative data.

a. Supplier and Partner Results

What are your current levels and trends in key measures and/ or indicators of supplier and partner performance? Include your performance and/or cost improvements resulting from supplier and partner performance and performance management.

7.5 Organisational Effectiveness Results

Please summarise your organisation's key operational performance results that contribute to the achievement of organisational effectiveness. Include appropriate comparative data.

a. Organisational Effectiveness Results

(1) What are your current levels and trends in key measures and/ or indicators of key design, service delivery, and support process performance? Include cost, productivity, cycle time, and other appropriate measures of effectiveness and efficiency.

(2) What are your results for key measures and/ or indicators of citizenship and contribution to the health of your community? What are your results for key measures and/ or indicators of accomplishment of organisational strategy?

(3) What are your results for key measures and/ or indicators of organisational accreditation, assessment, and legal/ regulatory compliance?

Appendix C

Letter to American hospitals for phase three benchmarking

Hiafa M. Al-dakheel
Management Centre
University of Bradford
Emm Lane
Bradford
BD9 4JL
Tel (01274) 394 845

Jane Doe
Quality Assurance Director
Houston Methodist Hospital
Building One
2340 Fanan
Tel (713) 327-0214

July 16, 1999

Dear Mrs. Doe:

I want to re-introduce myself. My name is Hiafa Al-Dakheel I am a Ph.D. student in the University of Bradford in the UK. My research deals with Total Quality Management in healthcare.

In regard to our previous phone conversation, I want to thank you for your support in trying to send me some background information of the hospital (history of hospital) and the Baldrige assessment or any other assessment available.

This information will add to the depth of my Ph.D. research project and enable me to benchmark the excellence of the US experience against other international TQM implementation efforts.

I want to reassure you that all information provided will remain strictly confidential.

Thank you again for your support,

Hiafa M. Al-dakheel